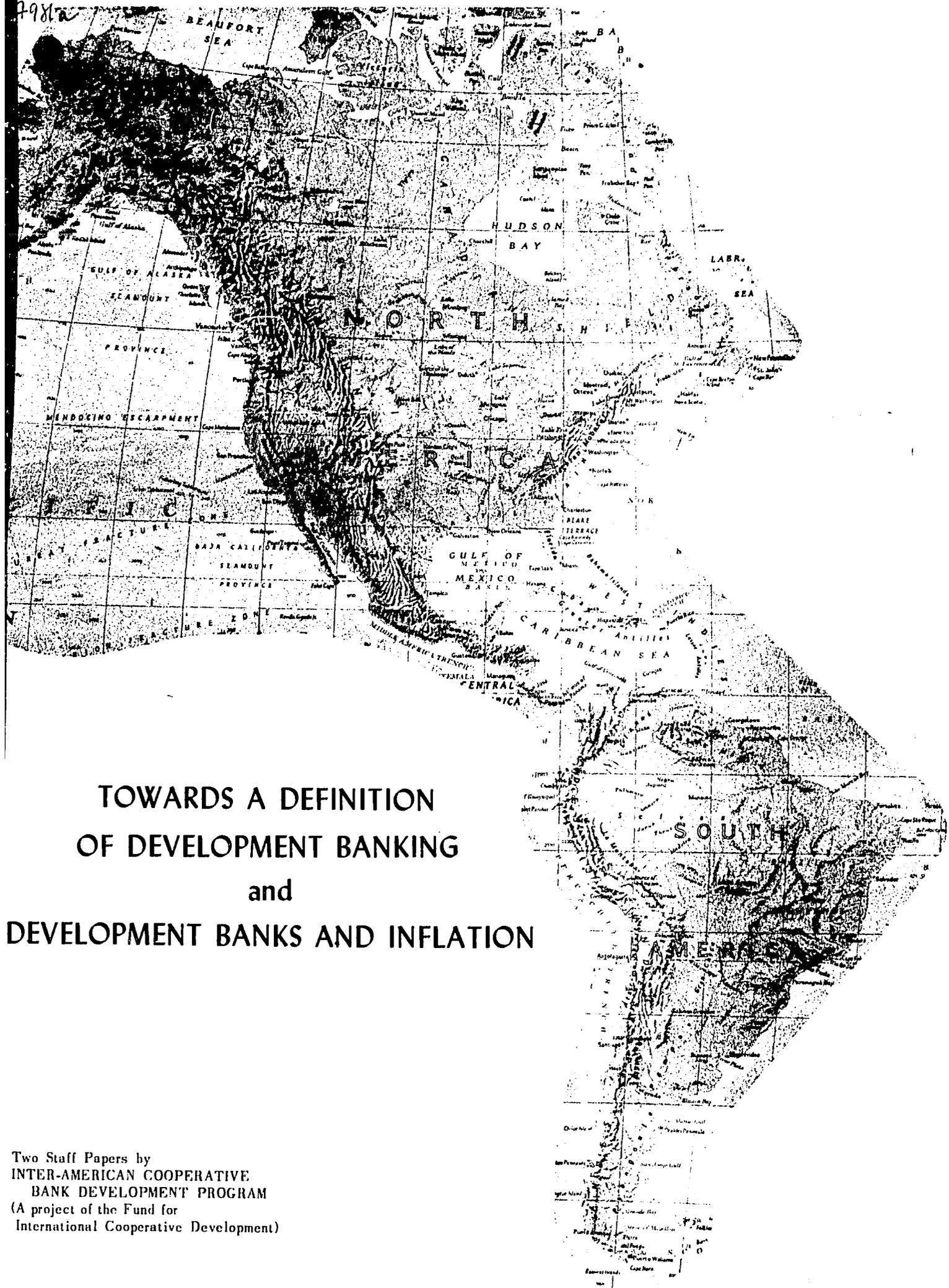


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**TOWARDS A DEFINITION
OF DEVELOPMENT BANKING
and
DEVELOPMENT BANKS AND INFLATION**

Two Staff Papers by
INTER-AMERICAN COOPERATIVE
BANK DEVELOPMENT PROGRAM
(A project of the Fund for
International Cooperative Development)

**TOWARDS A DEFINITION
OF DEVELOPMENT BANKING**

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Two Staff Papers by

J. T. HOUK

INTER-AMERICAN COOPERATIVE BANK DEVELOPMENT PROGRAM
(A project of the Fund for International Cooperative Development)

August 1965

PREFACE

These two papers represent a beginning in the task of approaching some of the problems faced in the Inter-American Cooperative Bank Development Program.

The above-mentioned program arises out of recommendations to the Agency for International Development by the leaders of the cooperative movement in the Western Hemisphere and out of a study done in 1961 by the Checchi Corporation. It is designed to strengthen the cooperative finance system in Latin America by means of setting up an integrated system of development banks for cooperatives among the countries in Latin America where such assistance is needed and desired.

These papers, the first, an attempt to place cooperative banks within the field of development banking, and the second, an attempt to set out some of the relationships between inflation and bank operation, were written by Dr. J. T. Houk of our staff.

These papers are intended to stimulate thought and discussion with respect to the subjects covered, and should not be construed to be policy guidelines or official opinions advocated by this staff. The conclusions reached are the responsibility of Dr. Houk alone.


Robert L. Farrington
Administrator
Inter-American Cooperative
Bank Development Program

TOWARD A DEFINITION OF
DEVELOPMENT BANKING

By: J. T. Houk
Washington, D. C.
August 25, 1965

TOWARD A DEFINITION OF DEVELOPMENT BANKING

SUMMARY

The purpose of this article is to broaden and extend the definition of development banking beyond the pragmatic one which includes only industrial development banks.

In this article, development banking is defined as an institution which combines banking functions with those of development. Banking functions include making investments, in either loans or equity capital, bonding, guaranteeing, discounting, or providing financial advice to economic development projects. Development functions would necessarily vary in accordance with the level of development of a country, or with its obstacles to development, and in accordance with the capital structure and ownership of the development bank.

Examples of obstacles to development were selected, together with ways in which development banks might relate to them. Also included are several interesting aspects about cooperative development banks.

To add development functions to a financing institution constitutes a reflection upon the conviction that capital alone is not the only critical obstacle to economic growth. Nevertheless, we admit that development banking, as a separate institution, is no more than a transitory phenomenon and will exist only until each of these development functions is converted into a separate institution.

In view of the growing attention being focused on the field of development banking by such agencies as the U. S. Agency for International Development, the Inter-American Development Bank, the World Bank, the International Finance Corporation, and other institutions, in addition to the governments of the developing countries themselves, we have proposed a broader concept of development banking for the following reasons:

1. Such a concept would include agricultural banks, cooperative banks, and certain other financing institutions within the structure of development banking.
2. A broader concept and the focus of institutional attention which would consequently follow would permit a greater exchange of knowledge and experience in financing and implementing development projects; and
3. A broader concept and the resulting institutional focus would strengthen all the organizations taking part in this effort and would stimulate coordination among them, thus sharpening their usefulness as tools of economic development.

**TOWARD A DEFINITION OF
DEVELOPMENT BANKING**

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TOWARD A DEFINITION OF
DEVELOPMENT BANKING

The rapid growth of an institution in the developing countries, known as a development bank or a development finance company, has been observed with great interest by practitioners in the field of economic development. The Agency for International Development reported in October of 1964^{1/} that during the period September, 1951 - June, 1964, it had provided financial assistance in the form of grants or loans of dollars or local currency in the amount of 1.3 billion dollars to 106 separate intermediate credit institutions located in 48 countries.

A recent series of issues of Business International^{2/} indicated that in Latin America alone there were 57 public, private, and mixed development banks in 25 countries and territories. The implicit but unstated definition of development banks used in the Business International compilation was "an institution which provided either loans and/or equity to industrial projects". Undoubtedly this list would have been even longer if we had attempted to include financial institutions that relate to the development of agriculture, housing, cooperatives, or of any other sector of a developing economy which needs finances to grow.

A Functional Approach to a Definition of Development Banking

The World Bank, the Agency for International Development (and predecessors) and more recently the International Finance Corporation and the Inter-American Development Bank have been the pioneers in the initiating and strengthening of Development Banking. Because most of their lending has been to banks which have relented for industrial projects, there has been an increasing tendency to associate development banking only with industrial project financing.

^{1/} See Unpublished Memorandum, dated October 8, 1964, from Seymour M. Peyser, Assistant Administrator for Development Finance and Private Enterprise, Agency for International Development, to the Administrator, Agency for International Development, page 1, Subject: A.I.D.'s Financial Assistance to Intermediate Credit Institutions.

^{2/} See Business International, August 28, 1964, page 6; September 4, 1964, page 6; and September 18, 1964, page 7.

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Toward a Definition

It seems best, however, to approach the definition of development banking from a functional point of view: that is, to determine whether an institution is a development bank by observing the functions which it is performing or is designed to perform within a developing economy. We could say, therefore, that an institution would be classified as a development bank if it were designed to perform the following functions:

A. Banking Function

The principal financial function that a development bank must perform is the provision of medium and long-term capital to economic development projects. It is certainly not necessary that these projects be restricted to the field of industrial development, although history has shown that here is an area which a country determined to increase its per capita production must not overlook. However, projects which stimulate agricultural development or which relate to the development of a country's infrastructure or which stimulate the growth of certain institutions such as cooperatives, can, in specific instances, have as much or more impact on economic development.

Other financial functions of a development bank apply as much to industrial development banking as to any other type of development banking and include the investment by the bank in the equity of a borrower, the guaranteeing of a loan by a third party to a borrower, the underwriting of attempts by a borrower to raise equity or debt and the service of providing broad financial contacts both within and outside of the developing country.

