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FINANCING OF WORKING CAPITAL 1/

1/ This material has been prepared as a background paper for this workshop by UNIDO Consultant, Dr. B Prasad, of the Industrial Development Bank of India. The aim is to present factual information regarding Financing of Working Capital as a basis for discussion of this subject by Participants. The views and opinions expressed in this paper are based on the Consultant's original study and do not necessarily reflect the views of the Secretariat of UNIDO. This document has been reproduced without formal editing.

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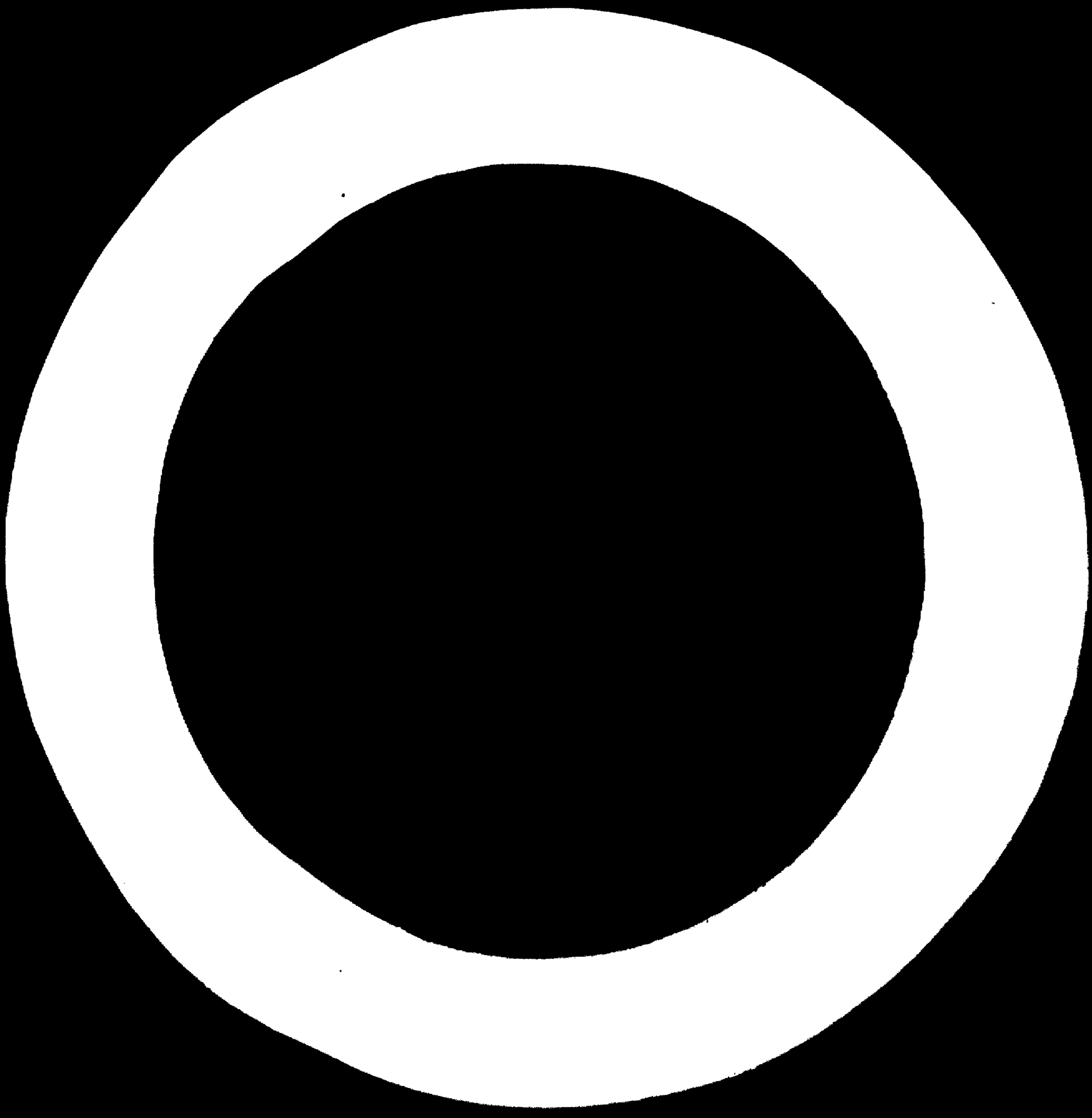

