

DEVELOPMENT OF PRIVATE INDUSTRY THROUGH PUBLIC AID



Office of Industrial Resources
INTERNATIONAL COOPERATION ADMINISTRATION
Washington 25, D. C.

STANFORD RESEARCH INSTITUTE

MENLO PARK, CALIFORNIA

DEVELOPMENT OF PRIVATE INDUSTRY THROUGH PUBLIC AID
(With reference to Underdeveloped Countries)

Prepared for

THE INTERNATIONAL COOPERATION ADMINISTRATION Washington, D.C.

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September 1958

PREFACE

The genesis of this study, Development of Private Industry Through Public Aid in Underdeveloped Countries, lies in the fact that some newly-developing countries, by reason of oil or other rich mineral resources, accrue substantial public revenues which are used almost wholly on public investment projects of a capital nature. While it is true that all newly-developing countries require large investments in "social overhead" projects, such projects often bring little or no production return to the economy. Even when public funds are devoted to government owned and operated manufacturing establishments, these are often hampered by cumbersome controls and other influences that contribute to inefficiency, so that they may not bring as much production return to the economy as if the same establishments were operated under private management. In free countries where investment capital is primarily in government hands, unless ways are found of channeling public funds into privately operated industrial establishments and of otherwise encouraging private enterprise, the pace of economic and industrial development may not be fast enough to keep up with rising demands for better living standards.

But it is not enough to study methods whereby public funds can be channeled into private hands for productive investment purposes. Unless governments can help to create a suitable environment for productive, private investment--including the creation of technical and managerial skills essential to successful private enterprise--the possibilities of economic growth are limited.

Recognizing the problem faced by many newly-developing countries of devising workable methods of channeling public funds into private industrial establishments, and recognizing, too, the importance of encouraging a climate within which such private establishments can flourish and make a maximum contribution to economic development, the International Cooperation Administration invited Stanford Research Institute to prepare a manual on methods of channeling public funds into private industrial establishments. Particular attention was to be given to actions on the part of governments designed to assist private industrial growth. Consideration was to be given to important factors such as technical skills and managerial talent as essential elements of an environment conducive to economic growth through the strengthening of private manufacturing establishments.

As research on this problem progressed, it became increasingly apparent that the assignment given to Stanford Research Institute was of far greater magnitude than originally believed to be the case. Conditions, attitudes, history, traditions, and circumstances surrounding each mechanism known to have been tried in channeling public funds directly into productive private manufacturing have varied so radically, and are so imperfectly understood by students of the development process, that the study required broadening to cover more material than might be needed in the preparation of a detailed procedure manual. Furthermore, the methods have not been crystallized to the point where they can be stated in a manual of standard practice. This report, therefore, is a statement of principles treating government actions designed to assist the growth of privately operated manufacturing

establishments. It is designed to be used as a guide by ICA staff and officials of underdeveloped countries concerned with the task of industrial development. It provides both background and examination of the many steps which government can take to promote and accelerate the growth of the private sector of the economy in ways that can be beneficial to the growth of a nation as a whole.

The report has been prepared under the administrative direction of Mr. Edward S. Prentice, Manager, International Programs. The basic task of organizing, preparing, and writing the report was undertaken by Dr. J. Knight Allen, Senior Economist. He was assisted in this task by Mr. Morgan Sibbett, Mr. Guy Benveniste, and other Institute staff. Mr. William B. Dale of the Washington office of the Institute conducted much of the initial fact gathering and interviewing of American and foreign officials engaged in encouraging industrial development through private enterprise.

TABLE OF CONTENTS

<u>Chapter</u>		<u>Page</u>
I	THE INDUSTRIAL SETTING	I-1
	Introduction	-1
	Economic and Social Contributions of Industrialization	-2
	Conditions for Industrialization	-4
	Economic Support Functions	-5
	The Government's Approach to Industry	-8
II	FISCAL AND MONETARY INFLUENCES ON INDUSTRIALIZATION	II-1
	Introduction	-1
	The Effect of Government Spending Upon the National Income	-2
	Government Procurement Policies	-3
	Influence of Taxation on Private Industrial Development	-4
	Financing Government Debt	-13
	Savings and Investment in the Economy	-14
	Foreign Exchange Control	-18
	Tariffs and Regulation of Imports and Exports	-19
	Inflation Control and Regulation of the Supply of Money and Credit	-21
	Conclusions	-26
III	GOVERNMENT AID TO ENTREPRENEURIAL FUNCTIONS	III-1
	Introduction	-1
	Nature and Functions of the Entrepreneur	-1
	Promoting New Enterprises	-3
	Discovering Business Opportunities	-3
	Organization for Research and Statistics	-4
	Assembling the Elements of a New Business	-6
	Development Agencies of the Government	-7
	Patents	-9
	Subsidiaries and Branches of Foreign Concerns	-10
	Promotion of Trade	-10
	According Social Status or Recognition to Entrepreneurs	-11
	Conclusions	-12
IV	TECHNICAL SUPPORT FUNCTIONS	IV-1
	Introduction	-1
	Manpower Planning	-3
	Basic Technical Training	-5
	Supplemental Technical Training	-8

Table of Contents (Continued)

<u>Chapter</u>		<u>Page</u>
IV	TECHNICAL SUPPORT FUNCTIONS (Cont.)	
	Technical Media	-10
	Research Support.	-11
	Testing and Standardization Facilities.	-12
	Industrial Development Centers.	-14
	Industry Extension Work	-15
	Support Provided by Outside Specialists	-17
	Management Contracts.	-19
	Conclusions	-20
V	FINANCIAL AID	V-1
	Introduction	-1
	Loans and Rediscounts	-3
	Guarantees and Insurance by the Government	-7
	Industrial Sites and Districts.	-10
	Plant Facilities for Lease or Lease-Purchase.	-13
	Equity Investments and Joint Ventures	-14
	Grants and Subsidies	-15
	Protective Tariffs and Similar Measures	-17
	Tax Concessions	-19
	Financing from External Sources	-20
	Conclusions	-22
VI	INDUSTRIAL DEVELOPMENT BANKS	VI-1
	Origin and Characteristics	-1
	Objectives of Development Banks	-2
	Functions of Development Banks	-3
	Organization and Ownership of Development Banks	-17
	Sources of Funds for Development Banks	-21
	Loan and Investment Policy of Development Banks	-27
	Administration of Loans and Investments	-38
	Conclusions	-40
VII	GOVERNMENT IN INDUSTRY	VII-1
	Introduction	-1
	Reasons for Government Ownership in an Underdeveloped Economy	-2
	Shortcomings of Government Compared with Private Ownership of Industry	-4
	Appropriate Role of Government	-7
	Pilot Plant and Trial Enterprises	-12
	Ventures with Joint Government and Private Participation	-12

Table of Contents (Continued)

<u>Chapter</u>		<u>Page</u>
VII	GOVERNMENT IN INDUSTRY (Cont.)	
	Government Sponsorship of Cooperatives	VII-14
	Conclusions	-18
VIII	PLANNING A DEVELOPMENT PROGRAM	VIII-1
	Rationale of a Planned Program of Industrial Development	-1
	General Outlines of Industrial Planning	-3
	Guides to Choice of Industry for Development	-7
	Choosing the Methods of Industrial Production	-10
	Consistency and Balance in the Industrial Development Program	-10
	Putting the Program into Action	-13
	Conclusions	-13

Chapter I

THE INDUSTRIAL SETTING

Introduction

Most of the world's people live in poverty in countries with little industrialization. In contrast, the people in more advanced industrial countries enjoy relative abundance. Those in the less industrialized countries--and their leaders--are focusing on industrialization, a new and determined interest, which may lead to one of the great economic revolutions of history. This revolution can be traced to a wide realization that the industrial economy offers something better in life than is within the reach of peoples who depend entirely on a pastoral or agricultural existence.

But since this view of industrialization has not in the past taken hold more generally, it may be assumed that the disadvantages, the cost, or the difficulties in bringing about industrialization are thought to be formidable. If economic backwardness cannot be explained as simply as this, it must be assumed that the advantages of economic development either have been overlooked or have been regarded as having a low value in relation to the sacrifices involved. Perhaps this view has been held even by those who exercise political and economic control over the underdeveloped countries.

Starting with the recognized importance of industrial development to human welfare, it is the purpose of this study to identify, describe, and compare the ways by which public aid may contribute to this type of development in underdeveloped countries. Although the industrial attitude

and the environmental conditions conducive to private industry may be of paramount importance and a major responsibility of government, these points receive less emphasis in the present report than the more specific aids to industry which are available to government. However, it is true that technical and financial aids, government participation in industry, and fiscal and monetary measures of specific assistance to industry, blend into what may be termed the industrial environment. Discussion of these subjects forms the main substance of the report.

The plan of presentation of this report is first to consider briefly the case for developing private industry and the sacrifices involved. This is followed by a short review of the general environmental conditions for industrialization. The discussion continues with fiscal and monetary influences on industrialization, followed by government aids to certain entrepreneurial functions, technical aids, financial aids and development banks, and government participation in industry. A final chapter considers the programming aspects of industrial development. It summarizes and correlates the major guides to be observed in deciding the type and extent of governmental assistance to be employed in achieving the major objectives of industrialization, with minimum total sacrifice.

Economic and Social Contributions of Industrialization

Advocates of industrial development believe that industry is the economic key to a better life. In this context "industry" means organized production of economic goods and services through application of mechanical power, technological methods, and efficient administration; the term applies mainly to manufacturing and other forms of production, excluding farming. A "better life" as provided by industrialization

usually means one where the per capita real income and wide distribution of income are sufficient to reduce unfulfilled human physical and cultural wants in substantial measure. The ultimate ends sought may be reduction of human suffering and prolongation of life--which seem realizable in large degree through industrialization.

By industrial methods men have been enabled to provide for their sustenance while having time to spare for other pursuits or for leisure. Whether or not this makes men happier or results in cultural advancement, it usually increases their range of choices and opportunities for a fuller life. In advanced industrial countries, a large proportion of the population can choose between more work and more leisure; more leisure and more consumption expenditures; more consumption and more saving for the future; more physical gratifications and more cultural pursuits. Also, the number of choices of goods, services, and leisure activities is multiplied by industrial development. Industrialization provides many new types of employment and conditions which make possible wider selection of occupations and mobility between jobs and places of residence.

Even though the broadening of the range of choices thus offered by industrialization is impressive, this has not been among the most conscious reasons for industrialization. Instead, the case for industrial development has usually rested upon its promise to reduce human drudgery, malnutrition, disease, physical pain and discomfort, to alleviate the causes of strife between people and nations or to increase the national security. The promises have not always been fulfilled, but there is no basic reason why they should not be realized if the possible drawbacks

of industrial growth are recognized and met by intelligent action, especially by leaders of government and industry. No small part of the disappointments associated with efforts to industrialize comes from the fact that the promises have kindled aspirations which rise faster than the means of satisfying them.

