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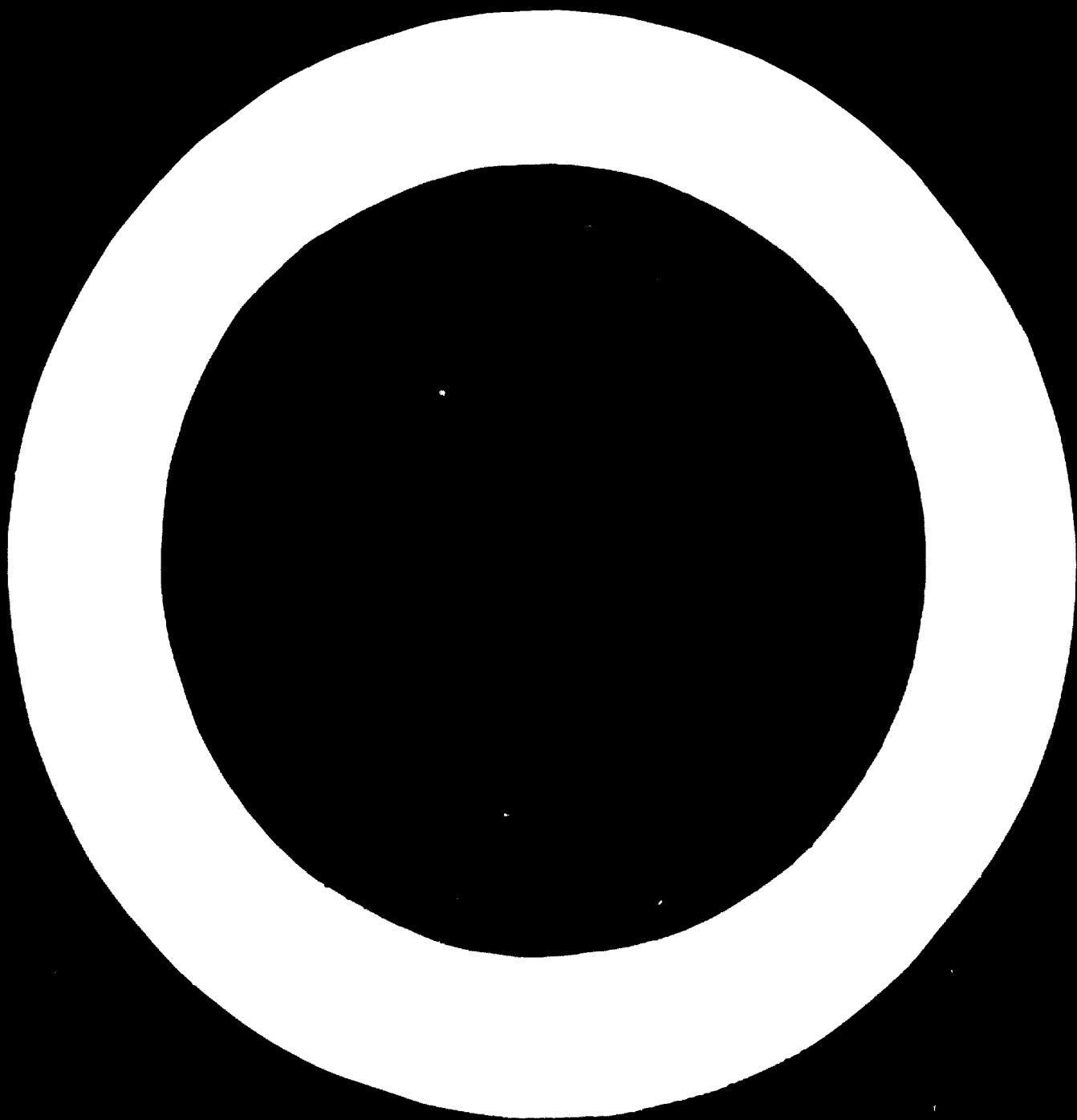
Training Workshop on Industrial
Banking Techniques

Vienna, 2 - 28 November 1970

THE INDUSTRIAL BANK OF JAPAN, LIMITED^{1/}

1/ This material has been prepared as a background paper for the Workshop on the basis of information supplied by the Deputy Manager of the Industrial Finance Seminar Division, The Industrial Bank of Japan Limited, Mr. Masafumi Kohn. The aim is to present factual information describing Japan's industrial financing with particular reference to loan appraisal and follow-up control of loans, as a basis for discussion. The views and opinions expressed in this paper are based on the author's original paper and do not necessarily reflect the views of the secretariat of UNIDO. This document has been reproduced without formal editing.

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We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.

First, let me extend my congratulations on the first Industrial Banking Techniques Workshop, sponsored by the United Nations Industrial Development Organization.

It is a great pleasure and honour for me to be awarded this opportunity to speak to you, engaged in industrial financing in different parts of the world.

I am expected to speak on two themes today: loan appraisal and follow-up control of loans. I would like, however, to treat it in a wider spectrum, and include in my talk background on the Japanese economy - an outline of the financial system, and follow this with the basic thinking and actual conditions of industrial financing in Japan, focusing on the history and experience undergone by the Industrial Bank of Japan.