B. Development Function

A financing institution which restricts its activities only to the banking functions mentioned above should not be classified as a development bank. A development bank must, in addition to its banking function, attempt to relate to certain problems of, or bottlenecks to, development, the magnitude and importance of which may vary from country to country. Four typical problems are enumerated below, together with some indication of how a development bank might approach them:

A Functional Approach

1. Critical Shortage of Viable Projects

Few observers will disagree with the statement that the principal problem facing intermediate credit institutions, development banks, in the world today is a shortage of viable projects presented to the bank in a "bankable form" as applications for loans or opportunities for investment. For the lack of projects, among other things, many development banks have found that funds provided to them by international lending agencies have moved rather slowly and, because development banks have had to work carefully with applicants in order to help them build into their projects elements of viability, development banking has tended to be more expensive per dollar committed than it otherwise might be.

Development banks have attempted many different approaches to this problem. Banco do Nordeste in Brazil, for example, collaborated with AID, the Ford Foundation and other financial institutions to bring a project team from UCLA, under the leadership of Professor Morris Asimow, which initially combined with a group from the University of Ceara. This combined team initiated feasibility studies on several industries, presented these studies to local townspeople and tradesmen, and catalyzed the formation of stock-owning corporations to take advantage of the industrial and agricultural developmental opportunities thus identified. The Nepal Industrial Development Corporation asked for, and received, an AID grant to support a team of experts to promote and develop industrial projects.

A development bank must be extremely careful in project development for two reasons: first, because project development is costly; and second, because the development bank may find itself in the awkward position of recommending a project to itself for financing. It is, indeed, this latter reason that has initiated a movement in Nepal to separate the Nepal Industrial Development Corporation from its technical assistance function.

Toward a Definition

The technique developed by the Banco do Nordeste in Brazil, that of participating in the cost of a project development team, seems to be an ideal method of combining an impact on the project shortage with the necessity of preserving the independence of the development bank to judge the project on its merits when it is presented to the bank for a loan.

2. Lack of Business Skills

The lack of business skills in a developing country is definitely related to Item B.1. above. One of the reasons for the shortage of viable projects being submitted to a development bank is the inability of prospective entrepreneurs to think through all aspects of a project before they submit it to the development bank for financing.

A development bank has two separable opportunities to assist in bolstering the business skills of its borrowers. The first is in the application stage, when bank personnel have an opportunity to work with the borrower. The second is in the implementation stage of a loan, when upon request, or when signs of trouble appear in the financial reports or are otherwise noticed by the bank, the bank is again in a position to assist the borrower. Bank assistance in either of these stages may be of two kinds: (1) it may provide this assistance from its own specialized resources, or (2) it may coordinate outside resources both within the country and from abroad to meet the needs of the borrower.

Obviously, providing this assistance from its own resources can be a very costly approach to the problem. Whether a development bank indeed staffs itself to provide this assistance would depend on many factors. Among them are: its own earnings or profitability; its feeling of responsibility toward the owners of the equity capital; the existence of other institutions within the country capable of performing this function; and the depth of the lack of business skills.

A Functional Approach

The contract team which has presently been assisting the Nepal Industrial Development Corporation to generate viable projects has found it necessary to give basic business education services, such as lectures and seminars in accounting techniques, business management practices, or marketing analysis to the management of existing or prospective borrowers. Other development banks have been successful in encouraging borrowers to enter upon joint ventures in which their partner, in addition to providing some financial assistance, would be experienced in the business and able to impart to the business the benefit of his experience.

Some of the documents supporting the recently formed International Executive Service Corps have pointed out that this organization might be able to provide experts in various fields of business to development banks for precisely this purpose. These experts and their advice would be at the disposition of borrowers or prospective borrowers from the development bank.

3. Fostering a Capital Market

Developing countries, which respect and value the positive incentive of profits as a stimulus to investment and which are trying to remove from the shoulders of entrepreneurs the fetters of state control, realize that they must have an impact on the development of a capital market. The concept of a capital market includes the complex of institutions in a country which affects the generation of savings and effects its transfer to those who will invest.

The complex of institutions referred to above includes the demanders of capital, such as corporations, partnerships, and single proprietors; institutions which supply capital and which generate capital in a form available to satisfy investment demand, such as banks, insurance companies, investment trusts, etc. and what may be called facilitating institutions, such as stock exchanges and institutions which perform the functions of underwriting, guaranteeing, insuring, etc.

Toward a Definition

Institutions especially in a developing country are not created in a vacuum. They are responses to, and in turn are molded by, the environment in which they arise. The complex of institutions, which forms a capital market, and their structure and operations are affected by many factors over which the development bank has no control, such as political instability, attitudes toward industrial effort, attitudes toward profits and interest taking, attitudes toward savings, especially in the light of price instability or political insecurity, and the existing structure of business organization and its method of operation.

However, there is a great deal a development bank can do towards the stimulation and strengthening of a capital market, such as:

a . Issue, Promote, and Sell Its Own Equity Instruments or Debt Obligations

Using the leverage of low-interest, long-term debt capital (quasi-equity) many development banks have been able to coax domestic and foreign private and institutional savings into investment in the financial structure of the development bank itself. Nacional Financiera of Mexico is an example of a development bank which is experimenting with a technique of relating certain stock issues to a specific investment portfolio. The development banks for cooperatives in the United States have developed a technique for retiring capital by setting aside a portion of interest charged on loans, which, together with a stock purchase requirement for new borrowers, acts in a manner to revolve the capital of the bank. This technique appears especially appropriate in a developing country to introduce gradually to a broad sector of people the idea of owning and trading equity.

b. Purchase and Sale of Debt or Equity From Its Portfolio

Many development banks have experimented with the technique of selling from their portfolio. Indeed, with some development banks, such as the Pakistan Industrial Development Corporation, the requirement to divest itself of its equity holdings is often built into the participation agreement.

A development bank which wishes to stimulate the capital market in this manner is faced with a dilemma of either sacrificing its earning capacity by selling a strong portion of its equity portfolio or else weakening the capital market and the incentive of investors to participate by selling the weaker portion of its equity portfolio. In its formative years, a development bank would be wise to take every precaution to avoid placing its own financial structure in jeopardy. It is much more important, in its early years, that a development bank succeed as a financial institution than that it stimulate, in this way, the capital market.

c. Underwriting-Guaranteeing

Many development banks stimulate the capital market by offering their services as an underwriter or a guarantor. As an underwriter, they would presumably stimulate the sales of equity instruments, and as a guarantor, they would presumably stimulate the sales of debt instruments.

A development bank would probably delay its entry into this highly specialized field until it has established itself as an institution which can lend wisely to borrowers who pay principal and interest promptly. The Industrial Finance Corporation of India, for example, was in business for seven years (from 1948 to 1956) before it began to experiment with underwriting or guaranteeing. By 1956, its position in the Indian financial structure was established, and the bank personnel had gained considerable experience in the operation of a development bank.

Toward a Definition

d. Participations

Because of its contacts with financial institutions, both within the country and abroad, a development bank very often can put together, or can assist the borrower to put together, the entire financial structure of the project, and in thus bringing a willing buyer and a willing seller of money together, a development bank, in itself, is performing one of the essential functions of a capital market.

e. Generation of Confidence

One of the most important things that a development bank can do to stimulate the growth and strengthening of a capital market is to generate confidence in commercial transactions. Development banks in Puerto Rico and South Africa, for example, have only to affix their stamp of approval on a project before funds often sufficient to finance the project are forthcoming. Indeed, a development bank which has the confidence of local and foreign institutional and private individual investors often finds its financial assistance unnecessary.

The operations of a development bank are seen by many as a means of familiarizing the public in lesser developed countries with industrial securities and as a means of both creating and seasoning securities for later wider ownership. Thus, to the extent to which the development bank achieves these objectives, to that extent it becomes a safe bridge over which capital can be induced to flow from savers to investors.

4. Implementation of Development Plans

Most developing countries, given scarce resources and unlimited wants, have begun to apply the use of these resources to the achievement of specific development objectives, or to the breaking or releasing of critical bottlenecks to development. But one of the deficiencies in present attempts at National Planning has been the task both of implementing the plan and of maintaining a strong optimistic private sector.

World Bank - IFC Criteria

Although the government is the most likely and the most usual controller and director of resources, through the use of its fiscal, monetary, and direct-control powers, a development bank, too, can and should attempt to coordinate its investment objectives with the achievement of certain sectoral goals of the country's development plan.

At the present time, a great deal of attention is being directed by developmental economists to the agricultural sector; consequently, industrial development banks and other specialized development banks, such as agricultural development banks, or development banks for cooperatives, can and should direct their attention to projects which stimulate, rationalize, or otherwise make more effective agricultural production.

World Bank - IFC Assistance to Development Banks

An attempt to define a development bank ought to consider the de facto criteria which the World Bank and the IFC have used in their assistance to indigenous development banking efforts. Mr. William Diamond, presently the director of the department in IFC concerned with development finance companies, said that, as early as 1957^{2/}, the World Bank's experience with development banks, since their initial loan to the Industrial Bank of Turkey in 1949, had been sufficient for them to establish a model of what such institutions should be like. Their criteria included the following elements:

- A. Private ownership and management;
- B. A financial support from both foreign and domestic sources;
- C. A substantial amount of government funds, borrowed at the lowest possible cost (quasi-equity);
- D. A board of directors that reflects the broad interest of the community and of sufficient prestige as to be able to withstand both government and private pressures;

^{3/} Mr. William Diamond, "Some Comments on the World Bank's Policies concerning Experience with Development Banks", unpublished paper, International Bank for Reconstruction and Development, 1957.

Toward a Definition

- E. Able and experienced management;
- F. A willingness to help develop the capital market; and
- G. A willingness, in addition to financial assistance, to provide or catalyze the provision of certain technical and managerial assistance as required.