Contents

FINANCING OF WORKING CAPITAL

A developing economy requires not only an increasing amount of investment in fixed assets but also an increasing volume of working capital. Financing of working capital consitutes one of the major problems which industries have to face and the adequacy of short term credit therefore assumes great significance for the growth of production. Complaints have been voiced from time to time by the customers of XYZ Development Bank* about the shortage of working capital in their operations and the lack of interest on the part of commercial banks to come to their aid. This paper attempts to study the problem of finance of working captial in its various aspects and suggests ways to overcome the present difficulties.

The problem of working capital could be discussed conveniently under the following headings:

1. Definition of Working Capital
2. Working Capital Requirements of Established and New Enterprises
3. Measuring Working Capital Requirements and Sources of Financing Working Capital
4. Causes of Shortage of Availability of Working Capital Funds in underdeveloped countries
5. Provisions under XYZ Development Bank Laws and Bye-Laws and the Practice Followed by Other Development Banks for Financing Working Capital
6. Arrangement with the Central Bank for Rediscounting Facilities for Financing Initial Working Capital.
7. Summing Up and Recommendations.

We shall discuss these in the following pages.

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* The financing of working capital discussed in this paper relates to the actual conditions operating in a particular Development Bank.

1. Definition of Working Capital

Different views have been held on the concept or definition of what constitutes 'Working Capital'. Some define Working Capital as representing the 'net current assets' while others prefer the concept of working capital as 'gross current assets'. In view of different emphasis regarding the two points of view, a little explanation of the two concepts of working capital would be in order.

Net Current Assets: According to this view, net current asseßs or the real working capital of an enterprise is the excess of its current assets over its current liabilities. Current assets and current liabilities are considered as such if they are receivable and payable, respectively, within twelve months from their inception. This usage is qualitative in character in so far as it provides a measurement or assessment of the strength of current assets and is, therefore, useful for the purpose of assessing the financial position of the enterprise.

If an enterprise is run on sound lines, the bulk of its current assets will constitute previously accumulated cash reserves (unspent profits, depreciation reserves, etc) and currently receivable assets acquired through the regular conduct of sales and of a quality, either to be collectable in due time to meet the cash requirements of current production and sales and for the payment of current liabilities, as they fall due for payment, or to be capable of serving as basis for short term credit facilities from commercial banks. The provision of such short term facilities for current working capital requirements of current operations is one basically important, traditional function of the commercial banking system in every country throughout the world.

<u>Gross Current Assets:</u> The interpretation of working capital as 'gross current assets' is quantitative in character since it represents the total amount of funds used for current operating purposes. Working Capital, in this case, is taken to mean current assets which comprise (i) investories including stocks of raw materials, spares, finished goods and work-in-progress, (ii) receivables, i.e. loans and advances and other debtor balances which serve the 'seasonal' contingent requirement of working capital, (iii) cash and bank balance and (iv) short term investments (investment in government securities).

It will thus be observed that while the 'net current assets' concept places emphasis on the relative soundness of the working capital position, the 'gross current assets' concept is intended to denote the requirement of funds (from different sources) for working capital purposes. Also, where the main purpose is to assess the requirement of funds for financing total working capital, the 'gross concept' of working capital is preferable.

2. <u>Working Capital Requirements of Established and New Concerns</u>

<u>Working Capital Requirements of Established Concerns:</u> The need for transitory short term credit facilities from commercial banks may arise out of seasonal discrepencies between the production and sales of an enterprise, or, temporarily, out of occasional recessions in business activities reflecting themselves in slow-down in sales and in the collection of sales revenues.

<u>Working Capital Requirements of New Enterprises:</u> Newly established private industrial enterprises need initial working capital

in cash to enbale them to enter into production (operations) upon completion of their plants, to meet the cost of their production (raw material, power, fuel, labour, etc.) until suoh time, when their sales volume runs up to a level, that generates cash receipts out of sales revenue.