As many of you are aware, Japan is surrounded by sea on all four sides and is made up of small islands where as many as 100 million people live. Natural resources are practically nil, and over 90% of the major raw materials necessary for industrial production must be imported.

In other words, Japan is conditioned by economic factors. She must first import the raw materials and supply the domestic market. Also, in order to earn the foreign exchange necessary for import, she must export. Furthermore, because ships are necessary for the import of raw materials and for the export of her products, Japan is also founded on maritime shipping. For 100 million people to establish a viable economy on a few small islands without much in the way of natural resources, widespread education and modernized agriculture must be promoted. The surplus labour force created by these measures must be directed towards the industrial sector. The industrial structure at the same time must be shifted from light industry to heavy industry through the development of appropriate labour skills and technical improvements to raise the rate of economic growth.

Japan's postwar economic growth was quite rapid. For example, real growth rate between 1957 and 1966 was 10.2% per annum and 11.3% per annum during 1960-1970. In the past two or three years, the economy has been growing at the rate of 13-14%. One motive force of such high growth has been the capital investment made by private industrial corporations. Supported by the long period of business upswing, the rate of equipment investment is maintaining a high level of 20-30% per annum. As a result, Japanese corporations have been making capital investment in an amount far exceeding what they could raise through profits. On the other hand, the public's propensity to save is very strong,

its savings ratio is one of the highest in the world. Take 1967, for example. While the savings ratio of the U.S. and U.K. was 7%, and of Western Germany 17%, that of Japan was 20.4%. In 1969 it was even higher at 20.2%. These savings are for the most part made in the form of deposits with the financial institutions. These deposits are an important source of funds for the capital investment of corporations. Financial institutions as an intermediary play an important role. Of course, we also have the stock market and the bond market, and their scale of operations is quite substantive. The size of the Japanese stock market ranks next to the U.S. in terms of total amount of new issues of corporate shares. The bond market is third in size next to the U.S. and the U.K. in terms of the total amount of the new bond issues. The weight of borrowings of industrial equipment funds from the financial institutions is overwhelmingly high, and this trend is becoming increasingly marked in recent years due to the expanding tendency of both the absolute amount and the unit amount of the capital investment in Japan. The share of equipment funds raised through stocks and bonds and that borrowed from financial institutions was 35 and 65, respectively, for the period between 1956-1964. The ratio after 1967 is 18 to 82, so one can see that the weight of borrowings is increasing.

A quite unique financial system was developed in Japan to meet the national requirement of supplying long-term stable funds to meet the strong demand of industry. Today, the major financial institutions providing funds to industrial corporations are the long-term credit banks, city banks, trust banks, life insurance corporations and government financial institutions. The largest supplier among these are the long-term credit banks. The Industrial Bank of Japan is one of the long-term credit banks. It was established in 1902 as a semi-governmental special bank based on the Industrial Bank of Japan Law. The creation of IBJ was part of the industrialization policy taken to promote Japan's modernization. Since its establishment, IBJ has catered to the financial needs of Japanese industry.

The present Long Term Credit Bank Law was modelled after the IBJ Law, and it was enacted in 1952. Currently there are three long-term credit banks in Japan including IBJ. The other two were established after 1953. The amount outstanding of these three long-term credit banks at the end of 1969 was U. S. \$11.2 billion and 31.4% of this amount was allocated for equipment funds. These loans outstanding of the three long-term credit banks account for 49.1% of the equipment loans outstanding of all banks in Japan. The average length

of IRJ's long-term loans is seven years, the longest fifteen years, and repayment is ordinarily made in instalments.

By Law, the long-term credit banks are permitted to issue bank debentures up to 20 times the amount of their capital and reserves. At this moment, five year coupon debentures and one year discount debentures are being issued. The five year coupon debentures are mainly subscribed by the city banks, local banks and other financial institutions, while the one year discount debentures are subscribed by the public at large. The current terms and conditions of these debentures are as follows:

5 year coupon debenture: 7.5% p.a. under par 99.5%, yield 7.638% p.a.

1 year discount debenture: discount rate 94.15%, yield 6.213% p.a.

The financial system in which stable long-term funds procured through the issuance of bank debentures are supplied to industry for equipment investment has the following advantages:

1. The city banks which accept deposits from the public and supply mainly short-term operating funds to industry. Such city banks need not risk the freezing of their funds for long-term loans and can maintain their liquidity through subscription to the long-term credit banks' debentures which are negotiable and cashable at any time. These can also serve as collateral in case of necessary borrowing from the Bank of Japan.
2. At the same time, the short-term savings accepted by the city banks can be transformed into long-term stable funds through the purchase of bank debentures by the city banks.
3. Through strict credit analysis and screening of corporations made by the long-term credit banks, effective allocation of capital investment funds can be made to enterprises with bright prospects.
4. The long-term credit banks can advance industrial loans in line with government policies to reduce direct fiscal investment and alleviate fiscal inflation.

As a specialized long-term financial institution providing industrial funds, we have been placing emphasis on the following two points.

Firstly, the acquisition and development of a capable staff. It is quite often said that in any business, personnel is most essential.