This model has served for the development of many successful development banks, among them: the Industrial Credit and Investment Corporation of India; the Pakistan Industrial Credit and Investment Corporation; and the Development Finance Corporation of Ceylon. With certain minor exceptions, the Industrial, Mining and Development Bank of Iran, the Industrial Development Bank of Turkey, and several other banks have also been set up on this model.

A more recent policy statement^{4/} of the IFC served to underline many of the above points and to state again that the purpose for which the development bank should be organized would be to promote industrial and other development on business principles, related to the sound economic growth of the country.

Although the record to date indicates that the World Bank Family has imposed on itself the limitations of only investing in private industrial banks, there appears to be no policy reason why the World Bank and the IFC could not branch out into other types of private development banking. The World Bank has not lent to public development banks as a matter of policy. IFC does not invest in them both as a matter of policy and because its Articles of Agreement specify that it may invest only in private enterprise.

A Footnote on Development Banks for Cooperatives

An effort of recent origin is underway in Latin America to explore the feasibility of setting up privately owned development banks for cooperatives. At the present time, there are three banks for cooperatives in operation: one in Ecuador, Banco de Cooperativas del Ecuador; the second one in Argentina, Banco Cooperativo Agrario Argentino; and the third in Chile, Instituto de Financiamiento Cooperativo. In addition, there are at present cooperative banks being organized in Colombia and the Dominican Republic, with technical assistance provided by the Agency for International Development, through a contract with the Fund for International Cooperative Development.

^{4/} International Finance Corporation, "Private Development Finance Companies", mimeographed: Washington, D. C., January 13, 1964.

Banks for Cooperatives

The program envisions that the banks for cooperatives will be woven into an integrated financing system by the setting up of an Inter-American finance institution, which would be able to tap for relending to these banks sources of funds presently unavailable to them and, in addition, would provide operational guidelines and technical assistance.

This program appears to have certain special advantages that those concerned with development banking might find interesting. Probably, most important is the potential that these institutions appear to have for a grass-roots popular impact. These banks are owned by cooperatives who have many thousands of members. The enthusiasm of a people for institutions which are truly their own and which are organized to serve their own financial requirements has been noted in the past and is expected to increase over the next few years.

Another advantage of development banks for cooperatives is that, although they are designed to serve the broad range of cooperatives, they tend to focus, as they have in the United States, on agricultural development, serving the farmer from production through processing to the ultimate consumer. Many of the participants at a conference held in AID on the development of national markets in Latin America, October 16-17, 1964, paid tribute to the contribution of cooperatives to the rationalization of production and marketing of agricultural products in the United States, and in addition to the potential of cooperatives to perform this same service in Latin America.

An advantage of a development bank for cooperatives as compared with banks which lend for infrastructural projects or even banks which lend for industrial development is that it is likely to be less inflationary in its operation. A cooperative bank, especially one oriented toward farm production credit, can and does focus on loans which have a very short gestation period. This suggests that, even if a cooperative bank were using funds which were potentially inflationary, there would soon develop, from the use of the loan, product sufficient to repay it. Similarly, many cooperative bank loans would be oriented toward the rationalization of marketing systems and would, therefore, also tend to have a deflationary impact.

Toward a Definition

Development Banking in Perspective

It is only useful to define something if by this definition we can form a clearer picture of what we are discussing. We have here defined development banking to include all financial institutions which have both financial and developmental functions. For some purposes, however, such as the development of detailed operational guidelines and specific organizational structures, it will be useful further to subdivide the field into subcategories such as industrial development banking, agricultural development banking, small industry development corporations, development banks for cooperatives, and the like.

For many other purposes, however, such as the dissemination of information about sources and costs of funds, for focusing on problems related to the form and method of technical assistance, for analysis of problems related to governmental fiscal and monetary policy, for analysis of the impact of goals and objectives of development plans, and for the formation of general guidelines relating to the structure and organization of development banks, it may be useful to adhere to, and maintain, a larger view.

A country which seeks to achieve economic progress over a broad range of economic and social development objectives will find it useful to have maximum coordination among its institutions, especially in the financial market. Experience gained in industrial development banking can be extremely useful for practitioners in other types of development banks. Indeed, many development banks need experience in more than one field of development banking right within their own four walls. For example, the Somali Republic now has a development bank, which, in view of the serious need in that country for agricultural progress, and also in view of the shortage of personnel, will make loans for both industrial and agricultural projects. BCAIF in Lebanon has responsibilities in both the agricultural and industrial fields.

At present, there are certain national and international organizations which are attempting to forge formal structural ties to the field of development banking. There exists the possibility that these structural ties will be limited to industrial development banking. The Development Banking Loan Offices now located in one of the Regional Bureaus of AID, and now proposed for other AID Capital Development Offices, and the development banking focus presently existing in AID/DFPE, in the Inter-American Development Bank and in the International Finance Corporation can be of immeasurable value in developing broad guidelines for recommending patterns of development financing, in distilling techniques of organization and operation of development banks, and in sharpening the usefulness of development banks as tools of economic growth.

Conclusion

Institutional status is also valuable in the competition to obtain funds. To eliminate other types of development banking from the benefits of specialized structural ties seems to be a deterrent to all institutions involved. Country planners and government officials, when planning the institutional development of their country, will have to evaluate and choose from among a now rather loosely connected and heterogeneous assortment of development financing institutions.

Development banks are in transition. The beginnings of many institutions can be observed in the eclectic assortment of functions performed in an economy by a development bank, and time and development will more than likely see these emerge as separate institutions later on. For the present, however, it appears especially useful from many points of view to define development banking in such a way as to include the financing of economic development, through intermediate credit institutions, and the accompanying developmental function which these institutions can perform.

To define development banking to include a wider range of development financing institutions than just industrial project financing is only the first step. We then must see to it that other types of development banks are woven into structures of national and international economic development institutions, so that they will receive the specialized analytical and financial attention they deserve.

DEVELOPMENT BANKS AND INFLATION

A Blueprint for the Organization
And Operation of An Intermediate Credit Institution
In Countries with Anticipated or Actual Price Instability

By: J. T. Houk
Washington, D. C.
September, 1965

DEVELOPMENT BANKS AND INFLATION

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DEVELOPMENT BANKS AND INFLATION

A Blueprint for the Organization And Operation of an Intermediate Credit Institution In Countries with Anticipated or Actual Price Instability

Certain financial institutions in many developing countries are becoming the focus and center of economic growth. These institutions are called development banks, and are, in some cases, a collection of tools through the use of which practitioners in the field of economic development hope to accelerate the pace, and in some cases change the direction, of the economic growth of their country.

A typical development bank has both banking and developmental functions. In addition to providing, through debt or equity, medium and long-term capital for economic development projects, a development bank can sometimes perform the financial functions of guaranteeing, underwriting, and providing a prospective borrower with financial contacts, both within and outside of the country. Its development functions relate to the particular needs of the country in which it is located, and sometimes require the bank to act as an entrepreneur, as a teacher, as a promoter, as a stimulant to the capital market, as a provider of technical assistance to business, or as an assistant to the government in the implementation of a development plan.

For the purpose of this paper, which purports to observe the organization and operation of a development bank in a country characterized by price instability, we will define a development bank as a financial institution which provides certain developmental functions.

Inflationary Pressures Generated by Development

There has been quite a controversy in the literature about the relationship of inflation to economic growth, which controversy was sharpened but not resolved by a conference in Rio de Janeiro in January of 1963. This paper is not an attempt to resolve this controversy or to map out a way of dealing with inflation, but only an attempt to develop guidelines for a financial institution, such as a development bank, to follow during an inflation or in anticipation of one. However, it will help us to know a bit more about the process of inflation.

Development Banks and Inflation

Inflation is usually defined as a condition in which the financial resources of a country are greater than the current market value of its real resources. If a country has no shortage of foreign exchange, inflationary pressures are likely to spill over into increased imports. If government measures are taken to protect shrinking foreign currency (and they tend to be necessary in such a situation), the pressure is diverted inward, and the result is likely to be increased prices.

We recognize that inflation has many causes. It is usually either demand-led or caused by a cost-price push. In the former variety, an increase in the money supply from whatever cause, often due to a budgetary surplus or to incomes earned during the development of infrastructure, or long-term industrial projects, finds itself chasing after the existing stock of goods and services, and by thus causing their prices to rise, initiates the spiral of inflation.

In the cost-push variety of inflation, external circumstances such as the decline in export earnings experienced in many countries, especially in Latin America over the last decade, cause a balance of payments problem and require a restriction of imports. Since supplies of some goods cannot easily be increased, their cost rises, causing not increased output but increased prices. Rigidities within the country which cause these inelasticities of domestic supply are in many cases due to systems of land tenure, labor immobility, low level of capital used in the process of production, and monopolies. A new problem which has been recently imposed upon developing economies is the power and strength of labor unions, which have been able to get increased wages in spite of the absence of increases in productivity. These increases have then, in many cases, been passed on to the consumer.

Institutions which plan to lend, even in countries which presently enjoy monetary stability, should protect themselves against possible changes in the level of prices.

Inflation, by raising domestic prices, tends to worsen the country's position in the world market for the commodities that it might otherwise export. At the same time, goods from abroad which presumably have not increased in price are more attractive than ever. The resultant pressure on a country's stock of foreign exchange sometimes causes governments to raise the price of foreign currency by devaluing its own..

Need for Development Banking

Since inflation is present and has been present over a significant period of time in many of the developing countries, especially in the countries of Latin America, such as Chile, Brazil, and to some extent, Argentina, and because the very fact of development and the very process of development has a tendency to generate the kinds of forces within a society that can initiate an inflationary spiral and thus jeopardize an unprotected lender, let us investigate in some detail the measures and policies that a development bank might take to protect itself against the possibility of an increase in domestic prices, or against the possibility of an increase in the price of foreign currencies.

