

Japan and the World Bank, 1951–1966: Japan as a Borrower (3)

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この調査研究は日本が世界銀行の借り手であった時期の経験を分析し記録しておくのを目的としている。ブレトンウッズ条約のもと設立された IMF／世銀へ日本が 1951 年に加盟申請をして以来、1953 年の最初の借款から 1966 年の最後の借款迄の 13 年間に合計 31 件の案件を通して合計 863 億ドルの外貨を借り入れた記録である。この小稿は全四章の内の第三章で日本の経済成長が本格化し 1957 年に世銀が外貨のみならず内貨の融資を行う政策に切り替えて以来、鉄鋼、電力並びに交通部門へ多くの案件に多額の借り入れがなされた。1959 年頃から日本の経済力がもはや世銀に頼るべきでない段階に近づき、1961 年末には世銀借款が一時打ち切りになる迄の調査分析である。

阿部義章

1. Introduction

I am publishing in this Journal, a series of papers on Japan's experiences as a borrower from the World Bank (WB) between 1951 and 1966, by reviewing reports published by the WB and the documents available at the WB Archives. The purpose of the study is to record Japan's experiences as a borrower from the WB, and to qualitatively evaluate the relationship between Japan and the WB.

The entire series is periodically organized in the following order:

- a. Overview
- b. 1951–1953, From Applying for Membership and Joining the WB to Receiving the First Loan
- c. 1954–1957, Receiving Small Loans for Financing Foreign Exchange Expenditures
- d. 1958–1961, Receiving Loans for Financing Foreign Exchange and Local Cost Expenditures and Becoming Ineligible for Borrowing from the WB
- e. 1963–1966, Restarting Borrowing from the WB and Graduating from Borrowing
- f. Concluding Remarks

The first paper was published in October 2011 in this Journal.¹ It addressed the initial two themes, items a. and b.: an overview of Japan's borrowing from the WB and Japan's initial association with the

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Author's note: all the papers are being written on the basis of the review of published information, including ones of the Archives of the IMF and the World Bank.

¹ *Journal of Asia-Pacific Studies*, No. 17, Institute of Asia-Pacific Studies, Waseda University, October 31, 2011, pp. 217–244: http://dspace.wul.waseda.ac.jp/dspace/bitstream/2065/35041/1/AjiaTaiheiyoTokyu_17_Abe.pdf

WB between 1951 and 1953. The second paper was published in August 2013 also in this Journal.² The paper addressed the item c., analyzing how Japan received small loans only for financing foreign exchange expenditures during the period 1954–1957 and how the WB dramatically announced the change of its lending policy to Japan in mid-1957 to finance not only the foreign exchange expenditures, but also local cost expenditures. The current paper deals with the fourth theme, item d, in analyzing the way the WB expanded its lending operations to Japan and assisted Japan in getting into the New York financial market. The WB eventually stopped lending to Japan in 1961, though temporarily at first, after observing that Japan had achieved a high level of economic development and had essentially graduated from being a WB's borrower.

This paper consists of three parts: (1) the WB's view on the Japanese economy that continued its high GDP growth rates between 1957 to 1961; (2) Japan's borrowing from the WB during 1958–1961; and, (3) the cessation of WB's lending to Japan by end of 1961. Annex 1 lists all the loans provided during the period and Annex 2 provides a summary description of the all the WB loans during the period under consideration and gives information specific enough to highlight sector, project and the terms of each loan issue.

2. The WB's View on the Japanese Economy

The WB continued to review Japan's development efforts through periodically visiting Japan and discussing economic issues with the government officials and prominent business leaders. The purpose of the review was to assess the country's economic and financial policy, and the amount of external debt the country could afford. The WB's views on the Japanese economy was an important factor in justifying the bank's lending strategy on the amount of lending and priority sectors for lending operations.

The first table below shows the rate at which the economy was expanding and adjusting year by year since 1957 and the second table presents the balance-of-payments. Japan experienced spectacular cyclical waves of contraction and expansion during the period, 1957–1961. Included was a full business cycle with the second period in 1957 as a peak, the second period in 1958 as a trough and the fourth period in 1961 as a peak.³ This was the third cyclical experience in the post-war economy. Table 1 indicates rapid economic growth from 1959 onwards with a higher than 13% annual increase in real GNP and an annual increase in industrial production exceeding 20%. The annual price indices were rather stable in the case of wholesale prices but relatively higher increases were seen in consumer prices in 1960 and 1961. Table 2 on the balance-of payments indicates large deficits in merchandise balance in 1957 and 1961 and quite comfortable surplus for 1958–60 due to: (1) a sharp decline in imports in 1958; (2) considerable increases in exports in 1959 and 1960; (3) increasing trend of deficits in 'Other Services', including shipping costs; and, (4) continued large incomes through the 'US Military Expenditures' offsetting part of deficit in 'Other Services'.

² Journal of Asia-Pacific Studies, No. 21, Institute of Asia-Pacific Studies, Waseda University, August 31, 2013, pp. 213–257: http://dspace.wul.waseda.ac.jp/dspace/bitstream/2065/39814/3/AjiaTaiheiyoTokyu_21_Abe.pdf

³ Annual Report on National Income Statistics, Economic Planning Agency, Japan, 1967.

Table 1. Economic Indicators for Japan 1957–1961

Percentage Changes over Preceding Year

	1957	1958	1959	1960	1961
GNP (real terms)	7.9	3.2	17.9	13.2	14.0
Industrial Production	18.1	0.1	20.0	24.5	19.3
Gross Domestic Capital Formation	23.3	−21.4	61.8	26.9	36.6
Personal Consumption Expenditure	5.4	5.7	7.1	9.0	8.6
Merchandise Balance of the Balance of Payments (Millions of US\$)	−402.0	370.0	361.0	268.0	−559.0
Wholesale Prices	3.0	−5.8	1.0	1.0	1.0
Consumer Prices	3.0	−0.4	1.0	3.5	5.3
Net Bank Credit	23.2	5.8	5.1	9.0	11.1
Money Supply	4.1	12.8	16.5	19.1	19.0

Source: Various Economic Reports of the World Bank.

Table 2. Summary of International Transactions, 1957–1961 (in millions of US dollars)

	1957	1958	1959	1960	1961
Goods and services					
Exports f.o.b.	2,840	2,869	3,408	3,978	4,149
Imports f.o.b.	3,242	2,500	3,047	3,711	4,707
Merchandise Balance	−402	370	361	268	−559
Other Services	−667	−510	−381	−538	−813
US Military Expenditures	449	404	381	413	389
Total Goods and Services (including transfer payments)	−620	264	361	143	−983
Capital Transactions	−619	301	418	176	−964
Errors and Omissions	1	37	57	33	19
Change in foreign reserves	−417	337	461	502	−338

Source: International Balance of Payments, pp. 281–282, Economic Statistics of Japan, 1963, The Bank of Japan 1964.

Between 1958 and 1961, the WB published four economic reports in January and December 1958, October 1959 and April 1961.⁴ All reports can be found in the external site of the World Bank's Home Page. Each report served varying purposes in directing WB's lending policy. The first two reports in 1958 supported WB's expanded lending operations in Japan and the 1959 report was the watershed publication that clearly highlighted Japan's economic development experiences more positively than before. The last report of 1961 reconfirmed the strength of Japan's economy supporting WB's changing stance and leading to the termination of lending to Japan.^{5, 6}

⁴ They are: "Memorandum on Recent Economic and Financial Developments in Japan" dated January 15, 1958; "Japan's Economic Situation and Prospects," dated December 22, 1958; "The Economic Position and Prospects of Japan," dated October 14, 1959; and, "The Recent Economic Situation in Japan," dated April 13, 1961.

⁵ All economic reports are posted on the external home page of the WB. In the Archives, there is no document concerning discussions on the terms of reference of each economic mission, the basis for selecting particular economists for economic mission assignments, the process of finalizing the draft of each report within WB and the records of discussions between Japan and WB. Thus it is impossible to judge the degree of usefulness of the economic analysis done by the WB for policy makers in Japan.

⁶ At IMF external home page, available are "Background Material for Consultations with Japan from 1957 to 1961" prepared by the Asian Department and the Exchange Restriction Department, IMF. The background material, annually prepared, contains detail information and analysis on the Japanese economy and economic policies.

The main purpose of **the January 1958 report** was to check how the Government was coping with the balance of payments crisis in 1957 and its effectiveness of economic policies to restrain the heated economy. The characteristics of the external balance problem in 1957 were: (1) a less than expected increase in exports as well imports, and a lower rate of increase in exports that could be attributed to lower growth rate of world trade; (2) the increase in stocks was quite rapid; and, (3) the loss of foreign exchange reserves was sudden and quite considerable.

The implementation of monetary restraint measures was swift, with the basic discount rate successively raised in March, May and June 1957. While the Bank of Japan gave incentive measures for export financing, selective and direct measures were taken against imports. For example, deposit requirements for imports were raised, and the foreign exchange allocation for imports was significantly reduced. On the fiscal front, there was a sizable budget deficit in spite of the Government's efforts to postpone certain expenditures and a large increase in tax revenue from a rapidly growing economy. The government, in addition to these measures, withdrew US\$125 million from IMF in 1957. With the WB closely monitoring these events, its view on Japanese economy became very positive during 1956/1957. The WB's assessment was that with the stronger manufacturing capacity compared to earlier, Japan could continue to increase its national income at 4–5% a year over the next five years, without major balance-of-payments problems and that Japan could prudently contract a sizable volume of additional foreign debt.

On the short term prospects, the WB was skeptical about Government projections that tight fiscal and monetary policies should make it possible to produce a balance of payments surplus of US\$200 million in the fiscal year 1958 (April 1958–March 1959), a major shift from a deficit of about US\$400 million in the fiscal year 1957. The Government assumed an increase in exports by US\$300 million and a reduction in imports by a similar amount. The WB considered the estimated increase in exports and decrease in imports too optimistic. The report stated that the loss of foreign exchange had been halted and that inflationary pressures had subsided. But it also point out that the level at which international payments and receipts were balanced would not be high enough to assure a level of imports sufficient to support the continued expansion of the economy.

On long-term prospects and credit worthiness, the report concluded that adjusted annual growth rates of 5.8% was still too high, but was considered acceptable on the assumption that exports and imports would also grow at that rate. Further, the report evaluated that there was no significant change in Japan's external long-term indebtedness, and that it could prudently receive a sizable new debt. This debt could be further used on additional investment required in basic facilities and industries, which would relieve the strain imposed on Japan's resources over the next few years. (Ibid, p. 10)

The December 1958 Report, published 11 months after the issuance of the last report, was still cautious on the prospects of the Japanese economy. After losing more than US\$200 million of reserves again in the second quarter of 1957, the economy began to show the effects of the policy measures. Industrial production declined by 1% in the third quarter of 1957 and through the second quarter of

1958 and the rate of increase in stocks declined sharply. While exports continued to be at the peak levels in value terms during 1957 and 1958, imports declined sharply. Consequently, reserves began to rise again. Monetary relaxation started in May 1958 and the gradual decrease in the basic discount rate was carried out in a phased manner. The WB observed the developments on how the economy was gaining momentum and stated that:

“It may be that these developments have marked the end of the post-war period of very rapid expansion in the Japanese economy and that rates of economic growth more nearly in line with those of other industrial countries as can be expected in the future. Such a development can hardly be one for concern, however, especially in view of the remarkable recovery and expansion of the Japanese economy since the war” (Ibid., p. 1).

By analyzing the changing structure of the export-driven industries favoring manufacturing industrial sectors and the reduced role of the textile industry (Ibid., pp. 10–12), the report considered average annual growth rates of 5 or 6% of exports feasible and adequate to keep the economy growing at 4–5% per year. The report also explained the justification on Japan's efforts to expand the national economy substantially in order to provide employment opportunities for the rapidly growing labor force. This was in consideration of the rapid increase in the working age group, as the children born in the early postwar period were to reach working age. Furthermore supporting the WB's lending to steel, power and transportation sectors, the report stated that:

“[...] In order to facilitate the growth in national product, it is of first importance that some of the basic facilities of the economy be improved and expanded. Transportation and power are the fields where the needs appear most urgent. Some further modernization and expansion of steel making facilities is also necessary. After the mid 1960's the pressure for rapid expansion should begin to diminish. In these circumstances it appears reasonable for Japan to supplement its own resources by external borrowing in the years immediately ahead to assist in achieving the highest rate of economic growth consistent with financial stability.” (Ibid., p. 14)

The October 1959 Report was published after Japan had regained momentum of its economic expansion once again. Monetary relaxation started in May 1958, and a gradual decrease in the basic discount rate was made step by step until February 1959. The economic mission saw inventory investment and private capital formation increase significantly and also large increase in exports. On imports, its significant decline was the major cause of restoration of trade accounts balance in 1958 and this pattern was different from the last cyclical experience in 1954/5 where the exports increased significantly and the imports had an increase, but only marginally. The report analyzed that for the first time Japan's low import dependency was lower than other trading countries'. The report stated that:

“[...] The decline in Japan’s import dependence has been opposite to the general world trend, for with a few exceptions, such as Belgium, France and the United States, the import dependence of the major trading nations of the free world has increased in comparison with pre-war. Moreover, in those few cases where the dependence has declined, the declines have been considerably smaller than in the case of Japan. [...] The decline in Japan’s import dependence has been made possible mainly by the change in the industrial structure and by more intensive exploitation of domestic resources. [...]” (Ibid., p. 4)

The report evaluated basic parameters provided by the Economic Planning Agency for economic growth until the end of 1962, which would become the basis for an Income Doubling Plan to be formalized as a Government official policy in December 1960 (Ibid., pp. 17–23). For a change, the WB also did not quarrel much regarding the annual growth rates of GNP at 6.5%, exports at 10%, and imports at 7%. With exports, the report discussed the potential problems and inherent limitations to penetrate further into the US and European markets. This was attributed to the changing industrial structure in Japan, export commodity adaptability to changing export demand, and the rate of growth of exports at 10% was considered possible, though the growth rate was considerably higher than that of total world trade. On imports, taking into account of all non-trade factors as well, such as the probable decline in special procurements of the US forces, obligations to the US for post war aid and to other countries for outstanding war damage claims, the rate of growth of imports was estimated at 7%. The report however questioned the assumed relationship between growth rates in imports (7%) and industrial production (8%). The WB considered that an 8% growth rate for industry would be too high for keeping the 7% growth rate for imports consistent with the equilibrium in the balance-of-payments position. Even with the assumed decline in the import dependency rate, the WB clearly expected lower growth rates for GNP/industry than the Government projections.

On resources reallocation, the report highlighted a growing problem of lagging investment in public economic services. The most neglected sector was the transport sector, and the main bottleneck was explained by the lack of paved roads against increased vehicles, buses and trucks and rail capacity nearing saturation point. Port facilities and coastal shipping capacity were also in need of expansion, and the straights between islands would have to be deepened. All in all, major diversion of domestic savings to the public sector was needed and borrowing investment capital from overseas was considered necessary. (Ibid., pp. 24–26)

The WB’s April 1961 Report was prepared, without visiting Japan, to review rapid developments of the economy in the years 1959 and 1960. Special attention was given to the factors which facilitated the rapid growth without monetary or balance of payments difficulties, and Japan’s longer run economic prospects was also covered. Its “Summary and Conclusion” section started with a sentence, “In the past two years the economy of Japan has expanded on a scale which was surprisingly large even by Japanese standards.”

The report pointed out that the most basic factor for rapid economic growth was the skill, vigor and drive of the Japanese people and their ingenuity and flexibility in finding and capitalizing on foreign and domestic economic opportunities. It also explained the high savings ratio and investment rates and smooth transfer of labor from less productive sectors to more productive sectors while creating no major labor bottlenecks. The report further mentioned that the trend of real wage increase lagging behind labor productivity, which facilitated the realization of high profit incentives for further investment and expansion. In the process of investment and expansion: (1) industrial technologies were modernized; (2) the industrial structure shifted from less capital intensive textile and light manufacturing industries to heavy, electrical and chemical industries; and, (3) there was a rapid expansion in the automobile, appliances and other consumer durables industries and in the more expensive synthetic textiles. These industries were essentially expanding to satisfy the increasing consumers' demand that was attributed to rising incomes and consequent changes in the patterns of expenditures. As for the financing of public expenditures, because of strong increase in tax revenues, it became easier than before to raise the level of expenditures directly undertaken by the government and even to increase the transfer of funds from the public sector to the private sector.

In terms of the balance of capital accounts, the inflow of long-term capital was nearly balanced by outflows in payment on debt and in foreign credits and investments. But there was a large inflow of short-term capital, which reached US\$400 million in 1960. Much of this increase was due to a series of policy actions taken to liberalize foreign exchange transactions, such as the establishment of non-resident convertibility and of transferable yen accounts in mid-1960. The main category of the capital inflow was due mainly to the increase in commercial import credits. Regulations governing such credits were progressively eased since early 1959 by expanding the list of eligible import items and by lengthening the permissible credit periods.

On the longer-term prospects, the report uses "the Income Doubling Plan in Ten Years" for its analysis. The Plan's central objective was double national income in real terms in the 10-year period by achieving an annual growth of 7.2%. This would mean per capita income of \$579 at 1956–58 prices by 1970. The Plan was based on the assumption that the factors, which produced the economic growth, which Japan enjoyed during the 10 years preceding 1960/61, would continue during the decade for the 1960s. The reports stated that:

"[...]. The targets are indeed ambitious. They do not, however, aim at higher rates of expansion than were achieved in the last decade, and one hesitates to inject a skeptical view, considering the past performance of the Japanese economy and the frequency of past errors of underestimation in assessing Japan's capacity for economic expansion"

As the text in the report suggested the WB had its reservations on the continuous high savings rates, and on an export growth rate of about 10% per year to finance imports. Regarding the savings rates,

the report stated that high rates could only be maintained when there was a relative shift in private income distribution towards corporate profits at the expense of individual incomes. On the contrary, the shift was actually towards individual incomes. In terms of export increases, the report went on to mention that even if Japan was successful in achieving high rate of export growth as in the past, the relative rate of technological development would be slower in the 1960s than it was in the 1950s, and there was also the uncertainty in world trade as a whole. After saying that such development would in time bring Japan's growth rates more into line with those of other industrial countries, it went on to state that it was probably safe to assume that all relevant variables were relatively high on average. On credit worthiness, service on the external debt would be easily manageable even with adverse balance of payments swings, given the strong position of Japan's exchange reserves.

The principal conclusions of all the reports were that:

- (1) Rapid growth of the economy, though slower than the past, was expected to continue for some time but the balance-of-payments problems would continue to create cyclical pattern of the economy every now and then;
- (2) Monetary policy was the chief reliable policy instrument to cope with the balance-of-payments difficulties caused by increased imports. The policy mechanism was to change discount rates of the Bank of Japan to control the amount of commercial banks' lending influencing the amount of investment by the private sector;
- (3) Extra investment in the public sector would be needed to strengthen transport, and communications operations in order to facilitate smooth economic growth and this could be facilitated by foreign borrowing for public investment; and,
- (4) Japan would be amply creditworthy for additional foreign borrowing.

The WB saw quick progress in investing in modernization of industrial production and in the shift towards the more capital-intensive industries, i.e. heavy, electrical and chemical industries, and away from the less capital intensive industries, i.e. textile and light manufacturing industries. While they accepted higher (lower) rate of increase in GNP and exports (imports) than those of Western countries', their thinking on the future prospects was an eventual conversion of those high rates of Japan to lower ones of other industrial countries. On cyclical patterns of Japanese economy, they analyzed the relationships between very high rate of economic growth and maintenance of balance of payments equilibrium, and the implementation of economic policies to slow down the speed of economic growth when the payments deficit increased and to stimulate the economy when the balance of payments equilibrium was attained. The WB reaffirmed Japan's capability to manage the implementation of policies for economic growth and to control periodic overheated demand associated with deterioration of the balance of payments position. It is interesting to note that there was no full review of Japan's degree of accessibility, in comparison with other comparable European countries' situation, to interna-

tional capital markets for financing investment needs, although her good accessibility was WB's main criteria to stop lending to Japan in 1961. Nor was there a comparative analysis of the level of economic development of Japan with ones of other countries, which were also receiving WB's loans at that time.

3. The World Bank's Expanded Lending to Japan

3.1 Overview

The WB shifted its lending policy to Japan in 1957 to provide loans, as part of project financing it could not only be used for foreign exchange, but also for local expenditures. This shift implied WB's support for Japan's economic development initiatives, even more than before. The Japanese government and potential borrowers/beneficiaries welcomed the shift, as borrowing foreign exchange for local expenditures of projects meant that Japanese private sector beneficiaries could get extra additional Yen funding for the implementation of their investment programs. Winning of the procurement contracts by the Japanese contractors meant extra business for the contractors as well. The extra foreign exchange receipts for the Japanese government were to be used on imports and also contributed to extra foreign exchange reserves and additional budgetary resources for its public investment. This was a much preferred borrowing form for Japan, which needed as much as possible, both foreign exchange as well as local currency resources.