Especially in long-term industrial financing, staff members who are sincere and who have ability and good judgement are indispensable. We have been making every effort to acquire a complement of staff with broad outlook and wide range of knowledge that will enable formation of judgements in a proper perspective. For this purpose, besides training programmes both within and outside the bank, we have overseas training programmes. Over 200 employees are dispatched to government ministries, government financial institutions, private corporations, international financial institutions under certain rotating terms. In this way we are trying to extend our vision by accumulating useful knowledge and experience.

Secondly, we are making every effort to perfect our corporate analysis and industrial research. In other words, thorough analysis on the following points will be made. The corporation's character and quality, the trend of the industry to which it belongs, its constitution and earning power, a close examination of the project plan, the long range prospects for the corporation's growth potential, and its repayment ability of loans based on its earnings.

Corporations, like ourselves, sometimes fall ill, or suffer from injuries. The case may be mild but sometimes serious when a surgical operation or hospitalization may be required. We have to diagnose the patient as a living organism. The cure should be dynamic and in long range should restore the patient to vigorous activity.

Now I would like to present the basic line of thinking and operational methods followed in dealing with long-term equipment financing.

When the applicant for an I&J long-term equipment loan submits a loan application form to an officer in its loan department, the officer will first examine the contents of the application, the credit standing of the applying corporation, current bank transactions, outline of the corporation's business situation, the plan of the project for which the funds are required. These points will be given preliminary examination. If the loan department finds the application in order and worthy of consideration, a formal acceptance of application will be given, and the loan department will request the Credit Investigation Department to examine the project and make a credit analysis of the corporation. Credit analysis made by the Credit Investigation Department usually takes about a month, and the following points will be given top emphasis :

- 1) The quality, future prospect, and growth potential of the corporation, and its value and significance in the national economy.
- 2) The character and ability of the management of the corporation.
- 3) Earning power and repayment capacity.
- 4) Borrowing and other financial capacity (equipment as well as operating funds).

The importance of the above mentioned points hardly needs further elaboration. Under the free enterprising and rapidly expanding economy, where technological innovations and price competition are vigorous, the question of how to evaluate growth potential and its relative place in the national economy are important elements requiring careful judgement. The ability and reliability of the management responsible for the corporation's activities are, of course, very important. It is important to examine an enterprise as an organic whole, with all parts vitally interrelated. An oriental proverb says, "If you pay too much attention to a tree you may forget the forest," i.e. we must never lose sight of the larger and fundamental issue. According to another oriental proverb, "if a single leaf falls, you have to recognize that autumn has already come."

As a financial institution, which must protect the interests of the public and operate long-term industrial financing, it is quite natural for the bank to be concerned about repayment ability. However, as you are aware, any long-term borrowing made for equipment expansion assumes continuation and development of the corporation, and so then the earnings and depreciation are the only sources of repayment. From this standpoint, the estimation of the corporation's future earning power and repayment capacity is extremely important. As to the financial capacity (i.e. the capacity of raising necessary funds through borrowings from financial institutions) when economic growth is achieved through active demand for equipment investment, which is the pattern of the postwar Japanese economy, the money market is constantly under tight restraint. Due to sudden expansion of the economy, imports will increase, and the balance of payments will be reversed. In such a case, the government has to withhold imports and enforce a tightened fiscal and financial policy. Since Japanese corporations have very little internal reserve funds, and because almost all available funds are already allocated for equipment expansion, an abrupt tightening of financial measures will result in exhaustion of funds and produce serious drawbacks in the proper functioning of a corporation. In such a case, in order to make payments

for projects already under construction and in order to raise operating funds necessary for the purchase of raw materials, the corporation will request the banks to supply the necessary financial assistance. In such a situation, however, most corporations have similar difficulties, and the banks on their part are limited in their borrowings from the Bank of Japan, the Central Bank. As how to distribute the limited funds and who should receive a loan and for how much will be a very difficult question. The deciding factor in this case will be the closeness with which past relationship has been maintained between the bank and the corporation. So, as a long-term financial institution, we are always deeply interested in the client's accessibility to the commercial banks' operating funds. We must examine and confirm that accessibility. A corporation which has a bright future and has made proper equipment investment may fall in financial difficulties as a result of an abrupt shift to tight money and the consequent shortage of operating funds. We have always given our clients guidance to avoid falling into such difficulties.

Another factor must be remembered when examining the Japanese economy. When economic growth rate is as high as over 10% in real terms, the growth of corporations is accompanied by an equally persistent rise of commodity prices, a rise of about 4 to 5% p.a. in consumer prices. In such a condition, a static evaluation of assets will no longer represent the actual worth of the corporation. As a long-term lending institution, to obtain adequate collateral is indeed important. However, for loans of 5 years or more any collateral must be revalued periodically because of the lapse of time which will make the old appraisal unrealistic. Even if we make frequent appraisals, excepting land, collateral value under an inflationary economy has certain inherent limitations. When the corporation's growth is very rapid, or technical innovations frequent, the rate of depreciation will be accelerated. As a result, to rely heavily on collateral security should be regarded as rather risky. We do not deny the importance of collateral, nor do we entirely depend on it. Instead, we place higher importance upon the qualities of the corporation, its growth potential, its management capability, earning power and repayment ability. These factors determine the corporation's future possibilities which are more important.