Inflation Intensifies the Need for Development Banking

A. Capital Gap Widens

One of the principal and the most important financial functions of a development bank is the provision of medium and long-term debt and equity investment funds. At the present time, in many of the developing countries where there is a critical shortage of funds for medium and long-term investment, commercial banks frequently do not prevent their borrowers from investing in short-term loans in fixed assets with the implicit or stated agreement that the loan will be renewed. These short-term loans are then "rolled over" and renewed from time to time.

And, quite naturally, commercial banks, which obtain their principal source of funds from short-term demand deposits, take a considerable risk when they permit a borrower to make an investment which cannot be converted into cash within a short time.

Inflation increases the risk of term investments, and as a consequence, commercial banks are even less likely to acquiesce to a borrower's making fixed investments with short-term funds. Thus, the lack of medium and long-term investment funds in a country becomes even more serious and the need for a development bank even greater.

Development Banks and Inflation

B. Capital Market Worsens

Developing countries, which understand and appreciate the effect of profits on incentives for progress and on capital formation, and which are anxious to free private business from the fetters of overcontrol by the state, realize the importance of the formation of a capital market. A capital market may be defined as the complex of institutions in a society which affects the generation of savings and which effects the flow of these savings into productive investments. By heightening uncertainty, inflation may inhibit the buying and selling of debt or equity instruments. However, inflation at the same time causes money to lose some of its attributes of liquidity and causes potential investors either to invest abroad or to invest in unproductive domestic assets, such as land, luxury, housing, inventory, and the like.

A development bank, if it operates in such a way as to generate the confidence of the investing public, might well attract some of these investment funds, even in an inflation, into equity shares or, if proper protection is offered, debt instruments in productive enterprises. Indeed, the distinguished Brazilian economist and political figure, Roberto de Oliveira Campos, has commented on Brazil's inflation as weeding out investors who were not willing to take a risk. The existence in Brazil of a number of smoothly functioning development finance institutions has quite likely contributed and facilitated the economic growth that, until recently, Brazil enjoyed even during severe inflation.

C. Foreign Private Capital Flows Shrink

Development bankers well know that an inflation, or the threat of an inflation, is a severe inhibitor of an inflow into a developing country of private foreign investment. A development bank, however, with its international financial contacts and with a record of sound financial business judgment may be able to induce an increase or prevent a decrease in this flow, in spite of inflation.

D. Uncertainty Affects Domestic Entrepreneurs

Inflation and the uncertainty it brings is probably one of the causes of the fact that domestic entrepreneurial talent continues to invest in commerce or in speculation. Even though, in a normal inflationary situation, equity investment might be expected to keep pace with the increase of domestic prices, entrepreneurs who are not accustomed to investment in production may be reluctant to venture into this field. A development bank, if it establishes itself on a sound financial base and if it gains the confidence of this entrepreneurial talent, may be able, in spite of an inflation, to overcome their reluctance to make a permanent contribution to productivity.

For these reasons, a development bank is potentially extremely useful in a country even during an inflation. Put another way, the gaps and bottlenecks to economic growth which a development bank is especially designed to fill become even more acute during periods of rising prices. We do not mean to imply that a development bank can or should be initiated during such a period. Indeed, this paper intends carefully to point out the problems involved during inflation in both organizing and operating such a bank.

Inflation, the Solvency of a Development Bank, and the Maintenance of Value of Its Assets and Liabilities

The threat which inflation poses to a development bank with respect to its balance sheet is really of two kinds, depending upon the nature of the bank's liabilities. If these liabilities are repayable in a foreign currency (its loans and investments), the bank may be thrown into bankruptcy by a devaluation.

If, on the other hand, its liabilities are denominated in local (domestic) currency, inflation reduces assets and liabilities proportionally. The threat of bankruptcy is not present, but inflation threatens the bank's effectiveness and even its existence as a financial institution. With prices rising, as we pointed out above, lenders of fixed sums are injured in an inflation to the extent that when they receive back their fixed sum after the lending term, it commands less real resources than when the sum was lent. Thus, without protection, loan funds vanish, both as sources and usés of development bank funds.

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One analyst unofficially calculated for the Industrial Development Bank of Turkey at one stage of its growth when it had obligations repayable in dollars (although it was never unprotected) that a ten percent devaluation of the lira could, if the bank were unprotected, wipe out one year's profit; that a twenty-five percent devaluation would wipe out the accumulated profits and the reserves of previous years; and that a seventy-five percent devaluation would completely decapitalize the bank. This example illustrates the need for a term lender, even when he is lending in an economic situation of stable prices, to protect himself against the possibility that the value of his assets may decline while the value of his liabilities remains the same. Equally important, in the case that both assets decline proportionally, is the requirement that the development banker protect himself against loss of value of his assets. Most important of all is that both the lender and borrower be aware of the implications of inflation on the loan, that they assess the likely impact of inflation and take steps to protect themselves if necessary.

Inflation and devaluation are inextricably linked. The relationship is probably one to one in the long run. But, in the short and medium term, they may not be proportional to one another. Indeed, there is evidence, presented in Table 1, page 37, that devaluation lags behind domestic price increases, and that, in the short and medium term, domestic prices are likely to rise more than the price of foreign exchange. The table, however, was calculated using official rates of exchange. If free market rates were used, the statistics might reflect a closer correlation between the two. A business which requires foreign exchange can never be sure what price it will have to pay when foreign exchange allocations are under government control.

The close relationship between changes in domestic prices and changes in the price of foreign exchange is due principally to two reasons: first, a rise in domestic prices makes foreign imports more attractive, especially imports which substitute for domestic goods the prices of which have risen. Increased demand for imports augments the demand for foreign exchange. Second, rising domestic prices decrease the competitive position of a country's exports vis-a-vis the World Market and tend to lower the total value, in the absence of inelasticities of demand, of a country's foreign exchange earnings. Thus, the increase in demand for foreign exchange plus a shrinkage or, at least, a potential shrinkage of foreign exchange availability augments the pressure on the country to increase its price. If foreign exchange were freely fluctuating, the increase in demand plus restriction of supply would naturally and normally cause a rise in the price of foreign exchange.

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Development bankers concerned with the price of foreign exchange should watch carefully the posture of the International Monetary Fund and of local government officials to ascertain likely corrective measures when faced with shrinking foreign exchange reserves and rising domestic prices. The International Monetary Fund sometimes would seem to be pursuing mutually conflicting monetary objectives of maintaining both exchange rate stability and convertibility. Very often, in order to achieve convertibility, the Fund must permit the country to devalue its currency. IMF will usually permit a country to devalue its currency only if it takes internal measures, such as domestic austerity, balanced budget, etc., calculated to insure stable prices.

Because of the uncertainty that surrounds foreign exchange availabilities, and because of the fact, mentioned above, that having liabilities denominated in foreign exchange poses a potential threat to the solvency of the bank, a development bank should limit its foreign exchange borrowings to its actual foreign exchange requirements. It should try to obtain local currency for all domestic requirements. Local currency is sometimes available from private local sources, from local government budgets, and from such lenders as the Inter-American Development Bank and the Agency for International Development.

But, the problem of maintaining the value of the assets of a development bank is crucial in the threat or in the existence of an inflation, no matter whether the loan is to be made in local or foreign currency. The issue to be decided in each particular commitment of funds made by the development bank is: How is the risk of maintenance of value to be borne or shared? The following alternatives may be open to a development bank:

A. Equity Investment

One recommendation to a development banker who might be faced with an inflation is to shift his resources into equity. More specific details are given below on page 31 as to the kind of project to be selected (both for lending and for equity investment) during an inflation. However, equity investment is usually only a limited alternative to a development banker. Very few bankers would advise that equity investments be made with borrowed funds, and indeed most lines of credit extended to development banks from international

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lending agencies prohibit the use of these lines of credit for equity investment. The World Bank, however, in several cases, permitted its lines of credit to be used for equity investment. Nevertheless, a development bank is usually limited in its ability to make equity investments to the extent to which it itself has received equity capital.

It might be explored, in the light of the World Bank precedent mentioned above, that a development bank might be permitted by the international lender to take either equity or at least debt positions with a convertibility feature to be exercised only upon consultation with the financial organization concerned. Such positions would enable the development bank to convert debt to equity to protect its investment.

B. Maintenance of Value Burden Borne by Bank

It is conceivable, of course, that the intermediate credit institution, the development bank itself, might bear the risk of inflation. Naturally, in countries where prices and exchange rates remain stable, a development bank may conveniently bear this burden without any harm. Banks in the United States, for example, bear this risk without fear.

However, one can see at a glance that from Table 1 on page 37 chances are that development will sooner or later exert an upward pressure on prices. We have seen above, in the mock calculations done for the Industrial Development Bank of Turkey, that devaluation can decapitalize a bank very quickly. It has been the experience of development bankers in the past that a development bank seriously jeopardizes its viability if it attempts to undertake the risk of maintaining the value of its assets itself.

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There are, however, ways in which this can be done, and they may be more or less appropriate in a given institutional or political circumstance. The use of an interest surcharge on the loans that a bank makes, such surcharge feeding into a reserve for maintenance of value, is thought by most experts not to be sufficient to protect fully a bank during an inflation. This is especially true when the development bank is being organized and will be initiated during an inflation. Such a reserve fund might have a chance of accumulating enough to guard against depreciation or inflation, if it had a long period of stability that preceded the period of inflation and if the inflation were mild and short-lived.