A very distinct differentiation, therefore, must be observed and maintained between intitial working capital requirements of new industrial private enterprises (or their expanded and modernised sectors), which should be provided for within the original investment capital and the current operational working capital of existing and operating industrial private enterprises, which should be provided for out of their accumulated cash reserves and out of the proceeds of current sales revenues or, if (for aforementioned reasons) the need for transitory short term financing arises, out of short term credit facilities from commercial banks.

The insufficiences of current operational working capital requirements have been a rather chronic short-coming in underdeveloped countries in the financial administration of private industrial enterprises, resulting in their chronio over indebtedness to commercial banks and, in more desperate and less circumspect cases, to the private money market and, in the latter case, at exorbitant rates of interest, which very adversely affect their cost of operations.

3. Measuring Working Capital Requirements and Sources of Finance

Measuring Working Capital Requirements: For measuring working capital requirements, the following working rule may be adopted:

i) Calculation of total current assets, and

ii) Determining as to how much of the total current assets could be off set by current liabilitiss.

It may be notes that the amount which may be tied up in the current assets depends basically on the volume of production expected, the estimated production costs, and the length of the time cycle from the moment where the raw materials, supplies and labour must be paid for until the customer pays for the goods. As a rough rule, in the absence of unusual curcumstances, a project's total current assets requirements are likely to be at least three months' total cash operating costs.

Examples:

Take a firm making 1,000 units of a product per month at a total cash cost of US$ 2 per unit for raw material, labour and overhead (not taking into account depreciation charges because it is not a cash cost).

Assume further that:

i) on the average, costs are incurred a month before commencement of production, due to the need to carry stocks of raw material,

ii) Production takes a month,

iii) Goods are in finished product inventory for a month before sale, and

iv) Customers pay for the purchases in one month.

On the basis of the afore-mentioned information the total length of the cycle would be four months.

Thus, if the volume of 1,000 is multiplied by the cash cost per unit of US$ 2 and the length of the cycle, the resultant figure would be the total current assets. This would be:

1,000 x 2 x 4 = US$ 8,000

If, as in the case of capital cost estimates, 10 percent is added for contingencies, the total for current assets would be US$ 8,800.

Again, if we take the ratio of current assets to current liabilities as 1,5 : 1, which is generally the case, the current liabilities would work out at US$ 5,866. This would leave US$ 2,934 as the amount to be supplied from the firm's own resources for net working capital.

Sources of Finance: This could conveniently be discussed under five catagories, viz.,

i) Manufacturers usually cover part of their working capital needs by obtaining loans from commercial banks usually for a year or less. Normally, these loans are secured by inventories of raw materials, supplies, or finished goods, and sometimes by customers' account pledged by the firm.

ii) Part of the working capital requirements are usually met from credit given by the suppliers of raw material and supplies. These credits are generally for a period of thirty days.

iii) Another source of working capital is the funds provided through profit on current operations. For example, receipts from sales are used not only to replenish the working capital invested in inventories and to pay operating costs but also to generate new working capital.

iv) Internal sources of funds include retained earnings and depreciation and other provisions. The most significant of the internal sources are the resources generated as depreciation which could be used for financing working capital.

v) Finally, other short term loans and sale of marketable securities and shares which could also be resorted to for financing working capital.

There is no fixed principle according to which the use of short term sources of funds to finance a part or whole of working capital would be governed. Sometimes, a distinction is made between 'quick assets' comprising such of the assets as are 'one step nearer cash' (namely, cash and equivalent and the receivables) and the other current assets, (namely, inventories) which are subject to changes in market value and have to be sold before they become available for paying off debts. Actually, in practice, quite often commercial banks while giveing credit against inventories usually prefer that the borrowing concern's total amount of current debt (liabilities) excluding such credit will not exceed the quick assets. This precaution is necessitated by the risk of price fluctuation in the inventories. However, this is not a general rule and sometimes, as with the highly speculative commodities like oil seeds and cotton in a rising market, inventories could be converted more readily into cash than the receivables.