This principle is equally applicable to the way of thinking on financial ratios when analysing the corporation's financial statement.

It is often said that a debt ratio of over 100% or a current ratio of under 200% are not desirable; such standards are not applicable to corporations with high growth. To apply such static ratios to a dynamically active corporation is often inappropriate and meaningless. I would like to introduce part of our approach to financial analysis.

According to the IBJ survey of 457 major corporations, the ratio of net worth to liabilities in 1969 was 19% - another way of saying this is that the debt ratio exceeded 400% (426%) which is far beyond the above mentioned desirable standard.

However, in such a case, we do not worry about the ratio itself, instead we worry about the absolute amount of the debt.

Under the rapidly growing economy, by continuously spending quite a huge amount of capital on expansion every year, corporations feel that the weak debt ratio is inevitable although it may not be desirable. This is why they are in need of long-term stable funds. As before mentioned, long-term loans for equipment funds are expected to be repayed through earnings (including depreciation). While the repayment of such long-term borrowings is properly made, the new plant and equipment will become part of the fixed assets and its depreciation equivalent amount together with its profit will be added to the capital account. In other words, equipment purchased by borrowed capital becomes part of the self-capital. Therefore, to extend a long-term equipment loan is really equivalent to making an advance loan against the corporation's future earnings or is equivalent to lending capital in advance. Since it means that a long term equipment loan is made to a corporation where the future capital is anticipated to increase by the earnings resulting from its newly expanded operation and become the corporation's own assets, the fact that there is a shortage of capital is not a very serious problem. The problem, when the debt ratio is high, may be that the amount itself is too large to make proper repayment with the earnings according to the previously agreed repayment schedule. In other words, a situation may arise where the equipment cannot be acquired by the earnings.

Also we have a few doubts about the traditional analysis of current ratio where payment ability of a corporation is judged by a static ratio taken at a particular date. Current ratio, it is generally said, will be proper if it exceeds 200%. As far as Japanese corporations are concerned, the same IBJ survey, I mentioned earlier revealed that the average current

ratio for 1969 was 106%.

Up until recently, the ratio of current assets to current liabilities was considered to be good if it exceeded 200%. If the ratio was under 200%, the corporation did not qualify for any new credit. The reason was that if the corporation had to be liquidated, the assets would be undervalued and appraised below the book value. The liability, on the other hand, would remain unchanged. So if the current assets to current liabilities were 2 to 1, then even if the current assets were estimated at half the value, it would be enough to meet current liabilities. And because in actual practice, the valuation of liquid assets is seldom made as low as half of the book value, this 200% ratio will provide an additional margin of safety.

The above logic, however, has questionable points. The degree of "safety" maintained by adhering to the above rule may become dubious depending upon the type of industry, the terms and conditions of credit, the rate of turnover, the locality, seasonal fluctuations and other variables.

For example, in a line of business where turnover rate is very fast the current ratio may be lower than 200%. A grocery store may have less credit risk than a furniture manufacturer whose current ratio surpasses 200%. A grocery store where the sales items have a high turnover and widespread demand can dispose of the inventory items without losing their value. Furniture, on the other hand, has a slower turnover rate, the demand less frequent, and is vulnerable to change in trends and tastes. At the time of liquidation, the inventory will be slashed to less than half of its value, and 200% current ratio may still not be safe. Thus one can see from this example that heavy reliance on current ratio is rather dangerous.

Here is an example to show that current ratio does not always reflect the payment ability of a corporation. Let us assume that a corporation has monthly sales of 1 million dollars. Its normal period of trade accounts receivables is one month. Cash settlement is made, i.e., the corporation can receive 1 million dollars of cash every one month after. Let us suppose that due to unforeseen circumstances, this month's expected cash settlement has been delayed by another month, i.e., last month's sale of 1 million has not been received. To restore the normal cash position, this company will borrow 1 million dollars from a financial institution. In this case

A		B	
Current assets	4	Liabilities	7
quick assets (a/c receivables	2 1)	current liab. (a/c payable ?)	4 2)
Fixed assets	6	Fixed Liab.	3
Total	10	Capital a/c	3
		Total	10

Current assets	5	current liab.	5
quick assets (a/c receiv. 1+1	3 2)	a/c payable (short-term borrowing	2 1)
Current ratio is both 100%			

it is quite obvious that we cannot say that the payment ability of this corporation has not changed, even though the current ratio is the same. On the contrary, the liquidation ability has apparently deteriorated. Trade receivables and liabilities both have increased.

In order to make a useful judgement of current liabilities of a going concern on the assumption of the corporation's continued existence, we examine it in comparison with the sales amount and check its turnover period.

Here are two cases. Let us study them.

A Corporation		B Corporation	
Current assets	4	Current assets	9
Fixed assets	6	Liabilities	10
Total	10	Current liab.	7
		a/c payable	4
		borrowing	3
		Fixed assets	5
		Total	15

Both A and B corporations have the same sales amount of 1 million dollars per month. They are both in the same line of business and of the same size. The amount of each one's loan application is 1 million dollars. Under the above mentioned conditions, which company will be preferred by the bank?