The technique of using an interest surcharge as a protection against inflation or devaluation is not recommended for a private institution. A public institution, however, might, for political reasons, undertake the financial burden itself with or without an interest surcharge. In this case, it could probably count on a subsidy from the government, if such a subsidy were required by inflation or depreciation. Or, if some of its borrowers were engaged in export operation, it might be able to arrange conversion of the foreign exchange to local currency at a more favorable rate.

It is conceivable that a public or private institution might undertake the responsibility for being a self-insurer against depreciation or inflation if the government would make a long-term, low interest or no-interest loan, or transfer the administration of a special fund to the institution for the general purposes of its operation with the proviso that the income from administering this fund would go into a special reserve for possible loss through inflation. In this case, for the government to set aside or create this fund, it would by this act be indicating such confidence in the institution, in the job that it was capable of performing in this society, and that the institution might be thus assured of additional assistance if inflation or depreciation depleted this reserve.

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In the main, however, a development bank, especially a private development bank, is ill-advised to assume this risk itself. Indeed, the International Finance Corporation requires, as a condition of a credit to, or an investment in, a development bank, that the problem of maintenance of value be solved to its satisfaction. This usually means that the bank will take steps to pass the risk either to the government or to the sub-borrowers.

C. Maintenance of Value Risk Passed on to Borrower

The usual method of handling the problem of maintenance of value in the past has been for a development bank to pass the risk to the sub-borrower. That is:

- (i) the sub-borrower receives the loan denominated in dollars or denominated in some other foreign currency likely to remain stable throughout the period of the loan; or
- (ii) the loan has been tied to a domestic index such as that of prices, wages, or cost of living; or
- (iii) the loan has been tied to a commodity; or
- (iv) other attempted solutions such as shortening the repayment period or requiring participations in profits and earnings.

The reason behind passing the loan on to the sub-borrower is that passing the risk in this manner distributes it over the entire range of bank lending. One therefore has, instead of the development bank itself taking one large risk, a lot of smaller borrowers taking a more widely distributed and much smaller risk. Another reason is that many people feel that the sub-borrower's control over the price of a final product is sufficient for him, in the case of an inflation, to pass this price increase along to the ultimate consumer.

(i) Tie Loan to Stable Foreign Currency

Tying the loan to a unit of foreign currency, such as the dollar, has been a method of protection used by some banks, including the Industrial Development Bank of Israel. Where a bank's liabilities are denominated in dollars, its assets, according to some observers, should be in dollars too. The maintenance of value burden is thus shifted from the bank to the sub-borrower.

In such a case, the sub-borrower undertakes a certain amount of local currency denominated in dollars or some other stable currency. When he pays back the loan, his amortization schedule is adjusted to a local currency requirement adapted to repay to the development bank local currency equivalent in value to the amount of foreign currency borrowed.

The acceptance of a responsibility of this kind can be extremely dangerous for the borrower. For example, in one case, a borrower from the Industrial Development Bank of Israel found that the principal amount of his loan increased significantly when Israel devalued her currency. Since his loan was tied to the dollar, a technique which is called linkage, the principal of the loan was revised upward to reflect the depreciation. When the firm's officials worked through their financial figures on the basis of the new amount of the loan, they found that the production break-even point was above the capacity of the corporation.

The alternative of raising the price of the product was not open to them in view of government price controls. Thus, the business was squarely up against the alternative of either declaring bankruptcy or extending themselves even more into debt to obtain machinery which would bring their production above the break-even point. They were able, through the willingness of the IDB to increase their loan, to pursue the latter course; the profit squeeze illustrates the danger involved.

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There is another disadvantage to tying the loan to the dollar which is being illustrated now in some Latin American countries where communist propaganda points out that the economy, in tying its future to the dollar, is becoming overly dependent on the United States. They take every opportunity to point out the weakening in the dollar and also the dangers to national sovereignty that are implicit in financial control by another nation. Linking is not intended to provide any measure of United States control over the borrower or the sub-borrower. Yet, this technique furnishes fodder for the communist conflagration.

Another drawback to the borrower results from denominating a loan of local currency in dollars. Some borrowers who have only a local currency requirement do not like to see the principal and interest on their loan tied to an outside currency. It gives them a feeling of excessive dependence upon something over which they have no influence or control.

(ii) Tie Loan to a Commodity

There has been some experience in the use of a loan denominated in terms of a commodity. Such a loan is a partial reflection of the fact that, during an inflation, money loses many of its essential attributes: that of liquidity; that of being a store of wealth; and that of being a standard of deferred payment. For example, in order for Cooperativa Sodimac of Chile to obtain debt capital, they offered bonds denominated in terms of steel, such bonds to carry an interest rate of seven percent. The denomination of the bond issue in terms of steel was an incentive to the lender to make the loan.

Also, in Chile, there is an attempt to link the price of land sold through the Corporación de Reforma Agraria and the Instituto de Promoción Agraria to a certain quantity of a staple grain, in this case, wheat. The present value of the land at the time it is sold to the campesinos is denominated in terms of quintal^o of wheat.

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The principal amount of the loan is re-evaluated at periodic intervals during the life of the loan and readjusted upward if there is any change in the price of this commodity.

The risk of loss of earning power (interest income), through devaluation or inflation, is shared by the bank with the borrower in the following manner: one-half of the interest charge is payable to the lender without any adjustment at the agreed-upon rate, and the other half of the interest charge is scaled upward if necessary according to any increase in the price of wheat.

Linkage of a loan to a commodity is an objective standard about which there can be no question. In France, several utilities have issued bonds indexed to commodities or services. In one case, a utility company tied the bond to electricity rates. In another, a railroad tied its bonds to government controlled railroad fares.

Also, there is an element of equity involved in the choice of the commodity to which the loan will be tied. In the Chilean case outlined above, the choice was wheat because this was the principal crop grown on the land sold to the campesinos under the program. The choice of wheat also permitted the farmer to identify a little bit more closely with the equity of the situation. It is a lot easier to explain to a campesino who has limited formal education that his loan will be adjusted in accordance with the increases in the prices he might obtain from his wheat than it is to explain to him that the loan will be adjusted upon changes in the relationship between his currency and the currency from another country.

Drawbacks to the use of the commodity link, in spite of its objectivity, is that, depending upon its market structure, it may not be a good measure of inflation. It is precisely for this reason that a composite of goods and service prices is used as a price index rather than a single commodity.

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(iii) Tie Loan to a Domestic Price Index

Another way for the bank to shift the MOV to the borrower is for it to make the principal and interest charge readjustable at periodic intervals to a particular appropriate domestic index of prices. There are a number of alternative indices from which to choose, such as cost of living index, a wage or remuneration index, or an index of wholesale prices. The choice would depend upon the resolution of a number of important problems with respect thereto.

Perhaps, the most important problem is to determine the type of index that is both fair and feasible for use in making readjustment. Certain indices of the present cost of living, such as the consumer price index or the wholesale price index, are fair both to the borrower and the lender under some circumstances, as long as they are accurate and impartially calculated. In spite of the difficulties in calculating this index, in assigning weights, in readjusting according to quality changes in the market basket, and in obtaining accurate statistics, this index is perhaps the most appropriate measure of inflation.

However, the cost of living index was not chosen for use in the Chilean savings and loan scheme. The Krooth-Courshon study, done at the instigation of Mr. Harold Robinson, then chief of the Housing Division in the AID Mission to Chile, and presently Director of the Housing Section of the Institutional Development Division in the Bureau for Latin America, Agency for International Development, rejected the cost of living index because it did not have a sufficiently direct and immediate relationship to earnings. Borrowers, who were wage earners and who would use the money through the savings and loan scheme to purchase or build a house, might be unable to make increased payments if payments were adjusted on the basis of an index of the cost of living.

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The index selected, therefore, was a wage index. Wages, however, may change for several reasons: (1) because the cost of living has gone up; or (2) because production per worker (productivity) has gone up; or (3) because labor power has increased to the extent that labor unions force a redistribution of income.

In order to adjust for changes in productivity, it was proposed that the wage index be reduced by changes in per capita production. But, this adjustment assumes that wage changes are proportional to changes in per capita production --an assumption the accuracy of which is dependent upon the strength of labor unions.

It was, however, the opinion of Messrs. Krooth and Courshon that a wage index would bear, over a period of time, a steady relationship to changes in the cost of living. If a bank feels that a wage index should be used, but is afraid that there will be a significant non-cost-of-living component to future wage rises, it is possible to agree with borrowers and/or depositors to adjust their loan or deposit according to either the wage index or the cost of living index, whichever is lower.

One of the basic objectives underlying this and any other effort to preserve the assets of a development bank during conditions of price instability is to return confidence to the lender that the real value of the money he lends can be preserved even during an inflation.

The other side of the coin, that is, preserving the real value of money saved by depositors is no less important. The Chilean savings and loan scheme required the readjustment annually of both the aggregate savings and the principal balances on mortgages based on a modification of an index of wages. The index apparently used was the average annual increase of wages and salaries and was prepared by the Servicio Nacional de Estadística y Censos.

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There are a number of potential drawbacks to the use of the remunerations index which must be pointed out at this time. From the standpoint of the borrower, the use of the unadjusted wage index would work a hardship since it would cause the loan to be readjusted upward even if the wage index reflected a wage increase due to increase in productivity, or due to an increase in bargaining strength. From the standpoint of the lender, an index of wages might be disadvantageous since it very often lags behind changes in the cost of living. Rigidities of one kind or another, the varying strengths of local labor unions and the nature of their contracts with employers will modify this situation in individual cases. But, by and large, experience has been that wage rates, as a rule, rise more slowly than cost of living, or at least if they rise at the same rate, they do so with a constant lag.