Long-term and Short-term Sources of Financing Working Capital: Some authorities are of the opinion that the minimum current asset requirements of firms should be financed through long-term* rather than short-term sources of funds. Any assets required, over and above the minimum, which is required for meeting temporary seasonal changes in sales, output and requirements of stocks for manufacturing purposes, which could be called temporary current

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* See Robert H. Wessel: Principles of Financial Analysis - A Study of Financial Management, 1961, pages 93-96.

assets, should appropriately be financed through short-term sources of funds, viz., bank credit and suppliers' credit. Following Professor Wessel's theory for financing requirements of a firm during the year, which depicts the monthly outstanding levels of current sales, approximately 37 percent of the total current assets of a firm could be said to comprise the minimum current assets. Thus, together with about 5 percent to 7 percent for contingencies, something like 44 percent could be financed through long-term sources. The financing of temporary current assets which may be done through short term funds (current liabilities) will thus be only about 56 percent of the total current assets. It may be noted that 56 percent would be the maximum of current assets for which short term funds, viz., bank credit and/or trade credit, could be resorted to. It is difficult to say how much of the 56 percent of short term funds should be in the form of bank credit. This would probably depend upon the nature of industry and the cycle of manufacturing operations as also the conditions prevailing at the time in the money market. Also, the temporary current assets, by their seasonal nature, would experience a trough in the lean period of the year and the use of short term funds (specially the bank credit) may have to be reduced at that time.

4. Causes of Shortage of Availability of Working Capital Funds in Under-developed Countries

There are several causes of shortage of working capital funds in underdeveloped countries. These are:

i) The insufficiency of capital formation in a country as a whole. Practically, all developing countries are still in the initial stage of the transition of their economies into money economies. The understanding of the function of money as a means of accumulation of wealth and of its permanent, or temporary fructification by investment, has not yet developed sufficiently. Low interest rates on deposit do not promote savings while debentures and bonds are not yet sufficiently recognised as safe investments. The exorbitant interest rates in the private money market and the possibility of speculative transactions, yielding quick and high profits, detract from legitimate channels of investment considerable portions of whatever capital funds are available. The investment climate in many such countries is not conducive to attracting such liquid funds, as would be available, into ligitimate and sound investments in savings deposits, bonds and shares. With very few exceptions, there are no capital markets and the general public is wary of investing their funds in minority holdings and shares, the majority of which is held and controlled by a few major investors in most enterprises.

ii) The still existing insufficiencies in the infrastructure (transport, administration, etc.) which are forceful denying factors in the turnover of merchandise, increasing the need for current operational capital, by causing enterprises to keep larger inventories, than would normally be needed.

iii) Lack of sufficient experience in the financial administration on industrial private enterprises resulting in defective planning and budgeting the same and in defective inventory control, leading to sudden emergencies of needs for additional liquid funds.

iv) The mercantile (and often speculative) mentality of large sectors of the economic communities, in many cases, induces entrepreneurs to embark on several enterprises leading to inter-woven and confused financial administration and to needs of current operational capital, quite often not incidental to the actual needs of the industrial enterprises withing such groups of ventures.

v) There is a fairly general trend amongst entrepreneurs in developing countries to base new ventures overwhelmingly on borrowed funds and to with-hold their own liquid funds for speculative purposes promising of higher profits in quick turnover, instead of applying them for the purpose of the new industrial ventures.

vi) Capital flight from some under-developed countries and certain flight from money into material assets have resulted in a withdrawal from industrial enterprises of funds for purposes not connected at all with their operations and reduce the liquid funds available for current operation.

vii) The restrictions imposed by the authorities on private credit transactions for the purpose of off-setting the effects of increased credit requirements of the public on the one hand and to limit the possibilities for speculative ventures and for the flight of capital on the other, naturally enhance the stringency of funds and current operational working capital.

5. Provision under XYZ Development Bank Laws and Bye-Laws and the Practice Followed by Other Development Banks For Financing Working Capital

Development Banks the world over, besides extending economic, technical and managerial assistance, are extending financial assistance by granting medium and long term loans or otherwise insufficient volume and at reasonable terms. No where do they engage in providing current operational working capital, the provision of which, where needed, through short term credits, represents the task of the commercial banking system.

The intention underlying the creation of the XYZ Development Bank as well as the letter and spirit of its Act make it quite clear that any action by the Bank in regard to the provision of current operational working capital is and must be limited to the establishment of new or the expansion and/or modernisation of existing private industrial enterprises. The provision of credit facilities for current operational requirements of existing and operating private industrial enterprises could, in no way, serve the purpose of, or be interpreted as action for, the establishment, expansion and/or modernisation of existing private industrial enterprises and would represent a clear breach of the intentions, spirit and letter of the existing law, the bye-laws and other regulations of the Bank. Also, this consideration is based on the basic concepts underlying the function of development banks in general.