The new lending policy delivered larger amounts of lending to Japan more efficiently than before. The total lending (in terms of commitment) to Japan amounted to \$403 million equivalent during the period from January 1958 and end December 1961 or about \$100 million per annum during the four-year period. As Table 3 shows, the total number of loans dramatically increased to 16, consisting of eight to the steel, five to the power and three to the transport sectors and the total commitments to these respective sectors amounted to \$130 million, \$113 million, and \$160 million. Estimated disbursements increased from \$4 million in end Fiscal Year (FY) 1954 and reached a plateau of \$105 million in end FY1959 and stayed more than \$60 million per year upto 1961.

Table 3. Loans to Japan during 1958–1961 (Calendar Year)

Calendar Year	Steel Industry		Electric Power		Transport		All Sectors	
	Number of Loans	Subtotal Amount (US\$ million)	Number of Loans	Subtotal Amount (US\$ million)	Number of Loans	Subtotal Amount (US\$ million)	Number of Loans	Total Amount (US\$ million)
1958	4*	73	3*	91			7	164
1959	2**	44	1*^	10			3	54
1960	2^	13			1*	40	3	53
1961			1**	12	2^	120	3	132
Total	8	130	5	113	3	160	16	403

* denote projects/loans included in the original lending program;

** projects/loans added soon after the original lending program had been agreed; and,

^ loans co-financing or in association with funds raised in the private capital market in one form or another.

Sources: WB's Annual Reports, 1957–58–1961–62 and symbols by the author.

Table 4. Changes in Major Borrowers of the World Bank

Country		Loan Amount	Country		Loan Amount
FY1957 (US\$ million)			FY1962 (US\$ million)		
1	Australia	318	India		846
2	France	268	Japan		488
3	India	240	France		419
4	Netherland	221	Australia		418
5	Brazil	169	Mexico		406
6	Italy	165	Italy		300
7	Mexico	151	Brazil		292
8	United Kingdom	146	Colombia		270
9	South Africa	135	Pakistan		256
10	Belgium	111	United Kingdom		246
11	Colombia	106	South Africa		222
12	Japan	78	Belgium		201

Sources: World Bank's Annual Reports, 1956–57 and 1961–1962.

The increased commitment to Japan meant that its position went up in the list of the dozen largest borrowers from the WB, to number 2 in the list for FY 1962 as Table 4 shows (from being the last in the list for FY 1957). It is interesting to note that in end FY 1962 the list still included France, Australia, Italy, United Kingdom, and Belgium. This indicates the significance of the key role the WB played in the reconstruction efforts of these war-damaged countries, rather than provide economic assistance for the developing countries.

This expanded lending was only possible because of improved dialogue between the Japanese government officials and the WB's. The initial efforts made by the two sides in 1957 and early 1958 were impressive in achieving improved dialogue and implementing the lending program. As Japan's economic growth continued, the WB took a flexible approach to adding new projects/loans on the top of the originally agreed lending program, and only limiting lending to the three sectors, i.e. steel, power and transport. It also gave advice to the government on how to get access to New York capital markets and vigorously tried to introduce Japan to the system of international procurements, by especially using the opportunity while implementing transport sector projects in the public sector.

Once the WB reaffirmed Japan's capability to manage the implementation of economic growth policies, control periodic overheated demand associated with deterioration of the balance of payments position and have access to international capital markets, the WB decided in 1961 to stop lending to Japan. The WB's position was that Japan's economic development had now reached such high levels that she should not be seeking WB financing except for small-scale, joint operations so as to allow the private sector companies to raise necessary funds in the private capital market.

To explain how the expanded WB's lending operations were implemented, described in the following sections are the details of the actual lending by sector, the evolution of lending procedures and programs, and noteworthy interactions between the WB and Japan in the implementation of its lending program. Annex 1 lists all the WB loans, while Annex 2 provides a summary of the all these loans pro-

vided during the period under consideration. The summary details information, specific enough to highlight sector, project and loan issues associated with each loan.

3.2 Lending by Sector

3.2.1 Lending to the Steel Sector

Of the total 16 loans, eight, as shown in Table 3 above and Table 5 below, were for the steel sector. The initial lending program set in 1957 after the annual meeting included the first four projects and the first one, the Kawasaki II project, was prepared without any field visits to Japan. It was clear by then that the WB was comfortable with completing the appraisal work based on information provided by Kawasaki. The remaining three projects were appraised together in February/March 1958. Later Fuji and Yawata II were added in the lending program by the end of 1957. Following these two, were the last two for the sector, Kawasaki III and Sumitomo II were added in October 1959. These last two loans were small amounts, US\$ 6 and 7 million respectively, as they were part of a joint financing with the funds obtained in the capital market.

The total amount of loans to the steel sector was \$130 million, accounting for 16% of the total project amount. All loans were made to the Japan Development Bank (JDB) as the borrower and the proceeds were re-lent to each steel company. All had 15 years terms, and these were shorter than the loans provided to the power and transport sectors, which were for 20–25 years, in effect also reflecting the lives of financed plants and equipment. Except for the two loans, Nihon Kokan II and Kawasaki III, that financed all imports equipment, all other loans financed mainly local cost expenditures. As can be seen, the WB financed investment programs of all major steel companies in Japan. Kawasaki steel re-

Table 5. Loans to the Steel Sector

Date of Agreement	Beneficiary of Loan	Project Contents	Loan Amount (US\$ million)	Total Project Cost (US\$ million)
01/29/1958	Kawasaki Steel II	Construction of a new blast furnace and related facilities at Chiba plant	8	20
07/11/1958	Sumitomo Metal	Installation of a new blast furnace and blooming mill at Wakayama plant	33	83
08/18/1958	Kobe Steel	Installation of a new blast furnace and related facilities at Nadahama plant	10	36
09/10/1958	Japan Steel Tube II	Construction of a strip mill and expansion of seamless tube mill near Tokyo	22	67
11/12/1959	Fuji Steel	Construction of a new blast furnace and related facilities at Hirohata plant	24	203
11/12/1959	Yawata Steel II	Construction of two blast furnaces and related facilities at Tobata plant	20	244
12/20/1960	Kawasaki Steel III	Installation of a plate mill and related facilities at Chiba plant	6	20
12/20/1960	Sumitomo Metal II	Construction of a hot strip and plate mill related facilities at Wakayama plant	7	47
Total			130	820

Sources: Respective Annual and Appraisal Reports prepared by the World Bank.

ceived three loans, Yawata, Sumitomo and Nihon Kokan received two while Kobe received one.

In view of the heavy commitments made to the steel industry within a short span of time, the WB felt the need of an analysis on the validity of five-year expansion programs for the whole steel industry. This was formally called as the Second Modernization Program for 1957–1962 of Japan and the WB reviewed a study of market prospects for the industry prepared by the Ministry of International Trade and Industry (MITI).⁷ The modernization program envisaged substantial increases in capacity to all segments of the industry and significant changes, both in the pattern of raw material consumption and in the composition of finished products.

The increase in capacity of crude steel production estimated by the WB (and by MITI) was 16 (20.2) million tons in 1962 from 11.7 million tons in 1956, with no increase in scrap imports. The increase in crude steel production was to be accompanied by major changes in the pattern of steel making by increased production of blast furnace pig iron to 12 million tons from 6 million tons for the same time period, and by modernization of rolling mill facilities for the production of thin flat products. After comparing crude steel demand with a lower economic growth rate than MITI's, the WB's report concluded that:

“...there is no indication that if expansion of Japanese capacity for the production of crude steel and pig iron is limited to the projects now firmly planned, any serious problem of overcapacity is likely to arise, even if demand falls considerably short of MITI's estimates.” (Ibid., p. 5)

On this basis of rather optimistic steel demand, the WB loans were provided to the Japanese steel industry. Though the WB underestimated the prospects of the steel production, the financial support of the WB to the second modernization program helped Japan greatly achieve in expanding the steel making capacity. In fact, the actual crude steel production increased to 27.3 million tons in 1962 from 11.7 million tons in 1956.

3.2.2 Lending to the Power Sector

Out of the total 16 loans, five loans, as shown in Tables 3 above and 6 below, went to the power sector. The total amount of loans to the power sector was \$113 million, accounting for 27.3% of the total project cost. Out of the total amount of loans, only \$9.3 million was used for financing import items. The WB shift to finance local cost expenditures fitted well to finance large civil works, e.g. construction of hydroelectric dams. Observing successful installation of thermal power plants by three power companies, Kansai, Chubu and Kyushu that were financed by the first loan from the WB in 1953, the WB's view on the electric sector in Japan became more positive than before. The WB considered the power sector as one of the key sectors in achieving economic development, and in terms of its man-

⁷ Vide Japan: Sector Report-Japanese Steel Market Prospects, 1957, June 24, 1958, Report No. TO-178, the World Bank.

agement capability and engineering capacity the WB continued to support the power sector. All loans were associated only with the projects of companies supplying 60 Hz electricity.⁸

As in the case of the steel sector, all the four, originally agreed projects were appraised in November/December 1957 and the JDB was the borrower and the loans went to the power companies, even to Electric Power Development Corporation (EPDC), a public sector company. The EPDC project was financed by a WB loan of \$10 million and jointly financed by government bonds of \$30 million, issued in the NY capital market.⁹ This government bond issuance was the first public fund raising operation after the WWII. An additional loan for Kyushu Power II was requested by Japan in late 1957. The loan for Kyushu II became the last one in the power sector during the period under study. The first four loans had 25 years terms while Kyushu Power II was only for 20 years, as the first four loans were associated with hydroelectric dam and Kyushu Power II, with a thermal power plant having shorter life than the hydroelectric dam. Due to a long history of mishandling by the company on project preparation, and non-action taken by the Government on the electricity rates, the WB took a long time to agree to finance part of the expenditures associated with the construction of the first stage of Shinkokura thermal power plant in northern Kyushu.¹⁰ From 1956 to 1961, Japan's electricity generation capacity increased to 26.0 million Kw (of which 12.7 million Kw was through hydropower) from 13.5 million Kw (of which 9.6 million Kw was through hydro power). The total capacity increase associated with the WB's financing through the four projects amounted to about 1.1 million Kw.

Table 6. Loans to the Power Sector

Date of Agreement	Beneficiary of Loan	Project Contents	Loan Amount US\$ million	Total Project Cost US\$ million
06/13/1958	Kansai Electric Power II	Construction of a 258 Mw hydroelectric Kurobe dam	37	118
06/27/1958	Hokuriku Electric Power	Construction of a 261 Mw hydroelectric Arimine dam	25	92
09/10/1958	Chubu Electric Power II	Construction of two Hatanagi dams, two hydroelectric power stations, each with 85,000 Kw capacity	29	73
02/17/1959	Electric Power Development	Installation of a Miboro reservoir-controlled hydroelectric dam with 215 Mw Capacity	10	103
03/16/1961	Kyushu Electric Power II	Construction of the first stage of a steam power plant with a capacity of 156 Mw	12	28
Total			113	414

Sources: Respective Annual and Appraisal Reports prepared by the World Bank.

⁸ This implied no loan was given to Tokyo, Tohoku and Hokkaido Electricity Companies supplying 50 Hz electricity. They borrowed foreign exchange funds from US Export-Import Bank.

⁹ Detailed account of the government bond issue is in p. 195–197 of this paper.

¹⁰ History of Kyushu project ending with the formulation of a thermal power project is well explained in Memorandum, N. K. Chakravarti to Mr. Martin M. Rosen, Japan-Kyushu Power Project II, June 9, 1960, Japan-Kyushu Power Project (02), Folder # 1878813, WB Archives.

3.2.3 Lending to the Transport Sector

Of the total 16 loans, three loans were for the transport sector, as shown in Table 3 above and Table 7 below. The total amount of loans to the transport sector was \$160 million, accounting for 18% of the total project cost. The last two projects were associated one way or another with Japan's borrowing operations in the capital market. Though the WB was well aware that the lack of transport capacity would affect Japan's efforts to further achieve economic growth,¹¹ it took some time for the WB to focus on the serious bottlenecks to be addressed and choosing the specific projects that could use WB lending. In the original lending program agreed in 1957, only one transport loan for a highway project (construction of an initial toll road between Kobe and Nagoya) was included in the list. But later, two loans, one for rail (in late 1960) and the second for an expressway (early 1961) were added in the WB's lending program.

Table 7. Loans to the Transport Sector

Date of Agreement	Implementing Agency	Project Contents	Loan Amount US\$ million	Total Project Cost US\$ million
03/17/1960	Japan Highway Public Corp'rtn I	Expressway Construction: Ritto-Amagasaki Section, 71.5 km	40	131
05/02/1961	Japan National Railways	The New Tokaido Railway Line	80	548
11/29/1961	Japan Highway Public Corp'rtn II	Expressway Construction: Ichinomiya-Ritto (104 km) & Amagasaki-Nishinomiya (7 km)	40	212
Total			160	891

Sources: Respective Annual and Appraisal Reports prepared by the World Bank.

There was a clear shift in the WB's financing pattern from lending to the private industries in steel and power, albeit being heavily regulated, to the public infrastructure sector. The start of lending to the road sector was also consistent with Japan's shift in transport policy from more reliance on the railway sector under the control of the Ministry of Transport to road development under the Ministry of Construction (MOC) in late 1950s. MOC carried out a series of studies on road development through collaboration with its own staff, US highway consultants and the Watkins Mission, which consisted of a large group of US experts in highway engineering, public finance, and transport economics.¹² After the review of the Watkins' Report and several mission visits to Japan, the WB finally decided to consider the project as a serious candidate for WB's financing.¹³ This project was to become the beginning of WB's major financial as well as technical contribution to Japan's development of the expressways between Kobe and Tokyo.

The WB reviewed in February 1958 the Japanese government's proposed project to construct an ex-

¹¹ Vide Economic Report, Development and Prospects of the Economy, July 25, 1957, pp. 14–15, the World Bank.

¹² The Watkins' report was a thorough, detailed analysis by competent specialists (Vide Kobe-Nagoya Expressway Survey for the Ministry of Construction of August 8, 1956). Initial concerns of WB on the proposed Kobe-Nagoya expressway project were high cost construction program and its priority given over the improvement on the existing highway networks and their maintenance and lack of specific information on the design, location and cost estimates of the expressway.

¹³ Vide Sector Report, the Proposed Expressway in Japan, April 25, 1958, the World Bank.

pressway between Kobe and Nagoya. Its review found the need to further improve the quality of project preparatory work. The WB's basic approach was to reduce the investment cost estimates and to improve the expertise and the ability of the Japan Highway Public Corporation (Kodan), and to use this Kobe–Nagoya expressway as a trial project, a model case for future projects in the sector. Accordingly the WB asked the Government to hire foreign consultants to study alignment and design proposed by the Kodan and to consider stage construction by having two lanes, and additional two lanes to be added later on. The Kodan hired consultants to review earthmoving and construction methods for possible construction cost reduction and to give advice on soil engineering and the design of pavements and supervising earth and pavement works. The study also included checking the designs and plans of the project for the remaining sections of the whole expressway. Eventually, the basis for the project cost estimates did become consolidated and the first expressway project in Japan, Kodan I was built as the first toll expressway. Subsequently the remaining sections of the expressway extending all the way to Nagoya were constructed partly financed by Kodan II.

In the case of the New Tokaido Railway Line project (Shinkansen), the WB had initially three problems: (1) Japan National Railways (JNR) recorded very poor financial results with operating losses for the years, 1958–1959 and a rate of return of total assets of 1% and negative interest coverage; (2) The originally proposed 250 km/hour for passenger train operations looked as though it was an experiment; and, (3) The proposed new-standard gauge tracks would not connect efficiently with the then existing narrow gauge railway system across the country. After many discussions with JNR engineers, the WB gradually came around to support the Shinkansen as worthy of support for WB financing. While the whole process of preparing the Kobe–Nagoya Expressway and New Tokaido Railway Line projects is an interesting subject by itself, each case has been further summarized in Annex 2.

3.3 Evolution of the Lending Program and Procedures

3.3.1 Initial Lending Program and Additions

During Mr. Black's visit to Japan in May 1957, the WB requested the Japanese Government to prepare a multi-year public investment program, and a borrowing program from the WB and other sources, including the US Export–Import Bank (USEIB) and the financial markets. By the time of the annual meeting in September 1957, Japan's borrowing program became firmer and the role of the USEIB reduced. According to the submission of Japan's request at the time of the annual meeting, priority was given to the power sector followed by the iron/steel sector and then the transport sector. With a proposal of borrowing \$315 million (about 32.5% of the total project cost) over three to five years, financing was to be carried out through both foreign exchange and local cost expenditures with the total project cost of \$970 million.

Specifically, the projects included construction of six large-scale dams (out of the total project cost amounting to \$581 million, \$166 million was proposed for WB lending, 28.6% of the total) by Electric Power Development, Chubu, Hokuriku, and Kansai Power companies. For the steel/iron sector there

was the construction of 4 steel plants (out of the total of \$193 million, \$71 million for WB lending, 36.8% of the total) by Nippon Kokan, Kawasaki Steel, Sumitomo Metal and Kobe Steel Works. For the transport sector there was the construction of the Nagoya-Kobe Highway by Japan Highway Public Corporation (out of the total of \$195 million, \$78 million for WB lending, 40% of the total).¹⁴ The proposed projects for WB financing emphasizing power, steel and transportation sectors were consistent with the WB's judgment¹⁵ and the borrowing program from the USEIB was also within the amount specified by the WB.¹⁶

During the meeting, the WB indicated that the overall lending program as described above was acceptable. But as the requested lending program was substantially more than the case with any other country, the WB wanted to make it certain to Japan that it could not continue to borrow substantially for imports from sources other than the WB. This point was explained also from the point of view that the lending gear had shifted from not only financing the foreign exchange component to financing foreign exchange plus local cost expenditures. After the meeting, in October, the management reported to the WB's Executive Directors the conclusion of the meeting with the Japanese delegation on the large lending program in the form of loans involving local currency financing. One Executive Director asked if Japan was going to borrow \$300 million only from the WB and Mr. Black said "yes" to be followed by "over the next three to four years" by his staff.¹⁷

While the large new multi-year lending program was getting settled in within the WB, the Japanese Government requested for an additional three projects for consideration for WB's financing, on top of the already agreed list of the projects. The three newly proposed projects included one steel project each for Fuji and Yawata steel and one power project for Kyushu power.¹⁸ These projects were not in time to be included in the original list, within the Japanese screening system for the preparation of the formal list of projects for WB's consideration. On the request for Kyushu power, the review of a thermal power proposal was delayed due to constraints faced by the WB's staff, and in the case of Yawata and Fuji, they misunderstood the intent of WB's commitment on the local currency financing and the extent of the foreign exchange financing. As a result, some USEIB lending was involved in financing of

¹⁴ Memorandum from R. F. Quandt to Files, Discussion with Mr. Ichimada, Finance Minister of Japan, on Future IBRD Operations in Japan, September 24, 1957, dated September 24, 1957, Japan-General, Folder # 1857456, WB Archives.

¹⁵ According to the 1957 Economic Report, a typical statement was made: "[...] Among the principle bottlenecks which have emerged are steel, power and transport. [...]." Economic Report—Japan, Development and Prospects of the Economy, July 31, 1957, pp. 14–15.

¹⁶ There were a couple of communications between WB and Japan on USEIB. Re: Letter, Mr. Naokado Nishihara, Financial Commissioner to Messrs. Martin M. Rosen and Richard F. Quandt, dated July 27, 1957; Memorandum, I. P. M. Cargill to Files, Japan—Discussion with Mr. Watanabe, August 2, 1957, August 5, 1957; and Letter, Martin M. Rosen to Mr. Nishihara, August 26, 1957, Japan-General, Folder # 1857456, WB Archives.

¹⁷ Re: Transcript of Proceedings, "Operational Report: Supplemental Report," 292nd Regular Meeting of Executive Directors, October 17, 1957, pp. 25–27, WB Archives.

¹⁸ Memorandum, R. F. Quandt to Members of Japanese Working Party, Japan: Additional Borrowing Proposals, November 13, 1957, Japan-General, Folder # 1857456, WB Archives.

the steel projects. However, the steel projects were eventually added in the list.¹⁹

While the new lending program was being implemented, the Japanese Government continued to press for a further increase in the WB's lending to Japan, after the new lending program was completed during the annual meeting in October 1958. Mr. Sato, Minister of Finance, mentioned three more projects suitable for WB lending: nuclear power, railways and land reclamation. On a possible nuclear power project, Mr. Black explained to the Minister that since the Japanese planned to use a British type of reactor, in view of WB's requirement for international competitive bidding, the WB was not suited for financing the nuclear power project. But the WB would still consider looking into the railway project in the future. Mr. Black felt it was too early to discuss additional loans when the existing lending program had reached only half way by then.²⁰

3.3.2 Improved Lending Procedures

While the initial lending program was being determined, the WB staff assigned to the Japan²¹ operations worked on how to simplify procedures and to make processing speedier against the negative sentiments from many Japanese involved in borrowing from the WB. Key issues were:

- (1) The negative pledge and pledging of general mortgage note in the Guarantee Agreements between the WB and Japan;
- (2) Financial covenants such as debt/equity ratio, reevaluation of reserves, debt restrictions and power rates in the Project Agreements between the WB and the final beneficiary;
- (3) Need for having international bidding for procurements, clearance on future major investments by the beneficiaries and Government's commitment to financing projects implemented by the beneficiaries; and,
- (4) JDB's role as a real substantive borrower and a possible agent for appraisal and supervision works.