There is another factor which may be pointed out at this time in the case of a bank's using this method to readjust both the amount of its assets and the amount of its liabilities by means of this index. If the volume of resources in the bank is, say, 100 units of currency, the volume of its loans leaving a prudent twenty percent for liquidity reserves would be 80 units of currency. If the volume of its deposits, which are liabilities to the bank, were adjusted upward according to the basis of an index and the volume of its loans were adjusted upward on the basis of the same index, we would have an adjustment to the figure of 100 and an adjustment to the figure of 80. There would be presumably no adjustment to the 20 units of currency which the bank felt necessary to keep on deposit for liquidity. The cost, therefore, of this differential would be presumably, in the absence of any special arrangement, borne by the bank. This is a cost which might very well be taken care of by a surcharge on the loan, such surcharge to be used for a reserve to reimburse the bank in case of any loss incurred.

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From many standpoints, an index of prices is an important tool for a development bank to use to readjust its assets and liabilities. However, one must keep in mind that it is not the index itself, but both borrower and lender confidence in the index which permits it to be useful. In many countries, political considerations influence changes in the price index, and to the extent that they do, the index then loses much of its usefulness.

In Chile, as mentioned above, there have been some experiments with tying assets and liabilities of certain financial institutions to an index of prices (the wage index). However, many feel that the price index is not a reliable measure of price changes. In Mexico, the Mexican Oil Company, PEMEX, issued a price index bond that was outstanding for three or four years. During that period, the price index went up, but the price of oil products did not rise as much, and PEMEX re-called the issue to avoid a greater loss.

Confidence of both borrowers and depositors in the index is one of the most important conclusions which can be drawn from the above. If the bank chooses to use an index, it should endeavor in every way possible to verify beforehand the integrity of the index calculating agency and make an assessment of borrower and lender confidence in the index as a measure of prices.

(iv) Other Methods of Shifting the NOV Burden to the Borrower

There have been other schemes to shift the burden of maintenance of value to the borrower; however, there is very little information as to their effectiveness. One, as mentioned above in the section on "Equity Investment", is to insist on the right to convert debt into equity. Such an option would be exercised by a development bank in the case that inflation had so diminished

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the real value of the loan that greater value would be realized by converting to equity and selling. This approach can be dangerous especially with respect to liquidity, since in many developing countries the capital market is not well developed and since, in periods of inflation, uncertainty is likely to make the capital market function even more cautiously. However, it is potentially useful: in an inflation one might presume that the value of investments in land, machinery, plant, etc. will keep pace in value with rising prices. Since equity represents a share in these assets, it would presumably also keep pace with rising prices.

Other techniques are accelerated amortization schemes, profit sharing, or provisions for the issuance of bonus shares. The Caisse Central of France requires accelerated amortization of a long-term loan if the borrower's gross sales rise above the figures shown in the financial forecasts, which accompany the loan application, for all loans for more than ten years. After the fifth or sixth year, Caisse requires that the borrowers increase the amount of each installment by one third to one half of the excess of actual sales over forecasted sales. The Government Development Bank of Puerto Rico reserves the right in the case of machinery and equipment loans to require up to one half of the borrower's profit, net of debt service, to be used to repay the loan.

Loans from the former Indonesian State Bank for Industry often combine debt instruments with profit sharing arrangements. As a hedge against inflation, such schemes can be partially or wholly successful, depending upon their terms and conditions. Against a severe inflation, it is highly probable that they would not indemnify the bank completely against loss.

(v) Plan of the Chile Cooperative Finance Institute

The Chile Cooperative Finance Institute (IFICOOP) is acutely aware that the maintenance of value problem is one of the most significant problems that it will face. This bank, organized in 1964, and expected to begin operations in the fall of 1965, is a part of the Inter-American Cooperative Finance System.

In its loan application to AID for an initial capital loan, the bank staff first outlined several criteria for such an index.

- (a) It must be of general application;
- (b) it must be in accordance with the payment capacity of the borrower; and
- (c) it must permit the financier to maintain his purchasing power and avoid his decapitalization.

The plan worked out by the Board of Directors of IFICOOP, and yet to be tested, is submitted below because it is thought to be the most imaginative approach to the problem encountered, to date, by the author.

- (a) Loans with readjustment clauses should be made from the following sources of funds:
 - (i) IFICOOP's own capital;
 - (ii) savings allocated to the members;
 - (iii) local currency obtained from foreign sources;
 - (iv) local currency obtained from local sources if readjustment is a part of the agreement by which the resources are obtained;
 - (v) loans of foreign currency from any source.
- (b) Loans which might be made without a readjustment clause from the following sources of funds:

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- (i) IFICOOP's reserves;
- (ii) term deposits from cooperatives which are not readjustable;
- (iii) local currency from foreign sources which are not readjustable; and
- (iv) local currency from local sources which are not readjustable.

Even though they did not want to work with an excessive number of indices, the bank was anxious to have an equitable system of readjustments. Consequently, its plan calls for the use of a number of readjustment measures as follows:

- (a) Tie loan to dollar: Dollar-tied loans will only be granted to a cooperative to assist a project which will result in increased exports. The increase in export revenue must be greater than the amortization payments on the loan.
- (b) Tie loan to wage index: Loans to cooperative housing projects are planned to be tied to a wage index in order to link the repayment obligation closely with the ability of the borrower to repay.
- (c) Tie loan to consumer price index: For supply and merchandizing cooperatives, savings and credit organizations, and production and transportation.
- (d) Tie loan to agricultural price index: For loans to agricultural cooperatives and also rural electrification societies.

With respect to funds obtained abroad, the government of Chile has agreed to indemnify the bank for any difference which may occur due to a greater fluctuation in the foreign exchange rate than obtained from the readjustment of the loans.

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The bank plans that short-term loans (of less than one year) might be granted at sixteen percent interest if there is no readjustment clause. If there is a readjustment clause, or if the credit is at medium or long-term, the interest rate will drop to six percent.

The policy of shifting the maintenance of value burden by the development bank to the sub-borrower has been one of several forces tending to cause development banks to lend solely to large sub-borrowers, whom the bank might presume may have the financial soundness and the financial sophistication to protect themselves against profit squeeze in the case of devaluation or price inflation. Many banks have, for this and other good reasons, established a lower lending limit below which they will not lend.

When a development bank in an inflation passes the maintenance of value burden to a sub-borrower who is financially too small, or who lacks knowledge, or who is faced with price controls, the bank takes a great risk that the borrower might not be able to repay the loan, and that the solvency of the bank itself might thereby be placed in jeopardy.

D. Shift of Maintenance of Value Burden to Local Government

When a development bank has liabilities denominated in dollars, many feel that local governments should assume a major share of the burden of maintenance of value. When a development bank has liabilities denominated in local currency, there is no prima facie reason why the government should enter the picture at all.

In the former instance, however, because of the clear danger of bankruptcy of the bank in the event of devaluation, the position of the government to control devaluation through action of the central bank, and the power of the government through the use of monetary and fiscal policy to influence the domestic price level, many feel that the government should bear the risk of MOV. This argument is made even more forcefully in the case that the financial institution with foreign currency liabilities is relending to small businesses, small farmers, or for production the price of which is controlled.

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Already in Latin America, several governments have been willing to undertake the maintenance of value burden. The government of Colombia is requiring the Instituto Colombiano de Reforma Agraria (INCORA) to repay only the amount of currency borrowed. The Colombian government is also taking a risk in the case of a dollar credit to the Instituto de Crédito Territorial. In Ecuador, too, the government seems willing to assume part or all of the risk of maintenance of value of funds borrowed by an intermediate credit institution. In Peru, however, present legislation may not permit the Central Bank to accept this risk. The government of Pakistan, as another example, guaranteed the Pakistan Industrial Credit and Investment Corporation (PICIC) against any loss due to devaluation with respect to an IBRD credit, although they have not done so for recent credits.

In most AID dollar loans, however, to countries of the Near East and South Asia regions, the government does not undertake the burden of maintenance of value for the banks. In a two-step loan to the Industrial Development Bank of Turkey, made by the Agency for International Development, the bank has undertaken to pay to the government of Turkey the amount of the loan over a period of ten years at the rate of $5\frac{1}{2}$ percent with maintenance of value. The Turkish government has agreed to repay the loan in dollars to AID at $\frac{3}{4}$ of one percent over a forty-year period. From the time the loan is made until it is repaid to the Turkish government, the maintenance of value burden is borne by the IDB, which passes it on to its sub-borrowers. Beginning at the time the loan is completely repaid to the government of Turkey until the time that that government is obliged to complete its repayments to AID in dollars, the maintenance of value burden, of course, is borne by the government of Turkey. This kind of a loan is, in fact, two loans: one to the intermediate credit institution at $5\frac{1}{2}$ percent for ten years with maintenance of value; and the second to the government of Turkey, at $\frac{3}{4}$ of one percent for forty years with maintenance of value.

In the case of the particular loan in question, and in the case of many loans similar to this one, the maintenance of value burden is passed by the development bank on to the sub-borrower, usually by the denomination of the sub-loans in dollars.

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In loans to seasoned financially sound intermediate credit institutions, which are lending to large or medium-sized industrial borrowers in situations in which the prices of these borrowers are not controlled, it is perhaps the most equitable arrangement that the sub-borrower should assume the maintenance of value burden with respect, at least, to dollar or other foreign currency credits, if not to all credits. However, in the case of young developing institutions, in their formative years; and in situations in which, for political and economic reasons, the government wants to have an impact on the development of indigenous small businesses or upon agricultural development; or in situations in which the prices of the products of the borrowers of the bank are controlled; then it would be wise to explore fully the possibilities that the government would assume part or all of the maintenance of value risk.