Conditions for Industrialization

Belief in its benefits and confidence that it can be accomplished are primary requisites for success in any wide program of industrialization. Furthermore, the transition to industry is far more likely to succeed if the government, with the concurrence of business leaders, educators, and molders of public opinion, firmly establishes and states its aims with regard to economic development. The value of a well-planned program of development will become apparent in the discussion throughout this report, and the subject will receive special attention in the final chapter. But more is required than honest intentions, well-laid plans, and energetic pursuit of their accomplishment if an industrial society is to be achieved in a reasonable span of time.

The country that is endowed with certain natural resources such as oil, coal, metallic ores, chemical raw materials, timber, arable land, favorable climate, water for irrigation and power, a configuration suitable for internal transportation, good natural harbors, and proximity to markets and sources of supply, has the natural elements which make rapid industrial development a strong possibility. The lack of any one of these resources will make development of industry more difficult but by no means unfeasible.

Survival in such a case would be most difficult for an increasing popu-

lation, and emigration would seem a more logical adjustment than industrialization. However, superior skill, technology, or administration, with unusual dedication to industry, may earn a place in the industrial world for a country that is poor in physical attributes. Where such a country has succeeded, it may be said that manpower is the principal resource.

Fortunately, the quantity and quality of manpower may be modified--especially with the help of the benefits conferred by industrialization. Immigration and training can strikingly improve this resource. If a good labor supply already exists--in the sense that there is a surplus of healthy, dexterous, teachable, willing and reliable people--the growth of industry can be hastened. If manual arts have been highly developed, even though only in handicraft industries, the prospect for adapting workers to the skills required by machines is good. High native intelligence and motor aptitude are valuable in the worker's adjustment to machine methods. General education, although usually deficient in less developed countries, facilitates the transition to industry.

Administrative skills are usually the scarcest factor in any nonindustrialized country; but this deficiency can partly be met by importation of managers to meet the earlier needs of development. Later on, through education, training, and experience, the native supply can be built up.

Economic Support Functions

In addition to geographical endowments and the quantity and quality of the manpower in a country, the successful development of private industry involves other conditions which are fundamentally the responsibility of government. In a free country with a representative form

of government, when it is known that the people want industrialization, the leaders of government are under obligation to formulate a national policy and some kind of program for development. This will then become a cardinal feature of the industrial environment. It will outline the extent of the government's interest in industry and will thus provide the basis for appropriate economic support functions under government auspices which can assure and accelerate industrial growth. Many of these functions would be exercised in one way or another, even if there were no program to develop private industry. But a definite program puts a different emphasis on the support functions and calls for additional activities for the direct benefit of industry.

If industry is to flourish, a stable government must exist and it must provide a reasonable degree of security from outside aggression or abuse. Perhaps even more important to industry in general, it must provide for protection within the country of persons, property, and contractual rights in accordance with carefully designed civil and commercial codes of law. These codes should provide for the legal forms of business organization and for the chartering and licensing of business on as liberal a basis as is consistent with national objectives. Rights of creditors and investors--both foreign and domestic--should be fully safeguarded, with constitutional guarantees against expropriation, nationalization, or any other arbitrary action of the government. Labor legislation to protect workers, employers, and the public interest should be promulgated.

Provision for one or more ministries of government to deal with problems of business relations between enterprise and government, and promotion of industry, has been made in a majority of the countries of

the world. What is needed is higher quality services from such agencies. Research and statistical and business information functions are rarely adequate. There are wide gaps in marketing research and in promotion of exports, which the government can help to fill. With respect to licensing, granting permits, and issuing regulatory decisions, few government agencies in the world can escape severe criticism for delays and lack of interest in the problems of business. No private agency should be expected to make up these deficiencies--often due to inadequate government staffs and poor training. Substantially higher standards of civil service would probably justify their cost.

The money and banking system, including a sound currency and adequate credit for business, are of great importance to industrial growth. Of all the support functions of government, perhaps none offers a greater opportunity for encouraging private industry than the monetary and fiscal system. This subject is discussed at some length in several chapters which are to follow.

Closely related to the banking environment and of high importance to the incentives and processes of investment in industry is the fiscal and taxation policy of the government. This complex subject is treated at some length in the following chapter. It may be observed here that unfavorable taxation and inept fiscal management in the government can be destructive of incentives to invest and produce, while well-designed tax incentives can be a positive stimulant to enterprise.

Public education, vocational training, and training in business administration are so urgently needed as to be a major challenge in most countries that are launching industrial development programs.

Ample provision for social security will speed industrialization and alleviate some of its adverse effects by making it easier for workers to leave the security of the rural family and subsistence agriculture. Social security will also reduce the possibility of tension between employers and employees in enterprises that are subject to instability or severe competition. Furthermore, social security acts as a built-in stabilizer for the economy in general, and it channels part of the national income into savings

The Government's Approach to Industry

From these observations it may correctly be inferred that the public burden of economic support functions is relatively heavy in underdeveloped countries, as compared with the amount of private investment in industry or even in relation to the total industrial effort. In the absence of a thriving agricultural industry or abundant natural resources, the product of manufacturing industry must be looked upon as the ultimate means of paying most of the cost of the economic support functions performed by the government. In view of this as well as of the national objectives which industrialization is expected to meet, the policy of the government with respect to industry should be carefully weighed to assure maximum incentives and efficiency.

The government's approach to industry may range from the one extreme of laissez faire to the other of state ownership. In between, the policy may be for government to take a heavy interest in the economic support

functions and social overhead of industry. It could go a step further and share actively the burdens of private industry, by giving technical assistance; granting loans, subsidies, or tax concessions; protecting against imports; or taking a share in ownership. The guiding principle should be for the government to provide the maximum stimulation to private investment and private industrial production, without threatening to substitute government for private industry. This calls for a willingness for the government to withdraw from industry as soon as responsible private owners are able and willing to undertake its operation. If the government is to err in the extent to which it relinquishes control, the error should be in the direction of less rather than more control. Thus, by harnessing the drives of private industrial entrepreneurs the government may give the developing economy a dynamic, cumulative momentum.

Chapter II

FISCAL AND MONETARY INFLUENCES ON INDUSTRIALIZATION

Introduction

Of all the important environmental influences on industrialization of a country, perhaps none are more pervasive and at the same time more amenable to deliberate control by the government than fiscal and monetary policies and institutions. Control can be of a general, non-authoritarian type, or it can be characterized by extensive government intervention and detailed regulation of business transactions. In the present chapter are grouped a number of subjects related to the economic and financial management of the government's own affairs and its efforts to provide the right financial framework for industrial development, as follows:

- The effect of government spending upon the national income
- Government procurement policies
- Influence of taxation on private industrial development
- Financing government debt
- Savings and investment in the economy
- Foreign exchange control
- Tariffs and regulation of imports and exports
- Inflation control and regulation of the supply of money and credit

The interrelation between some of these subjects is readily apparent. Correspondingly the policies with respect to one must be considered in the light of those relating to the others.

The present discussion will outline the principal effects upon industrialization to be expected from the major policies of the government on the subjects listed above, giving emphasis to the manner in which government uses public funds in carrying out such policies.

The Effect of Government Spending Upon the National Income

Estimates of national income in the less developed countries are usually not very accurate. Nevertheless, it seems evident that the share of national income resulting from government expenditures tends to be relatively low at first, with a strong tendency to rise as countries become more industrialized. Whenever government expenditures make up an appreciable share of the national income there is an opportunity for the government to encourage private industry through a consistent rate of expenditure in normal times. Sudden and unpredictable changes may upset the economy and add to the hazards of conducting private business.

However, it cannot be denied that a large government spending program can give a push to economic development by providing a market for more products and services for public use, and thus an incentive to new investment, while at the same time putting purchasing power in the hands of consumers. Of course, in financing government expenditures there may be a corresponding reduction of purchasing power via taxation. Even so, if taxation falls mainly upon idle resources which otherwise would be neither spent for consumption nor invested, the result may be a net stimulative effect. It was already shown in the introductory chapter that government expenditures for support services--or social capital--can add greatly to the productive efficiency of an emerging industrial society.

A substantial and consistent government budget can exert a stabilizing influence upon the economy. Thus, if held constant during a general business decline, government expenditure will have a supporting effect. It may be feasible to increase the scale of spending in

order to offset a general decline in business, but as a temporary measure this requires a precision of planning and timing which has seldom been achieved. Curtailment of government expenditures to reduce inflationary pressure will be discussed later in this chapter.

Government Procurement Policies

The government can decide to encourage new industries by purchasing goods and services on a basis of cost plus a reasonable profit, even though this may result in a price higher than that prevailing in world markets. Such a practice can provide assistance to infant industries, in addition to or in place of the more common measures, such as formal subsidies or protective tariffs. Sales to government on a cost-plus basis offer private enterprise an opportunity to gain experience. However, as soon as practicable the government should shift to a basis of competitive bidding, making reasonable concessions to domestic concerns with demonstrated responsibility. A lax purchasing policy will foster waste and will fail to engender alert management in the firms which supply goods and services to the government.

The government can be of special assistance to private enterprise by placing research and development contracts with private firms, usually on a cost reimbursement basis. Thus, certain technical obstacles to development can be removed so as to clear the way for successful private production while providing research experience of value to the industry and to the country. The government would ordinarily retain the ownership of the products or processes for which it paid the cost of development, but it could control their use and licensing for manufacture in such a way as to encourage private

competition. At times it may be useful for the government to engage in research and development on a joint basis with private investors in order to combine greater incentive with strong financial backing.

Influence of Taxation on Private Industrial Development

Taxation is sometimes characterized as the power to destroy. It can be said as well that it is the power to stimulate, direct, and regulate industry and to provide funds for investing in industrial enterprises. When related to the building up of an industrial economy in a nonindustrial country, the central problem of taxation is to raise sufficient revenues to support the government's useful functions in encouraging industry, without putting a discouraging tax burden back on struggling new enterprises. The answer to this problem, in general terms, is to employ a moderate and graduated income tax, heavy death taxes, taxes on idle resources or unearned income, luxury taxes and, if necessary, various forms of indirect or "painless" taxes which do not bear heavily either on enterprise or on people of low income.

The effect of taxation on industrialization is of special significance in its effect on the distribution of national income. It should be kept in mind that if income is allowed to accrue mainly to the lowest income classes this may help to raise general standards of living, but it will fail to provide sufficient reward for special skills, risk-bearing, and the taking of initiative and responsibility. It will also fail to provide adequate savings, for the simple reason that the lowest income groups must use nearly all of their income for consumption.