<u>Practice Followed by XYZ Development Bank in Provision of Initial Working Capital</u>: At the inception of its operations, the XYZ Development Bank was guided by the somewhat optimistic expectations that, in all projects presented for its consideration, provision would be made for financing initial working capital by the borrowers out of their own resources. Consequently, no provision, within the estimate for the total cost of the projects, was made for such initial working capital.

Expectations of the XYZ Development Bank, however, were belied as shown from the experience of working of industrial enterprises in regard to financing of their working capital. It soon became clear that most of the Bank's borrowers gave no consideration to the need for working capital and that, in some cases, projects upon their physical completion were hampered in commencing operation by lack of initial working capital.

Recognising the need for provision of initial working capital, the Board of Directors of the XYZ Development Bank resolved in 1965 that a carefully calculated amount of initial working capital for projects assisted by it be included in the estimate of the total cost of physical completion of such projects.

The XYZ Development Bank would finance, out of their own funds, the total amount of such working capital. The Board of Directors also resolved that the amount estimated on account of initial working capital together with other costs of the project will form the basis on which the amount of Bank's contribution should be determined. This decision appears to be based on the sound and justified consideration that no project should be considered as completed, unless it was capable of entering into production and operation. In all subsequent discussions with the borrowers on the preparation of projects, special attention has been given to ascertain the need for, the volume of, and the possibilities for, the provision of such initial working capital.

6. Arrangement with the Central Bank for Rediscounting FACILITIES TO FINANCE INITIAL WORKING CAPITAL

The Central Bank in 1963 made availableto the XYZ Development Bank rediscount credit line of US$750,000 for the rediscount of such promissary notes, executed by the XYZ Bank's borrowers, as represented the inital working capital portion of the loans.

In January 1968, the Managing Director of XYZ Development Bank requested the Central Bank for a credit line of the order of US$ 900,000 for meeting working capital requirements of its borrowers. In doing so, the Managing Director took up a different stand and in his opinion, to begin with, the XYZ Bank would not only assist financing of initial working capital, but would also consider, in due course, financing of current working capital for existing and operating enterprises. The Managing Director thought that the problem was of financing the raising and maintaining at an appropriate level the stock of raw materials required for processing since commercial banks' accommodation tended to be limited to definable areas.

The Central Bank while considering the request of of XYZ Development Bank, maintained that although it was prepared to assist the XYZ Development Bank in financing initial working capital to new enterprises, it was of the opinion that provision of normal working capital to industrial enterprises was a function of the commercial banks; and this would be so whether the industrial concerns were financed by the XYZ Development Bank or not. The Central Bank also agreed to create a credit line of the order of US$ 600,000 for financing initial working capital in the form of rediscounting facility and further promised to review the situation in 1969. The limit of maturity of bills accepted within the credit line of the XYZ Development Bank was extended from three to six months on the strength of Section 41(a) of the Central Bank Act. The Central Bank further required that such initial working capital shall be repaid as quickly as possible for enabling the funds to be put to further use.

Unfortunately, in spite of the credit line of US$ 600,000 granted by the Central Bank for financing initial working capital, no use has been made by the XYZ Development Bank of the facility and much time has been lost over the fruitless discussion as to whether the XYZ Development Bank should or should not undertake provision of normal working capital which legitimately belongs to the domain of commercial banks.

In the opinion of the XYZ Development Bank, the time of six months for repayment of initial working capital by the borrower is too short and hence the Bank prefers to finance initial working capital from its own resources which is regarded as a contribution to the total cost of the project. The initial working capital financed by the XYZ Development Bank is repayable with the loan and is not treated as short term lending to the borrower.

7. Summing Up and Recommendations

Of all the sources available for financing working capital, as discussed elsewhere in this note, the cheapest and the most important source is the bank credit. From this point, the availability of bank credit for the short term use of industry becomes significant.