E. Shift of MOV Burden to Foreign Government or International Lender

A development bank may find, in dealing with institutional sources of funds abroad, that it can obtain foreign currency funds from which the burden of maintaining the value has been removed by a foreign government or by an international lender. Such is the case, for example, with local currency available under certain sections of the U. S. Public Law 480, under which commodities are bought with dollars in the United States and sold abroad for local currency. This currency, under some titles of Public Law 480, is available for relending without maintenance of value. Cooley loans, for example, which arise under the authority of Section 104(e) of this Act, are repayable in local currency without maintenance of value. Similarly, loans under Section 104(r) which can be used for the development of other countries (other than the country in which the funds were generated) do not require that the value of the loan be maintained. Such a loan was made in Indian rupees to the Nepal Industrial Development Corporation.

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The U. S. Extended Risk Guarantee Program can be used to protect the lender but not the borrower from devaluation. Funds loaned by an American investor to a development bank, for example, can be guaranteed by the United States Government, such guarantee covering all risks, in certain instances, up to 75 percent of the loan. This guarantee protects the lender in that the United States Government guarantees to repay the loan if the borrower defaults. However, this does not protect the borrower against the possibilities that devaluation will eliminate his profits or cause him serious financial loss. This technique, however, will be useful in stimulating the flow of funds to developing countries. An extended risk guarantee may be obtained for less than two percent of the amount being guaranteed.

The Effect of Inflation upon other Development Bank Policies

A. General

The management of any development bank will want to have in mind the following other areas in which it may find policies influenced by inflation. Clearly no definite recommendations are possible. Each bank response should be developed, however, in full awareness of the impact of inflation on the particular banking situation and in full awareness of the policy alternatives available.

B. Interest Rates

Experience in many cases has indicated that a development bank cannot fully protect itself against loss of earnings and decapitalization during severe inflation through the use of interest rates and surcharges on the loans that it makes. However, if the development bank anticipates that it will have a number of years of price stability within which to build up a reserve against loss due to devaluation or inflation, conceivably, it might build up a sufficient reserve to protect itself against loss of capital and earnings.

It is characteristic that, during an inflation, capital becomes scarce and interest rates are quite likely to rise, as a reflection of this scarcity. Corporación de Fomento de la Producción (CORFO) in Chile charges 12 percent with the rate rising to the legal maximum, around 17 percent, for overdue loans. Yet, CORFO does not accept the MOV burden for dollar credits, but rather makes loans denominated in dollars.

As can be noted in Table 1 on page 37, in most of the countries over the period analyzed, an interest rate adjustment would not have been sufficient to indemnify the bank against loss from either inflation or devaluation.

Prior agreement with a borrower from a development bank to adjust the rate of interest in a pre-arranged manner, according to a particular index, or according to some other equitable arrangement, might be sufficient to protect the earnings of a bank but not the capital of a bank. During an inflation, rising costs have probably increased the costs of operation of the bank. Salaries are likely to have gone up. Supplies and other elements of the cost of operations of a development bank will have gone up too. Unless income is adjusted, the bank will be caught in a squeeze between fixed earnings and rising costs. Reduced earnings will jeopardize the ability of the bank to raise additional capital or to add to its staff necessary technical competence or, indeed, to perform many of its development functions.

Development Banks and Inflation

We mentioned above, in the case of land sales by Instituto de Promoción Agraria in Chile, an example of adjustment of 50 percent of the interest charge. This charge is adjusted upward according to an index of wheat prices. This measure did not fully protect the development bank against loss of earning power due to inflation. The other 50 percent was in this case borne by the bank. Some linkage, between the rate of interest charged by the bank on its loans and the rate of increase in prices, is therefore desirable. The precise relationship, of course, will depend upon the portfolio of the bank and the conditions of its investments, upon the bank's earning capacity and financial soundness, and upon possible legal impediments.

With reference to the latter, many international lenders and foreign national lenders, in some cases because of congressional pressure, limit the maximum interest rate that a development bank may charge. In many cases, there is legislation which fixes maximum interest rates. In such a case, a bank should press for flexibility so that it can have maximum array of tools with which to deal with inflation, but in the interim, it should pursue other methods of protecting itself.

C. Term of Lending

A development bank can protect itself to some extent in an inflation by shortening its term of lending, forcing the borrower to renegotiate the loan intermittently, at which time new cost price relationships may be examined and the loan or the interest rate adjusted accordingly. Banco Agrícola do Espiritu Santo in Brazil, for example, shortened the normal five year tractor loan to two or three years because of the existing inflation in Brazil.

Other Bank Policies

Some development banks have arranged with their borrowers to shorten the repayment period and accelerate repayment of the loan if profits or earnings reach a certain ratio, as they might do in the case that an inflation generates windfall profits. Such profits are made by many manufacturers, who in anticipation of price increases, store up on raw materials and then manufacture and sell their products after the prices have gone up. Inflation in this case can be seen as disguising cost/price relationships and can very often insulate high-cost producers from the competitive market. This method of shifting the MOV burden to the borrower has been discussed on page 18 above and need not be repeated.

A development bank has to beware of the possibility that, by shortening its term, the bank may be ignoring or increasing the medium and long-term credit gap which it was created to fill.

D. Security Requirements

In general, the attitude of a development banker towards security is likely to be slightly different from that of a commercial banker. A commercial banker, who is a short-term lender and who has a requirement for a certain amount of liquidity, is likely to look very closely at the security taken in return for a loan and his ability to sell it in order to pay off the loan if necessary. To obtain security, a development banker, because his lending is usually for a longer term, must rely, for the most part, upon the viability of the project for which he is lending. This is not true in some agricultural development banks and in some cooperative banks which are also lending for short terms but for productive projects. However, even in these instances, the development bank is best advised to focus as sharply upon the viability of the project as upon the security taken.

In spite of such focus, security must not be ignored by a development banker. In an actual inflation or in the anticipation of one, the security selected must be capable of maintaining its value. Generally, even in times of stable prices, a development banker will lend no more than 50-60 percent of the value of the assets which secure the loan.

Development Banks and Inflation

Banks for cooperatives in the United States can lend up to 75 percent of the value of unhedged commodities and have the authority to lend for operating capital purposes without taking security. In practice, they seldom lend without taking security, but sometimes do lend up to 100 percent of the current value of warehoused commodities.

Probably the best hedge against inflation is for the bank to take designated commodities as securities. These commodities presumably would be located in a warehouse and would not be released except upon permission of the lender. In case of default on the loan, these commodities can probably be sold at increased prices. It would be wise also, during inflation, to increase margins slightly, especially if the prices of the commodities taken in security were subject to government regulation.

Land also, in some cases, may be used as a hedge against inflation. Machinery, buildings, and other fixed assets are acceptable as security during an inflation if there is a reasonable chance that their value will be maintained and that they may be able to be sold for an amount sufficient to cover the loan. A floating lien on commodities, such as might be taken by a lender to a market or some other retail store, requires close supervision so that the borrower does not deplete his assets and impair the loan. However, in an inflation, there is nothing wrong with taking such a lien if supervision can insure that the borrower does not impair the security for the loan.

F. Investment Policies

A development bank, depending upon the kind of a bank that it is, may find itself with a greater or lesser amount of idle funds on its hands. If the development bank is also a bank of deposit, it may find itself with funds that it has not loaned, especially funds that have been committed but not disbursed. During periods of stable prices, the holding of assets in money form or in near-money, such as low-yielding government bonds, is a sensible investment. But, during inflation, as noted above, money loses some of its aspects of liquidity, including its value as a store of wealth. Therefore, a development bank in an inflation runs a risk that its capital may be impaired to the extent that it holds money or near-money.

Other Bank Policies

It is relevant here to note in passing that a development bank is not likely to have foreign exchange idle since most international lenders disburse only through letters of commitment when the sub-borrower spends committed development bank funds.

However, the development bank is likely to have idle local currency, especially during its initial period. A development bank should investigate forms of investment which are likely to maintain better their value during an inflation. For example, it might discount short-term commercial paper or it might take short-term positions itself.

There are several potential drawbacks to this kind of operation. First of all, there is the possibility that the bank's charter might not permit it to do so. Secondly, the competition with the commercial banking system might arouse a hostility toward the development bank on the part of the commercial banking sector. Thirdly, this safe and remunerative financial activity might absorb too much of the bank's funds. The latter appears to be the case with the Industrial Bank of Syria which, although its founders hoped for it to be a development bank, finds that most of its assets are indeed short-term investments.

F. Capital Formation

Inflation raises a number of significant problems with respect to the raising of capital by a development bank. During an inflation, it was noticed in the case of the Investment Development Bank of Turkey that bond sales were not effective and did not succeed. However, an equity offering at the same time was oversubscribed. This is easily understood: a bond, during an inflation, with its fixed interest and its fixed repayment obligation, depreciates unless some arrangements are made to maintain its value. Equity investment, on the other hand, might reasonably be expected to keep pace with inflation.

Development Banks and Inflation

We mentioned above a technique used by Cooperativa Sodimac, Ltda., in Chile to make bonds more attractive by tying them to a certain amount of a commodity, in this case, steel.

Whether a development bank intends to obtain its debt capital from time or demand deposits, as is the case for some development banks for cooperatives, or whether it intends to borrow its debt capital by raising bonds or obtaining other loans, it must give assurance to the lender or depositor that inflation will not impair the loan or deposit. As mentioned above, in the case of the capital formation of the savings and loan institutions in Chile, it was necessary to reconstruct the confidence in savings as a form of investment before the institution could be financially successful in raising its capital.

The principles tested in this case undoubtedly hold true for any institution in similar circumstances. In Chile, as mentioned above, the confidence was instilled by tying savings deposits to the same index of wages to which the bank's loans were tied. This insured the saver that the value of his savings would not be impaired by rising prices. Such a technique, or some modification of this technique, should be considered by a development bank during inflation; otherwise, its efforts to obtain debt capital are not likely to be successful.