Graduated Individual Income Tax

A tax on individual incomes; using a graduated schedule, relies heavily on ability to pay. It is generally regarded as equitable, provided the basic rates and their progression are not extreme. In a country where industrialization is in its infancy, high taxes on industrial profits are inimical to development, but this is more true where the government does not reinvest a major part of such revenues for the benefit of the industry. On the other hand, low income taxes provide a greater incentive for private investment as well as the ability to save for investment.

Like all forms of taxation, the income tax may provide funds for industrial investment through forced saving. It is a more conservative and equitable way to bring about forced savings than through resort to inflation, an approach which is discussed later in this chapter. Actually, the income tax acts as an anti-inflationary influence to the extent that it curbs consumption expenditures or reduces private savings destined for early investment. Where graduated rates are used, the expansion of income which accompanies inflation will be offset by the larger proportions of that income taken out of the stream of private spending and investment. This not only relieves the growing pressures of private spending and investment during industrial expansion, but also provides the government with the additional revenues it requires to serve the rising level of economic activity. As an automatic regulator of the government budget a graduated income tax works also in periods of business decline by reducing the intake of government,

thus tending to cause the unbalanced budget which many advocate as a business stimulant in slack times when the danger of inflation is small or virtually absent.

In the interest of promoting industrial investment, capital gains should receive a somewhat different treatment from that given to ordinary business profits. A capital gain is realized upon the sale of a business, a share in a business, or fixed or nonoperating assets. The distinction between ordinary business profits and profits realized on the sale of capital assets is not always clear. Usually when so-called capital assets are bought and sold with some frequency, the resulting profits are better treated as ordinary business income than as capital gains. Where a capital gain results from the sale of a business which has retained its earnings over a long period of years, it would be obviously unfair to tax that gain as though it were earned in one year, thus subjecting the income to a higher rate and discouraging the process of growth from reinvestment of earnings. On the other hand, should retained earnings be allowed to escape income taxation entirely? A moderate rate of tax on capital gains, or a rate reflecting the average which would have applied over the period of profit accumulation would seem to be in order. No matter how capital gains are taxed, it seems fair to allow the same tax recognition for capital losses, in computing taxable gains. This implies a liberal carry-forward and carry-back provision with respect to losses.

Corporate Income Tax

In fundamental theory, the case for a corporate income tax is not strong. Its advocates usually rely on its ease of administration and

the principle that a business should pay taxes in proportion to the expenses which the government incurs on its behalf. In refinement of the first point, it is held that if a corporation is not taxed in accordance with current earnings it will be used as a tax escape for its stockholders. This would be especially undesirable if the capital gains tax were relatively low or were not used at all. The remedy would seem to be an appropriate capital gains tax as a levy against the economic power of the taxpayer, and inclusion of the proportionate share of current corporate income with the individual taxable income of the same year reported by the respective shareholders of the corporation. Annual taxation of the shareholders' proportion of corporate earnings would remove one of the incentives for retention of earnings by the corporation. Thus, it would tend to release the sources of savings for new enterprises or other businesses and to equalize the competition for investment funds.

The second point--that the corporation should have its income taxed in order to defray governmental expenses incurred for its benefit--is weak in that these expenses may correlate poorly with net income, or even with gross income. Unless other forms of organization, such as partnerships, cooperatives, or sole proprietorships are covered by a similar tax, there is gross discrimination. The final equity of an income tax is determined by the way it bears upon the owners of the business. Taxation of the income of the corporation, either on a flat or a graduated basis, may have little relationship to the tax situation of the individual shareholder. In the interest of stimulating corporate investment and the aggregation of small and large savings in companies

large enough to operate economically, double taxation and other forms of tax discrimination against corporate investors would be undesirable. From other points of view the corporate income tax lacks justification sufficient to offset the objections which are raised here.

Business License Fees

Business license fees to cover actual costs of government administration in chartering and regulating business have a good economic justification. But the principle need not be carried to the extent of using license fees to cover the economic support functions supplied by government. The use of license fees as a major revenue-raising device would put an undesirable damper on new enterprise. The principal contribution of the license is not the revenue it provides but the regulatory mechanism it affords the government.

Transaction or Sales Tax

Although sales taxes or taxes on business transaction or turnover have been known for centuries, they have enjoyed a new popularity in recent decades. Their resurgence is traceable in large measure to the inadequacies of property taxes and direct income taxes in increasing government revenues to the levels demanded by growing needs and expenditures. Sales and transaction taxes are largely passed on to ultimate consumers and thus are considered relatively painless. Nevertheless, they put domestic industry in an unfavorable position in world trade unless they are abated through a complicated method of "drawbacks." Furthermore, these taxes create a strong motive for vertical integration of industry for the purpose of avoiding taxable transactions

or turnover. Integration reduces the number of business enterprises and often causes a material lessening of competition. While a retail sales tax--that is, one that is levied only on the final sale--may be justifiable along with other more progressive taxes, a turnover tax on goods in process or in trade channels leading to the final retail sale usually has a dampening effect upon industry and leads to uneconomic methods of doing business.

Payroll Taxes and Social Security

What has been said about income taxes is largely applicable to payroll taxes. If the tax on employees' wages is withheld at the source, this effective method of collection provides also a very broad base for government revenues in countries where a major part of the population is not self-employed. Payroll taxes are widely used to support social security systems. As mentioned earlier, adequate provision for economic and health hazards of workers is conducive to employment for wages. Without such provision, workers who now enjoy the security of subsistence farming or of life in a large rural family will not be attracted readily to industrial employment away from their families. Social security (with government participation) assists industry in providing for the welfare of its workers and therefore enables it to adjust more readily to economic difficulties. Thus, industry may make a greater long-term contribution to the interests of its workers by increasing their capacity for survival.

Taxes on Property

Throughout history, taxes on property--especially land and buildings--have been the major source of government revenues. Local governments must rely heavily on real property taxes to finance their activities. Efforts to collect local taxes on personal property or on intangibles, or even to use income taxes, are usually met with concealment and flight of resources. Accordingly, it is often imperative that the national government leave real property taxes in the hands of local government. But since it is in the interest of the local community to encourage industry, the local authorities will usually be careful about imposing excessive property taxes on industrial enterprises. At the same time, they must provide sufficient revenues to cover the operations of government which are necessary to the success of business enterprise, and business enterprise should be expected to contribute its share toward defraying the costs of local government. The extent to which local government will need to rely on real property taxes will be conditioned very much by the functions it performs and the division of governmental functions between local and national government.

Some countries--notably Japan, Burma, the Gold Coast, and Uganda--have placed heavy taxes upon agriculture in order to finance economic development. These taxes tend to take away from landlords, farmer-owners, and tenants alike a major share of the increased productivity of farming which usually accompanies industrialization of the economy. Without some measure of this type it would not only be difficult to

find needed capital to put into new industry but the relative attractiveness of farming and farm labor would retard movement of capital and labor into industry.

Taxes which rely on economic rents have relatively little effect upon incentives to produce. Hence, where there is a choice of sources of government revenues for promotion of industry, landlords will be considered logical targets for substantial taxation. Taxes on wealthy landlords will also reduce the tendency towards concentration of economic power and overemphasis on nonindustrial investments.

Severance Taxes and Royalties

Taxes levied on the cutting of timber or extraction of mineral resources are sometimes regarded as forms of sales or transactions taxes. Used in moderation they need not have a restrictive effect upon industrial growth, but may in some countries provide a major source of revenue for industrial development, as well as for government. Where natural resources such as petroleum, mineral deposits, or timber, are capable of profitable production far in excess of national requirements, there is a good case for substantially taxing their output in order to provide funds for developing other sectors of the economy. Without this, a country may later find itself having exhausted its natural resources and bypassed the opportunity to create an industry to maintain the economy on an accustomed or desirable level. If private income from natural resources is invested voluntarily in other industries within the country, the need for channeling profits through the government into such other branches may not be so great. This is not likely, however, when natural resource industries are financed largely by foreign investors.

Tax Concessions to Stimulate Industry

By leaving more funds in the hands of potential investors and by increasing the rate of net return, reduction of taxes on industry tends to encourage investment. However, since business income is not all invested or saved, there would also be a stimulus to consumption--which is usually good for business but competes with investment. In order to make tax reduction or abatement most effective in stimulating investment, the reduction should be made conditional on corresponding new investment. This has been accomplished--at least in part--by allowing earlier or current write-off of new investments against taxable income. The fast write-off shifts income tax payment to a later period, provided, of course, the enterprise is already earning income before deduction of depreciation.

Taxes applied to business or to business income have an important bearing on investments from abroad. Such taxes cannot exceed by much the rates applied to similar investments in other countries, without creating a serious competitive disadvantage. On the other hand, tax concessions offer an inducement for foreign investment unless they are nullified by other taxes assessed by the country in which capital originates. Abatement of taxes or favorable taxation of new investments may lose much of their impact because they may not be considered permanent by prospective investors. Also, to the extent that these abatements or concessions represent a competitive maneuver, any advantage offered may at any time be overcome by similar competition in other countries. Any arbitrariness, discrimination, or instability

in tax policy tends to shake confidence of investors and to weaken the inducements intended by tax concessions.

Exemption of savings deposits and government bonds from taxes, either on principal or interest, contributes to the incentive for saving. This type of special provision can be applied in a consistent, clear-cut manner for the purpose of fostering the accumulation of capital for industry. The application of death duties to savings deposits and government bonds--the same as to other assets--would not materially lessen incentives to save.

The Use of Taxes as an Instrument of Regulation or Coercion

As mentioned earlier, taxation can exert a powerful force in regulating business or bringing about economic adjustments. In most constitutional governments, the power to tax is broader than the power to regulate. Taxes have been used to destroy unwanted types of enterprise or trade, or to force people from one type of employment into another. The use of taxes purely as a means of coercion is in general ill-repute on the grounds that it is less honest and democratic than other means of accomplishing the same ends, and that it weakens the acceptability of the tax system as an equitable means of raising public revenues.

Financing Government Debt

The use of government debt to finance the public share of cost of industrialization may be desirable from several standpoints. With bonds, the amount of investment funds potentially available will be augmented by those funds, including foreign savings, which could not be

reached by any practicable tax, as well as by bank-created funds arising from purchases of bonds by the banks. Another advantage of bond-financing is that it lightens the current tax load and often prevents a serious upset in the tax system. In the long run, to be sure, the nations that redeem their bond issues will increase their tax load to cover the debt service. In countries which do not retire their bonds or which rely upon inflation of the currency to do so, the use of bonds contributes to inflation.

If a major part of the bonds issued by the government is acquired by commercial banks, the inflation becomes more serious than if the funds going into bonds represent true savings. Accordingly, it is desirable to encourage ownership of government bonds by nonbank holders. Success in this effort will depend very much on the stability of the government, on the rates of interest it offers in relation to market rates, and on the tax status of the income and principal of the bonds. Unusual efforts to keep rates of interest low on government debt have a tendency to lead the government into inflationary uses of the banking system.