Firstly, we calculate the debt and current ratios in the conventional way, and the figures are as follows:

Debt ratio:	A	400%	B > A	} In both cases, B has better ratio than A
	B	200%		
Current ratio:	A	80%	B > A	
	B	128%		

Therefore, it seems to be easier for the bank to lend to B corporation.

However, let us study another simple case. Take two employees of your bank, for example. A and B both earn 1,000 dollars a month and let us say that A has borrowings outstanding of 100 thousand dollars with the Employees Welfare Association, and B has borrowings outstanding of 300 thousand dollars.

If further loan is requested by both A and B, who between the two is more qualified to get an additional loan? Obviously A is more qualified. This is a very normal and common sense choice.

In the above example of two companies, A and B, the question should rise, why should B be more qualified than A for additional credit? Let us examine the question in the common-sense way, the same way we did for the two employees. In case of two corporations, the employees' earnings will correspond to the monthly sales amount, the employees' borrowing will correspond to the corporation's liabilities. If we take into consideration the average period of turnover of the sales under the normal operations, corporation's monthly sales can be regarded as the payment ability of the corporation, and so the comparison between the employee's monthly earning and their borrowing will correspond to the comparison between the corporation's monthly sales and their liabilities. Let us extend our concept further as follows:

$$\begin{aligned} \text{Debt ratio} &= \frac{\text{Liability}}{\text{Capital a/c}} \rightarrow \frac{\text{Liabilities}}{\text{Capital a/c} + \text{Liabilities}} \times \frac{\text{Capital a/c} + \text{Liabilities}}{\text{Monthly Sales Amount}} \\ & \qquad \qquad \qquad \text{(Borrowed capital} \quad \text{(Turnover period of} \\ & \qquad \qquad \qquad \text{ration)} \qquad \qquad \qquad \text{Total Capital Employed)} \\ &= \frac{\text{Liabilities}}{\text{Monthly Sales}} \rightarrow \frac{\text{Liabilities}}{\text{Liability}} \quad \text{(Turnover period of} \\ & \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \text{Liability)} \end{aligned}$$

Calculating above ratio regarding A and B corporations:

$$\begin{aligned} \text{A} &- \frac{\text{Liability } 8}{\text{Capital a/c} + \text{Liabilities } 10} \times \frac{\text{Capital a/c} + \text{Liabilities } 10}{\text{Monthly Sales Amount } 1} = \frac{8}{1} = 8 \\ \text{B} &- \frac{\text{Liability } 10}{\text{Capital a/c} + \text{Liabilities } 15} \times \frac{\text{Capital a/c} + \text{Liabilities } 15}{\text{Monthly Sales Amount } 1} = \frac{10}{1} = 10 \end{aligned}$$

A > B (A is in the better position than B)

The result is different from the static ratio that we obtained earlier. We see here that Corporation A's turnover of liabilities is faster than Corporation B's. Thus Corporation A is more qualified for an additional loan. And this conclusion matches our common sense example of the above mentioned two employees.

In this example, the biggest difference lies in the size of current assets of A and B corporations. We then should note that B corporation has a much larger size of current assets than A corporation has, and larger current assets bring larger liabilities. It is essential for us to examine why B corporation needs larger current assets. There can be several reasons to be examined. For example:

Is the inventory too large? Or are the trade receivables too large? In case the inventory is too large, there may be some problem in the production line, i.e. production and inventory control may be insufficient, or there may be some dead stock, or any dressing or dilution of inventory accounts to produce a false profit, and so forth.

In case the trade receivables are too large, there must be some problem on marketing and sales, i.e. sales agencies may be weak in finance, or the products have poor quality, or there is something wrong with their way of sales, or there have been some bad claims, and so forth.

And in general, the lesser the current assets, the better the financial conditions. Larger current assets will mean larger liabilities and from this point of view one can see that the ratio of current assets to total sales will give us good indication as to whether the absolute amount of current assets is too large or not.

Before going into fixed liabilities, I would like to touch upon our method of analyzing corporation's profit. We firstly take a corporation's profit as the one before tax and draw it back before any adjustment of profit and loss, because most officially announced profit is often adjusted by certain temporary factors like capital gain on sales of assets, valuation loss, or special depreciation and so forth. In other words, most corporations in Japan try to maintain stable dividend payment policy, like 10% p.a. They calculate the amount necessary for the stable dividend payment and try to make it actualize as the management target. When closing the books and preparing the dividend payment statement, they transfer necessary amounts from the reserve to the dividend fund or sell some assets and add the gain on that sale to the dividend fund. If they find too much profit they exercise valuation loss by amortization of inventories and others or make special depreciation in order to adjust the official, announced profit. Therefore, it is quite important to grasp the actual profit and compare and analyze the real performance of the corporation for the particular term.

We compare the actual profit (before tax as well as any adjustment) and the amount of fixed liabilities, and then examine how large the fixed liabilities are. We consider the fixed liabilities repayment terms and the other terms and conditions as well, to examine how many years it would be necessary to repay the entire fixed liabilities in full.

(redemption source)

$$\frac{\text{Actual profit for the term + depreciation}}{\text{repayment obligated fixed liabilities (incl. long term notes payable and a/c payable)}}$$

= necessary period for repayment (how many years it will take to repay).