The WB methodically worked on these in order to improve the procedures and processes. The most important change was related to the basic stand of the WB vis-à-vis Japan: the WB decided to accept the Japanese methods of financial transactions among Japanese parties even if the loan agreements between a final beneficiary and its various creditors looked inconsistent from the WB's point of view. This meant that the WB was prepared to accept the loan agreements in the Japanese form if their terms were in order and contained no provisions inconsistent with Japanese standards. On the basis of

¹⁹ Vide Memorandum, Martin M. Rosen to Mr. Davidson Sommers, Japan-Yawata Steel and Fuji Steel, January 22, 1958, Japan-General, Steel, Folder # 1857433, WB Archives.

²⁰ Vide Memorandum, A. G. Kheradjou to Files, Japan-Delegation meeting with Messrs. Black and Knapp, October 23, 1958, Japan-General, Folder # 1857457, WB Archives.

²¹ Included were the two staff who had written a memorandum in January 1956, in connection with negotiations with the loan to Yawata Steel suggesting WB's need to acknowledge fundamental differences in the meanings of outlook, contractual relations and forms of expression, and conventional financial doctrines understood by the WB and Japan. Vide Japan and the World Bank, 1951–1966: Japan as a Borrower (2), p. 231.

this new understanding, the WB decided to let the JDB become the real partner for financial transactions. The final beneficiaries then accepted the JDB's statement of the underlying final beneficiaries' long-term debt and factory estate and/or mortgage position and its assurance that the JDB itself was satisfied that the relative agreements and security instruments were secured. It meant that the JDB assumed responsibility for the preparation of the subsidiary loan agreements with the final beneficiaries since these were agreements among Japanese parties in Japan under Japanese law. While this clearly increased the role of the JDB, it should be noted that the WB did not amend its own role in making independent technical, financial and legal appraisals for projects.

In addition, the WB decided to speed up project appraisals and loan negotiations through improved quality of information obtained from the final beneficiaries with the help of the JDB and to be more flexible than before on financial loan conditions, concerning the loans associated with power and steel companies. Other questions on the need of Government guarantees and on international competitive procurements for procuring goods to be financed from the loans were kept as items to be re-explained to the Japanese side as normal requirements of the WB lending operations.²² Available memoranda indicate that an experienced project's staff from the Industry Division visited Japan in July 1957 to explain the WB's lending approach to the government agencies, the JDB and the assigned final beneficiaries in order to facilitate the implementation of the large lending program.²³

Once the new lending procedure was established, the WB was eager to show to Japan a new WB. In the letter from the WB to the Japanese Ministry of Finance after the annual meeting in 1957,²⁴ the WB indicated its willingness to start work immediately on projects familiar to the WB, especially with the case of the steel sector. The WB considered the Kawasaki Steel project as a good candidate project ready for negotiations, even without sending an appraisal mission to Japan, assuming Kawasaki could send the required information on time. On power projects, the WB indicated in the same letter that a specialist team was to visit Japan to review one of Kansai, two of Chubu, three of EPDC, and six of Hokuriku power projects. Simultaneous appraisals for many projects at the same time were unusual for the WB as one or two project appraisals at a time was the general practice.

The Kawasaki Steel negotiations executed under the new style were completed on January 1958 and the loan was presented to the Board of Executive Directors' meeting in the same month. The new lending regime worked well and the whole process took much shorter than ones under the old regime. Since this project was the first one under the new regime, the President Report had a full explanation of the new

²² Among many memoranda on improved procedures, principal ones are: Memoranda, N. R. Chakavarti to Files dated June 19, 1957 entitled "Working Party Meeting held at 11 am on June 10, 1957 on Japan-Simplification of Loan Operation procedure" and also dated July 9, 1957 on the same subject. These meetings were attended by staff of Technical Operations Department dealing with power and steel projects, lawyers and country desk officers. On the role of JDB, Vide Staff Loan Committee Memorandum SLC/O/922 from Department of Operations East Asia, Japan—The Pattern of the Bank's Lending for Private Enterprises in Japan, dated December 26, 1957. All can be found in Japan-General, Folder # 1857456, WB Archives.

²³ Letters, H. B. Ripman (from Japan) to L. M. Svovoda, dated July 4, July 5, and July 9, 1957; and Letters, H. B. Ripman to B. Chadenet dated July 24 and July 26, 1957, Japan-General, Folder # 1857456, WB Archives.

²⁴ Letter, Rosen to Nishihara, October 25, 1957, Japan-General-Steel, Folder # 1857433, WB Archives.

lending approach to Japan.²⁵ The Report explained that Japan planned to borrow about \$300 million over the next three years from the WB, and a great part of this borrowing would be for expenditures in Japan. Apart from that it mentioned that the external borrowing of foreign exchange from sources other than the WB would be limited. Reflecting the increased role of the JDB, this loan was the first one without a Project Agreement between Kawasaki Steel and the WB and it was replaced with a Subsidiary Agreement between the JDB and Kawasaki Steel. This practice became the standard one for all future loans to final beneficiaries including the electric power companies, essentially through the JDB as the primary borrower. The final beneficiaries, e.g. Kawasaki and Yawata steel and Kansai and Chubu power, that received loans from the WB did see the drastic change and this time and they were pleased to deal with a new WB.

3.3.3 Japan's Access to the Capital Market

The WB's basic strategy in 1957 was to finance Japan's development in a broader scale and to help Japan re-enter into the international capital markets. This basic strategy did go pretty well. The initial lending program was being implemented almost as planned and her economy continued to grow even better than the WB's expectation. Japan's access to international capital markets was then the pressing issue, as she needed a large sum of foreign exchange to finance investment programs in both public and private sectors. Since domestic savings were already very high, there was no choice but to go for foreign borrowing. One of the sources of foreign exchange was to have access to the capital markets of the world. After the World War II, Japan did not have a chance to try and reenter into global capital markets. The WB literally played a crucial role of being Japan's advisor starting from 1957 to early 1959 when Japan had a successful issue of public bonds in the New York market.

The WB had an instrument since 1954 to support member governments who could directly borrow from the private investors. This was for the WB to participate in joint financing of projects with the private investment bankers on behalf of a borrower. The first application of this instrument was in December 1954 for Belgium with the purpose of improving its internal waterways and the Port of Antwerp.²⁶ The total borrowing for the project was \$50 million with private investors' share being \$30 million and WB, a fifteen-year loan of \$20 million. The intention of the WB's instrument was not only to provide funds, but also to enhance the attractiveness of the market offering, by certifying both the credit worthiness of Belgium and the soundness of the proposed project. The WB thought that this instrument was suitable in the case of Japan as well.

With the urging of the WB, the Japanese government in 1957 considered the Kobe–Nagoya expressway project as a potentially good vehicle to reenter into the NY capital market, for a possible bond issue. The government tried various ways to find suitable investment bankers to manage the financial operations, and it finally ended up with two, First Boston and Morgan Stanley. While the WB agreed

²⁵ Report and Recommendations of the President to the Executive Directors on a proposed loan to the Japan Development Bank for the Kawasaki Steel Corporation Second Blast Furnace Project, January 20, 1958.

²⁶ Report and Recommendations of the President to the Executive Directors on a Proposed Loan to the Kingdom of Belgium, December 1, 1954.

with the government's approach on its selection, the WB asked if it was in Japan's interest to have the first public offering of a bond issue being a highway revenue bond. Coupled with the fact that further project preparation would take some more time, the WB thought that a direct government issue rather than the highway revenue bond might be received better in the market. Consequently, the expressway project was dropped from spearheading overseas Japanese bond issue and eventually financed only by the WB.²⁷

The Government decided in early 1958 to plan a bond issue in the NY market with First Boston as its banker, sometime in the fall. The Japanese Government wished to do this jointly with a WB loan for EPDC's Miboro hydroelectric power project following the 1954 Belgian case. The Government, WB and First Boston discussed frequently on how to proceed with the possible bond issuance.²⁸ The main issues needing coordination were: (1) determining the issuer of the bonds, whether it would be the government, the JDB or EPDC and the size of the offering; (2) the preparation of the legal documents for the government, WB and First Boston; and, (3) the synchronization of the timing of the whole operations among the three organizations. By mid August 1958, a basic structure of the joint operations emerged with the amount being \$30 million, consisting of \$15 million in 3, 4 and 5-year bonds and \$15 million in 15-year bonds. The issuer was to be the Government of Japan and the Government was to offer simultaneously with a WB loan of \$10 million associated with EPD's Miboro power project.

Eventually, the legislation was sent to the Diet on December 20, 1958 to allow the Government to borrow funds in the NY market. First Boston filed a registration statement on December 29, 1958 and WB's Board gave the preliminary approval for the proposed loan at a meeting on the same date. On February 18, 1959, the WB approved a \$10 million loan and Japan made a public offering of \$30 million of bonds on the New York market. The first Japanese offering was well received in the market. In a letter to Mr. Sato, the Minister of Finance, Mr. Black stated that "[...] In reporting to the Executive Directors of the WB this morning I advised them that this bond issue was one of the most successful re-

²⁷ Additionally speaking, Morgan Stanley refused to share the job with First Boston and declined invitation. Mr. Black advise the Japanese that Morgan Stanley did not want the job as they do not want to share management of the syndicate on a rotating basis with another house. Their willingness to do so in the case of the WB was an exception and they did not want to do the same thing with in any other case. Vide Memorandum, Martin K. Rosen, Files, Japan-Relations with investment bankers, November 27, 1957, Japan-General, Folder # 1857456, WB Archives.

²⁸ There are many memoranda and reports concerning the first public offering of Japanese government's bond available in the WB archives. Listed chronologically are some of important items: Memorandum, I. P. N. Cargill to Files, Japan—Bond Issue, March 5, 1958; Japan-General, Folder # 1857457, WB Archives; Letter, Naokado Nishihara to Martin M. Rosen, May 14, 1958, Japan-General, Folder # 1857457, WB Archives; Letter, Martin M. Rosen to Mr. Nishihara, May 29, 1958, Japan-General, Folder # 1857457, WB Archives; Memorandum, M. M. Rosen to Files, JAPAN—Public Bond Issue, August 11, 1958, Japan-Miboro Project, Folder # 1857789, WB Archives; Memorandum, R. F. Quandt to Files, Japan—Discussions with First Boston Corporation on the Coordination of their proposed Public issue of Japanese Government Bonds and the Bank's Proposed Loan for the Miboro Project of the Electric Power Development Corporation, November 3, 1958, Japan-Miboro Project, Folder # 1857789, WB Archives; and, Memorandum, J. B. Knapp to Files, JAPAN—telephone conversation with Mr. George Woods of the First Boston Corporation, New York, January 14, 1959, Japan-Miboro Project, Folder # 1857789, WB Archives. Preliminary Report of the President to the Executive Directors on a Proposed Loan to the Japan Development Bank for the Miboro Hydroelectric Power Project of the Electric Power Development Company, December 22, 1958; and, Supplemental Report and Recommendations of the President to the Executive Directors on a Proposed Loan to the Japan Development Bank for the Miboro hydroelectric Power Project of the Electric Power Development Company, February 9, 1959.

cently offered in the NY market in that a amount of the sales went to the American investors who had not previously purchased foreign dollar bond issues. [...]”.²⁹

3.4 The WB Stops Lending to Japan

The WB planned carefully for Japan’s graduation from being its borrower—but in the end, it was only temporary. Graduation here refers to the WB’s formal decision that a country has attained a certain level of development that renders it ineligible for additional WB borrowing. It reflects the achievements of a country in reaching a certain level of development, capacity to manage the national economy effectively and have access to capital markets.³⁰ Since Japan’s record of economic development and her ability to manage its economy was ascertained, the only remaining element needing certification for her graduation was of Japan’s accessibility to capital markets. The WB’s strategy in 1959 was that while WB would continue to lend for two more years, but this lending would be in the form of combined operations with the funds raised in capital markets. These points were explained to the Government during the annual meetings in 1959 and 1960. At the annual meeting in 1959, Mr. Black formally mentioned for the first time that the Japanese economy reached such a level that it was inappropriate for WB to continue lending to Japan.

Actual lending in 1960 and 1961 for Kawasaki Steel III, Sumitomo II, New Tokaido railway line and Kodan II, indicate that all loans were associated with joint financing in one form or another. One exception was a loan to Kyushu Power, which was one of the remaining loans included in the initial lending program. The Kyushu project had a series of problems during its formulation as mentioned in p. 189 of this paper, and the WB utilized the occasion of its Board presentation on March 15, 1961 to explain WB’s intention on the imminent graduation of Japan. On that day Mr. Rosen, the Director of Operations for Far East sent a telex to Mr. Knapp, the Vice President of the WB who was in the Philippines and on his way to Tokyo, on the whole issue of how to end the lending to Japan. This was communicated to the Board as well and they agreed that the next Kodan loan (the second one) would be a combined lending with a market offering, and then that would be the last loan to mark the end of WB’s lending activities in Japan. Though not detailed in the telex, there were also critical discussions at the Board meeting on the lack of competitive bidding for the Kyushu project. Arriving in Tokyo, Mr. Knapp had a meeting with the MOF and he delivered these messages.³¹

²⁹ Letter, Eugene R. Black to Honorable Eisaku Sato, Minister of Finance, February 19, 1959, Japan-General, Folder # 1857457, WB Archives.

³⁰ The legal cornerstone for graduation is Article III, Section 4 (ii) of the WB Articles of Agreement. It states that the WB may guarantee or make loans if it is satisfied that, in the prevailing market conditions, a borrower would be otherwise unable to obtain the loan under reasonable conditions. The other provision relevant to graduation is Article 1 (ii), which states that WB financing supplements private investment when private investment is not available on reasonable terms.

³¹ Vide Telexes, Rosen to Knapp in Manila Philippines, March 3, 1961 and Rosen to Knapp in Tokyo, Japan, March 15, 1961, Japan-General Folder # 18557458, WB Archives. The sentiment of the Board was clearly manifested in these telexes and Board members’ questions on Japan’s graduation and the lack of competitive bidding. It is unfortunate that “Transcript of Proceedings” (formal record of discussions of the Board meetings) has not been declassified after the proceedings on August 8, 1957, declassified on the Aichi Irrigation Project.

The first experience of Japan in issuing a public bond after the World War II was successful in February 1959. Though Japan was able to raise US\$30 million in the New York market jointly with a WB loan, it was also obvious that Japan needed more time to establish herself well in the capital markets to be able to issue bonds regularly for significant amounts. The WB therefore thought that it still had an important role to play as a major source of foreign exchange for the next two to three years until Japan would establish herself well in the market. Before the annual meeting in September 1959, the WB carefully orchestrated a possible strategy for getting out of lending operations in Japan, after observing successful revitalization of the macro economic situation in 1958 as well as first 6 months in 1959. The strategy established was to continue lending US\$100 million per year for two more years, to ensure the total lending reached the committed total amount of \$500 million. This lending was to be implemented in the form of combined lending operations with funds available in the capital markets. Part of the WB's strategy was also to exert pressure the Japanese government to make every effort to raise foreign exchange resources from the capital market and to get foreign private entrepreneurs to invest in Japan.³²

During the annual meeting in September 1959,³³ while the Minister of Finance requested the WB to continue its lending, the WB's President clearly indicated to the Japanese delegation that:

"[...]. When I visited Japan in 1957, WB felt a bigger program of lending should be arranged which now has been largely carried out. Recently the Japanese economy had made great strides and the question was whether it would be appropriate for WB to continue lending in Japan. Some people expressed the opinion that Japan was not doing what it could do to attract private investment capital to Japan and it would be difficult to propose to the Board at this time a substantial program for lending over a number of years. At the same time, provided that Japan did all it could to raise the capital needed in the private markets in Europe and US, WB felt it should continue its very good relationship with Japan and continue lending for suitable projects. [...]."

After the annual meeting, the WB reviewed the Japanese request for further lending and concluded not to finance steel projects beyond the second steel expansion program. The WB decided to go ahead with the preparation of Kawasaki III and Sumitomo II projects only if they could form a suitable proposal for joint operations with the private market and to consider possible projects in the transport

³² Memorandum, SLC/O/1022, Staff Loan Committee, Department of Operations Far East, "Prospective Lending to Japan," September 8, 1959, and Memorandum, SLC/M/764, Staff Loan Committee, Minutes of Staff Loan Committee Meeting held on Friday, September 11, 1959 (on "Prospective Lending to Japan"), October 6, 1959, Japan-General Folder # 1857458, WB Archives.

³³ Memorandum, A. G. Kheradjou to Files, Japan—"Delegation meeting with Mr. Rosen on Saturday, September 26," September 28, 1959; Memorandum, A. G. Kheradjou to Files, Japan—"Delegation meeting with Mr. Black, September 29, 1959, Japan-General Folder # 1857458, WB Archives.

followed by power sector.³⁴ The strategy as above was followed, almost literally in the execution of the lending program, though Japanese Government continued to request more loans to highways, electric power and iron and steel projects for 1961.³⁵ In response to the government's further request, Mr. Rosen, Director of Operations, Far East told Mr. Mizuta, Minister of MOF, his personal views, during their meeting in Tokyo in March 1961 that the loan for New Tokaido railway project should have been the last one and that it would not justify WB lending to Japan after it reached such a high level of economic development.³⁶ The WB made the two loans to two steel companies (Kawasaki III and Sumitomo Metal II) in December 1960 jointly financing the projects with New York financiers.³⁷ It made a loan of US\$80 million to the Japanese National Railways (JNR) in May 1961 for the New Tokaido railway project synchronized with a US\$ 20 million bond issue in the New York market by the Nippon Telegraph and Telephone Corporation (NTT).³⁸ Later, the WB in November 1961 made a second loan of \$40 million, to Doro Kodan only after the JDB had successfully completed a US\$20 million issue.³⁹

The WB lending to Japan jointly with funds raised in the capital market did not go smoothly. In the case of the two loans to the steel companies, both Kawasaki and Sumitomo had found raising funds in the New York market almost impossible. They opted instead to arrange for moderate sized loans on a medium-term basis, from American commercial banks. The WB considered these unacceptable, as these were not one of typical joint market operations for tapping long-term investment funds.⁴⁰ After solving other problems such as including some items in the projects going beyond the scope of the second expansion program, they formally applied to the WB for a loan with possible joint operations with the private market.⁴¹ Kawasaki appointed First Boston as their bankers in early 1960 for the private placement of their notes for an amount of \$4 million in the NY market. The notes were for a term of ten years, bearing interest at 7.5% annually and unsecured obligations of Kawasaki.

But because of political developments and uncertainties surrounding Japan's ratification of the US–Japan Security Treaty, Kawasaki faced difficulty in obtaining firm commitment from investors. In order to encourage the investors to stay in, the WB shifted its firm position on the matching fund principle to an increase in its lending amount to US\$6 million. The WB loan was for a term of 15 years

³⁴ Memorandum, SLC/O/1028, Staff Loan Committee, Department of Operations Far East, "Japan-Selection of Projects," October 7, 1959 and SLC/M/765, Staff Loan Committee, Minutes of Staff Loan Committee Meeting held on Friday, October 9, 1959 (on "the selection of projects"), October 14, 1959, Japan-General Folder # 1857458, WB Archives.

³⁵ Vide Memorandum, A. G. Kheradjou to Files, Japan-Meeting with the Delegation, October 3, 1960, Japan-General Folder # 1857458, WB Archives.

³⁶ Memorandum, A. G. Kheradjou to Files, "Japan—Mr. Rosen's meeting with Mr. Mizuta, Minister of Finance," March 4, 1961, Japan-General Folder # 18557458, WB Archives.

³⁷ For details on the loans and financing structure, see Yoshiaki Abe (2011).

³⁸ NTT's US\$20 million bonds consisted of 15 million 15-year bonds and 1.6 million three-year, 1.7 million four-year, and 1.7 million, five-year bonds.

³⁹ JDB's US\$20 million bonds consisted of 15 million 15-year bonds and 5 million three-, four- and five-year bonds.