Savings and Investment in the Economy

Up to this point a number of economic or financial activities of the government that influence savings and investment have been discussed, such as the size and type of expenditures by the national government, taxation policies, the manner of financing government debt, and interest rate policies. Certain other influences of government, largely though not entirely fiscal in nature, are important to the investment decisions of its citizens.

Guarantee by the government of the safety of deposits in banks and savings institutions not only assures depositors that there will be no loss but protects the banks against occasional runs brought on by the distrust of depositors. This not only increases the amount of loanable or investible funds but provides financial institutions with greater freedom to invest because of the greater stability of deposits.

Instalment loans to individuals, including long-term mortgage loans secured by residences, have become effective devices for fostering savings. This type of financing can be greatly accelerated by having the government guarantee the loans of private institutions in full or in part. The value of the savings promoted by instalment financing is not so much in generating investment funds as it is in making more effective the demand for products of industry.

Another means whereby government can foster the practice of savings by individuals, even those of small income, is to offer and promote the sale of bonds of small denomination that are redeemable at the option of the purchaser. This medium is a good supplement or alternative to postal savings deposits. In countries where inflation is a serious problem, savings bonds redeemable in a more stable currency or in terms of a guaranteed purchasing power may be desirable. If the funds derived from bond sales are invested in sound assets or successful industrial enterprises, the rising value of these assets will permit the government to offset the cost of paying an inflation premium when bonds are redeemed, as provided in escalator clauses.

Life insurance and social security funds are major forms of savings in most advanced industrial countries. As the developing

countries move away from the conditions of a subsistence society or from a family system of providing against poverty, the need for life insurance and social security becomes very great. In many countries, privately owned or mutual insurance companies meet some of these needs, provided the insurance business is properly regulated and supervised by the government and provided the erosion of the purchasing power of savings through inflation is not too great. In most developing countries, as well as in mature industrial economies, the government has a major responsibility to provide for adequate life insurance, at times even to the extent of becoming an insurance underwriter. Social security, as mentioned earlier, is generally recognized as an important need in the transition from pastoral or family employment to industrial work. While private industrial concerns may make ample provision for social security in individual instances, it is usually necessary to have a governmental system which embraces most industrial workers. Joint contributions to social security funds by employers, workers, and the government, with government trusteeship of the funds, seems to be the most successful formula-in-most countries.

Central banking policy affects savings and investment through the mechanism of bank reserves, interest rates, loan and investment rules, and inflation control. The last topic is discussed later in this chapter. By making bank reserves available, the central bank can increase the ability of the banking system to make loans for business enterprise or to buy government bonds and thus indirectly to furnish funds for investment in or support of industry. By formally decreasing the rediscount rate or by increasing reserves by several methods, such

as open market purchase of bonds or lowering reserve requirements, the central bank can exert an influence which tends to lower the general level of interest rates and thus make borrowing by industry easier and more attractive. Where the government or central bank has the power to regulate the rate of interest paid by banks on deposits, or the rates charged on advances, there is additional control over the flow of savings and investment.

Community Development Projects

The foregoing measures are concerned essentially with the financial aspects of savings and investment. There is another type of saving which relates to materials and labor, of which there often is an unused surplus in a newly industrializing economy. An effective means of utilizing these surplus resources is to promote local community development projects using donated labor. People may be willing to work on projects which they believe will benefit their community. Others may be used who are already receiving public assistance or who may be given a subsistence wage while on the community project. Donated materials are sometimes available, but additional quantities, plus skilled labor, can be provided at government expense on condition that labor be furnished by the community. Experience has shown that such community projects need close supervision--even in the promotion stage. This might best be provided by the national government, which has the benefit of wider experience than local authorities. If the national government furnishes funds for materials, it logically should exercise supervisory power over the project. The community development

project which employs a large proportion of donated labor or materials accomplishes its result without resort to inflation or heavy taxation.

Foreign Exchange Control

The two principal ways by which industrialization is influenced through control of foreign exchange are through the flow of investment funds into and out of the country and through imports and exports of goods and services. Industrialization of an agricultural country calls for the importation of raw materials, capital goods, and services requiring payment in currencies of the exporting countries, or in currencies which are freely exchangeable with those of the source countries. This demand for foreign currencies is usually augmented by needs for currency to pay for an increasing inflow of consumer goods desired by people who are enjoying rising incomes as a result of industrialization. In the interest of accelerating industrialization, it is usually impossible in the earlier years to produce domestically many of the goods for which a new demand has been created. In fact, it may be better to put resources into basic production facilities and governmental support facilities instead of into production of goods for domestic consumption or into imports of similar goods. Thus, there may be reason to impose restrictions on the use of foreign exchange or to require licenses for certain imports. Where foreign exchange is extremely scarce, a government may place controls on foreign exchange earned by private exporters.

Foreign exchange restrictions usually curtail the flow of international investment funds as well as trade in goods and services. The objectives of control are essentially to make the best selective use of scarce exchange, to keep the currency from serious depreciation in

terms of foreign currencies, and to retard or prevent flight of capital. These ends are helpful to industrialization and are worth a reasonable sacrifice in the freedom of movement of international trade and investment funds.

The standard methods of foreign exchange control are: Official rates of exchange set by the control agency at some level which differ from the market or free rate; quotas and allotments of exchange for specified purposes, sometimes at differential rates; pegging and trading in futures by the government or central bank; the issuance of bonds on the international market, usually through government financial institutions; and central banking measures which affect interest rates and availability of funds for loans (although this type of control is rather indirect). Other measures not classed strictly as foreign exchange controls, but which are designed to serve the same ends, are controls over imports and exports through quotas, licensing, duties, direct prohibitions, or subsidies. As will be discussed in a later chapter, the decision to make a given industrial investment should be governed in part by its implications for foreign exchange--good and bad. The less developed countries, relying as they often do on exports of primary products that are subject to severe cyclical fluctuations, need an unusual amount of foreign exchange reserves if they are to get along without controls over foreign exchange.

Tariffs and Regulation of Imports and Exports

In many countries which are not developed industrially, a substantial part of the national government's revenues are derived from duties on imports, and, to a smaller but still important extent, from

exports. The revenue from duties on foreign trade is of less significance to private industry than are the effects of duties on international distribution of income and on the competitive position of industry in international trade. On these two points the application of classic free trade doctrine seems to prove inadequate.

The principle that free trade fosters the optimum use of resources for economical production through specialization and economies of scale, must be modified by the probability that under free trade the distribution of world income between and within countries would not automatically be the best for further economic growth or for human welfare. The tariff is not advocated as the best means of modifying distribution of income, but at times it is the only or the most practicable measure available to an underdeveloped country to improve its share of the international distribution.

Free trade doctrine need not be carried to the extreme that it ignores the relationship between productivity and scale of operation and degree of learning. Thus, during the initial period, or a probing period, a new industry may be protected. In accordance with this "infant industry" argument, the period of protection should not extend beyond the point when the industry has a reasonable chance to gain the experience and size needed to make it competitive in world markets.

As an alternative to duties on imports or exports, direct quantitative regulation may be used. This is a more cumbersome and arbitrary method, but it is more precise and usually far more positive. A tariff is usually set at a rate which does not establish limits on trade, whereas direct regulation prohibits trade or limits it to a specified amount or for specified purposes. Differential rates of duty

or of foreign exchange may exert a qualitative influence, again without limiting quantities. Import and export controls are necessary adjuncts to effective negotiation of trade agreements between different nations.

The specific objectives of import regulations and duties, as they affect industrialization, are (1) to give preference to imports of capital goods and raw materials not available domestically but needed for development and operation of industries of high priority; (2) to limit or exclude the importation of consumption goods which can be produced domestically at reasonable real cost, and to limit imports of luxury goods; (3) to protect "infant industry" during a probationary period; (4) to bring about real savings in the national economy in order to provide resources for industry and to offset the inflationary forces generated by industrial development; and (5) to stabilize the foreign exchange rate and conserve foreign exchange so that foreign investors may be encouraged to invest in the country.

Export duties are sometimes used to retard extreme tendencies toward monoculture or overspecialization of agriculture or industry. This measure can be reinforced by making revenues from export duties available for development of other industries. Export restrictions, including duties, can be used to discourage undue exports of goods which are needed to develop domestic industry or to maintain living standards within the country. Conversely, subsidies can be used to induce exports.

Inflation Control and Regulation of the Supply of Money and Credit

The relatively strong inflationary forces generated by rapid industrialization in less developed countries are attributable to two

main influences: (1) The diversion of resources away from production of consumer goods and into capital goods reduces the supply of consumer goods; and (2) the expenditures for creation of capital goods increase the money incomes of consumers. Thus, the increase in effective money demand for consumer goods is met by a smaller supply. In the absence of rigid price controls, this can lead only to the upward spiraling of prices. This process is usually intensified by the creation of additional money through the banking system. Part of the increase in the supply of money is needed simply to take care of a growing volume of business transactions, and to this extent the result is neutral, so far as inflation is concerned. However, it is usual for a considerable volume of bank credit to find its way into non-self-liquidating employment in industry, and even more into expenditures for social capital, as a circumstance of industrialization.

Good and Bad Consequences of Inflation in Industrial Development

It is noteworthy that industrial development historically is correlated with inflation, and particularly with the boom phase of economic cycles. Inflation tends to increase the money profits of business, thus stimulating investment. Through higher prices on consumer goods, inflation places a stricture on consumption, thus forcing real savings to provide for the creation of capital goods. A similar effect can be created by taxes--usually a more difficult political choice than inflation. Inflation tends to take up the slack in the economy, especially where there is reasonable mobility of resources, including labor. The net result is often higher real national income and better income distribution during inflation, than is found in periods of

stagnation. During inflation, income is often distributed in greater proportion to the classes with a high propensity to save, such as entrepreneurs and farmers. To this extent, inflation provides for self-cure or even for deflation.

Offsetting the possible good effects of inflation upon industrial development are serious shortcomings. Those whose savings are evidenced by money claims are discouraged from saving by the erosion of purchasing power which inflation causes. This applies as well to creditors and foreign investors. Inflation is a direct cause of the debasement of a currency in terms of foreign exchange. Accordingly, it not only discourages foreign investors but it has an adverse effect on the foreign trade balance. It causes flight of capital and increases the desire of savers to accumulate hoards of foreign currency, jewelry, or precious metal.

Overriding difficulties of continuous inflation are its disturbing influence on the economy and its tendency to cause distortion in investment. It induces overinvestment, in boom periods, which leads almost inevitably to deflation and unemployment, when markets become glutted with the additional products of expanded industry. Inflation causes investors to prefer real estate, construction activities, inventories, and foreign investment, at the time when the emerging industrial economy sorely needs investments creating higher use benefits, as in export industries, and the production of consumption goods for low-income groups. For all these reasons, control of inflation--but not necessarily its complete elimination--is an important concern in an economy where sound and rapid industrialization is desired.