Finance of Working Capital by Commercial Banks: A number of projects financed by the XYZ Development Bank have been facing current working capital difficulties and these have generally not found support at the hands of commercial banks. Commercial banks largely require about 20 percent margin for financing working capital provided the borrower is able to satisfy four acid tests. These are: (i) the project is in an area where the commercial bank concerned has a branch, (ii) the applicant is considered good for the amount of finance required, (iii) the project is financially sound and continues to be so, and (iv) the project not only has reasonable prospects of successful development but has also proper qualified management.

It would appear that the commercial banks have not viewed many projects financed by the XYZ Development Bank with favour as in their opinion the projects did not meet their acid tests of eligibility for finance of working capital. A number of leading commercial banks were contacted and they invariably were of the opinion that the ordinary investor (industrialist) being a small man was not in a position to provide the required margin of 20 percent since he has always had nearly all his resources exhausted in meeting the one-third cost of the project as required by the XYZ Development Bank. An industrialist needs money for paying the brokers and the price of land. In addition, he has to pay for raw materials for one to three months. In the Country, ordering of raw materials is a long process. It takes about six months for the raw material to arrive. From the date of opening the letter of credit to the arrival of raw material, it will take about six months so that in order to keep the factory going he needs a lot of money.

Also commercial banks would finance working capital from the profitability point of view. So, the views of the XYZ Development Bank and commercial banks would differ and commercial banks would not finance working capital necessarily in the interest of development and at some sacrifice to their own interest. It would be perhaps correct to say the commercial banks, so far, have either refrained from extending facilities to industries generally or accorded it a low priority vis-a-vis export-import transactions or agricultural financing.

Financing of Working Capital by the Central Bank: It would appear that the XYZ Development Bank currently finances initial working capital out of its own resources and the quantum of initial working capital is included in the cost of the project. The XYZ Development Bank has not made any use so far of the rediscounting facility with the Central Bank in regard to initial working capital. Since the Central Bank is prepared to rediscount bills only in regard to initial working capital, Its credit line of US$ 600,000 offered to the XYZ Development Bank has been and is of no use to the customers of XYZ. The XYZ Development Bank has approached the Central Bank a number of times for finance of current working capital of existing enterprises and these have invariably been turned down.

Suggestions: The XYZ is after all a development bank and has to finance sometimes projects in the larger interest of the country which may not appear profitable in the near future. In such cases, commercial banks would deny the facility of providing working capital and some way has to be found to meet the situation. Already, a number of projects financed by the XYZ are faring badly for want of working capital and these have been denied facility for financing their working capital, both by the commercial banks and the Central Bank. Thus, efforts have to be made to help these projects and to ensure that projects financed by the XYZ, in future, will not be allowed to founder on the rocks for want of working capital. The situation could be remedied by taking one or a combination of one and more of the following measures:

i) Now that the commercial banks in this Country have recently been nationalised, it it easier for the Central Bank to give directions to such commercial banks to increase their working capital financing for industry in general. Thus, commercial banks should be asked to give special attention and use the best efforts to the satisfaction of the genuine and legitimate needs for current operational working capital of the Country's private industrial enterprises, even at the expense of a more rigorous and more selective scrutiny of other demands for credit facilities.

ii) A separate institution could be set up for financing working capital whose share capital could be owned by the existing commercial banks or other financial institutions. Such an institution will give priority to any project for finance of working capital if it has been granted medium or long term financing by the XYZ Development Bank. Also, this institution could provide short term credit facilities to industries in general and/or serve as a source for rediscounts for national commercial banks of bills of exchange or promissory notes executed by private industrial enterprises concerned for credit facilities obtained for meeting their current operational working capital.

It would be desirable to place this institution under the strict control and supervision of the Central Bank to ensure that the provision of funds be made in such a way as to avoid inflationary tendencies and that the action be directed and limited to its genuine and legitimate aims.

iii) One of the nationalised banks could be made a subsidiary of the XYZ Bank to undertake working capital financing. This would ensure that all projects financed by the XYZ Development Bank would necessarily secure working capital from its own subsidiary.

iv) The existing line of credit of US$ 600,000 for rediscounting facilities in favour of XYZ Development Bank granted by the Central Bank initial working capital financing be made available for current working capital for existing enterprises as has been requested from time to time by the Managing Director, XYZ Development Bank.

If the suggestions outlined above are given effect to, partly or wholly, it is expected that the problem of financing working capital would have been solved at least in some measure.

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