⁴⁰ Vide Letters, Martin M. Rosen, Director, Department of Operations—Far East, the World Bank to Shosoku Omori, Chairman, Kawasaki Steel Corporation, January 5, 1960, Japan-Kawasaki(03) Folder # 1878772, and Martin M. Rosen, Director, Department of Operations—Far East, the World Bank to Hosai Hyuga, Chief Managing Director, Sumitomo Metal Industries Steel, January 5, 1960, Japan-Sumitomo (02), Folder # 1878795, WB Archives.

⁴¹ Vide Memorandum, SLC/O/60-29, Staff Loan Committee, "Kawasaki's Loan Application," July 8, 1960.

bearing and interest of 5–3/4% annually and guaranteed by the Government of Japan. On Sumitomo notes, Kidder, Peabody & Company acting as bankers for the Sumitomo Metal, placed with institutional investors US\$5.8 million of Sumitomo notes. The notes were for a term of 14 years bearing an interest at 7.5% annually and guaranteed by the Sumitomo Bank. The WB loan of US\$7 million had the same terms as the loan to Kawasaki as above. These transactions were made in December 1960. It took a long time to get rather small investment funds for the total size of investments for Kawasaki and Sumitomo Metal, because of the involvement of the WB's lending.

In the case of a loan to the Japan National Railroad (JNR), the WB originally thought that this loan was a good candidate for another joint financing operation. In spite of the WB's insistence in going for a joint financing operation, the Government did not want to use the railway loan to raise additional funds in the capital market.⁴² It was planning to make a sale of \$20 million bonds with the guarantee of the government through Dillon, Read & Co., First Boston, Barnet & Co. for the Nippon Telephone & Telegram Public Corporation (NTT) in the NY market. During the annual meeting in September 1960, the WB proposed that the signing of the railway loan could be arranged at about the same time as the bonds were marketed.⁴³ Japan continued its request to receive the railway loan independent from joint financing operations. However the bonds offering did not get a good response from the market and the WB eventually decided to prepare a \$80 million loan for the railway and timed it at its Board presentation.⁴⁴

There were two President Reports on this loan: the first was dated March 23, 1961 entitled Preliminary Report and the second, Supplemental Report dated April 24, 1961. In the first, the report explained: "WB has been considering a loan to JNR to be made at about the time NTT made a public issue of bonds in the NY market. Discussions among the Government, NTT and the NY underwriters had now progressed to the point at which the underwriters desire to file registration statement with SEC for a public offering of US\$15–20 million to be made in the second half of April 1961". In the second report more details were provided on NTT's offering of \$15 million consisting of 3, 4 and 5-year bonds amounting to \$5 million and 15-year bonds amounting to \$10 million.⁴⁵ It was indeed not a joint financing operation, but the timing of WB's loan approval was synchronized with the sale of the NTT bonds. This synchronization with the simultaneous WB operations was considered helpful in marketing the bonds.

In the case of the loan to Doro Kodan, the WB made a Board presentation thereof in November 1961, only after the JDB successfully sold \$20 million (\$5 million 3, 4 and 5-year 5–5.25% and \$15 million 15-year 6%) bonds in the New York Market in early October 1961. The offering was made without the WB's assistance as in the case of NTT's bonds. This transaction turned out to be the last

⁴² Vide Memorandum, A. G. Kheradjou to Files, "Japan-Meeting with the Delegation," October 3, 1960, Japan-General Folder # 1857458, WB Archives.

⁴³ *ibid.*, as in the footnote 13 above.

⁴⁴ Memorandum, SLC/O/61-2, Department of Operations Far East, Staff Loan Committee, Japan—Loan Application for New Tokaido Line Railway Project, January 3, 1961, Japan-New Tokaido Line Project, Folder # 1878831, WB Archives.

⁴⁵ It is interesting to find Letter, W. R. Hill, Jr., Vice President of Dillon, Read & Co. Inc. to the WB, "Nippon Telegraph & Telephone Public Corporation 6% Guaranteed Telegraph & Telephone Dollar Bonds due 1976," May 2, 1961 stated that the amount of the long term bonds was in fact \$15 million. Japan-New Tokaido Line Project, Folder # 1878832, WB Archives.

World Bank loan to Japan during this period. In the President Report on the second expressway project, Mr. Black made a formal statement:

“Early this year, the Japanese Government requested the Bank to consider making a second loan of \$40 million to the Kodan to help finance the completion of the Kobe–Nagoya expressway. Taking into account the efforts being made by the Government to tap the resources of the private market (the latest example is the \$20 million placed by the JDB in the New York market in October 1961), I agreed to consider the proposed loan to the Kodan. I informed the Executive Directors of this on March 15, 1961, and at that time I mentioned that this would probably be the last loan to Japan except small loans for joint operations which would facilitate access of private companies to the market.”⁴⁶

As such, though the door was not completely shut, but it was pretty clear that the WB was not willing to provide loans any longer to Japan, as a major financier. It is not clear whether these issuances of bonds and notes were indicative of Japanese ability, be it the government, the public sector or the private sector, in having sufficient accessibility to the capital markets. After all, these experiences were only associated with the notes and bonds issued only in the market in New York. Japan was not yet popular in any other market. It must be recognized the fact that the government and the public as well as private sector corporations learned at least how to get into the New York market to tap into long-term resources.

3.5 Noteworthy Interactions between the WB and Japan

Typical professional dialogues between the WB and Japan occurred at the time of project preparation as well as during appraisals, loan negotiations and project implementation. Mentioned herein are the dialogues between the two on issues having sector wide implications. Specific interactions within the projects are incorporated in Annex 2 showing the summary of description of each loan extended by WB during the period under consideration. A typical example of interactions within project refers to the WB’s technical support in the construction of a thin arch dam for the Kurobe power project for Kansai Power.

3.5.1 Overinvestment in the Steel Industry

From the start of the steel project preparation, the WB recognized the steel industry’s tendency for overinvestment on the basis of optimistic demand projections. After completing initial lending to four steel companies and while preparing for lending to Yawata and Fuji in 1959, the WB learned that the steel companies were continuing to increase investment for further expansion of the steel making capacity. Though there were boom conditions for the steel industry at that time, the staff working in the Japanese steel projects suggested to senior management of the WB to draw Japanese authorities’ attention to the real demand for steel. This was to be done at the WB annual meeting in September 1959, to

⁴⁶ Vide Report and Recommendations of the President to the Executive Directors on a Proposed Loan to Nihon Doro Kodan (Japan Highway Public Corporation) for the Kobe–Nagoya Expressway Second Project, November 21, 1961.

highlight the importance of careful evaluation of the potential demand for Japanese steel and the underlying importance of evaluating the financial condition of the steel companies.⁴⁷ The WB chose not to warn the Japanese delegation of the issue of possible overinvestment in the steel industry during the annual meeting,⁴⁸ but continued to be concerned over the financial health of each company.

The supervision report of the WB, in March/April of 1964,⁴⁹ explained what the six steel companies were doing about the extended target debt/equity ratio as agreed back in early 1963 after the recession in 1962.⁵⁰ While most of the companies limited their capital expenditures and increased their capital by share issues in order to reach 50 : 50 by 1964, none of the Ministry of Finance, security houses and banks considered a 50 : 50 ratio a necessary condition for the steel companies' financial health. They even stated to the visiting WB mission that the 50 : 50 ratio was ensured only because the ratio was an international obligation for getting WB loans in the future and for Japan's international financial reputation. The same report indicated the serious problem the steel industry had faced of excess capacity for the first time during the recession in 1962, and the industry began to realize in the recovery period in 1963 the excess capacity and its negative effects on steel prices being a continuous problem. The report concluded by saying that:

"Measures for the improvement of the earning power would be a slowdown in expansion, cost reduction and better steel prices. The Japanese attitude to consider a company's share in the market, the yardstick of success and the minor role played by return on investment in the steel manufacturer's thinking, represent the major obstacles for an improvement of earning power."

In 1967, the WB's technical specialists on steel reviewed the six companies' expansion program and their financing plan to conclude that the debt equity ratio would not be kept as agreed and the financial outlook for the companies was very dubious. It was clear that the proposed expansion plans of the six steel companies financed by only 29.5% from net internal cash generated would adversely affect the security of the WB loans. It is interesting to note that the JDB wrote a letter to the WB informing that a plan was disclosed on April 17, 1968 of a merger of Yawata and Fuji with a view to acting effectively to deal with the excessive competition in the steel industry.⁵¹

⁴⁷ Memorandum, Siem Aldewereld to Messrs. Knapp and Rosen, Japanese Steel Industry-Expansion Plans, September 24, 1959, Japan-General Steel Folder #1857433, WB Archives.

⁴⁸ Vida Memorandum, Martin M. Rosen to Mr. J. Burke Knapp, Japanese Steel Industry, September 24, 1959, Japan-General Steel Folder # 1857433, WB Archives.

⁴⁹ Memorandum, Gunther Mehlem to W. J. Armstrong, Back-to-Office Report End-Use, Loans to Six Japanese Steel Companies, April 6, 1964, Japan-Nippon Steel Project Folder # 1857749, WB Archives.

⁵⁰ Under the Agreements signed in Washington in March and April 1963, Sumitomo, Kawasaki and Kobe were obliged to make share issues by March 31, 1965 to attain the target debt/equity ratio of 50 : 50 (55 : 45 in case of Sumitomo). Yawata, Fuji and Nippon Kokan were to make share issues before March 31, 1965 in order to improve their ratio, a second share issue before March 31, 1967 should enable these companies to reach the target of 50 : 50 by that date. (Ibid., p. 2).

⁵¹ Vide Letter, Seiyu Soejima, Manager, Foreign Department, JDB to I.P.M. Cargill, Director, Asia Department, the World Bank, May 2, 1968, Japan-Nippon Steel Project-Tobata, Folder # 1878740, WB Archives.

3.5.2 Economic Analysis of Hydroelectric Project and Electricity Rates

After ascertaining financial management capability of the three power companies and recognizing the fact that WB financed project would be a small part of the total development programs of the companies, the WB softened financial conditions compared with ones under the first lending operations in 1953 to Kansai, Chubu and Kyushu power companies. The WB took a broader view on the Government policy on the development of the power sector and its basic interests were in: (1) the Government's proper analysis of the economic merits of hydro electric dam development in comparison with alternative power sources because of only few remaining sites for hydroelectric power development with high construction costs and needing a proper sense of priority; and, (2) the improved system of the electricity rates determined by the Government in consistency with sound financial management of power companies.

On the justification for hydroelectric power projects, the issues were discussed during Kansai loan negotiations and WB drew attention to the policy of the government on the need for a more strict appraisal of the economic merits of each case on the basis of firm design and cost estimates and careful consideration given to the cost of thermal power alternatives.⁵² While the WB did not push this principle by including it as a lending condition, each appraisal report for Kansai, Hokuriku, Chubu and EPD projects had sections as well as annexes on economic justification of hydroelectric power investments. This was done in comparison with other alternative thermal power projects and with the basic assumptions on investments in thermal plant and transmission, thermal efficiency of alternative base load plants and price of fuel paid by each power company.⁵³ These simple presentations were useful for public discussion on the merit of proposal for consideration of a hydroelectric power project. A question could be asked if the government applied this principle in the process of hydroelectric power development. Take the case of a proposed hydroelectric power project for Kyushu Power originally proposed for WB financing. The WB found the proposal unacceptable as the rate of return on additional investment was too low to justify the WB's financing. As a result, instead of a hydroelectric project, an alternative project, a thermal power project was financed as described in the above p. 189.

The only specific covenant applied in the power loans was the debt/equity ratio of 2 : 1 (e.g. the consolidated indebtedness of Kansai may not exceed twice its consolidated capital and surplus). At the time of project preparation, financial projections indicated that the financial position of not only Kansai's but also the others would deteriorate substantially within a few years unless they were allowed to charge adequate rates. During negotiations of the Kansai loan in April 1958, the WB insisted that the Ministry of International Trade and Industry (MITI) should improve the electricity rate determining

⁵² See Memoranda, N. R. Chakravarti to Files, Japan—Kansai Power Project—Second Loan Negotiation, April 16 and 24, 1958, Japan-Kansai Power Project (02) Folder # 1857745, WB Archives.

⁵³ Appraisal of Kansai Hydroelectric Project, April 11, 1958, pp. 9–10 and Annex 11 Basis for the Calculation of Thermal Alternative; Appraisal of Hokuriku Hydroelectric Project, June 9, 1958, pp. 9–10, and Annex 9 ditto; Appraisal of the Hatanagi Hydroelectric Project, Chubu Electric Power Company, August 22, 1958, pp. 6–7, Annex 8; and, Appraisal of Miboro Hydroelectric Project of the Electric Power Development Company, LTD, December 22, 1958, pp. 7 and Annex 6 ditto.

system, so that the power companies would be able to increase the rates consistent with sound financial management of power companies. The WB eventually obtained assurance from the Minister of MITI on undertaking a thorough study establishing a new basis for calculating power rates.⁵⁴ During the project discussion on Hokuriku and Chubu, the same subject was discussed in 1958.⁵⁵ After many discussions between the WB and the government, the government finally decided on the new regulations to permit power companies to finance their expansion programs on a sounder basis, in the end of February 1960. With the rate increase for Kyushu by 10.5% on March 7, 1961, the WB Board finally approved Kyushu II on March 15, 1961. The rate increase actions were taken step by step to apply to other power companies as well. Though it took a long time, the efforts of the WB to improve the financial position of the power companies through rate increases saw some results.

3.5.3 Procurement: International Competitive Bidding (ICB) in Expressway Construction and New Tokaido Railway Project

The subject concerns how the WB's procurement policies⁵⁶ applied to the three transport loans for the First and Second Expressway and the New Tokaido Line Projects. The WB did not insist on international competitive bidding (ICB)⁵⁷ on the power projects in the procurement of goods and services financed by WB, even though large civil works were involved. This was especially the case for the remote location of dam construction works, which was not suited for foreign constructors to participate in ICB.

During the preparation of the First Expressway project, the WB wanted to make it certain that even if Japanese construction industry had sufficient capability to construct the expressway efficiently, the Japanese system of bidding for construction contracts should be open for real competition among bidders in order to reduce the construction cost. The WB learned that Japanese contractors were competent but they lacked experience in modern expressway construction, particularly in large-scale earthmoving and asphalt paving works and that they were proficient and well equipped for construction large bridges, viaducts and tunnels.

Recognizing the fact that there was no legal exclusion of foreign firms, but in practice they were not invited to bid, the WB concluded that foreign contractors with experience in expressway construction should also be invited to bid for the earthmoving and pavement contracts on the same terms as Japanese firms. The final agreement with the Kodan on ICB included several prequalified foreign contrac-

⁵⁴ Vide Appraisal Report on the Kansai Hydroelectric Project, April 11, 1958, para. 55 and Letter, Minister of International Trade and Industry Shigesaburo Maeo to President Eugene R. Black, the World Bank, "Power Rate Investigation Council," May 27, 1958, Japan-Kansai Power Project (2), Folder # 1857745, WB Archives.

⁵⁵ Vide Appraisal Report on the Hokuriku Hydro electric Project, June 9, 1958, Paragraph 91 and Appraisal Report on the Hatanagi Hydroelectric project, Chubu Electric Power Company, August 22, 1958, Paragraphs 43 and 44.

⁵⁶ The WB's procurement policies are guided by four main principles: the need for economy and efficiency, the interest in ensuring that eligible bidders have equal opportunity to compete, the desire to encourage development of domestic industries, and the importance of having a transparent procurement process.

⁵⁷ In financing arrangements involving WB, a bidding process is required by the borrower to procure resources funded by its loan according to a number of specified conditions. ICB requires WB borrowers to internationally advertise the required goods or services funded by their loans, issue bids for advertisement in an acceptable international language and award contracts to the lowest acceptable bids, subject to certain considerations for qualitative judgment. Starting in 1951, ICB was gradually introduced as the normal procedure in the lending operations.

tors to be invited to bid on two major construction contracts involving large earthmoving and major bridge construction works. International competitive biddings were used for the first time in the history of highway construction in Japan. The Government was also willing to authorize foreign contractors, if they win, to transfer reasonable amounts of foreign exchange for profit and overhead, depreciation of equipment and foreign personnel.⁵⁸

The results of the first international competitive bidding on contracts for the Nagaoka–Kuga and Seta–Ritto sections, worth about US\$ 5 million each, was that there were 29 Japanese contractors submitting prequalification forms and four international contractors submitting prequalification forms though 25 international contractors (all US companies) had requested prequalification forms. The WB was disappointed as only few companies were interested in getting the requalification forms but still felt ICB served a useful purpose in introducing a greater sense of competition among Japanese contractors.⁵⁹ Kodan invited 10 Japanese and three foreign contractors to bid only to find none of the foreign contractors participating in the bidding. The reason for one company was the unavailability of large size equipment to carry out works while the other two were too busy in other works.

On the basis of this experience, Kodan asked the WB to limit it to only domestic competitive bidding even for major works. The WB insisted in retaining ICB, as the bidding results of the two sections resulted in having wider bid range, and the lowest initial bid had a bid price substantially lower than the estimated cost. By introducing simpler documentation for ICB than before in order to save Kodan's time to prepare English documents for the use by international contractors, Kodan continued to apply ICB for major works. This pattern continued in the second expressway project but no foreign contractor participated in bidding of Kodan's subsequent works in the second project.

Similarly the WB asked the JNR to adopt ICB for civil works and rolling stock procurement in the implementation of New Tokaido Railway Line project, though ICB was not practiced to invite tenders from non-Japanese contractors or suppliers.⁶⁰ The JNR invited on July 18, 1961 applications for contracting construction works by public notice. Eight contractors from US, Canada, South Africa, Germany and France asked for information but only three submitted applications. Two contractors were qualified, one from Canada for general construction work and one from France for steel bridge construction. However the one from Canada for general construction work decided not to participate and the one French firm participated in bidding for bridge construction work (truss type, weighing about 3,500 tons) with a price of Yen 81.8 million, but the winning bid by a Japanese contractor had a price of Yen 52.2 million. With this large bid price difference, the WB decided at the request of JNR to dis-

⁵⁸ Vide Appraisal of the Amagasaki–Ritto Expressway Project, Japan, March 7, 1960, the World Bank, paras. 53–60, pp. 11–12.

⁵⁹ Vide Memorandum, S. C. Hardy to Working Party, Japan-Loan 248-JA, Amagasaki–Ritto Expressway, International Competitive Bidding, July 7, 1960; Letter, Michizo Kishi, President of Nihon Doro Kodan to Mr. H. J. van Helden, Department of Technical Operations, the World Bank, July 9, 1960; and, Memorandum, N. Chakravarti to Files, Japan-Highway Loan No. 248-JA (Nihon Doro Kodan), July 11, 1960, Japan-Amagasaki–Ritto Expressway Project, Folder # 1878756, WB Archives.

⁶⁰ Vide Appraisal Report on New Tokaido Railway Line dated March 24, 1961, pp. 14–15, the World Bank.

continue international bidding for steel bridges.⁶¹

On the rolling stock, specifically for electric passenger rail cars, amounting to about US\$ 30–40 million, sufficient for the initial operations on the new line, the JNR invited tenders for 180 railcars on July 8, 1962. The closing date for bidding was December 12, 1962. The submission of bidders' financial and technical prequalification information was September 1962. Upon the review of the specification of railcars, instructions to bidders and qualifications required of applicants, the WB suggested the JNR to change the instructions to suit to international bidding.⁶² Following the WB's suggestions, the JNR responded by issuing additional information for the simplification of required bid documents to be prepared by the suppliers.⁶³

Internal documents indicated that there were no objection to the railcar specifications, but there were serious handicaps for foreign manufacturers, e.g. the foreign bidders without experiences, which Japanese manufacturers could gain from the manufacturing of prototype rail cars, and too short delivery periods of railcar for foreign bidders to supply on time. Foreign bidder were naturally disadvantaged in terms of meeting the short delivery times, as it was necessary for the JNR to procure the first group of rail cars in order to avoid any delay in beginning operations. There were complaints against the way JNR presided ICB on the procurement of rail cars by European manufacturers and the WB's Executive Director on behalf of European manufacturers.⁶⁴ The WB's reaction to this complaint was that everything possible was done by the WB to ensure that foreign firms were given equal opportunity to compete with Japanese firms on the terms of bidding, but it was not possible to remove the advantages that naturally existed for local firms from their physical presence in the country of the project and from their being much more familiar with the special technical aspects of the high speed trains.⁶⁵ In the end, European manufacturers did not participate in the bidding. Available documents in the Archives do not have any comments made by JNR on the requirement of the WB for the procurement of goods and services through ICB. It is therefore unknown if JNR felt useful to have tried ICB at all.