Standard Methods of Controlling Inflation

Whether or not inflation is a deliberate policy of government, it needs to be controlled if its effects are to be more beneficial than harmful to industrial development. In the more advanced countries with highly developed banking systems, central banking vies with government fiscal policy as an instrument of control. Both instruments exert general influences on business and are considered reasonably democratic and impartial in their administration and final effects. In less-developed countries, central banking is usually less important than fiscal policy in control of inflation. However, the standard measures utilized by central banks to stabilize prices and the uses of credit have a value which increases as industrialization progresses. These measures center around the use of bank credit and consist of loans to banks, rediscounts of paper held by banks or other financial institutions, controlled rates of interest, purchases and sales of bonds on the open market, and variable reserve requirements pertaining to bank deposits. Sometimes the central bank is given authority over the terms of loans to be made to individuals and to business by chartered banks. Aside from open market purchases of bonds, the powers of the central bank are usually more positive as curbs to inflation than as stimulants. However, in those instances where the central bank issues currency on order of the government or makes direct purchases of bonds from the government, the central bank is an agency of inflation.

Control of inflation through fiscal policy is attempted essentially by the administration of the national budget. When the government spends more than it takes in from taxes or earnings of government

enterprise, it produces an inflationary force. Sometimes government expenditures are inflationary even though they are covered by taxes, as when the government taps hoards or income normally going into hoards, or when it directs its expenditures toward segments of the economy where demand may already be excessive. Curbing inflation by a reduction in government spending, with taxes constant, or by creating a budget surplus, may prove harmful to industry. That is, unless the reduction applies to expenditures for purposes which are questionable from the standpoint of industrialization, such as monument building, excessive public works, unnecessary bureaucracy, and unwarranted transfer payments such as over-liberal subsidies or doles. Where government expenditures are for sound governmental functions and for well-reasoned industrial development, there is little opportunity for curbing inflation by the budgetary route. However, one measure already cited earlier in this chapter--the progressive income tax which siphons off an increasing share of the national income as industrial activity expands--is a fiscal device which slows down inflation. If used in moderation, the progressive income tax causes no appreciable harm to industry.

In an earlier part of this chapter, various ways of encouraging savings were discussed. If money savings can be induced by any of the means suggested, the result will be to offset the forces of inflation, at least in part.

The remaining major device for controlling inflation is direct regulation of prices and rationing of commodities. Since price control and rationing border on the dictatorial, and since evasion is usually

common, this method is not advisable in a free country except in extreme emergencies such as war or major disasters. A relatively free price system (which effectuates the flow of resources in accordance with the mass of individual choices of the people) is still regarded as essential to vigorous and economic growth of private industry.

Conclusions

The fiscal and monetary system of a nation constitutes an environmental condition of prime importance to industrial development. Many parts of that system lend themselves to deliberate control by the government and can be used to stimulate or retard economic activities to meet desired purposes.

The government as the largest spender and investor in any country can affect the growth and stability of industry merely by changing the sizes and direction of its own expenditures. In raising revenues to finance its activities it has considerable latitude in selection among taxes or duties which create varying degrees of discouragement or encouragement of specific industries or of certain types of economic activity; for example, consumption, saving and investment, hoarding and dishoarding, and exporting and importing. The use of taxes is important in its effects upon the distribution of income, upon the general level of prices, and upon exchange rates.

Because of the pressures which are generated by rapid industrialization, monetary and fiscal means need to be used to control inflation, the quantity and uses of foreign exchange, and the flow of capital funds. If the relatively milder and more general controls

exerted by monetary and fiscal means fail, there may be need to resort to more direct controls such as price regulation, rationing of scarce resources or commodities, and extensive licensing of economic activities. If so, much of the value of a free price system in regulating industrial activity will be lost; its loss will put a higher value on more detailed industrial planning.

Chapter III

GOVERNMENT AID TO ENTREPRENEURIAL FUNCTIONS

Introduction

The cornerstone of private industrial enterprise is the man or group of persons who bring the business establishment into being as a going concern. If the functions of the entrepreneur were carried out with complete success and to an ideal extent in a free-enterprise society, there would be little need for governmental financial assistance to private industry. This assumes, of course, that normal governmental services and economic support services as described earlier are not counted as financial aid. But, far from being adequate, the services of private enterprisers in underdeveloped countries are often quite lacking and are usually the most deficient of all the elements of private industry. This means retarded industrialization unless the government can do something to build up entrepreneurs and to augment their activities through various forms of assistance.

Nature and Functions of the Entrepreneur

Simply defined, an entrepreneur (or enterpriser) is one who assumes the risk and management of business. In economic theory, an entrepreneur is one who undertakes, initiates, and operates any type of business enterprise. This suggests that the functions of the entrepreneur may be divisible; and in backward countries division of them may be essential to speed up industrialization. In the process of dividing functions, something which derived from the combination of functions may be lost, especially in the instance of smaller scale enterprise where the strong motivation of the owner-manager who reaps all the profits and assumes

all the risks is difficult to find in institutionalized larger scale enterprise. At any rate, the functions of the entrepreneur have been divided and somewhat diffused by the growth of the corporate form of business. Through the corporate form, risks have been limited, and organization and management have been delegated to specialists. Thus the original concept of an entrepreneur as one who owns and operates his own business fails to apply strictly to many modern business situations. This makes it easier and more appropriate for the government to supplement the work of private individuals in promoting and operating industrial enterprises, without necessarily destroying or weakening the spirit of private enterprise.

The entrepreneur has been described as a middleman operating between the markets of the factors of production (land, labor, and capital) and the markets of commodities (economic goods and services). Looked at in this fashion, the economic services he performs can be rendered by the government as well as by individuals acting on their own initiative. And where the factor and commodity markets are not developed, the government may need to play a major role in entrepreneurship. It must be admitted that it is an unusual government that can provide the same originality, initiative, ingenuity, enthusiasm, and responsiveness in business affairs that characterize a multitude of private enterprisers motivated by private gain. However, there is much that can be done by government to make up for deficiencies in the number and strength of private capitalists. Government's efforts will be improved if the elements of entrepreneurship are separately analyzed. This will help to clarify the nature of the functions and will permit leaving as much as possible in private hands.

Promoting New Enterprises

Promotion, as the term is used in the major capital markets of the world, consists of discovering a business opportunity, putting the elements of the business together, and obtaining financial backing to establish it as a successful going concern. Thus, promotion is a major part of the work of the entrepreneur, closely allied with the other part, consisting of risk-bearing and the responsibility of operation.

Discovering Business Opportunities

In discovering and investigating business opportunities, the government of a nonindustrialized country has certain responsibilities such as the formulation of a program which will suggest the industries to be considered for development, and the preparation of basic economic information needed for more detailed investigation. The government will probably need to make or sponsor most of the detailed studies of industrial possibilities that are considered in the early years of industrialization, except where large investors--domestic or foreign--may prefer to make their own investigations.

In any country--but most of all in less developed countries--the research required to discover and evaluate possibilities for new manufacturing industries is time consuming and expensive but is necessary to determine the best use of resources and to reduce the risk of failure. Accordingly, any government which is bent upon promoting private industry can do a great service by providing good information and sponsoring an adequate amount of research on general economic conditions and on specific industries. This sort of activity is not considered an invasion of the

private sector, even in the more advanced and private enterprise oriented industrial countries. Furthermore, this research and information function logically precedes the other steps in industrialization; the outcome of the industrial program will reflect the care, intelligence, and investment that go into this vital preliminary phase.

To keep the costs of discovery and investigation within bounds, the experience of other countries may be consulted. Usually there will be various stages of advancement in other countries which will give indications of the course of action which might be successful for a less developed country. With proper adjustments in the data, the facts pertaining to individual establishments in other countries may be transferrable to a proposed venture in a new country, and thus, rough estimates may be made which will indicate whether or not a more exhaustive study is warranted. The most complete and conclusive test of a proposed industry is an actual trial. This approach has much to commend it as part of the government's industrialization program; the subject is treated later in a discussion of the government's role in industry.

Organization for Research and Statistics

Research and statistics will be of greatest value if adequate provision is made by the government to set up one or more permanent agencies to be responsible for them. Whether a research and information agency should be an independent institution within general government, or a part of some agency such as the Ministry of Commerce, the central bank, or a development bank, will depend upon circumstances. In many countries, the Ministry of Commerce is a logical base for economic research and statistics--especially on census data, population, and industry. In other cases, the views of a single ministry may be too

specialized or restricted in breadth to produce the most objective and comprehensive research and information. On the other hand, some types of research--especially technological--are rather specialized, and the results are largely devoid of policy implications. In these cases, the studies might be better administered by a specialized functional agency of the government. Further comments on technical research are made in a later chapter, but here the important thing to emphasize is that the highest officers of the government should recognize the value of research and statistics and that all concerned with industrial development should make full use of them. The correct relative emphasis on basic economic research on the one hand and applied industrial research on the other will help to assure good research results.

The scope of research for new industrial enterprise usually includes markets and competition, raw materials, transportation and location, production processes, labor supply, management requirements, capital requirements, profit and loss analysis, and general environmental factors, including taxation, regulation, and law enforcement. Inadequate attention to any of these subjects relating specifically to proposed new business invites failure. Until this investigative process is satisfied, the discovery of a business opportunity is not really complete.

It has been found economical and practical to supplement research conducted by government with studies made by nongovernmental research organizations under contract. This practice makes it unnecessary to maintain a large staff of specialists who might not be profitably employed full time. Contract research also makes available a larger number of competent professional people, and it brings their valuable

experience to bear on the local problems. Nonindustrialized countries usually find need to use some research experts or organizations from other countries.

The specialized professional skills most needed in making studies and investigations preparatory to establishing new industries are economics, engineering, finance and accounting, marketing, business organization and administration, personnel management, and law. Within these professional categories--especially in engineering--there may be need of further specialization, such as construction engineering, chemical engineering, and plant operation.

Universities and colleges are often good sources of research personnel or can themselves conduct research for the government or private industries. Government support for the training of research specialists may be as justifiable as conducting research, giving technical assistance, making loans, or aiding industry in other ways. There is substantial advantage in training local people who will understand the local industrial environment better than foreigners.

Assembling the Elements of a New Business

After discovering and investigating an opportunity for a new industrial enterprise, provided the findings are favorable and the estimated future profits high enough, the next logical step is to assemble the personnel, physical assets, and money necessary to create a business establishment and bring it into operation. An almost indispensable device used in this step is the prospectus--a comprehensive statement of the plans and prospects of the proposed enterprise, with sufficient supporting detail to enable an investor to form a reliable judgment of the merits of the venture. Even if the government is to

be the only investor, the prospectus may be needed to justify the investment of public funds in the undertaking. (Prospectuses are discussed further in the chapter on development banks.)