Since labour shortage and wage-rise is getting more and more serious in Japan, to analyze the trend of the productivity of the particular corporation as well as industry as a whole is very essential, in order to grasp the actual strength of the corporation or the industry. We, therefore, make analysis on the following lines, known as the added value analysis method:

$$\frac{\text{Personnel and labour expenses}^{(1)}}{\text{Number of employees}} = \frac{\text{Added value}}{\text{Number of employees}} \times \frac{\text{Personnel + labour expenses}}{\text{Added value}}$$

228

$$= \frac{\text{Sales}}{\text{Number of employees}} \times \frac{\text{Added value}}{\text{Sales}}$$

$$\times \frac{\text{Personnel + labour exp.}}{\text{Added value}}$$

$$= \frac{\text{Tangible fixed assets}^{(2)}}{\text{Number of employees}} \times \frac{\text{Sales}^{(3)}}{\text{Tangible fixed assets}} \times \frac{\text{Added value}^{(4)}}{\text{Sales}}$$

229 110 287

$$\times \frac{\text{Personnel and Labour expenses}^{(5)}}{\text{Added value}}$$

104

- (1) Wage per employee
- (2) Capital labour ratio
- (3) Turnover ratio of fixed assets.
- (4) Added value ratio
- (5) Labour distribution ratio

The following shows the comparison of the added value ratios between 1959 and 1968 in major Japanese industries, extracted from our "electronic computer's data file". (Refer to the table: Added value analysis - Ratios for major industries).

Upon completion of the credit analysis, the Credit Investigation Department sends forward its credit report to the Loan Department. Then, based on this credit report, the Loan Department makes a decision whether the loan should be given or not. It is our traditional principle, however, that the Loan Department does not have to be bound by the conclusion of the credit report. Loan officers, of course, weigh the conclusion of the credit report and give high regard to any doubtful points that the Credit Investigation Department has pointed out. They carefully examine whether these points in question could be solved or avoided somehow. The Loan Department can decide to give the loan, even if the credit report throws some doubt on the corporation's future.

It is our way of thinking in industrial financing that the Loan Department needs much wider and more constructive considerations and a more flexible and sometimes more independent standpoint in order to decide the long-term loan to the industrial corporations.

When giving a commitment of the loan, the Loan Department also decides the amount of the loan, the terms and conditions, and its disbursement schedule. The disbursement of the loans is mostly made separately, divided in several instalments based on the payment schedule as the construction progresses. (Our current prime rate for 5 to 7 year loan is 8.5% p.a. and varies from 8.5% to 9.5% as the borrowers' credit stance).

In the case of a loan from U.S. or European banks there are often certain financial restrictive clauses usually shown by a particular figure or ratio, like debt restriction, borrowing restrictions and dividend payment restrictions and so forth, which are included in the loan agreement. In Japan, however, we usually do not include such financial restrictions in a loan agreement because figures or ratio based on a static judgement will soon become unrealistic and will deprive the corporation of flexibility in management and eventually obstruct its potential to grow. Instead, we usually insert a clause that if the corporation's management decides any important change on its management policy, they must make a prior consultation with the bank and must get the bank's consent.

As to the guarantor, we request the chief executive officer of the corporation to become joint guarantor of the long-term loan and make clear his responsibility towards the corporation.

When the investment scale is getting larger, as in recent years, it is often difficult for a single bank to supply the full amount of long-term equipment funds needed by a particular corporation. This is so especially in the case of the steel industry, the petrochemical industry, the atomic power industry and the like. Also we have increasing cases of joint projects or industrial combination formed by various lines of industries both domestically and internationally. In these cases many banks, i.e. long-term credit banks, city banks, local banks, trust banks, life insurance, government financial institutions, join to make a participation loan. IBJ very often makes the project analysis and acts as a managing bank to form a joint loan based on our neutral position and many years of experience. IBJ also quite often plays a leading role in initiating a particular new industrial project and later other city banks and local banks join in.

One of the industrial banks' most important key functions is to meet urgent national needs and take the initiative in an emergency or urgent rescue or rehabilitation loans, and to organize joint loans inviting leading city banks in co-operation with the central bank at times of national disasters, financial panic, stock market crisis, collapse of a particular key industry like shipping, which may be damaged by a sudden decline of international freight rates. We also act as co-ordinator in the re-organization of key industries or securities businesses so that they may adjust to worldwide trends. Further, we may provide agency loans to promote regional development and quite often co-operate with the government through policy loans, for example, small business finance, anti-pollution loans etc.

As to the follow-up subsequent to the disbursement of long-term loans, we maintain as close a contact as possible with the client. We trace the construction of the project in progress, and examine any changes from the plan to ascertain whether it is overrun or not. We inspect the plant after completion and in operation. Furthermore, we receive at regular intervals overall reports on the business, its financial and project positions. By checking its cash position, we can know the actual flow of funds.