4. Concluding Remarks

Japan welcomed the WB's increased lending from 1958, by shifting the lending pattern from financing only foreign exchange to substantial local cost financing. Lending of about US\$100 million a year

⁶¹ There are many exchanges of cables and letters on ICB. A typical letter from JNR to WB on ICB reporting concretely steps taken by JNR on ICB is Letter, M. Kanematsu, Managing Director, Japanese National Railway to Mr. I. P. M. Cargill, Director, Operations Far East, International Bank for Development and Reconstruction, Progress and Outcome of International Bidding, November 2, 1961, Japan-New Tokaido Line Project, Folder # 1878832, WB Archives.

⁶² Vide Letter, H.J. van Helden, Chief, Transportation Division, Department of Technical Operations, the World Bank to Mr. A. Yamada, Managing Director, Japan National Railways, August 22, 1962, Japan-New Tokaido Line Project, Folder # 1878832, WB Archives.

⁶³ Vide Letter from Akiyoshi Yamada, managing Director, JNR, Mr. H. J. van Helden, Chief, Transportation Division, Department of Technical Operations, the World Bank, September 13, 1962, Japan-New Tokaido Line Project, Folder # 1878833, WB Archives.

⁶⁴ Vide Memorandum, Rene Larre to Burke Knapp, International Bidding in Japan, November 30, 1962, Japan-New Tokaido Line Project, Folder # 1878833, WB Archives.

⁶⁵ Vide Memorandum from H.J. van Helden to Mr. S. Aldewereld, International Bidding for Japanese Railcars, December 13, 1962, Japan-New Tokaido Line Project, Folder # 1878833, WB Archives.

for the four-year period, 1958–1961 in the form of specific project financing was a big help to Japan's efforts for speedy economic reconstruction and development. The execution of this magnitude of lending program was only possible because of the WB's flexible adoption of new lending procedures, including the use of the JDB as an intermediary between the WB and final beneficiaries, on the basis of understanding Japanese commercial practices. It was also committed to focusing only on three key sectors: steel, power and transport, in the selection of projects for the inclusion in the lending program. The annual meetings were used effectively as the formal communication venue between the WB and the Japanese Government. Also key staff of the WB, the Government, the JDB and the final beneficiaries kept constantly in touch and this was a good venue for the informal communication.

With the heavy involvement in lending to the steel and power sectors, the WB did try a new approach of taking a sector-wide approach in the two sectors. As to steel, the WB challenged the MITI on the industry's tendency for overinvestment on the basis of optimistic steel demand analysis and as to power, on setting electricity prices lower than the normally acceptable rates for the healthy management of the power companies.

One of the most important contributions made by the WB was the introduction of the formal system of preparation of an investment program, a specific project, and specific components of a project for financing as a loan. The best example was the preparation of the expressway project between Kobe and Nagoya. The whole process was done on the basis of detailed engineering, economic as well as financial analysis. The first expressway project between Ritto and Amagasaki was the final product of many transport studies between Tokyo and Osaka. The resultant proposal made by the government had to be checked. The original design was improved by recommendations made by the consultants who were specialists on high-speed motorway design.

ICB was applied to the two transport projects, as one of the ways to reduce the investment costs. The application of ICB did not fare well with then existing Japanese system of bidding, which was apparently used to distribute works among bidders widely. It was unfortunate that only one bid, among many contract bids, was made by an international contractor.

On the termination of the lending relationship, no economic or any other report available in the Archives, explicitly analyzed the degree of access of Japanese bonds in the capital markets. In fact, there were only one government, two public sector bonds and two steel companies notes issued during the three years, 1959–1961. All bonds and notes were issued only in the New York market and Japan was not able to raise funds in any other market. There is an obvious question that arises as to whether these experiences were good enough to say that Japan had reasonable accessibility to international capital markets. In connection with the issue of how to raise extra capital, the WB could have analyzed the way to develop a domestic long-term capital market, and to liberalize Japan's capital market for international investment. Curiously lacking was the comparative analysis of Japanese per capita GNP or GDP with ones of European and other countries. After all, per capita income of Japan was much lower than those of European countries, which were then, still borrowers from the WB.

ANNEX 1. Japan's Borrowing from the World Bank, 1958–1961: List of Loans

Date of Loan Agreement month/day/year	Borrower/ Implementing Agency	Major Project Components	Loan Amount (\$ Million)/Terms of Loan (years)/ Interest Rate	Total Project Cost (\$ Million)
01/29/1958	JDB/Kawasaki Steel (II)	Construction of new blast furnace and related facilities at Chiba plant to increase annual production capacity of pig iron to 684,000 tons	8/14 yrs/5–5/8%	20
06/13/1958	JDB/Kansai Electric Power (II)	Construction of a 258 Mw hydroelectric installation with seasonal reservoir control along the Kurobe river in Western main island	37/25 yrs/5–3/8%	118
06/27/1958	JDB/Hokuriku Electric Power	Construction of a 261 Mw hydroelectric dam along the Arimine river in Western main island	25/25 yrs/5–3/8%	92
07/11/1958	JDB/Sumitomo Metal	Installation of a new blast furnace and blooming mill at Wakayama plant	33/15 yrs/5–3/8%	83
08/18/1958	JDB/Kobe Steel	Installation of a new blast furnace and related facilities at Nadahama plant	10/15 yrs/5–3/8%	36
09/10/1958	JDB/ Chubu Electric Power (II)	Construction of two Hatanagi dams, two hydroelectric power stations, each with 85,000 Kw capacity	29/25 yrs/5.75%	73
09/10/1958	JDB/Nippon Kokan Steel	Construction of a strip mill and expansion of seamless tube mill near Tokyo	22/15 yrs/5.75%	67
02/17/1959	JDB/Electric Power Development Corporation	Construction of a Miboro reservoir-controlled hydroelectric dam with 215 Mw capacity in Western main island	10/25 yrs/5.75%	103
11/12/1959	JDB/Fuji Steel	Construction of a new blast furnace and related facilities at Hirohata plant	24/15 yrs/6%	203
11/12/1959	JDB/Yawata Steel (II)	Construction of two blast furnaces and related facilities at Tobata plant	20/15 yrs/6%	244
03/17/1960	Japan Highway Public Corporation	Expressway Construction: Ritto–Amagasaki Section, 71.5 km	40/23 yrs/6.25%	131
12/20/1960	JDB/Kawasaki Steel (III)	Installation of a plate mill and related facilities at Chiba plant	6/15 yrs/5.75%	20
12/20/1960	JDB/Sumitomo Metal (II)	Construction of hot strip and plate mill and related facilities at Wakayam plant	7/15 yrs/5.75%	47
03/16/1961	JDB/Kyushu Electric Power (II)	Construction of the first stage of a steam power plant with a capacity of 156 Mw	12/20 yrs/5.75%	28
05/02/1961	Japan National Railways	Construction of the New Tokaido Railway Line	80/20 yrs/5.75%	548
11/29/1961	Japan Highway Public Corporation (II)	Expressway Construction: Ichinomiya–Ritto (104 km) & Amagasaki–Nishinomiya (7 km)	40/23 yrs/5.75%	212

Sources: Various Annual, President and Appraisal Reports by the World Bank.

ANNEX 2**Basic Structure of the WB Projects and Loans** [↑]

Author's Note: This Annex summarizes the contents and characteristics of each project/loan based on information in the respective President and Appraisal Report and other documents available in WB Archives. The projects are being presented chronologically. In the end of each project expose, note-worthy interactions among WB and Japanese Government as well as final beneficiaries on sector-wide and project issues are presented in the form of "Notes" on the basis of the review of each project folder in the Archives. Most of the projects were well executed in timely manner within reasonable deviation from origi-

nal cost estimates. But some had problems and they are described in the “Notes” below.

In order to save the space of this Annex, “the” before the formal organization has been cut out. You will find WB instead of the WB and JDB instead of the JDB.

Second Kawasaki Steel Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$8.0 million relented to Kawasaki Steel
4. Date of Loan: 01/29/1958
5. Terms of Loan: 14 years
6. Interest Rate: 5–5/8%
7. Project Description: The loan would cover about 40% of the total construction cost, about US\$20 million, of a second blast furnace, a battery of 60 coke ovens and related facilities at Kawasaki's Chiba plant near Tokyo. With the completion of the proposed project, Kawasaki's pig iron production capacity would increase from 324,000 to 684,000 tons per annum.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, and the Guarantee Agreement between Japan and WB. There was no Project Agreement between WB and Kawasaki, as WB would not have any direct contractual relation with Kawasaki. However, JDB entered into a Subsidiary Loan Agreement with Kawasaki and the Agreement included relending terms, the limitation of Kawasaki's cash dividends during the project execution period to 5% per annum, the ratio of Kawasaki's current assets to its current liabilities to be reduced to 1.0, and the total borrowings limited to US\$78 million. The Guarantee Agreement was in the form similar to the previous Agreement with Japan.
9. Justification: The steel industry in Japan as a whole was making extra efforts to reduce production cost and to improve its quality to satisfy domestic demand and exports. One of the principle issues was how to cope with fluctuating raw material supply and costs. The expanded blast furnace capacity would make it less dependent on imported scrap. Kawasaki's project was part of this general program. The addition of a second blast furnace to Kawasaki's Chiba plant should lessen its dependence on imported scrap and pig iron, lower its production costs and enable it to increase the production of finished products from its rolling facilities.
10. Procurement: Purchases of equipment were made on a competitive basis.

Notes:

On the introduction of the new lending procedures, since this loan was the first one under the new lending regime, its President Report explained specifically that: (1) the government planned to borrow about US\$300 million over the next three years from WB; (2) a great part of this borrowing would be for expenditures in Japan; and, (3) external borrowing for foreign exchange expenditures from sources

other than the WB would be limited. The economic justification for the loan was based on the need for further increase in steel production capacity in Japan as a whole rather than on the fact that the proposed investment would improve the competitive position of the Kawasaki Steel Corporation. This last comment was made as WB worried about a possible redundant capacity and/or WB did not want to be a part of competition of each steel company fighting for the gain in domestic market share.¹

This loan was the first one replacing the Project Agreement between Kawasaki and WB with Subsidiary Agreement between JDB and Kawasaki.

On financial covenants, WB became more flexible in dealing with the Kawasaki than before after observing Kawasaki's competent business execution since the first loan was made. There were major changes in financial conditions attached to the new loan in comparison with the last loan. Essentially Kawasaki's improved financial position and good prospects no longer justified the continuation of the elaborate protective arrangements in force under the first loan. For comparison concerning Kawasaki's financial arrangements between the old and the new, please see Annex 8 "Present and Proposed Protective Financial Arrangements" of the Appraisal Report on the Kawasaki Steel Corporation, Blast Furnace Project, January 20, 1958.

On the over-capacity of the steel industry, two reports on the six Japanese steel companies' projects including the Kawasaki II project dated April 6, 1964 and February 10, 1967 well captured the serious problem on the over-capacity of the steel industry, and each company's financial issues which started in 1962.² The issues were discussed as the sector problems in the main text.

Second Kansai Electric Power Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$37 million relent to Kansai Power Company (Kansai)
4. Date of Loan: 06/13/1958
5. Terms of Loan: 25 years
6. Interest Rate: 5-3/8%
7. Project Description: The project consisted of the construction of hydroelectric installations on the Kurobe River in the central range of the Japanese Alps. It included the construction of: the dam, a double curvature arch structure, of about 188 meters high; an underground power station equipped with three generating units, rated at 86 Mw each and of the required substation facilities. The total cost was estimated at \$118 million and WB loan covered foreign exchange cost of about US\$6.7 million and local cost of about US\$ 30.3 million.

¹ Vide Memorandum, SLC/M/687, Staff Loan Committee, Minutes of Staff Loan Committee Meeting held on Friday, November 29, 1957, Japan-Kawasaki Steel (02) Project Folder # 1857738, WB Archives.

² Memorandum, Gunther Mehlem to Mr. W. J. Armstrong, Back-to-Office Report-End Use, Loans to Six Japanese Steel Companies, April 6, 1964, and Memorandum, David Peacock to Mr. van Hoffman, Loans to Six Japanese Steel Companies, February 10, 1967, Japan-General-Steel Folder # 1857433, WB Archives.

8. Security: No provision was made for WB to receive from JDB the security which JDB would receive from Kansai. WB would obtain from JDB a negative pledge clause in the usual form.
9. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, and the Guarantee Agreement between Japan and WB. There was no Project Agreement between WB and Kansai, as WB would not have any direct contractual relation with Kansai. Instead JDB entered into a Subsidiary Loan Agreement with Kansai Power corresponding in substance to the terms of the WB's Project Agreement and the Subsidiary Agreement included re-lending terms, the limitation of Kansai's consolidated indebtedness not exceeding twice its consolidated capital and surplus. The Guarantee Agreement conformed with to the normal pattern of the WB's guarantee agreements, and it included the provision that the Government of Japan would covenant to maintain electricity rates at such level as will allow Kansai to finance adequate to meet power requirements in its area.
10. Justification: The power supply situation in Japan even after major improvement lacked needed amount of reserve capacity. While the power industry would have to develop thermal facilities, the limited number of and high cost of hydroelectric resources remaining to be developed. Among the hydroelectric sites remaining to be developed in Japan, the Kurobe project was considered by WB one of the most desirable from engineering and economic point of view.
11. Procurement: Purchases of equipment was made on a competitive basis.

Notes:

On WB's approach on the power sector issues, since this project was the first one out of the four hydroelectric projects under consideration by WB for its financing, WB wanted to discuss with the representative of the Government on: (1) basic power rate policy of the Government to allow for a major share of cost of future expansion to be met out of companies internal resources; (2) the Government policy regarding the appraisal of economic merits of hydroelectric projects as compared to practical alternative power sources; and, (3) the proposed reorganization of local dispatching system among the different power companies.³

During negotiations, these issues were discussed with the Government to conclude that: On the reorganization, it became clear that the proposed reorganization of the private companies and the Electric Power Development Company (EPDC) would result in considerable savings in production but neither the corporate structure nor the independence of the power companies would be affected; On the methods of appraisal of hydro projects, WB realized that the Government knew the need of consistent application of existing standards for appraising; On the future rate policy, the unsatisfactory fea-

³ Vide Memorandum, N. R. Chakravarti, to Files, Japan-Kansai Electric Power Development Project (Second Loan), March 11, 1958, and Memorandum, SLC/O/938, Department of Operations, Far East to Staff Loan Committee, Japan-Application for a Loan Equivalent US\$37 million to the Japan Development Bank for the Kansai Electric Power company, Inc., March 25, 1958, Japan-Kansai Power Project (02) Folder # 1857745, WB Archives.

tures of the pricing system were described in paragraphs 51–53 of the Appraisal Report and the expected deterioration of Kansai's financial position which was clearly shown in paragraphs 83 and 84. During negotiations, the Government explained to WB that it had formed a committee of experts to consider the problem and to recommend of its solutions. The Government's commitment to work on the issues was made in the letter to WB.⁴

On the financial conditions, the WB revised financial and investment conditions attached with the first Kansai loan of 1953. WB's views on Kansai changed dramatically. According to the Loan Committee Memorandum dated March 25, 1958 written before loan negotiations, WB did not have doubts that WB previously felt about Japanese policy in respect of power development and Kansai's capability to manage a much larger investment program than the project itself. WB therefore did not seek any undertakings from either the Government or JDB to make available extra funds for the project if needed. (Ibid., Footnote 3 above)

On the interactions between WB and Kansai, there were intensive engineering interventions by WB during the implementation of the construction of Kurobe Dam. Kansai Power reported in October 1959 to WB the need to revise the design of the dam and its cost estimate of the construction of the dam after three years of its construction, due to unexpectedly poor geological conditions and other difficulties needing possible design changes.⁵ In the process of ascertaining the location and the design of the dam, and because of concern over the news of the Malpasset arch dam failure in southern France in December 1959, WB decided to look into the whole issue of the geology of the dam site with the help of the international consultants (Board) consisting of dam designers and geological specialists. Reviewing their reports and their discussions among WB, Kansai, the Board and Kansai Power's Consultant (Electroconsult), the review started in January 1960. After its field visit, the Board initially concluded that the quality was not satisfactory for the construction of a thin arch dam above elevation 1,400 meters. The type of rock between elevation 1,400 meters and 1,454 meters (top the dam) was entirely inadequate to carry the loads that would be required for the thin arch structure as designed. The abutment rocks above elevation 1,400 were deeply weathered and were cut by several major shear or fault zones in each abutment. Moreover, the thickness of the supporting abutment rock did not appear sufficient to carry the loads for the construction of the dam as designed above an elevation of about 1,400 meters.⁶ Kansai officials were unhappy to hear a possible reduction in the height of the dam as they had constructed the major part of the right abutment wing wall as well as the inclined concrete structure for their power intake. Kansai's solutions by keeping the original dam design with various re-

⁴ Vide Memorandum, SLC/O/949, Department of Operations, Far East to Staff Loan Committee, Japan-Kansai Power project, May 27, 1958 and Letter from Shigesaburo Maeo, Minister of International Trade and Industry to Eugene R. Black, President of the WB, May 27, 1958. Japan-Kansai Power Project (02) Folder # 1857745, WB Archives.

⁵ Letter, Yoshishige Ashihara to the World Bank, "Loan No. 196 JA," October 28, 1959, Japan-Kansai Power Project (02) Folder # 1857746, WB Archives.

⁶ Vide the initial report of the Board. The International Board of Consultants to the World Bank, Report on the Kurobe Dam, An Appraisal of the Suitability of the Project Site for the Construction of the Proposed Thin Arch Dam, May 26, 1960, Japan-Kansai Power Project (02) Folder # 1857747, WB Archives.

medial works were reviewed and tested step by step. Main issues were strength of right and left banks, remedial treatment of weak zones of left and right banks, consolidation of grouting and curtain grouting, rock drains, the installation of measuring devices and determination of the height of the dam and filling of the water reservoir. As each of the problems was solved, the height of the dam and the filling of the water reservoir increased and eventually reached the levels originally designed and filling of the water reservoir, some 1,440 meters.⁷ The last meeting of WB, Kansai, the Board and Electroconsult was held in November/December 1966 and it ascertained the ability of Kansai to manage the whole issues of safety of Kurobe Dam.⁸

Hokuriku Electric Power Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$25 million lent to Hokuriku Power Company (Hokuriku)
4. Date of Loan: 06/27/1958
5. Terms of Loan: 25 years
6. Interest Rate: 5–3/8%
7. Project Description: The project consisted of the construction of the Arimine dam of which seasonal reservoir at about 1,000 meters above sea level would be utilized in successive falls along the Joganji river in the western part of Honshu on the Sea of Japan. In addition, included were the installation of six power generating stations, one of which was an extension of the existing plant. Altogether, the project would add 261 Mw to the system. The amount of the loan would represent about 27% of the total cost of the project and the entire amount of the loan was expected to cover domestic expenditures.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, and the Guarantee Agreement between Japan and WB. The JDB entered into a Subsidiary Loan Agreement with Hokuriku corresponding in substance to the terms of the WB's Loan Agreement and the agreements included relending terms, the limitation of Hokuriku's consolidated indebtedness not exceeding twice its consolidated capital and surplus. The Guarantee Agreement conformed to the normal pattern of the WB's guarantee agreements, and it included the provision that the Government covenanted to maintain electricity rates at such level as will al-

⁷ There are many reports and memoranda on the subject and the list thereof is available in Memorandum, E. A. Minnig to Charles H. White, Japan—Loan 196-JA Kurobe Dam, Resume of Activities of the International Board of Consultants, July 27, 1966, Japan-Kansai Power Project (02) Folder # 1857749, WB Archives.

⁸ Memorandum, Mario Piccagli to Files, Japan—Loan 196-JA-Kurobe Dam—Meeting of the Board of Consultants, December 14, 1966, Japan-Kansai Power Project (02) Folder # 1857750, WB Archives. Available information in the Archives indicates that even in 1967, WB continued to analyze the results of measurements and made observation that the measurement results looked satisfactory behavior of the dam and its foundation except the movement of the left abutment. Vide Memorandum, E. A. Minnig to A. David Knox, Japan—Loan 196-JA Kurobe Dam, September 5, 1967, Memorandum, E. A. Minnig to A. David Knox, Japan-Loan 196-JA Kurobe Dam, September 5, 1967, Japan-Kansai Power Project (02) Folder # 1857750, WB Archives.

low Hokuriku to finance adequate to meet power requirements in its area.

9. Justification: The return on the project was estimated at 15% on the basis of its comparison with an alternative modern thermal power plan with 260 Mw operating at a 50% load factor due mainly to the costly imported fuel. This return was considered as unquestionable economic advantage to Hokuriku Power.
10. Procurement: Purchases of equipment were made on a competitive basis.