Putting the elements of the business together, especially in the larger undertakings where several sources of capital must be used, requires an extensive amount of personal negotiating, whether or not the government takes the leadership. It is axiomatic that the citizens who command the greatest respect for their economic and business judgment and for their integrity can do this negotiating to best advantage. If the career government officials lack the kind of influence or experience needed in promoting new enterprises, the government would do well to enlist the aid of such leading citizens. If these leaders happen to be investors in the new enterprise their appeals for others to put money into the venture will carry more conviction.

Although cash is usually indispensable in starting a new enterprise, other equally important elements include: Establishing sources of credit; obtaining land, buildings, and equipment; obtaining competent operating management; and, making favorable contracts or other arrangements for the purchase of materials and the sale of products or services. Legal arrangements, such as obtaining franchises, licenses, and permits, protecting patents and property titles, and complying with incorporation requirements, are essential elements in the assembly phase of a new business that cannot wisely be left to chance.

Development Agencies of the Government

There is a growing practice throughout the world for governments to set up formal agencies for the purpose of bringing about industrialization

Some governments have a cabinet department or ministry for economic development, while others have a development center (discussed in a later chapter), a development corporation, with broad powers, or an economic planning board having more limited objectives; there is no standardization of functions. Some development agencies, besides aiding private enterprise with information, financing, technical assistance, and management, enter directly into business. Other agencies are more passive and are concerned only with research and planning, or with licensing functions. In still other cases a government-owned development bank takes the lead, using the financing functions as its main tool while at the same time usually engaging in other activities related to industrial development. Some modification of a development corporation or development bank is useful in focusing responsibility for industrialization efforts in an agency which has the powers, capability, and financial resources to perform the functions of the entrepreneur or to buttress them. Since the creation of an enterprise is the bringing together of many elements, a strong agency charged with that specific mission is in order. But with the premise that private industry is to be encouraged in every way, the development organization of the government, in its zeal to promote new enterprises, should not overlook the need to build up the capacity of private entrepreneurs and financial agencies to do the same thing.

As differentiated from a development bank, a government development corporation will as a main activity enter into the ownership and management of government enterprises. The corporation is expected to engage in promotional activities in fields where the government encourages private investment, while the development bank may follow a more passive course, with its interest centered in making loans.

So far, this chapter has been concerned mainly with the promotional functions of entrepreneurship--those which lead up to the actual financing of new enterprises. Financing of the enterprises and management of operations remain to be considered as parts of entrepreneurship. These aspects are covered in the four ensuing chapters, covering technical aid, financial aid, development banks, and government in industry. In the present chapter, at least passing notice should be taken of a few stimulants or incentives for the private enterpriser, aside from the passive but all-important one of allowing him to keep a large share of the profits of his venture.

Patents

Patent laws which give innovators exclusive rights to their inventions for a reasonable period--say 15 to 20 years--have been generally accepted for two or three centuries. Without some protection of this sort, it is not reasonable to expect a person to go to much expense in developing an idea for commercial exploitation. Originally--and in some countries today--not only were patents given to new inventions or processes, but to whole new enterprises. The wisdom of this policy may be doubted on the grounds that it rules out the stimulation of competition, and it offers no guarantee that the monopolist will make as great an economic contribution as several independent enterprises. And even regulation of the monopolist's prices--a cumbersome procedure--may not assure fair prices to consumers. This is not to argue against all monopolies, but to suggest that the general policy of granting monopoly rights to new industries will almost certainly retard the development of the economy.

The licensing of successful foreign patents to local manufacturers is one of the quickest means of stimulating new industry. Control of quality is important in such arrangements, and the licensor often provides technical advice and supervision in order to insure that quality standards are maintained.

Subsidiaries and Branches of Foreign Concerns

Encouragement of foreign corporations to locate in a country which desires to industrialize is a direct way to tap proven entrepreneurial, management, and technical skills, as well as to attract new capital into the country. Where the foreign and local investors are cooperative, there can be joint participation in the enterprise, which association assures the best possible tutelage in the arts and skills of industrial entrepreneurship. The branch of a foreign corporation, since it rules out participation by local investors, is not as valuable as the joint-venture subsidiary in promoting entrepreneurship. Still, the branch can train local managers and technicians, and help spread good industrial practices, beside contributing to economic development in very much the same ways as would a local enterprise.

Promotion of Trade

When an underdeveloped country begins to industrialize it becomes very dependent upon imports of capital goods, raw materials, and consumer goods. It is also usually faced with limited domestic markets for its own products, unless it happens to be making low-cost consumer goods to replace imports. Therefore, promotion of export trade is a logical need. A government may lend effective and welcome assistance

by sending trade missions to promising customer countries in order to make marketing arrangements and demonstrate the wares of new industries. If the prospective volume of business warrants, commercial attachés or representatives may be maintained in customer countries. Trade fairs and exhibitions, both at home and abroad, are time-tested methods of generating international trade.

One of the most effective activities for promoting trade is the encouragement of travel and tourism. This may be most effective if tourists happen to be potential investors or if prospective importers are invited to visit the country. Obviously, these visitors to the country should be able to find satisfactory hotel accommodations and other tourist attractions. Where private investors cannot be induced to provide the requirements for tourist trade, the government will usually find that a substantial expenditure for this purpose is economically rewarding.

According Social Status or Recognition to Entrepreneurs

In a country with no industrial traditions, the rising leaders of industry usually find difficulty in gaining social acceptance. Not infrequently people with property or money, or those bent upon making money, are objects of deep disapproval by the masses, the spiritual and intellectual leaders, and the politicians. Until this attitude is modified, the country's ability to build up an entrepreneurial or industrial element in the society is greatly hampered.

It is not easy to find ways to use public funds to improve attitudes toward industrialists. Sheer propaganda may be worse than useless; subsidies or other artificial financial rewards are likewise

questionable. However, laws to prevent misdeeds in industry and commerce which bring disrepute upon businessmen seem indispensable. For example, unsavory monopolies or labor practices should not be permitted. Finally, by jealously guarding the opportunities to earn high financial rewards for real industrial success, the government can demonstrate society's approval of the industrial leader. Furthermore, recognition can be given to industrialists by appointing them to public office and honorary status. When employed by the government, their compensation can be set at a dignified level.

Conclusions

Since the essence of private industrial enterprise is the entrepreneur, any feasible method of building up the efficacy of his functions, without destroying the spirit of individual initiative and risk-taking, is worthy of consideration. In nonindustrialized countries those who can be called enterprisers are few, and if industrialization is to proceed faster than a snail's pace, the government will need to supplement what the individual entrepreneurs would do unaided.

By breaking down the functions of entrepreneurship into logical elements, it is possible for the government to perform or aid some of the functions and at the same time preserve much of the personal and individual motivations of the private enterpriser. In providing information, in performing research, and in formulating a program of industrialization, the government can do much toward the discovery and evaluation of industrial opportunities. In establishing development agencies, such as a ministry of development, a development corporation, or a development bank, the government can lend its aid to the function

of assembling the elements of a business, including the all-important one of arranging the financing. By being a partner and leader in financing enterprises and in managing them, the government can foster the capacity of individuals to bear the risks and responsibilities of industrial enterprise.

Certain conditions favorable to the development of enterprisers can be fostered by the government, such as the enforcement of patent rights, the encouragement of foreign corporations in establishing domestic subsidiaries and branches, or in licensing local manufacturers to produce proven articles, and the promotion of foreign trade through trade representatives, missions, fairs, exhibitions, and through tourism. Finally, the government can help offset a frequent natural prejudice against industrialists by improving their social acceptance through wise legislation designed to control antisocial business practices, by permitting honest rewards for genuine success, and by compensating adequately the industrialist employed by the government, and by recognition of business leaders by appointments to government office and honorary positions.

Chapter IV

TECHNICAL SUPPORT FUNCTIONS

Introduction

After setting the institutional framework and establishing the fiscal or monetary measures which can be taken to encourage entrepreneurship, the technical underpinning of the development plan is most important. As pointed out earlier, in most developing countries the environment for entrepreneurship is hostile. Not only are many facilities entirely lacking, but those that do exist are uncertain. Utilities, transport, and communications cannot be taken for granted. Governmental policies are apt to change without notice. Graduates of professional schools are inadequate both in number and in training received. In some degree, government action can compensate for these adverse conditions by supporting a variety of measures to upgrade the technological level in the country. These measures should not result in the dramatic construction of large factories or institutions, which often absorb an excessive share of the capital available for development. Seldom noticeable in brick and mortar, technical know-how acts as an unseen, built-in support throughout the industrial community; it represents an investment primarily in technical manpower, plus the construction of relatively simple facilities which aid technical personnel in solving industry's problems.

The skills and ingenuity which help to launch new industry and keep it operating are the single most important resource in an industrial development program. Without them the finest physical plant may stand

idle. However, not only are personnel lacking but it is impractical for each enterprise to have on its staff all of the technical talent desired. On the other hand, the private entrepreneur does not normally have access to sources that are elsewhere available in institutes, laboratories, or management consulting firms. It is possible, however, to bring together a few highly qualified individuals in central institutes who are available to assist all managers. At the beginning, the government probably has to establish such services itself, although later, private consulting services can be encouraged. Likewise the government has to take the initiative in seeing that trained individuals are prepared for the staffing of private enterprises.

These needs may be greatest in private employment, which does not benefit from the greater prestige and, often, the increased direct and indirect benefits attached to government service. It is also easier for government to plan for its own needs, whereas it can less easily anticipate the needs of industry or of particular specialized enterprises.

In compensation for these difficulties in the development and utilization of manpower, the role of government in providing supports of a technical nature is more readily accepted than is governmental effort in other parts of an industrial program. Fortunately, in view of their recognized importance and the heavy investment required to develop them, science and technology are recognized as "safe" for the expenditure of public funds. Without precluding the operation by private individuals of such facilities as specialized schools or laboratories, government must take bold initiative in the entire technical area. Only in this way can it be assured that the skills of which we are speaking are in

ample supply and that technical supports are effectively applied to industry where needed.

The first aim is through education and training to develop those particular skills and specialties which are essential to the industrial society being developed, as for instance: Office personnel such as typists, bookkeepers, file clerks, etc.; technicians such as laboratory assistants, machine operators, truck drivers, etc.; engineers and managers.

In the other main area of technical support, industry must be helped to adapt itself to local conditions and materials, to maintain adequate productivity and controlled quality, and to solve other technical problems as they arise. The range of specialties involved in this advisory work is much the same as above. At the beginning, considerable emphasis should be placed on applied technology, while the theoretical sciences or fundamental research are excluded almost entirely.