In development banks for cooperatives, an interesting capitalization technique has been devised and tested in the United States for the raising of equity. A borrower from such a bank is required to set aside a surcharge on interest of between 10-25 percent of his interest charge for the purchase of stock in the development bank. When the bank's authorized capital has been reached, the purchases of stock by new borrowers act in such a manner as to retire the capital stock of the bank on a first-in - first-out basis, serving thereby to revolve the capital and insuring that the bank will be owned by current borrowers.

Development Bank Project Appraisal and Selection During an Inflation

A. Project Selection

It does not have to be pointed out to a development banker that one of the critical bottlenecks to the operation of his bank is the shortage of viable projects presented to the bank in bankable form. However, within the limitations that this constraint imposes, a development banker during an inflation may be able to exercise his judgment with respect to project selection in such a way as to insulate him better from the dangers inherent in inflation and devaluation.

Evidence presented in Table I, page 37 tend to show that domestic prices will rise more during an inflation than the price of foreign currency in the inflating country. There is other evidence to the effect that devaluation and inflation in the long run will be proportional. Over a medium term period, however, it is more likely that domestic prices will rise by more than the price of foreign exchange. If inflation and devaluation were the only operant forces with which the development banker would have to contend, assuming the development bank has no significant amount of debt repayable in foreign currency, and assuming there are no government controls on foreign exchange, he would, to maximize short run profits, select:

(i) Projects with Substantial Import Component

Such a project would tend to have a stable cost structure presuming that prices abroad were not affected by the rise in domestic prices, and yet might be able to sell internally at rising prices. If the product were exported, then it would also be an advantage to have a substantial import component the price of which is stable.

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A serious drawback to be considered here is that very often a balance of payment constraint requires a country to take measures to control foreign exchange. Among these measures are: devaluation, which makes imports more expensive and exports cheaper; quotas, which may limit the absolute amount of imports of inputs to the project; multiple exchange controls, which may seriously affect importation of project components; and restrictive licensing arrangements, in which the project may not obtain a license to buy from abroad at all.

The way the government is likely to react during a balance of payments crisis, or during a time of reduced foreign exchange availability, must be carefully considered by a development bank before selecting a project which has a substantial import component. Countries that have switched from a system of multiple exchange rates to a single valued rate are not likely to return to the multiple system and are certainly not encouraged to do so by the International Monetary Fund. Countries in such a position are likely to use the technique of devaluation or perhaps quotas or licensing arrangements as controls over the availability of foreign exchange.

(ii) Projects the Products of Which are Consumed Domestically

Such projects will be able to sell in a market of rising prices. If the project were to produce a product to be sold abroad, the prospect of rising costs and stable prices would not be conducive to a healthy profit picture.

(iii) Projects the Product of Which is Not Subject to Price Control

Many projects involving the sale of agricultural products find themselves in a profit squeeze during inflation because of legal constraints upon price changes. Such projects are not as attractive to a development banker during an inflation as projects the products of which can be increased in price to compensate for rising costs.

(iv) Projects Which Have Short Gestation Periods

Such projects acquire products quickly and presumably can be implemented through the use of short-medium-term loans. Thus, a development banker can move into a project situation and realize his investment before inflation harms the value of the loan.

It may, however, be the case that the development bank will be more concerned with conserving or generating foreign exchange than with short run profit margins, in which case it should look for projects, ceteris paribus, which have minimum import requirements, and which in turn find a healthy market abroad.

B. Project Appraisal

Inflation requires that added care be taken by the development bank staff to insure that the relevant aspects of the project are considered. Some relevant considerations are, for example:

- (i) Have price and cost forecasts presumed any changes in costs of prices? Are these presumptions reasonable in the light of the current and prospective situations?
- (ii) If the product is to be exported, increasing domestic cost will tend to increase price, and the competitive position in the World Market will tend to deteriorate. How important is it to the project to sell abroad?

Development Banks and Inflation

What is the elasticity of demand for the product and what would happen to demand if the price were increased? What chances are there for a domestic market if the foreign market is closed because of increase in price?

- (iii) If a significant percentage of the components of the project need to be imported, domestic inflation will improve the position of this good on the domestic market. How likely is the local government to introduce exchange controls or make existing controls more stringent?
- (iv) A project can seriously be affected by the efforts of a government to restore price stability or restore the competitiveness of her exports upon the World Market through devaluation. How committed is the local government to exchange stability or to domestic price stability? How likely is the local government to devalue her currency? What are the likely effects of actions on the part of the local government to re-introduce price stability?
- (v) Most projects fail because of deficiencies on the part of management. Specifically in regard to inflation, one might consider the abilities of management to take advantage of rising prices and to act promptly and effectively in the face of impending devaluation. The project analyst should direct questions specifically at the prospective manager of a project. Usually a few direct questions can illuminate management knowledge of, and prospective competence to handle, these matters.

Implications for Bank Organizations

Some of the suggestions contained herein have implications for the organization of a development bank. In the provisions of a development bank's charter, one must make sure that the bank can take equity or participate in earnings. Very often, this charter provision is overlooked or eliminated for one reason or another. Also, the development banker must make sure that the bank can take short-term positions with idle funds. This, indeed, might require changes in the legislation permitting the bank to operate. Such legislation, even if unavailable, should be sought.

Conclusion

Conclusion

The seriousness of the requirement for a development banker to relate his operating policies to prospects of rising prices and devaluation should not be minimized. However, the problem is not easy to resolve. Most banking experience in this country has been under a situation of relative price stability. Bankers in this country are not accustomed to taking steps to protect the value of their assets during an inflation, nor are they used to using special techniques to catalyze the flow of equity or debt capital. Almost all the debt contracted by the U. S. banking system is in domestic currency. Although they may be subject to gradual asset depreciation during an inflation, banks, therefore, do not face the threat of bankruptcy that those which borrow abroad might face.

Development bankers in countries which have experienced inflation have seen investment patterns change during periods of unstable prices, have seen investment move abroad, into real estate, into inventory, into luxury housing, or even --and this is perhaps an unwise choice on the part of an investor-- into hoards. A development banker in an inflating country has seen foreign private direct portfolio investment flows cease or become seriously reduced during an inflation or during a period in which inflation is threatened, and he can be immediately in full sympathy with the perils of the unprotected lender.

The advice contained in this paper intends to be optimistic. It intends to suggest to a development banker that his institution, if the proper safeguards are taken, can mitigate the impact of the inflation on his balance sheet to a great degree. Although in a severe inflation the structure of a country is so seriously disturbed that a development bank should expect to suffer some impairment, a development banker would hope to end the period as sound as he was when the inflation began.

Prudent development banking during an inflationary period will require that tested measures be taken to protect the development bank against the risks of loss during inflation. The risks during an inflation, as pointed out above, are not quite the same if the bank owes a stable foreign currency, as when it owes local currency. For full protection, if the bank's debts are in dollars, its assets (loans and investments) should be repayable in dollars, or in local currency the amount of which keeps pace with the appreciation of the dollar.

Development Banks and Inflation

One of the more promising approaches to protecting a bank during a period of inflation involves the concept of sharing the risk of loss during inflation among the various institutions involved. The bank might assume part of the risk by putting a surcharge on its loans, such surcharge feeding into a reserve fund for such contingencies. The sub-borrower might assume part of the risk by using, as his safety valve, control over the prices of his and product. The local government might assume part of the risk using as its source of funds its power of taxation.

But, it should be emphasized that no definite course of action during an inflation can be recommended. Such a course is dependent upon the degree of inflation, the past history of inflation, the prospective period of inflation, the financial condition of the bank, and a host of other factors. Even so, it would do well for development bankers who are anticipating conditions of price instability to think through carefully the problems involved in conducting loan operations in an inflation, and derive flexible policies which will be capable of accomplishing the purposes of the bank while, at the same time, protecting it.

Development bankers should seek expert knowledge and advice with respect to the most appropriate combination of policy judgments for an individual bank. Close cooperation is extremely important between the development bank and other institutions, such as commercial banks, investment banks, the central bank, the government finance authorities, etc. Without continuous consultation and cooperation, it is not possible to be prepared to cope with problems which arise during periods of price instability. A development bank should devise ways and means for ensuring continuous contacts in this field.

The objective of this paper is to stimulate careful thinking and wider contacts among persons involved in the operations of this type of institution. The points outlined above are not intended to indicate what should be the course of action of a development bank in a given circumstance. The purpose, however, is to provide a foundation upon which additional thinking may be based, and a background upon which specific policy decisions may be established.

TABLE I

THE COURSE OF INFLATION IN SELECTED
LATIN AMERICAN COUNTRIES FROM 1959 TO 1963

<u>Country</u>	<u>% Inflation in Terms of Price of Foreign Exchange 1959-1963</u>	<u>% Inflation in Terms of Price of Foreign Exchange Per Year</u>	<u>% Inflation in Terms of Local Purchasing Power 1959-1963</u>
Peru	none	none	30.9
Argentina	59	11.8	129
Brazil ^{1/}	359	71.0	399
Chile	283 ^{2/}	56.0 ^{2/}	97
	103 ^{3/}	20.0 ^{3/}	
Colombia	40 ^{4/}	8.0 ^{4/}	53
Ecuador	20 ^{3/}	4.0 ^{3/}	15
	9 ^{2/}	2.0 ^{2/}	
Uruguay	48 ^{5/}	12.0 ^{5/}	125
Venezuela	0	0	0.95

^{1/} Implicit exchange rate based on exports from 1959-1963. No effective exchange rate is available due to the existence of multiple rate schedules for various categories of commodities.

^{2/} Free Market

^{3/} Official Market

^{4/} Principal selling rate. No effective exchange rate is available due to the existence of multiple rate schedules for various categories of commodities.

^{5/} No effective exchange rate available before 1960, and no implicit exchange rate available due to lack of records of transactions. Hence, this effective exchange rate is calculated for four years only. (1960-1963)

Source: I.M.F. statistics for cost-of-living figures and exchange rates.

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