Notes:

Hokuriku was a medium-sized company with total assets of about \$150 million operated an exclusively hydroelectric system in the western part of the main island on the coast of the Japan Sea around the city of Toyama. The project was part of Hokuriku's hydroelectric expansion program and it represented about 47% of the additional capacity and its cost represented about 30% of the total cost of the expansion program. Since the project represented a large part of Hokuriku's expansion program, WB wanted JDB's funding commitment to complete the project if necessary and WB planned to put this commitment in the Guarantee Agreement.⁹ During loan negotiations, the Government strongly objected to this type of commitment for the benefit of private companies, such as Hokuriku. WB in the end agreed to omit the proposed covenant from the Guarantee Agreement. The Government made its commitment in the form of a letter to WB saying that JDB would have no difficulty in carrying out its obligation regarding the provision of necessary funds to Hokuriku.¹⁰

Sumitomo Metal Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$33.0 million lent to Sumitomo Metal Industries (Sumitomo)
4. Date of Loan: 07/11/1958
5. Terms of Loan: 15 years
6. Interest Rate: 5-3/8%
7. Project Description: The project was part of a program for the modernization and expansion of production facilities in Sumitomo's four plants at Wakayama, Osaka, Amagasaki and Kokura. The program was designed to increase Sumitomo's annual production capacity to about 825,000 tons of pig iron, 1,450,000 of steel ingots, and 1,334,000 tons of finished and semi-finished steel products. The project consisted of the installation and operation of a blast furnace and blooming mill at Wakayama and included: the construction of harbor facilities to receive ships up to 15,000 tons;

⁹ Vide Memorandum, SLC/O/942, Department of Operations, Far East to Staff Loan Committee, Japan-Hokuriku Project, April 25, 1958 and Memorandum, SLC/M/708, Minutes of Staff Loan Committee held on May 1, 1958, May 13, 1958, Japan-Hokuriku Project Folder # 1857753, WB Archives.

¹⁰ Vide Memorandum, SLC/O/954, Department of Operations, Far East to Staff Loan Committee, Japan-Hokuriku Project, June 17, 1958, Japan-Hokuriku Project Folder # 1857753, WB Archives.

the construction of blast furnace with a daily capacity of 1,000 tons of pig iron, 57 coke ovens and by-products plant; the remodeling of three open hearth furnaces to increase the annual capacity of the steel plant to 630,000 tons; the construction of a 47" blooming mill; and, all auxiliary facilities for these plants. The entire project was scheduled for completion by March 1962 at an estimated cost of \$83 million and the WB's loan would finance about 40% of the total cost of the project. About US\$3.6 million would finance imported equipment and services and the remainder, domestic expenditures in Japan.

8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, the Guarantee Agreement between WB and Japan, and a Subsidiary Loan Agreement between JDB and Sumitomo. The Subsidiary Agreement included relending terms, the ratio of consolidated indebtedness to consolidated capital and surplus in a ratio higher than 60 : 40 before March 31, 1963 or 55 : 45 thereafter, and the limitation of short and long-term borrowings as well as bond placements, all up to March 31, 1962. The Guarantee Agreement was in the form similar to previous Agreements with Japan.
9. Justification: The steel industry in Japan as a whole was making extra efforts to reduce production cost and improve its quality to satisfy domestic demand and exports. One of the principle issues was how to cope with fluctuating raw material supply and costs. The expanded iron-making facilities would make it less dependent on imported scrap. The completion of the project would increase efficiency and reduce costs of production of finished products thus improving Sumitomo's competitive position in the export market.
10. Procurement: Both Japanese and imported equipment was purchase on a competitive basis.

Notes:

Before the start of negotiations of the Sumitomo loan, there was an important decision made within WB on who should be preparing the draft of the Subsidiary Loan Agreement, WB or JDB. Although the Subsidiary Loan Agreement was between JDB and the ultimate beneficiary of the loan, WB staff had prepared the preliminary draft of the Subsidiary Loan Agreement and WB thought that it should be the job of JDB and the ultimate beneficiary. The Working Party met end of April 1958 to discuss the advisability of discontinuing the practice. The conclusion was that JDB and the recipient would draft a loan agreement and during the negotiations WB would give draft of all stipulations considered essential for inclusion in the Subsidiary Loan Agreement. This was part of procedural changes giving more responsibility to the Japanese party.¹¹

After reviewing a couple of drafts on "Study of the Japanese Steel Market," WB finally completed the report to present to the Board as part of the set of documents on the proposed loan to JDB for the Su-

¹¹ Vide Memorandum, R. F. Quandt to Members Japanese Working Party, Japan-Sumitomo Project—Procedures in Respect of the Subsidiary Loan Agreement, April 30, 1958 and Memorandum, N. R. Chakravarti to Files, Japan-Sumitomo Steel Project-Subsidiary Loan Agreement, May 7, 1958, Japan-Sumitomo Project Folder # 1857757, WB Archives.

mitomo project. WB thought that such a report was necessary in view of heavy commitment in the steel industry in a short span of time. The contents of the report were the Japanese program for the expansion of iron and steel making capacity and the forecast of demand for 1957/62, the evaluation of the forecasts, and the prospects of demand and supply.¹² All appraisal reports of subsequent steel projects have a section and an annex on the steel market.

Two reports on the six Japanese steel companies' projects including this Sumitomo project dated April 6, 1964 and February 10, 1967 well captured the serious problem on the over-capacity of the steel industry, and each company's financial problems which started in 1962. The issues are discussed as the steel sector problems in the main text.

Kobe Steel Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$10.0 million lent to Kobe Steel
4. Date of Loan: 08/18/1958
5. Terms of Loan: 15 years
6. Interest Rate: 5–3/8%
7. Project Description: The project was the major part of a three-year program for the expansion and modernization of Kobe Steel's production facilities in the city of Kobe. The program was designed to give Kobe's capacity to produce pig iron (288,000 tons per year) and to increase its annual production capacity to about 700,000 tons of ingot steel and about 600,000 tons of saleable products. The project consisted of the installation of a blast furnace and related facilities at Nada-hama and Wakino-hama and included the construction of harbor facilities; the installation of raw material yard sintering plant; the construction of blast furnace with a daily output of 800 tons of pig iron and of auxiliary facilities; the installation of a power plant at Nadahama; and the installation of steel making plants and ancillary facilities at Wakino-hama. The project was scheduled for completion by July 1959 at an estimated cost of \$36 million. The WB's loan would finance about 40% of the total mostly for expenditures in Japan but about \$0.6 million would be used for payment of imported equipment and services.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, the Guarantee Agreement between WB and Japan, and a Subsidiary Loan Agreement between JDB and Kobe Steel. JDB entered into a Subsidiary Loan Agreement with Kobe and the agreements included relending terms, the limitation of Kobe's additional indebtedness keeping debt/equity ratio less than 50 : 50, and the limitation of Kobe Steel's new investment, during

¹² Vide Memorandum, N. R. Chakravarti to Files, Japan-Draft Study of the Japanese Steel Market (Sumitomo), May 7, 1958, Japan-Sumitomo Project Folder # 1857757, WB Archives and Japan: Sector Report—Japanese Steel Market Prospects, 1957, June 24, 1958, Report No. TO-178, the World Bank.

the construction period (to April 1, 1960) in shares of other companies or in new loans to other enterprises upto ¥ 350 million. The Guarantee Agreement was in the form similar to previous Agreement with Japan.

9. Justification: The steel industry in Japan as a whole was making extra efforts to reduce production cost and improve its quality to satisfy domestic demand and exports. One of the principle issues was how to cope with fluctuating raw material supply and costs. The expanded iron-making facilities would make it less dependent on imported scrap. The completion of the project would increase efficiency and reduce costs of production of finished products thus improving Kobe's competitive position in the export and domestic markets.
10. Procurement: Both Japanese and imported equipment was purchased on a competitive basis.

Notes:

One problem required special attention was that of protecting Kobe's financial position from a possible strain of its resources by two of its principal subsidiaries, the Amagasaki Steel and the Amagasaki Iron and Steel Company. While the two companies made some technical progress with good business results since they became Kobe's subsidiaries in 1954, their capital structure was weak and they were financing capital investments with short-term debts. In addition to provisions of the Subsidiary Loan Agreement limiting Kobe's freedom to incur additional indebtedness during the construction period, satisfactory assurances were received from Kobe and the two other principal stockholders (Sanwa and Kobe Banks) of these subsidiaries that a sound financing plan for these two subsidiaries was to be put into effect as soon as practicable and that they would refrain from embarking on the construction of any major new facilities until financial arrangements satisfactory to JDB and WB were made.¹³

According to the Follow-up Report dated July 14, 1966 prepared by a staff of International Finance Corporation, "Kobe's financial position has deteriorated steadily during the past four years. Although there is no current ratio requirement in the loan agreement, the ratio of 1.35 compares unfavorably with the 1.50 required of other companies. The debt/equity ratio has deteriorated steadily and is currently 59.9 : 40.1 as against required ratio of 50 : 50. This requirement has been waived until July 31, 1966, and as yet JDB has made no recommendations about a further waiver of this requirement."¹⁴

Two reports on the six Japanese steel companies' projects dated April 6, 1964 and February 10, 1967 well captured the serious problem on the over-capacity of the steel industry, and each company's financial problems which started in 1962. The issues are discussed as the steel sector problems in the main text.

¹³ Vide Appraisal Report on Japan, Kobe Steel-Blast Furnace Project, July 28, 1958, pp. 16–18.

¹⁴ Vide David Peacock, the Follow-up Report dated July 14, 1966, p. 3, Japan-Kobe Steel Project Folder # 1857767, WB Archives.

Second Chubu (Hatanagi) Electric Power Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$29 million lent to Chubu Power Company (Chubu)
4. Date of Loan: 09/10/1958
5. Terms of Loan: 25 years
6. Interest Rate: 5-3/4%
7. Project Description: The project consisted of the construction of two new power stations, Hatanagi No. 1 and No. 2, on the Ohi River in central Honshu, with a generating capacity of 85 Mw each to supply electricity to the customers of Chubu including ones in the Nagoya area. The project included the construction of a hollow concrete gravity dam, 119 meters high, which would impound 107 million cubic meters of water. Hatanagi No. 1 power station would be located near the foot of the dam, while Hatanagi No. 2, further downstream. The discharge of Hatanagi No. 1 would be stored in a regulating pond created by the building of another smaller dam downstream. A pressure tunnel from the pond would supply water to Hatanagi No. 2 power station. The two turbine-generator units in Hatanagi No. 1 power station would be so designed and installed that they could also be operated as motor-pump units for pumping water back to the reservoir at night. This feature would extend the duration of peak operation for Hatanagi No. 1 and would also contribute to the more efficient use of large thermal units added to the Chubu system. The Hatanagi project would cost \$73 million and the WB loan of US\$29 million was to finance 40% of the total cost and most of the loan was to finance local cost expenditures.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, and the Guarantee Agreement between Japan and WB. The JDB entered into a Subsidiary Loan Agreement with Chubu and the agreements included relending terms, the limitation of Chubu's consolidated indebtedness not exceeding twice its consolidated capital and surplus. The Guarantee Agreement conforms with to the normal pattern of the WB's guarantee agreements, and it included the provision that the Government covenanted to maintain electricity rates so as to allow Chubu to finance adequate investment to meet power requirements in its area.
9. Justification: The return on the project was estimated at 10% on the basis of its comparison with an alternative modern thermal power plant depending on the costly imported fuel. This return was considered as clearly economic advantage to Chubu.
10. Procurement: Purchases were made on a competitive basis.

Notes:

The Chubu was well considered by WB and the project was prepared properly. Above all, the electricity demand was increasing at the rate higher than national average. The only note worthy discussion between the Government and WB was on the Government's rate policy. During the negotiations

for the Chubu Power Project the question arose whether Chubu could have satisfactory assurances that during the construction period it would be able to raise enough funds required for its expansion program. The WB's proposal was that JDB should enter into a back-stop commitment in favor of Chubu, similar to the one JDB had given to Hokuriku and that JDB's undertaking should be supported, like in the Hokuriku case, by a goodwill declaration of the Japanese Government. On this proposal, JDB and Chubu counter-argued that a back-stop commitment by JDB would adversely affect Chubu's credit standing in the Japanese market and might create difficulties in the raising of the funds. Since Chubu ranks amongst the three biggest power companies in Japan, its credit rating was equal to that of Kansai or Tokyo Power and a back-stop could be interpreted as a lack of confidence by WB in Chubu's management. In the end, WB dropped this proposal. In fact, WB maintained the position on the rate issue not as one of each power company but as the industry as a whole requiring substantial capital to implement large scale expansion programs by the power companies. In view of the certainty that the expansion program would become a continuous necessity, WB was drawing the Government attention to the need of a revision of the basic principle of its power rate policy. Because of this urging, the Minister of MITI wrote a letter dated May 27, 1958 to WB agreeing with WB the need of review of rate policy and appointed a special committee to study, and report on the ways and means in which the revenues of the power companies could be increased. The Minister's letter mentioned that the committee's recommendations would be available by the latter part of 1958 and it would be in the position to take the first steps towards remedying the revenue situation of the power companies in the early part of 1959.¹⁵

Nippon Kokan Steel Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$22.0 million lent to Nippon Kokan Steel (Nippon Kokan)
4. Date of Loan: 09/10/1958
5. Terms of Loan: 15 years
6. Interest Rate: 5–3/4%
7. Project Description: The project was part of a plan for the modernization and expansion of Nippon Kokan's production facilities, to increase Nippon Kokan's annual productive capacity to about 1.5 million tons of pig iron, about 2.3 million tons of steel ingot and about 2.3 million tons of finished and semi-finished products. The entire expansion program for April 1957 to March 1961 would cost about US\$129 million. The project, costing an estimated US\$67 million, consisted of the construction of a steel plant and of the expansion of a seamless tube mill at Mizue in the city of Kawasaki. The project included specifically the construction and installation of steel mak-

¹⁵ Vide Memorandum, R. F. Quandt to Files, Japan-Chubu Power Project—Rate Policy, September 16, 1958, Japan-Chubu-Hatanagi Hydroelectric Project Folder # 1857772, WB Archives.

ing plant, slabbing mill, hot rolling mill, cold rolling mill and related facilities such as power facilities, water supply and transportation. It also included the installation of a upsetter and X-ray wall thickness measuring gauge for the expansion of a seamless tube mill. The loan financed all imported equipments for the Mizue plant and for the second stage of seamless tube mill.

8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, the Guarantee Agreement between Japan and WB. JDB entered into a Subsidiary Loan Agreement with Nippon Kokan and the agreements included relending terms, the limitation of Nippon Kokan's additional indebtedness keeping debt/equity ratio less than 60 : 40 during the construction period and 50 : 50 after its completion, and the limitation of Nippon Kokan's new investment, during the construction period ending March 31, 1961. Also included was that Nippon Kokan would make arrangements for raising necessary funds to meet its financial requirements during the construction period. The Guarantee Agreement was in the form similar to previous Agreement with Japan.
9. Justification: The steel industry in Japan as a whole was making extra efforts to reduce production cost and improve its quality to satisfy domestic demand and exports. One of the principle issues was how to cope with fluctuating raw material supply and costs. The expanded iron-making facilities would make it less dependent on imported scrap. The completion of the project would increase efficiency and reduce costs of production of finished products thus improving Nippon Kokan's competitive position in the export and domestic markets.
10. Procurement: Imported equipment was purchased on a competitive basis.

Notes:

Immediately after the loan negotiations in September 1957 but before its Board presentation, WB asked Nippon Kokan the contents of foreign investment that the company was making. Nippon Kokan answered that they concerned the acquisition of raw materials, the promotion of sales and the acquisition of capital for investment within the company. The WB raised this point for a possible question by WB's Board on "the WB is financing foreign exchange while Nippon Kokan is investing a sizable amount of foreign exchange outside of Japan."¹⁶

According to the End-Use Mission Report dated April 22, 1964, the last report on this project available in the Archives, Nippon Kokan's financial situation revealed in April 1963 that it would not attain the debt/equity ratio of 50 : 50 on April 1964 as required by the amended Loan Agreement. As a result, WB, JDB and Nippon Kokan agreed formally to a waiver of the 50 : 50 ratio until March 31, 1967. Nippon Kokan undertook to attain the target ratio by making two share offerings. In addition, they agreed to limit their capital expenditures for four years to stipulated amounts.¹⁷

¹⁶ Vide Memorandum, R. F. Quandt to Files, Japan-Investment Policy of the Japan Steel & Tube Corporation Ltd. (Nippon Kokan), September 8, 1958, Japan-Nippon Kokan Project Folder # 1857778, WB Archives.

¹⁷ Vide Memorandum, Gunter Mehlem, April 22, 1964, Japan-Nippon Kokan Project Folder # 1857782, WB Archives.

Two reports on the six Japanese steel companies' projects dated April 6, 1964 and February 10, 1967 well captured the serious problem of the over-capacity of the steel industry, and each company's financial problems which started in 1962. The issues are discussed as the steel sector problems in the main text.

Miboro Hydroelectric Power Project of the Electric Power Development Company (EPDC)

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$10 million lent to Electric Power Development Company (EPDC) (Jointly financed by the Government bond, \$30 million, issued in the New York market)
4. Date of Loan: 02/17/1959
5. Terms of Loan: 5 years
6. Interest Rate: 5–3/4%
7. Project Description: The project consisted of the construction of two new power stations having 215 Mw capacity on the Sho River in Toyama/Gifu in western Honshu to cater to the customers of Kansai Electric Power. The project included the construction of a rockfill dam, about 130 m high, capable of impounding about 330 million cubic meters of water storage, an underground power station at the same site comprising the two generating units discharging into the Sho River through a 8.8 km tunnel, and a step-up substation to handle the output of the power station located on the downstream of the dam. Construction of the Miboro dam started in June 1957 at a total estimated cost of \$103 million. By December 1958, about half of the work was completed and the loan would finance part of the remaining costs including some foreign exchange requirements, about US\$1 million. This Loan was made in a combined operation with the Japanese Government bonds (US\$30 million) issued in the NY financial market.
8. Legal Instruments and Legal Authority: The legal instruments were Loan Agreement between WB and JDB, Subsidiary Loan Agreement between JDB and EPDC, Project Agreement between the WB and EPDC, and the Guarantee Agreement between Japan and WB. The Loan Agreement conformed generally to the pattern of previous loan agreements with JDB and contained among others delivery of payment for US\$15 million principal amount of 15-year sinking-fund bonds of the market issue by the Government of Japan. The Subsidiary Agreement conformed to the pattern of previous subsidiary agreements. The Project Agreement gave WB direct relationship with EPDC and included obligations concerning the Project implementation. Specifically EPDC was required to set the selling prices of electricity at such levels as gross revenues at least covering operating costs and a reasonable return on the proper value of the total assets. The Guarantee Agreement conformed with the normal pattern of the WB's guarantee agreements, and it included the provision that the Government was covenanted to provide to EPDC on reasonable terms with any funds required to complete the project.

9. Justification: The return on the project was estimated at 7% on the basis of its comparison with an alternative modern thermal power plant depending on the costly imported fuel. This return was considered as economic advantage to EPDC.
10. Procurement: Purchases were made on a competitive basis.

Notes:

Out of four power projects proposed by Japan applying for possible borrowing from WB in September 1957, the two loans, Kansai and Hokuriku, were already approved by WB and one, Chubu loan was being processed without major issues. One remaining project was one of EPDC's, a Government owned and controlled agency. EPDC was established in 1952 to develop bulk supplies of power to be sold wholesale to the privately owned power companies. EPDC was then carrying out a program which by 1962 would make available about 2,000 Mw of which 532 Mw had been commissioned as of September 1957. The three largest projects then under construction in the program were the Okutadami, Tagokura and Miboro projects and the total cost of these facilities was estimated at about \$330 million. EPDC applied for loans to these three projects totaling about \$85 million and for a further loan of about \$10 million to be applied against the construction of transmission and substation facilities related to the first two of the three projects. The main problems for WB to consider before arriving at a decision on the choice of a project out of the three and whether to lend to EPDC were: (1) institutional issues: the fact that EPDC was owned and controlled by the Government and the resulting subsidization aspects and that EPDC should limit itself to generating power from its facilities and selling it to its customers at the generating plan, without engaging in the construction and operation of transmission facilities; (2) the high cost of power provided by EPDC and the related question of economic justification; and, (3) EPDC's financial policies and of its financial conditions. Assuming that these issues were to be overcome, WB staff chose Miboro on the basis of comparing cost at stepdown substation mills/kwh of Kurobe (12 cent), Okutadami (20.7), Tagokura (18.5) and Miboro (16.9).¹⁸ As WB combed through the above issues, and on the basis of the revised investment program for 1962–1968, much smaller than the original, and the positive sign of the continued improvement of EPDC's operations, WB proceeded with the preparation of the Miboro Project.¹⁹

WB initially planned to lend directly to EPDC, but WB found that there would be substantial legal issues to make a loan directly to EPDC. To change this by new legislation would take a long time and WB changed in December 1958 its course to lend to EPDC through JDB. The timing of this decision was important as the Japanese Government was then pursuing the possibility of a market issue in the New York market. The lending to EPDC through JDB also influenced the framework of legal agreement to have traditional Project Agreement between WB and EPDC instead of Subsidiary Agreement between JDB

¹⁸ Vide Memorandum, from Mario Piccagli and J. Filippi to Files, Japan-Proposed Loans to EPDC dated April 17, 1958, Japan-Miboro Project Folder # 1857789, WB Archives.