Manpower Planning

The most serious shortage in newly developing countries is the lack of adequately trained technicians. In order to staff new private industrial enterprise, skilled personnel are required in proper relationship to the other factors of production. While the entrepreneur has some control over the acquisition of his capital equipment, it is not normally within his power to train all members of his staff; this then becomes a necessary function of government. In drafting industrial development programs covering both state and private sectors, planning agencies normally give attention to the physical requirements

of new industry, but have less concern for its manpower needs. Thus, for the ultimate development of private industry, governments may have to anticipate manpower requirements many years in advance. To carry this out, it would be desirable to parallel all industrial development plans, expressed in monetary terms, with similar plans showing the need for various skills in each branch of industry which is under consideration.

It is unwise in an industrial development effort to complete plans without having sufficient manpower trained and available. However, it is almost as bad to unnecessarily divert personnel into technical training before their skills are required. Improved government planning should reduce the chance of either error. Furthermore, since education is a continuous process, workers and engineers must be turned out in an unbroken stream from an educational establishment which includes the necessary basic schooling and science education, as well as specialized advanced training.

The particular types of trained personnel needed should be carefully analyzed. Skilled workmen or artisans are required in the largest numbers to operate and to maintain machine tools, production machinery, and process equipment. Operators can often be trained during the period of "breaking in" a plant, when specially qualified engineers representing the contractor or the equipment vendor may be available to instruct them. Such operators can rapidly be trained from among alert, responsible individuals having a basic education, with or without a science background--depending on the machine or process.

Usually, the level of skill or understanding required to train machine operators is not as great as is required to train those

concerned with the installation, maintenance, or repair of machinery. These skills require much more thorough training and comprehension of the physical or chemical phenomena involved. Some of the specialists involved have already been mentioned. Others include electricians, specialists in control of communication equipment, various types of mechanics, etc. Emphasis should be on their ultimate use in maintenance work rather than in construction. Fortunately the distinction is not too serious since a common pool of workers can serve both ends, and since construction needs can be filled from the residential or commercial construction market or even from abroad, when necessary.

The training of technicians on this and the intermediate level, as well as on the middle management level, will be discussed in the next section. The planning of future requirements should be one of the principal functions of a center for productivity or for industrial development, such as is also discussed later. A principal concern in planning manpower requirements is to determine how effectively trained workers at various levels can be located and brought in touch with the opportunities in industry. If the matching of supply and demand is inefficient, remedial measures such as the provision of employment exchanges should be considered. Such exchanges are usually most needed at the intermediate level of training or skill, where selection to fit a particular job is more important and the working group is relatively less mobile.

Basic Technical Training

In addition to an adequate public school system, various kinds of technical or trade schools will be required. In main centers of industrial

industrial activity, technical training may be carried on at the level of secondary schools or their equivalent. In other areas having a smaller market for graduates it is probably necessary to establish more specialized single-purpose schools or separate courses. Here it may be only feasible to give supplementary specialized training to a group of workers drawn from other centers of population. While this more specialized training could be provided by private schools or by companies having a particular need, the initiative or support of the government is generally needed. This is particularly so during an early period, when long-overdue training may be required to "prime" the market, in advance of any specific need for trainees.

In many cases the basic skills required are obtained through apprenticeship, but this system cannot function when the new enterprise involves an industry not previously established or whose expansion rate is beyond the capacity of apprenticeship training. Therefore, schools for artisans are often established and financed by governments. Not only can such training programs handle more individuals in a shorter time, but it is easier to introduce into them the latest industrial techniques that may not be in use in existing factories. Governments have found this especially applicable to the training of repair and maintenance workers. Since the machinery of a new enterprise will often be new to the economy, special skills will be required to keep it in operating condition.

In order to develop the more specialized skills (as with the technician required to control a blast furnace) it may only be feasible to organize on-the-job training in a foreign country. Such arrangements

are often included in contracts for purchase of plant equipment abroad or are offered for promotional reasons by a country or firm seeking such business. In order to maintain its freedom of action, a developing country should maintain its own funds for foreign study, out of the money allocated for industrial development. Care should be exercised to avoid favoritism in the designation of either students or the countries of their training. This is particularly important for university work of relatively longer duration which is difficult to justify if a local university exists to which foreign professors can be brought for the cost of only a few students' foreign study.

It is much more difficult to train through apprenticeship the intermediate level of technicians required by enterprises, such as foremen in manufacturing operations, junior accountants, analytical chemists, surveyors, etc. Most governments have by now established trade schools either at the secondary or post secondary school level for training of this type. Their graduates, who are being used in increasing numbers, can in some cases take over the duties previously performed by graduates of a technical school or university.

Finally, the junior or middle-management staff of most enterprises is made up of graduates in engineering, science, economics, or business administration from a college, university, or technical school. It must be assumed that such institutions are already available in the basic educational system and can merely be strengthened or expanded as part of a development program. Being large-scale in nature, all expenditures of this nature must be carefully planned in relation to real or anticipated needs, particularly when permanent training

institutions are involved. With the lead-time required, emphasis must be on anticipation of the requirements of the program of industrialization which is planned. However, a large body of trained unemployed is a potentially dangerous element in the social and political fabric of the country. Only when reasonable opportunities for graduates are anticipated, is a training scheme justified.

Supplemental Technical Training

We are beginning to recognize that in no country is it merely sufficient to train technicians and turn them out into the market place, with no further concern for maintaining or improving their skills. In a newly developing economy it is especially desirable to use all available basic training, adapting it where necessary to more advanced skills. It therefore makes good sense to provide "refresher" courses or in other ways to upgrade suitable technical personnel. Such training differs from that mentioned in the previous section, not only in the age of the students but also in the fact that they may already have considerable industrial experience. To this extent, instructional material can be presented in more concentrated form, thus making such supplemental training a surer, more economical investment. In the absence of any continuing or concentrated demand which would attract private schools, this investment will have to be made by government.

Graduates from technical institutions in developed countries generally have a period of factory apprenticeship before they are considered of full value to an enterprise. Governments can best assist private industry by ensuring that such graduates receive the practical experience required. Since this is not always available in their own

factories, it should be possible for these men to obtain in-plant training in the factories of developed countries. This is a type of training that can most readily and safely be provided abroad, and since the "subjects" are more mature, have behind them a period of prior experience, and will remain abroad a shorter time, they are less likely to waste the money spent on them. A major portion of the funds allocated for foreign technical study should go to the relatively more advanced, more specialized training, which by the same token can less readily be provided by indigenous instruction, even with "imported" teachers.

One important way in which to conserve existing skills is to stimulate each group to concern itself with its own self-improvement. What might in upper technical circles take the form of professional societies could for other specialities be embodied in informal meetings, "skill contests," service awards, etc. The rationale of all these efforts should be recognition of the individual's desire for identification with a group, through which an appeal can be made to his pride and interest in skill improvement.

The provisions of supplemental technical training is one of the principal "by-products" of the work of foreign technicians. They also help considerably in the process of mutual inspiration which stimulates self-improvement and a greater desire to learn. So long as they have proven skill in their fields and an ability to communicate, all technicians from an industrialized country are able to inspire and instruct those in whose midst they are working. This "side-effect" attends both those who have been imported for training purposes or for assistance in particular technical problems as well as those visiting the country

on purchasing or selling missions or looking for foreign investment opportunities. In addition to imported technical know-how, one of the important results of foreign investment is the indirect training effect of foreign technicians interested in ensuring the successful operation of local industry. Similarly, licensing arrangements can make both a direct and an indirect contribution to the technological development of a country.

While training by foreign technicians has been referred to as a "by-product," it should when possible receive as much emphasis as the direct assistance which foreign technicians will render. When possible, a specialist hired outside should train a local man to take over his work at the earliest opportunity.

Technical Media

In developing and improving the technical skills necessary to growing industrialization, the printed word and other audio-visual aids are indispensable. Texts and pamphlets are needed at every level in the learning process, and there are substantial uses for training films or film strips, taped recordings, posters, and other media. Initially most of these will have to be imported, at least in versions which can be translated or otherwise adapted for local use. As early as possible, steps can be taken toward local production of instructional materials. Facilities which may have to be provided include printing presses or other means of duplication, bookbinding equipment, drafting supplies and facilities, and sound film apparatus. Training in the use of these audio-visual materials, including translating, editing,

and graphic presentation, is also justified as a part of any concerted educational effort.

Since the technical press is almost completely confined to countries in a more advanced stage of industrialization, it may be necessary to provide for the purchase of journals, books, and other publications in specialized fields. Technical personnel should, of course, have sufficient acquaintance with the foreign languages involved to make these materials accessible, and such proficiency is part of their professional equipment for which a portion of the industrialization budget can be allocated. Even so, it may well be justified to prepare digests of selected new developments or other aids from foreign periodical literature, just as basic texts will likewise need to be translated. Such selections need not be over-complicated but may be limited to materials which can readily be assimilated and pertain to the development situation at hand. To this extent an allocation of funds is justified for technical media, including the production equipment mentioned, as well as for working libraries, exhibitions, and other means of information dissemination. Although these media may have a lower immediate priority than the direct training measures described previously, their ultimate effectiveness in terms of training results should not be underestimated.

Research Support

After the foregoing measures contributing to technical education, the next main category of technical aid which can be given to developing industry covers "problem solving." Regardless of the degree of development in a country, private enterprises need a source of help

when they encounter an unforeseen difficulty or want to explore some innovation in product or process. This need is particularly acute in an underdeveloped country where processes may be untried or where there may be unknown obstacles to smooth, economical production.

To provide such assistance may require substantial expenditures and should at first be limited to the following practical objectives:

1. Problem-solving in connection with existing or planned enterprise.
2. Research and pilot plant operation of new methods of processing indigenous materials--at least those with promise of being economic.

Obviously, basic theoretical research must be ruled out as non-essential to initial industrialization in a developing economy. For some time dependence can be placed on the innovation--both theoretical and applied--which comes from laboratories in developed countries. Support of a small local applied research facility may be costly in relation to its direct returns, even though it might be justified as an adjunct to a university teaching program. Whether it might be attempted in connection with other technical facilities for industry will be discussed in the next section. However, it should be borne in mind that applied research in manageable units could if necessary be performed economically in foreign laboratories.

Testing and Standardization Facilities

Testing and standardization facilities involve circumscribed laboratory facilities. These can operate as a service agency which, if subsidized, can offer more economical testing and analysis services

than could be performed in small independent or company laboratories. Types of work handled by such facilities include the analysis and testing of raw materials--both to establish their acceptability and to ensure uniformity, the routine checking of work in process, and the quality control of finished products--against export standards or merely for the local market. All these procedures can be performed in a simple laboratory able to do chemical analyses and physical testing in the basic fields of mechanics or electricity, as well as in certain specialized fields which vary with local needs. Such testing and standardization facilities can be of greatest service to small industries since the smaller plants will usually have less laboratory facilities than larger plants or industries:

In some development programs it has been found practical to consolidate testing and laboratory work with training courses for artisans and intermediate-level technicians. In one example, for instance, a Ceramics Institute assists private companies in the testing of raw materials, in the adaptation of new techniques to the economy and also in the training of plant personnel through short courses given for a period of three months up to one year. If governments can make the necessary organizational arrangements, such a consolidation leads to economies both in funds and in personnel.