In order to get a true picture of the clients and their investment plans for the following year, we make semi-annual surveys of 1,100 major corporations in Japan. We call this survey the Equipment Investment Survey and we find it very informative in forecasting the capital investment trends of Japanese industries. We initiated this survey 10 years ago as one form of

follow-up and although it was originally designed to provide us with basic data for estimating capital investment trends of the major clients during the coming year, this survey has become an important national indicator on most outstanding and representative Japanese industries' activities in Japan. This is quite useful and important for its statistical data because the survey covers all major industrial corporations in Japan. It records their equipment investment and profit figures for the previous year and also presents plans and forecasts of their equipment investment and projects for the coming year. This survey will also serve as a helpful guide to long-term industrial financial institutions in formulating their annual lending policy towards the different industries and corporations and their own financing schedule. For reference here is a copy of the survey questionnaire translated into English. There are the following eight items in this questionnaire:

- 1) Disbursement of equipment funds (project and cash basis)
- 2) Breakdown of equipment funds by sources of funds
- 3) Profit and loss before depreciation and other sources
- 4) Foreign capital (introduced and repayed)
- 5) Corporate bonds, capital increase, sales and profit and loss before depreciation
- 6) Breakdown of disbursement of equipment funds by items
- 7) Details of sources of equipment funds
- 8) Borrowing and repayment of equipment funds from IBJ

We analyze the answers to these questionnaires and classify them by line of industry and fiscal year, then summarize it. Since the Japanese fiscal year starts on April 1 and ends on March 31, we make a survey twice a year, every March and September. Further, every June and December we make another survey to follow-up any changes.

I have presented the actual situation and the way of thinking concerning industrial financing in Japan.

In short, anyone engaged in industrial financing must always be conscious of the problems existing in the entire industrial sector and must always try to find the best and most constructive solutions from a long range view.

Now I would like to introduce some of the problems and issues we are currently facing in Japan.

Firstly, the continued high rate of growth has brought the problem of labour shortage and high wages which promises to become even more serious in the future. Under these circumstances, how well can we cope with the rationalization of industrial production, capital investment towards saving man-power and mechanizing as much as possible, and how well can we promote the re-organization of industries, internationalization and the bi-lateral and multi-nationalization trend and international co-operation needs, while there is so much keen competition and diversification.

Especially, smaller industries which are lagging behind in modernization and will receive a more serious blow from labour shortage have a particularly difficult path ahead of them. How can we help them and at the same time how can we find the way to co-operate in the industrialization in the developing countries, i.e. to establish what we call the international division of labour.

As a consequence of rapid expansion in industrial capacity, or as a result of rapid motorization, water and air pollution caused by factory disposal and exhaust gas, have become important national issues to be solved urgently. New facilities investment which is not profitable and becoming a financial burden to eliminate such public nuisances is increasing year by year. How well can we meet these immediate financial needs?

At IBJ, in order to improve our credit analysis and industrial research, electronic computers are being widely used. We have compiled "Data File", on computer tape comprising the financial records and their analysis of 662 major Japanese corporations (which are all listed at the first section of Tokyo Stock Exchange).

By March 1971, all the medium sized corporations (which are all listed on the second section of Tokyo Stock Exchange) will be added to this file, and will make altogether 1,500 corporations. This file gives us more systematic and macroscopic data and makes more solid research possible.

Now, we belong to many government councils and committees and participate and co-operate actively as a key member to cope with the diversification of Japanese industries; and to meet new needs, like internationalization, liberalization and so forth, we have established a leasing company as one of our subsidiaries last December. In May 1970, one of our departments, the Management Research Department, was transformed into a new company. We have also established a new company with the Diebold Group International to provide consulting services in Asia. At the same time, we have made

quite a few equity participations with international institutions, like ICICI in India, PICIC in Pakistan, in Yugoslavia, and so forth.

In promoting economic co-operation with the developing countries, we believe that mutual understanding is of first importance. In 1962 9 years ago, in commemoration of the 60th anniversary of IBJ, we initiated our IBJ Industrial Finance Seminar. Twice a year, we invite senior officers from government institutions, central banks, development banks, commercial banks and other development institutions of developing countries, mainly in Asia and the Middle East. The participants observe conditions in Japan at first hand and at the same time we become mutually acquainted with each other, exchange views and experiences, and they spend time together for a two month period. Since its inception in 1962, this seminar has conducted 15 sessions, participated in by 15 nations, 47 institutions, 84 delegates. The 16th session is now under way. It opened on November 4th and seven delegates from seven countries are taking part.

I shall briefly outline our Industrial Finance Seminar. At the start, Japan's financial system with its long-term credit banking system is introduced. Then MOP, the Bank of Japan, the Export-Import Bank of Japan, the Overseas Economic Co-operation Fund, and other financial institutions are introduced by their own directors and officers, who outline the activity and policies of their respective institutions. These introductions are followed by presentations on the Japanese economy and its planning by the Economic Planning Agency. Next, IBJ's organization, activity and main functions, including long-term lending, raising funds by issuing bank debentures, and by making credit analysis and conducting industrial research are presented in detail. Thereafter, major industries are studied and discussed, focusing mainly on their current problems and possible solutions. During the two month's time, some 20 field studies to factories and industrial estates are included; these trips are quite well received among the delegates. There is also an opportunity for each delegate to describe the economy of his country and his own institutions activity. This serves to enhance mutual understanding among the delegates themselves. We are always trying to improve our seminar, and hope that it will serve to promote international co-operation.