¹⁹ Vide pp. 1–4, Appraisal Report on Japan, Miboro Hydroelectric Project of the EPDC, December 28, 1958, the World Bank.

and EPDC. Due to the possible joint financing operations, WB decided to take up this project even though WB's principle approach was to defer further lending to the power projects after the Chubu until the government took action to strengthen the financial position of the power companies.²⁰

The proposed loan to EPDC in conjunction with an issue of bonds in New York by the Government of Japan had to face with a new type of varying problems. For example, in order to coordinate preparatory works between WB and the First Boston Corporation (FBC), they met frequently and discussed possible problems such as issues needing coordination of relative stipulations in the WB's loan documents and in the agreements and prospectus of FBC. Typical examples were negative pledge stipulations, prepayments and cancellations. Besides these legal issues, WB supplied to FBC basic economic and project information for the ease of drafting documents by FBC.²¹

Fuji Iron and Steel CO. Hirohata Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$24.0 million lent to Fuji Steel
4. Date of Loan: 11/12/1959
5. Terms of Loan: 15 years
6. Interest Rate: 6%
7. Project Description: The project was part of a plan for the modernization and expansion of Fuji Steel's production facilities during the period, April 1959–March 1962, to increase its annual productive capacity from 2.65 to about 3.3 million tons of pig iron, from 3 million tons to 3.75 million tons of steel ingot. The entire expansion program would cost about \$203 million. The project, costing an estimated US\$73 million, consisted of the construction of a steel plant and of the expansion of a seamless tube mill at Hirohata, Hyogo Prefecture. The project included the construction and installation of blast furnace, sintering plant, coke oven plant, slabbing mill, and related facilities. The loan financed all imported equipment, amounting to about US\$7.2 million and about 27% of the local expenditures on the project.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, the Guarantee Agreement between Japan and WB, and a Subsidiary Loan Agreement between JDB and Fuji Steel. The Subsidiary Loan Agreement included relending terms, the limitation of Fuji Steel's additional indebtedness keeping debt/equity ratio less than 60/40 before end March 1964 and 50/50 thereafter, and the requirement by Fuji Steel to maintain a current ratio of at least 1.5 : 1. The Guarantee Agreement was in the form similar to previous Agreement with Japan.

²⁰ Vide Memorandum, SLC/O/980, Department of Operations, Far East to Staff Loan Committee, Japan-Miboro Power Project, December 17, 1958, Japan-Miboro Project Folder # 1857789, WB Archives.

²¹ Vide Memorandum, Richard F. Quandt to Files, Japan-Discussions with First Boston Corporation on the Coordination of their Proposed Public Issue of Japanese Government Bonds and the Bank's Proposed Loan for the Miboro Project of the Electric Power Resources Development Corporation, November 3, 1958, Japan-Miboro Project Folder # 1857789, WB Archives.

9. Justification: The steel industry in Japan as a whole was making extra efforts to reduce production cost and improve its quality to satisfy domestic demand and exports. One of the principle issues was how to cope with fluctuating raw material supply and costs. The expanded iron-making facilities would make it less dependent on imported scrap. The Fuji Steel's project was a part of the overall program and to increase its production capacity of plates and sheets.
10. Procurement: Imported equipment was purchased on a competitive basis.

Notes:

Fuji and Yawata Steel projects were not included in the original list submitted to Mr. Black by the Finance Minister in September 1957, but later the Government wanted to add these two in the lending program. For the Government probably felt the fact that government did let Fuji to borrow \$10.3 million and Yawata, \$26 million, from US Export-Import Bank might complicate the discussion on the lending program as WB was trying to limit foreign exchange borrowing of Japan from other institution. WB eventually agreed to include them in the lending program.²²

During negotiations, the major issues discussed were related to the financial covenants and their format of presentation. On the debt/equity ratio as above was not a big issue but current ratio was. In order to protect the company's liquidity, WB agreed with Fuji/Yawata to limit cash dividends so as to keep the current ratio (after excluding short-term debt) of at least 1.5 : 1 during the life of the WB loan. Also Fuji/Yawata's working liquidity would be kept adequate if short-term loans refinanced periodically were covered by a backstop agreement. The current ratio agreement was incorporated in the Subsidiary Agreement and letters from Fuji/Yawata were prepared on financial arrangement regarding refinancing of short-term debts and the backstop arrangements.²³

Two reports on the six Japanese steel companies' projects dated April 6, 1964 and February 10, 1967 well captured the serious problem of the over-capacity of the steel industry, and each company's financial problems that started in 1962. The issues are discussed as the steel sector problems in the main text.

It is interesting to note that WB received a letter from JDB informing that the planned merger of Fuji and Yawata had been disclosed on April 17, 1968. According to the letter, the decision for the merger was due mainly to developments in international economic and industrial conditions which might put the Japanese industry in difficulties and domestic market condition of steel products where dumping prevails.²⁴

²² Memorandum, Martin M. Rosen to Mr. Daivison Sommers, Japan-Yawata Steel and Fuji Steel, January 22, 1958, and N. R. Chakravaski to Files, Japan-Yawata Iron and Steel Project—Technical Report, October 7, 1959, Japan-Nippon Steel Project-Tabata Project Folder # 1878742, WB Archives.

²³ Memorandum, N. R. Chakravarti to Files, Japan-Yawata Iron and Steel Co., Ltd.-Second Negotiations (Meetings on October 21, 22 and 23, 1959), October 28, 1959 and N. R. Chakravarti to Files, Japan-Yawata Iron and Steel Co., Ltd.-Second Negotiations (Meeting on October 26, 1959), October 28, 1959, Japan-Nippon Steel Project-Tabata project Folder # 1878742, WB Archives.

²⁴ Letter, Seiyo Soejima, Chief, Foreign Department, JDB to Mr. I.P. M. Cargill, Director, Asia Department, WB, A Plan of Yawata and Fuji Iron & Steel Co. Ltd., May 2, 1968, Japan-General-Steel Folder # 1878740, WB Archives.

Yawata Iron and Steel CO. Tobata Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$20.0 million relented to Yawata Steel (Yawata)
4. Date of Loan: 11/12/1959
5. Terms of Loan: 15 years
6. Interest Rate: 6%
7. Project Description: The project was part of a plan for the modernization and expansion of Yawata Steel's production facilities during the period, April 1959–March 1962, to increase its annual productive capacity from 2.1 to about 3.4 million tons of pig iron, from 2.8 million tons to 5.25 million tons of ingot steel. The entire expansion program would cost about US\$244 million. The project, costing an estimated US\$167 million, consisted of the construction and installation of two blast furnaces, a sintering plant, two coke oven plants and coal washing plants, three converters, a slabbing mill, and related facilities at Tobata in Kyushu. The loan financed all imported equipments, amounting to about US\$5.7 million and about 16% of the local expenditures on the project.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, the Guarantee Agreement between Japan and WB, and a Subsidiary Loan Agreement between JDB and Yawata. The Subsidiary Loan Agreement included relending terms, the limitation of Yawata's additional indebtedness keeping debt/equity ratio less than 60/40 before end March 1964 or 50/50 thereafter, and the requirement by Yawata to maintain a current ration of at least 1.5 : 1. The Guarantee Agreement was in the form similar to previous Agreement with Japan.
9. Justification: The steel industry in Japan as a whole was making extra efforts to reduce production cost and improve its quality to satisfy domestic demand and exports. One of the principle issues was how to cope with fluctuating raw material supply and costs. The expanded iron-making facilities would make it less dependent on imported scrap. The Fuji's project was a part of the overall program and to increase its production capacity of plates and sheets.
10. Procurement: Imported equipment was purchase on a competitive basis.

Notes:

Please see the Notes under Fuji Steel Project. Yawata's case was similar to Fuji's.

Nihon Road Kodan Amagasaki-Ritto Expressway Project

1. Borrower: Nihon Doro Kodan (Japan Highway Public Corporation (Kodan))
2. Guarantor: Government of Japan
3. Loan Amount: US\$40 million

4. Date of Loan: 03/17/1960
5. Terms of Loan: 23 years
6. Interest Rate: 6-1/4%
7. Project Description: The project was for the construction of a 72 km four lane, divided, limited access expressway from Amagasaki to Ritto, linking the Osaka metropolitan area with that of Kyoto in central Japan. The project included the construction of service areas, bus-stops, and inter-changes and also buildings and other permanent facilities for the maintenance and operation of this expressway after its completion. It would take four years to complete the project. Its estimated total cost amounted to about \$110 million and the WB's loan would provide about 45% of the expenditures incurred since April 1, 1959.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between the WB and Nihon Doro Kodan (Kodan), and the Guarantee Agreement between Japan and WB. The Loan Agreement provided that Kodan would employ suitable consultants to get advice on design, location and other related questions on the expressway and on soil problems, construction specification and construction procedures. The Guarantee Agreement conformed with to the normal pattern of the WB's guarantee agreements, and included the provision on the Government's furnishing with funds sufficient for the construction of the project and its maintenance. Also the Government was to secure the cooperation of local governments for the construction and maintenance of access roads connecting the expressway with surrounding local communities.
9. Justification: The affected area by the project was one of the most densely populated and heavily industrialized areas in Japan. The existing roads were of low standards and congested. The new expressway would lead to decrease in travel time and in transport costs, and to a spreading of population and industry.
10. Procurement: Foreign contractors with experience in expressway construction were invited to bid for certain important section of the expressway. International competitive bidding was therefore used for the first time in Japanese highway construction.

Notes:

The project was being discussed within WB in general terms since 1956. A survey team headed by Dr. Watkins at a request of the Ministry of Construction studied the whole highway investment program and the economic and technical justification of the Nagoya-Kobe toll road in May 1956. Learning the start of the study, WB sent a list of questions to the survey team in end May 1956, covering all points WB would have covered for its own study of a similar subject.²⁵ The WB's focus on the importance of the road development in Japan and a project for an expressway between Kobe and Nagoya became sharper than before after WB reviewed the conclusion of the Watkins Report completed in Au-

²⁵ Vide Letter, Russell Dorr to Mr. Michael Sapir, Japanese Highway Survey, May 31, 1956, Japan-Amagasaki-Ritto Expressway Project Folder # 1878752, WB Archives.

gust 1956. The Report had great impact on Japanese mind on how far back of the road situation was for Japan's level of economic development. The main conclusion of the Report was that "The roads of Japan are incredibly bad. No other industrial nation has so completely neglected the highway system. Neglect of the highway system is imposing a heavy cost burden on the Japanese economy. Expenditures for highway in Japan should be increased to at least yen 180 billion or \$500 million per year, approximately three times the present rate. An expressway from Kobe to Nagoya as part of an expressway that will ultimately be built to Tokyo is an essential part of an accelerated highway program. [...] Major revision of Japanese transportation policy as a whole will be necessary to assure the quality of transportation necessary for the maximum economic development of Japan [...]." ²⁶ On the basis of the review of the above Report, while WB understood the importance of developing a modern road network in Japan, WB still had many questions on the proposed expressway project from technical, administrative and economic aspects. To find some answers to the questions and to find ways to make the proposal suitable for WB financing, WB finally sent a mission to Japan in January/February 1958. The mission's report dated April 25, 1958 concluded that an expressway between Kobe and Nagoya appeared economically justified and technically feasible and outlined various measures that the Government and Kodan should take for project preparation for WB financing. ²⁷ In sending the Report to the Government, WB clearly indicated in the letter WB's support on the proposed project and suggested ways to obtain firmer cost estimates of the project. Also suggestion was made to employ foreign consultants to check the design of the expressways with a view to reducing construction cost and to revise the scheduling of the construction program to make it in the most economic manner. ²⁸ After traffic information collected and further studies made by consultants, the Japanese delegation consisting of staff of the Ministry of Finance (MOF) as well as Construction (MOC) and Kodan visited WB in Washington in April 1959 and discussed the whole issues of the Kobe–Nagoya Expressway project. The two sides agreed by end April 1959 on: Amagasaki–Ritto section of the Kobe–Nagoya expressway to be the proposed project for a possible loan and to be used as a model case for future lending; high estimated cost of the expressway to be reviewed by consultants including the issue of design and construction methods; need to employ consultants for construction and supervision and training of Japanese engineers; the introduction of international bidding on major works; and, the need of coordination among Kodan and other Government agencies including local authorities. ²⁹ The speed of the preparation of the project became faster after the general agreement on the project and its appraisal was made in October–November 1959. According to the Supervision Report on the project dated June 23, 1963,

²⁶ Vide E. E. Hagen, F. W. Herring, G. E. McLaughlin, Wilfred Owen, H. M. Sapir and R. J. Watkins, Kobe–Nagoya Expressway Survey for the Ministry of Construction, Government of Japan, August 8, 1956, Japan–Amagasaki–Ritto Expressway Project Folder # 1878752, WB Archives.

²⁷ Report on the Proposed Expressway in Japan Dated April 25, 1958, Report Number TO-172, the World Bank.

²⁸ Letter, J. Burke Knapp to Minister of Finance, dated May 21, 1958, and also Letter, I. P. M. Cargill to Mr. Nishihara, dated May 26, 1958, Japan–Amagasaki–Ritto Expressway Project Folder # 1878752, WB Archives.

²⁹ Letter, Martin M. Rosen to His Excellency Mr. Eisaku Sato, Minister of Finance, May 10, 1959, Japan–Amagasaki–Ritto Expressway Project Folder # 1878752, WB Archives.

the project was completed on or about July 15, 1963. The actual cost of the project amounted to \$124 million was about 13% higher than the original estimate.³⁰

Japanese Government thought that the Kobe-Nagoya Expressway project could be a good chance to re-enter into the NY capital market for government bond issue. Initially Blyth and Company was approaching the Government and MOF established a Committee to select an Investment Banker for Japan, consisting of John D. Rockefeller, III, Tapp of Bank of America, and others. In the end, First Boston became the banker for Japan. However, WB thought that the timing of the completion of the project preparation, needing a year or so, would not suit the bond issue and that the expressway revenue bond, even with government guarantee, would not go far in the capital market. As a result, the highway project was eventually to be financed only by WB.³¹ Please refer to the main section of this paper.

The introduction of international bidding was another key issue that WB had to deal with Kodan in the course of the project preparation. In accordance with Government procedures for awarding public work contracts, Kodan generally invited a few qualified contractors, ordinarily 3 to 5, to tender. The lowest bidder was awarded the contract if his price did not exceed the engineers' cost estimates. If no acceptable bid was submitted, the original firms and a few additional contractors were invited to re-bid. There was no legal exclusion of foreign firms, but in practice they were not invited to bid. Furthermore, foreign exchange regulations then made it unattractive for foreign contractors to do business in Japan. Japanese contractors were competent but they lacked experience in modern expressway construction, particularly in large-scale earthmoving and asphalt paving works. Only 12 of them, at most, would qualify for the larger road construction contracts, ranging from Yen 1 to 2 billion, which Kodan intended to award. Only 27 at most would have been qualified to bid on the other works, including major structures (bridges, tunnels, etc.). WB considered that foreign contractors with experience in expressway construction should be invited to bid for the earthmoving and pavement contracts on the same terms as Japanese firms. Their participation in the works was expected to introduce more efficient methods of construction and reduce ultimate construction costs. The Japanese firms were proficient and well equipped for construction large bridges, viaducts and tunnels. There would probably be no cost advantage in having foreign firms compete for such works. However, costs might be reduced if more Japanese firms than before and foreign contractors were invited to tender for each contract. Final agreements with Kodan on bidding were:

- (1) Several prequalified foreign contractors will be invited to bid on two major construction contracts involving primarily large quantities of earthmoving;
- (2) The contractors for these sections will be awarded before those for similar works on other sec-

³⁰ Memorandum, S. C. Hardy, H. Adler and J. Doolan to H.J.van Helden, Japan: Expressway Projects: Back-to-Office Report, June 27, 1963 and Letter, H.J.van Helden to Mr. Kentaro Uemura, President of Nihon Doro Kodan, Expressway Projects, July 11, 1963, Japan-Amagasaki-Ritto Expressway Project Folder # 1878758, WB Archives.

³¹ Memorandum, Martin M. Rosen to Files, Japan-Relations with Investment Bankers, November 27, 1959, Japan-Amagasaki-Ritto Expressway Project Folder # 1878752, WB Archives.

tions of the same nature; and,

- (3) A larger number of Japanese contractors than usual will be invited to bid on contracts for major structures and other large works.³²

Thus international competitive bidding was applied for the first time in Japanese highway construction. The Government was also willing to authorize foreign contractors who would have obtained construction awards to transfer reasonable sum for profit and overhead, depreciation of equipment and foreign personnel.³³ Process in which they reached the above conclusions was quite interesting one. The need of the introduction of international bidding was discussed in the concrete terms in a meeting between WB and a team from Kodan headed by President Kishi in April 1959. Specifically on the April 20 meeting, WB suggested in order to reduce costs of earth-working the possibility of inviting bids from foreign contractors. Kodan agreed that it might lead to efficiency by sharpening up unit costs and introducing an element of competition and demonstration. In the end, Kodan was told by WB on the principles of the need of international bidding with an exception to international bidding only if it could be demonstrated clearly that Japanese contractors were familiar with this type of highway construction and were thoroughly competitive.³⁴ Kodan agreed to invite qualified contractors to submit bids for the road construction works, but no foreign bidder submitted its bid.

Third Kawasaki Steel Plate Mill Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$6.0 million lent to Kawasaki Steel (Joint operation with private placement in New York through First Boston Corporation of \$4 million of 7.5% 10-year non-callable notes. In addition, Kawasaki obtained from the Hanover Bank a 5-year loan of \$2 million at 6%.)
4. Date of Loan: 12/20/1960
5. Terms of Loan: 15 years
6. Interest Rate: 5–3/4%
7. Project Description: The project was part of a plan for the modernization and expansion of Kawasaki's production facilities during the period, May 1959–April 1962, to increase its annual blast furnace capacity from 720,000 tons to 1,260,000 tons and its steel ingot capacity from 1.6 million tons to 2.3 million tons at plants in Chiba, Fukiai and Nishinomiya. The project included the installation of a plate mill with an annual capacity of 600,000 tons and all necessary auxiliary facilities. It was to replace facilities having a capacity of 40,000 tons. The entire expansion program would cost about US\$81 million. The total cost of the new plate mill was estimated at \$20.3 mil-

³² Appraisal Report of the Amagasaki–Ritto Expressway Project, Japan, March 7, 1960, the World Bank, pp. 11–12.

³³ Vide Side Letter Doro Kodan to WB, Bidding and Contract Award Procedures, March 17, 1960, Japan-Amagasaki–Ritto Expressway Project Folder # 1878755, WB Archives.

³⁴ Vide Memoranda, W. D. S. Fraser to Files, JAPAN-Kobe–Nagoya Highway, April 21–28, 1959, Japan-Amagasaki–Ritto Expressway Project Folder # 1878753, WB Archives.

lion. The loan of US\$6.0 million would cover about 30% of the total cost. The loan would finance all imported equipments, amounting to about US\$ 4.2 million and about 9% of the local expenditures on the new plate mill. Procurement would be by international competitive bidding where imported equipment was competitive.

8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, the Guarantee Agreement between Japan and WB, and a Subsidiary Loan Agreement between JDB and Kawasaki. The Subsidiary Loan Agreement included relending terms, the limitation of Kawasaki Steel's additional indebtedness keeping debt/equity ratio less than 50/50 (not withstanding these limitations, Kawasaki might borrow from the Daiichi Bank in order to maintain its current ratio above 1.5 : 1, and the requirement by Kawasaki to maintain a current ration of at least 1.5 : 1. The Guarantee Agreement was in the form similar to previous Agreement with Japan.
9. Justification: The project was part of a substantial expansion and modernization of the Japanese steel industry in order to keep pace with the country's fast growing demand for steel. The project would substitute a modern 4-high plate mill for existing obsolete facilities. This was the third WB loan to Kawasaki, the first made in December 1956 for the construction of hot and cold strip mills at Chiba plant and the second, in January 1958, for the construction of a blast furnace at Chiba plant.
10. Procurement: Imported equipment was to be purchased on a competitive basis. Bids were limited to domestic suppliers only where past experiences showed that it was clearly more advantageous for the company to purchase the goods in Japan.

Notes:

A study of the market prospects of the Japanese steel industry (Appraisal Report, Kawasaki Steel Corporation, December 7, 1960, TO-25a, Annex 3) indicated that the expansion program scheduled for completion in 1962 would be justified by the prospective increase in demand. Market prospects for Kawasaki's principal products were generally favorable. Kawasaki's original idea was to obtain a WB loan of \$10 million. WB was quite firm in rejecting the request by saying that "The WB is not going to make any loan to steel companies which should look to private market for long-term loans. And if it is absolutely necessary for WB to make a loan to introduce a steel company to the private market, such loan would only be made as a joint operation, WB matching on a 50 : 50 basis."³⁵ Indeed Kawasaki made real efforts to get into the market,³⁶ but what Kawasaki obtained was a moderate sized loan on medium-term basis from a commercial bank. From the point of view of WB, it was not in line with

³⁵ Vide Memorandum, N. Chakravarti, Japan-Kawasaki Steel Corporation, April 15, 1960, Japan-Kawasaki (3) Project Folder # 1878772, WB Archives.

³⁶ Vide Letter, Kosuke Okada, Executive Director, Kawasaki Steel Corporation to Mr. Martin M. Rosen, World Bank, December 21, 1959 outlining what they have done to get foreign funds. Japan-Kawasaki (3) Project Folder # 1878772, WB Archives.

joint market operation with longer-term investment funds. Upon receipt of this comment, Kawasaki appointed early 1960 First Boston as their banker for the private placement of their debentures for an amount up to US\$5 million. They also obtained agreement from the Hanover Bank for a 5-year loan of US\$2 million to any debentures they would sell. Because of political uncertainties developing then in Japan surrounding the ratification of the US–Japan Security Treaty, Kawasaki faced difficulty to obtain firm commitment from the investors. In order to encourage the investors to stay in, WB offered US\$6 million loan with the long term funds raised in the market amounting to US\$4 million.³⁷ This joint operation was the first one of WB operations with private placement without SEC registration.

Two reports on the six Japanese steel companies' projects dated April 6, 1964 and February 10, 1967 well capture the serious problem of the over-capacity of the steel industry, and each company's financial problems that started in 1962. The issues are discussed as the steel sector problems in the main text.

The Second Sumitomo Metal Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$7.0 million lent to Sumitomo Metal (Joint operation with private placement in New York through Kidder Peabody & Company of US\$5.8 million of 7.5% 14-year notes, guaranteed by Sumitomo Bank)
4. Date of Loan: 12/20/1960
5. Terms of Loan: 15 years
6. Interest Rate: 5–3/4%
7. Project Description: The project was part of a plan for the modernization and expansion of Sumitomo's production facilities during the period, April 1961–March 1963, to increase its annual productive capacity for pipes and tubes from 398,600 tons to 518,600 tons and for hoop, strip and plate from 216,000 tons to 600,000 tons at plants in Wakayama. The project included the construction of an 80" semi-continuous combined hot strip and plate mill, a medium size electric resistance welded pipe mill and the expansion of blooming facilities and power, water and transportation services. The entire expansion program would cost about \$128 million. The total cost of the WB financed project was estimated at \$47.3 million including \$ 10 million in foreign exchange for imports. The loan of \$7.0 million would cover most of imported equipment and about 15% of the total cost of the WB financed project.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, the Guarantee Agreement between Japan and WB, and a Subsidiary Loan Agreement between JDB and Sumitomo. The Subsidiary Loan Agreement included relending terms, the

³⁷ Vide Memorandum, SLC/O/60-29, Department of Operations Far East to Staff Loan Committee, Japan-Kawasaki's Loan Application, July 8, 1960, Japan-Kawasaki (3) Project Folder # 1878772, WB Archives.

limitation of Sumitomo's additional indebtedness keeping debt/equity ratio less than 60/40 before March 31, 1963 or 55/45 after thereafter, and the requirement by Sumitomo to maintain a current ration of at least 1.5 : 1. The Guarantee Agreement was in the form similar to previous Agreement with Japan.

9. Justification: The project was part of a substantial expansion and modernization of the Japanese steel industry in order to keep pace with the country's fast growing demand for steel. The project which would modernize and expand Sumitomo's pipe making facilities was needed to meet the increasing demand in such products. The new rolling facilities would furnish the company a supply of strip and plates used for pipe manufacturing. This was the second WB loan to Sumitomo, the first loan of \$33 million made in July 1958 for the construction of a blast furnace and a blooming mill at Wakayama plant.
10. Procurement: Procurement of the imported goods was done by international bidding.

Notes:

Please see the Notes under Kawasaki Steel Project as above. Sumitomo's case was similar to Kawasaki's.

Second Kyushu (Shinkokura) Electric Power Project

1. Borrower: Japan Development Bank (JDB)
2. Guarantor: Government of Japan
3. Loan Amount: US\$12 million lent to Kyushu Power Company (Kyushu)
4. Date of Loan: 03/16/1961
5. Terms of Loan: 20 years
6. Interest Rate: 5-3/4%
7. Project Description: The project was part of Kyushu's expansion program estimated to cost about US\$390 million for the period from April 1960 through March 1965 designed to add 1,007 Mw to Kyushu's then installed generating capacity of 1,958 Mw, with the necessary transmission and distribution facilities. Of this additional capacity of 636 Mw, or about two-thirds, would be thermal and the remainder hydroelectric. The project consisted of the construction of the first stage of Shinkokura thermal power plant at Kokura in northern Kyushu, with an installed capacity of 156 Mw, with a boiler designed to use the low-grade coal available in Kyushu. The project was estimated to cost about US\$27.7 million of which about US\$1.6 million being foreign exchange cost. The loan would cover about 57% of the total cost incurred after March 1960.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JDB, and the Guarantee Agreement between Japan and WB. JDB entered into a Subsidiary Loan Agreement with Kyushu corresponding in substance to the terms of the WB's Loan Agreement and the agreements included relending terms, the limitation of Kyushu's consolidated indebtedness not exceeding twice its consolidated capital and surplus. The Guarantee Agreement

conforms with to the normal pattern of the WB's guarantee agreements, and it included the provision that the government covenanted to maintain electricity rates at such level as would allow Kyushu to finance adequate to meet power requirements in its area and to authorize Kyushu to raise in Japanese markets such amounts of local currency reasonably require.

9. Justification: The Kyushu's demand forecasts based on the production estimates of major industrial consumers, railroad electrification and other known developments, assumed an annual increase of 8% from 1960 to 1965. These forecasts were considered reasonable. The project was designed to meet part of demand forecasts.
10. Procurement: Purchases were made on a negotiated basis with Japanese manufacturers and WB was satisfied with prices of procured equipment.

Notes:

This loan was one of the worst WB had made to Japan. Probably it was done for political reasons. The project history is noteworthy.³⁸ In November 1957, after Black's visit to Japan when the original list of projects were given, three additional projects were presented to the WB, namely, Yawata and Fuji steel projects and the Kyushu Power project. When Kyushu tried to get in touch with the appraisal team in Japan in December 1957, as the mission was too busy to see Kyushu who wanted to explain the project details. Around that time there was the problem of the rate policy. In fact, when the Kansai hydroelectric project was made in June 1958, the Government said that it recognized the need for a new basis for calculating power rates, that it had appointed a special committee to study the problem and that it hoped to take the first step towards increasing the level of revenues of power company within fiscal 1959. This position was confirmed by the government on December 1, 1958 in connection with a loan to the Miboro power project. At the annual meeting in October 1958, the Japanese delegation renewed their request for a loan for Kyushu. WB discussed with JDB and Kyushu the ways to prepare a power project in end 1958. Kyushu's information was received by WB and analyzed by staff of Technical Department (TOD) in January 1959 to conclude that the hydroelectric project did not have high enough return worthy of WB's financial support. TOD rejected the hydroelectric project and moreover if Kyushu goes ahead with the hydroelectric project, WB should not finance any other project, say, even a thermal project if suggested by Khushu. The Department of Operations (Area) disagreed with TOD's negative stand and the matter went up to a Vice president who took the side with the Area. In February 1960, the Government announced the new rate regulations permitting power companies to finance their expansion programs on a sounder basis. In March 1960, Kyushu proposed WB with another thermal project, Shinkokura (156,250 Kw), which was already under construction (40% complete). The Kyushu and WB teams argued cost of electricity and cost estimates of the project. After finding acceptable cost of electricity and project cost, an appraisal mission was finally sent to

³⁸ Vide Memorandum, N. K. Chakaravarti to Mr. Martin M. Rosen, Japan-Kyushu Power Project II, June 9, 1960, Japan-Kyushu Power Project (02) Folder # 1878813, WB Archives.

Kyushu in July/August 1960. The mission reported the project acceptable for a WB loan. The only problem concerned non-competitive procurement by Kyushu but this issue was waived by WB for exceptional case and thus the real remaining problem was financial as Kyushu's financial position was worst among four other power companies financed by WB because of the power rate system affecting negatively against debt/equity ratio and revaluation reserve to share capital. In January 1961, the Government finally sent a message to WB that Kyushu rates were allowed to increase 10.8% early February and the Government and Kyushu were invited for negotiations. After the receipt of telex from MOF on an actual rate increase by 10.5%, instead of 10.8%, on March 7, 1961, the project was sent to the Board in March 1961.

The Japanese National Railways New Tokaido Line Project

1. Borrower: Japanese National Railways (JNR)
2. Guarantor: Government of Japan
3. Loan Amount: US\$80 million (concurrent with an issue of Nippon Telegraph and Telephone Public Corporation, 15-year bonds amounting to \$15 million and 3-, 4- and 5-year bonds amounting to \$5 million, guaranteed by Government of Japan, in the NY market)
4. Date of Loan: 05/02/1961
5. Terms of Loan: 20 years
6. Interest Rate: 5-3/4%
7. Project Description: The project included the construction and equipping of a new double track, standard gauge, electric railway line, called the New Tokaido Line (Shinkansen), which would traverse the industrial heart of Japan and would connect five of the six largest cities, Tokyo, Yokohama, Nagoya, Kyoto and Osaka. It would supplement the existing narrow gauge railway line serving the area. Construction work started in fiscal 1959/60 to become operational in mid-1964 at an estimated cost of US\$548 million. The loan would cover about 15% of the total cost of the project.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and JNR, and the Guarantee Agreement between Japan and WB. The Loan Agreement provided that JNR would give priority to the project in its construction program. The Guarantee Agreement conformed with to the normal pattern of the WB's guarantee agreements, and included an undertaking by the Government to make arrangements for funds sufficient for the completion of the project.
9. Justification: The affected area by the project was one of the most densely populated and heavily industrialized areas in Japan. The existing narrow gauge line, connecting all large cities in Japan was utilized to its full capacity and the project would relieve the existing line from long distance passenger traffic and therefore improve its freight-carrying capacity. The competitive position of the railway for passenger traffic would be improved by the project.
10. Procurement: International competitive bidding was used for major contracts for the first time by

JNR. Major contracts were defined as ones for the construction of steel bridges amounting to ¥200 million, for other construction works amounting to ¥500 million and for rolling stock including motive power amounting to ¥400 million.

Notes:

WB's initial impression of a New Tokaido Line (Shinkansen) project was lukewarm. From early 1959, JNR tried to convince WB that the Shinkansen project was a project worthy of WB's support and a couple of times JNR dispatched its senior staff to WB to explain the concept of the project. According to the memorandum of WB, JNR mission was in Washington to present some facts and figures of JNR and to have an informal discussion with WB staff with a view to discussing the suitability of the project for a future loan. WB was quite clear in saying to JNR that the project was not in the lending program requested by the government for 1957–60 and that the question of additional lending for Japan would be a subject for discussion between WB and the Japanese delegation during the annual meeting in September 1959.³⁹ Informal discussions continued and led to the understanding of potential problems if the project were to be supported by a WB loan. They were essentially poor financial position of JNR in the form of operating losses for the years 1960–63, a low rate of return to total assets of 1% and a negative interest coverage. As for the proposed Shinkansen, its financial forecasts indicated very satisfactory results. On technical and operational problems, major questions were on the extent of the utilization of the existing line, the feasibility of proposed 250 km/hour for passenger trains and the connectivity between the application of a new gauge, standard, and the existing narrow gauge system of the whole remaining railway system. After the annual meeting in September 1959, internal discussions on the lending program and particularly discussions WB had with a visiting JNR team in January 1960, WB position on the project became more positive than before.⁴⁰ According to the memorandum dated January 15, 1960 summarizing the discussion between WB and JNR, its conclusions were: (1) The technical experts of JNR are highly qualified; (2) JNR plans to proceed with caution and will carry out extensive trial runs before deciding on maximum speed of trains, 250 km/hour; (3) Construction of the permanent way will be in accordance with conventional practice; (4) Additional cost resulting from the planned high speed will be very limited; (5) the rolling stock for passengers will be to a large extent along conventional lines and waste of investment would be minimized in case trials would prove that the planned maximum speed of 200 km/hour could not be achieved in the near future; (6) The initial investment for rolling stock for freight transport will be very limited and amount to only 5% of the total investment; and, (7) The new Tokaido Line project would to a certain extent be

³⁹ Memorandum, N. K. Charkravarti to Files, Japan-Railway Project, July 14, 1959, Japan-New Tokaido Line Project Folder # 1878831, WB Archives.

⁴⁰ In the letter to the Minister of Finance, WB indicated that technical staff of WB learned a lot from JNR mission's presentation of operational and developmental problems of JNR and the thorough documentation of Shinkansen project. Letter, Martin M. Rosen, Director, Department of Operations-Far East to His Excellency, Mr. Eisaku Sato, the Minister of Finance, January 14, 1960 and Memorandum, H. J. van Helden to Mr. S. Aldewereld, Discussions with Representatives of Japanese Railways, January 15, 1960, Japan-New Tokaido Line Project Folder # 1878831, WB Archives.

of an experimental nature, although this has been reduced considerably because of the reduction of the maximum speed from the initially planned 250 km/hour to the 200 km/hour. The project was finally appraised in May/June 1960 and its appraisal report was completed in January 1961.

Concerning the issues on the need of the Government to try the private capital market and weak financial outlook of the whole JNR, WB was firm on the first and flexible on the second. On the first, WB did offer a joint operation with a loan for the Shinkansen project, the government did not go for the private market in the form of a joint operation. Japan wished to obtain a \$100 million from WB for the Shinkansen project and at the same time, the Government wanted to sell \$15–20 million bonds for the Nippon Telephone & Telegram Public Corporation, a government corporation through Dillon, Read & Co., Inc., First Boston and Smith, Burney & Co. with the guarantee of the Government. However because of political disturbance in Japan, WB was doubtful if the bonds selling would be successful at yields acceptable to Japan even with the assistance of a simultaneous WB lending. WB was therefore prepared to go head with the processing of the proposed loan amounting to \$80 million if the \$20 million issue would be successful and the amount of the loan would be determined if the issue, unsuccessful. On the second, WB's management supported the proposed loan because of the high productivity of the project itself (Shinkansen), the efficient technical and financial management of JNR, and the very conservative presentation of financial presentations. This implied that WB was not planning to have financial covenant attached to the loan in order to improve the financial position of JNR.⁴¹

This loan was eventually made concurrently with an issue of bonds in New York by Nippon Telegraph and Telephone. After giving preliminary approval to the WB's loan, the underwriters filed a registration statement on April 10, 1961, with the Security and Exchange Commission for a public issue of US\$15 million, consisting of three, four and five year bonds amounting to US\$5 million and 15-year bonds amounting to US\$10 million. The public offering was made on May 2, 1961. Although WB's President Report mentions the amount of bonds being \$15 million consisting of, three, four, five-year bonds amounting in total to \$5 million and fifteen-year bonds amounting to \$10 million, the letter from Dillon, Read & Co., Inc. dated May 2, 1961 indicated the same for five-year bonds amounting to \$5 million, but for fifteen-year bonds amount as \$15 million instead of President Report's \$10 million.

The project completed on time with high quality works from all aspects of the project and the new rail service between Tokyo and Osaka started on October 1, 1964. According to the various supervision mission reports,⁴² during execution of the project, there were three sets of problems. One concerned railway construction including cost increase and technical operational details of the new line.

⁴¹ Memorandum, SLC/O/61-2, Department of Operations Far East to Staff Loan Committee, Japan-Loan Application for New Tokaido Line Railway Project, January 3, 1961 and Memorandum, SLC/M/61-1, Staff Loan Committee, Minutes of Staff Loan Committee held on Thursday, January 5, 1961, January 12, 1961, Japan-New Tokaido Line Project Folder # 1878831, WB Archives.

⁴² End-Use Report, G. Lubbeke, Japan-Japanese National Railways, the New Tokaido Line Project, April 7, 1964, Japan-New Tokaido Line Project Folder # 1878833; Supervision Full Report, G. Lubbeke and Frank Chapman, Japan-Japanese National railways, the New Tokaido Line Project, April 1, 1966; and, Supervision Full Report, G. Lubbeke, Japan-Japanese National Railways, the New Tokaido Line Project, July 7, 1967, Japan-New Tokaido Line Project Folder # 1878834.

According to the last supervision Mission's report dated July 7, 1967, the original cost estimate for the New Tokaido Line project in 1960 amounted to \$548 million and the actual cost as at October 1, 1964, when the train operations began, \$1,055 million, an increase of about 93%. The extent of cost increases looked unusually high. The increases were due mainly to cost of right of way, the changes in alignment on request of local governments, additional works including elevated tracks and over as well as underpasses and widening of tunnels and bridges and increased labor cost. On train operations, initial travelling time between Tokyo and Osaka was 4 hours; from November 1965, travelling time superexpress trains became 3 hours 10 minutes. During the first full year of operations, the traffic in 1965/66 was 10.7 billion passenger-km and same in 1966/67, 14.5 billion passenger-km, 6% less than the forecast made in 1960. On freight operations, JNR was not going to offer freight service, as it was more economic to handle containerized freight at high speed on the old line utilizing train paths made available by the shift of passenger traffic to the new line. The second concerns international bidding on procurement and JNR experiences were detailed in the main text. The third concerned the financial problems of JNR as a whole. While Shinkansen was expected to be highly profitable, JNR's total financial position was deteriorating since 1964/65: operating ratio after depreciation but before interest was 109 in 1965/67 (Actual), 98 in 1966/67 (Preliminary) with some passenger fare increase in 1966, 103 in 1967/68, 110 in 1968/69, and 124 in 1969/70 (all forecasted). The report stated clearly that the situation was very unsatisfactory and that the government decision was necessary to improve the situation.

Nihon Road Kodan Kobe-Nagoya Expressway Second Project

1. Borrower: Nihon Doro Kodan (Japan Highway Public Corporation (Kodan))
2. Guarantor: Government of Japan
3. Loan Amount: US\$40 million
4. Date of Loan: 11/29/1961
5. Terms of Loan: 23 years
6. Interest Rate: 5–3/4%
7. Project Description: The project was for the expressway construction of 111 km four lane, divided, limited access expressway from Ichinomiya–Ritto (104 km) & Amagasaki–Nishinomiya (7 km). It followed the first expressway project to complete the connection between Kobe and Nagoya. The project included the construction of service areas, bus-stops, and inter-changes and also buildings and other permanent facilities for the maintenance and operation of this expressway after its completion. It would take four years to complete the project. Its total cost was estimated at about US\$212 million and the WB's loan would provide about 19% of the expenditures incurred since April 1, 1960.
8. Legal Instruments and Legal Authority: The legal instruments were the Loan Agreement between WB and Nihon Doro Kodan (Kodan), and the Guarantee Agreement between WB and Japan. The Loan Agreement provided that Kodan would employ suitable consultants to get advice on design,

location and other related questions on the expressway and on soil problems, construction specification and construction procedures. The Guarantee Agreement conformed with the normal pattern of the WB's guarantee agreements, and included the provision on the Government's furnishing with funds sufficient for the construction of the project and its maintenance. Also the Government was to secure the cooperation of local governments for the construction and maintenance of access roads connecting the expressway with surrounding local communities.

9. Justification: The affected area by the project was one of the most densely populated and heavily industrialized areas in Japan. The existing roads were of low standards and congested. The new expressway would lead to decrease in travel time and in transport costs, and to a spreading of population and industry. The road user savings alone would represent an economic return of some 10–15% annually from the start of operation.
10. Procurement: International competitive bidding was used following the first expressway project. Foreign contractors with experience in expressway construction were invited to bid for all major works of the project.

Notes:

The first expressway project of which a loan of \$40 million was approved in March 1960 was linking Kobe–Osaka with Kyoto. Its work was proceeding as originally planned. The Government requested WB to make a second loan of \$40 million to Kodan to complete the Kobe–Nagoya expressway. Because of the experiences of WB and Kodan having prepared the first expressway project, the process of the preparation of the second went smoothly. According to the last supervision report on the project dated March 19, 1965,⁴³ the expressway sections were opened to traffic some six months later than anticipated, the last section in September 1964. Traffic volumes and toll revenues were slightly lower than the forecast because more passenger cars diverted to expressway than forecast, and the resulting decreased congestion on existing roads encouraged truckers to remain on the old roads. Apparently, the long distance truckers had not yet adjusted to the new mode of transport, expressways with tolls.

This loan became the last loan to Japan except a small scale lending for joint operations which would make possible private companies' access to the market. On international bidding of construction works financed by the loan, please see the relevant section in the main text.

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