Among the industrial development financing institutions, there is a common issue of "how we can maintain a sound banking policy" in not only the loan making but also in the sources of funds. Toward this we have been

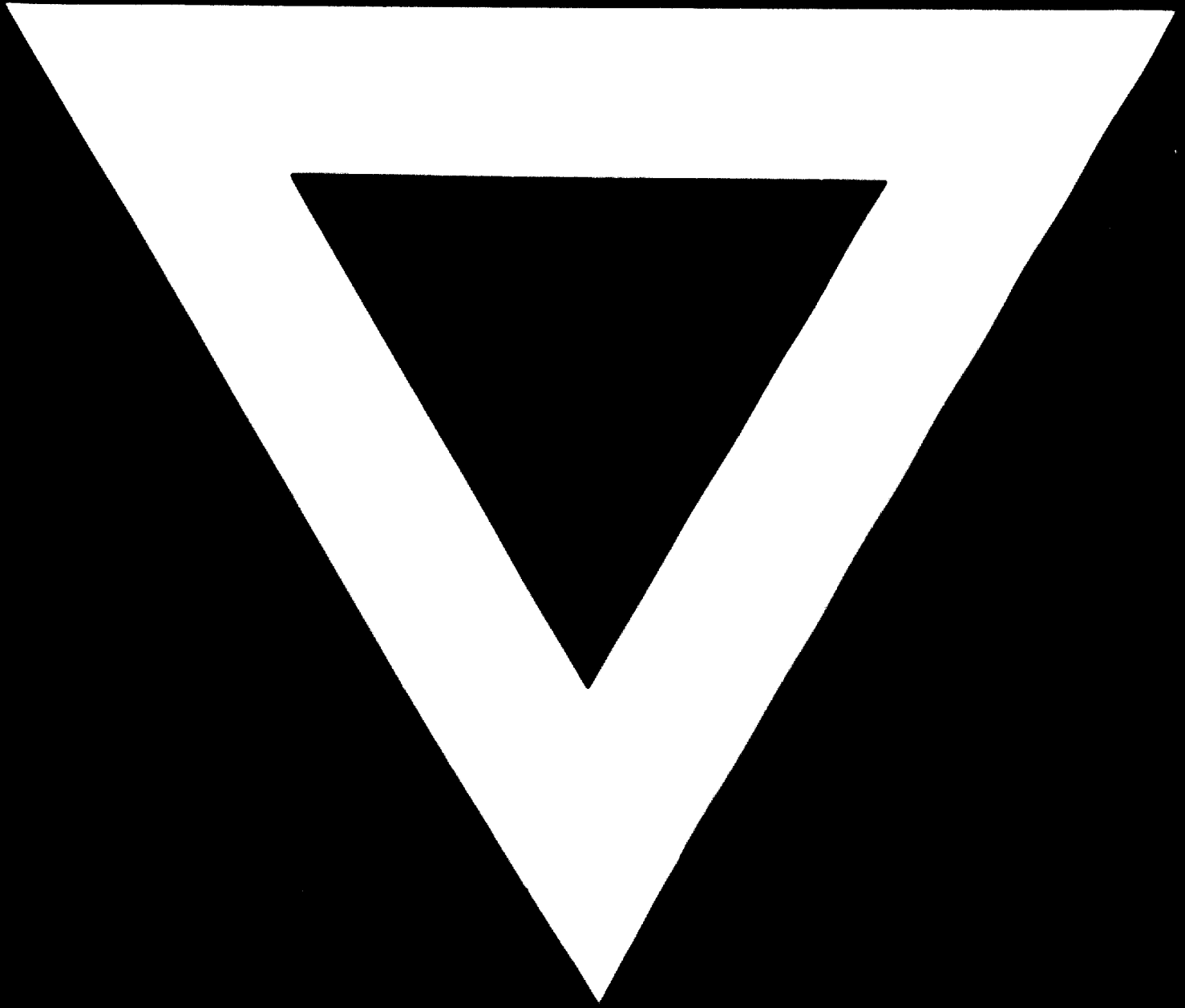
enthusiastically devoting our effort in cultivating staff capability, especially in credit analysis and industrial research areas. Through sound banking we fortify our own physical strength, and, by so doing, we can immediately extend our own credit stance to the necessary areas in time of emergency needs.

We must accurately and promptly detect the needs of a corporation, and industry, or even a nation's economy. This we feel is necessary if we are to fulfil our responsibility as an industrial development financing institution.

In closing, I would like to relate a personal experience. During World War II, I was drafted into the Japanese military service and stationed in Hiroshima in 1945. I was there when the atomic bomb was dropped. Against all odds I was fortunate to survive. Since then, I have deeply felt the irrationality of war and strongly believe that international discord must not be settled by a resort to arms, but must be solved through peaceful talk. I believe that all of us must try to make this a reality and I will always be glad to serve in whatever way possible to promote international understanding.

For this reason it has been one of the greatest joys of my whole life to be given this opportunity to speak to you here at the first workshop on Industrial Banking Techniques of the UNIDO. UNIDO is an organ of the United Nations where mankind places its undying hope for world peace, even today on its 25th anniversary. Thank you very much for your kind attention.





28 . 6 . 71