Clearly, a laboratory for testing purposes is more essential than one devoted exclusively to research, if funds are inadequate to construct both. However, it may in some cases be feasible to combine the two, so that a laboratory designed primarily for testing could also perform research on certain technical problems.

Industrial Development Centers

In addition to facilities for testing and research, newly developing industry needs a number of other technical aids of a sort which do not require specialized facilities but can be provided by a single centralized organization. This kind of center can be set up under various names--the Latin American "Fomento," Industry Institute, or Industry Development Center, to cite but a few now in use. In the relatively more developed countries of Europe and the American continent, a more advanced role, but essentially along the same lines, is played by Productivity Centers. All these agencies, whatever their name or particular organization, have a common goal to increase the efficiency or productivity of the country's industry. They should emphasize relatively simple technical skills, such as accounting, personnel management, inventory control, maintenance practice, and even industrial design and the preparation of promotional literature.

Since such centers are expected to answer questions over a wide range of subjects their effectiveness will depend on the versatility and practical know-how of the experts who should be sought for its staff. These persons must be equally able to demonstrate simplified methods or to conduct short courses which will improve nonoperating procedures. Even though much of their work is instructional in nature, the emphasis in centers of this kind should be on solving technical problems and helping with work simplification and other special needs. Their activities should be planned with a view to the prevailing lack of trained personnel available for industrial work in most newly developing countries. One way in which to use the limited manpower

available to the center itself is to exercise ingenuity in drawing on the resources available from other countries, such as the Question and Answer service operated by the International Cooperation Administration in Washington. Through the facilities of the United Nations and its specialized agencies, with their regional centers and country missions throughout the world, another fund of valuable experience is available to the new "center for industrialization."

Of all the measures discussed up to this point, none is more important than the formation of this type of center. Physically, it can be set up in close proximity to the industrial centers it serves and have facilities to work closely with outlying industry. The relationship of the center with other aspects of the broad government industrialization program should be closely integrated, particularly if the center operates as the actual headquarters for activities embodying many of the technical support functions described in this chapter. Therefore, if there is money for nothing more, there should at least be a rudimentary planning organization around which some testing and later research facilities can gradually be added, together with elements of a training program. Although this would be a modest beginning, it has the virtue of making the start from one center and working outward with expanding activity.

Industry Extension Work

In order to reach out from this center to isolated large industrial units or to a multiplicity of small and medium-sized plants throughout the country, some form of extension network or advisory service is desirable. Essentially, this should consist of small branch offices

placed in every town or city which has actual industry or sound development prospects. Though staffed by perhaps only a single versatile "contact man," a typical office should work in close liaison with the main center, to which special problems can be referred or from which qualified experts can be sent on special assignment. An essential part of its program should be regular visits of the extension representative throughout his region, for the purpose of establishing closer contact with every producing establishment, large or small. If this inspires the desired confidence in the advisory service, the latter will not have to "sell" its solutions or even to offer suggestions, but will be able to deal with typical problems in answer simply to inquiries from industry.

An industrial extension or advisory service, bearing the name and following the pattern long established for technical aid to farmers, can be of assistance to industry--particularly to small and medium size enterprises. It is important to stress here that small and medium industry may need considerably more assistance than large industry even if large industry might monopolize any single center's efforts with its obvious problems. In some instances the assistance to small and medium industry may be handled separately. When it is not desirable (or possible) to set up completely separate organizations care should be taken to avoid such unbalance.

Extension services will not always make immediate contact with the industry, small or large. In many instances--particularly with small plants--operators will not be aware of the assistance they need. In other cases they will misunderstand the motives of those providing

assistance. Technical assistance needs to be sold and this may take time, patience and ingenuity. However, when a relationship of confidence is established, there is little doubt that such centers can have a most important impact on the rate of industrialization of a country.

Support Provided by Outside Specialists

Mention has already been made of the "side effects" gained from the presence of foreign specialists in a developing country. Many of these are brought in by government for such purposes or to fill gaps in the personnel available for its own efforts in the industrial field. Much technical support can also be gained from experts who are made available and paid by other agencies, such as those of the United Nations--particularly its Technical Assistance Administration, the United States Foreign Aid Program, the Colombo Plan, or aid programs of other countries. To secure foreign assistance the host government must simply furnish funds for local expenditures, as well as working facilities--small outlays in relation to the value of the services obtained.

It is not uncommon in certain countries to find many different types of foreign expert, sent by various agencies for so many sub-programs or projects, that there is need for coordinating their work. One approach to this problem has been to set up committees which will try to keep track of all the specialists and to allocate them whenever there is danger of duplication or poor utilization of their capabilities. In the industrial field, however, there should be no need of a committee approach as long as a center exists for planning manpower requirements. A minimum step to be taken by government in this direction

is to establish an office to assist private companies in locating qualified technical personnel. This combines the function of an employment exchange with the services which are involved in recruiting specialists from abroad. Such coordination can include those technicians brought in by various government agencies, those contributed under foreign or international programs, and finally the private domestic or foreign consultants. The services of such an office might be repaid in part by fees charged to provide consultants.

When qualified consultants are available in the country it will be more economical to use them than foreigners. When they are not available, private business can also be encouraged on its own to recruit foreign specialists. Here it has been found practical to employ the skills of individuals from neighboring countries, as for example, the employment by Burmese firms of Indian Engineers. Governments can further promote this sound measure of economy by simplifying the immigration laws under which visas are granted and by making it possible for a portion of the salaries paid to be transferred to the home country. When it is necessary to look further afield for the particular specialty required, salary cost may be as much as doubled in the extra compensation and transportation expenses involved--at least for Americans. Europeans of equivalent qualifications can usually be engaged for somewhat less. When assignments so permit, maximum economy is obtainable and the probability of effective work by consultants is greater if they come to the country for longer than a one or even two-year period.

Although, due to the expense involved, the use of foreign consultants should be carefully justified, it is surely unavoidable in

many specialized aspects of industrialization when local consultants are unavailable and training for specific assignments would take too long.

Management Contracts

The direct supports mentioned in this chapter could in the long run be provided directly by government. In the initial phase of industrialization separate elements, such as the operation of training facilities, a laboratory, or even a development center itself, could be furnished by contracted services. In the more mature phase of industrialization it becomes possible for all the services mentioned--except public school education and a combined development center and extension service--to be privately financed and provided. Nevertheless, in the typical developing economy, government must provide the initiative as well as the services themselves, and it is therefore appropriate for an entire technical program to be subsidized by public funds.

It is sometimes necessary to consider the wholesale provision of technical know-how. When for any substantial element of a program private operation is not possible and qualified personnel are unavailable on any basis outlined, a "package" contract can be considered. This approach has been used for various types of specialized training, for setting up and initial operation of laboratory facilities, for certain phases of an extension service for industry, and for the operation of an industrialization center itself. Such contracts can be satisfactory when they cover a limited objective, over a limited time period. Dangers to be avoided are the "entrenching" of a consultant firm so that the program becomes too dependent on it and, in a related

manner; failure to train nationals so that they can soon assume the work themselves. As with individual consultants, considerations of duration, cost, and the national origin of the contracting firm need close examination.

A project suited to the management contract approach is the construction and operation of a pilot or demonstration plant of near-commercial size. In an industry (for instance, food preservation) where future construction of a number of units is envisaged throughout the country, this type of project can have a desirable multiplying effect as a nucleus for instructional efforts and as a practical laboratory for developing indigenous methods. An advantage of this type of plant is that it can ultimately be disposed of for private operation as a commercial unit.

Further use of management contracts is indicated for the full commercial operation of government-owned plants which cannot be placed under private ownership, for practical or political reasons, or which have long been operating at a loss and will be put into an earning position before being sold.

Conclusions

A system of technical aids may well be thought of as a circulatory system bringing to industry its bloodstream of scientific technology. This life-giving and sustaining quality is particularly important during the early stage of delicate growth of industrialization in a strange, or even hostile, environment.

The desired approach to industrialization which stresses the problem of growth of a living organism, should place much emphasis on

educational processes as sounder in the long-run than impressive large integrated plants. The educational effort should be pushed on all fronts, including various levels of specialized technical training and measures to conserve and up-grade the skills which are available.

Scarce technical personnel can be used to best advantage if there are laboratory facilities available to guide production and to adapt it to local materials or conditions. There must be a well organized over-all program of industrialization, with ample direction from a "center," which can also arrange the most effective use of this scarce personnel. Such a program can most effectively be translated into direct assistance to industrial efforts if it is implemented in the field by an extension or advisory service which will reach the large and the small problems of all industry--actual and potential. Maximum use should be made of foreign experts who are available in the country or who can be brought in to work in specific areas. Only in special circumstances should it be necessary to contract either the planning or the execution of large elements in the industrialization program.

Chapter V
FINANCIAL AID

Introduction

All types of government assistance to private industry, whether direct or indirect, have their financial cost. Up to this point the discussion has been devoted mainly to the types of aid generally classified as nonfinancial, and to the environment for industrial investments as influenced by government. Attention is now turned to the more purely financial measures which can be applied by the government directly to the aid and encouragement of private industry-- or to a specific industry, if desired. These measures may be summarized as loans and rediscounts, guarantees and insurance, industrial sites, plant facilities for lease or lease-purchase, equity investments and joint participation, grants and subsidies, protective tariffs and similar measures, and tax concessions and incentives. With the possible exception of protective tariffs and certain types of tax concessions, these financial measures can be applied selectively to individual establishments. Financial aid presumes the existence or availability of the elements (other than adequate capital) needed for successful industrial enterprise. In most instances, financial help is available only to those industrial enterprises for which some capital is already supplied or to be furnished by private promoters.

In nonindustrialized countries private capital is usually a very scarce factor. Mere hoarding--a prevalent method of saving in the less developed areas--results in no accumulation of real national wealth. The real growth of capital takes place only when more goods are produced than are consumed or used up, and when the surplus is devoted to further production. The accumulation of such capital depends upon the willingness and capacity of people to consume less than they produce. Those whose incomes are at or near subsistence levels cannot accumulate capital in this manner. This is the situation with which governments of less developed countries must usually contend in attempting to generate private capital for industrialization. In the early stages of development, they may often be called upon to provide the major part of the capital required. Then, as industrialization increases real income per hour of labor, private saving becomes possible. (The fiscal implications of the savings-investment problem in industrialization were discussed previously.)

Government financial aid should not be regarded as a panacea for the ills associated with industrial backwardness in the private sector of the economy. The government may properly provide it when there is no market for investment securities and no organized way of channeling savings into industrial enterprises; but this approach should be governed by a policy of making private industrial establishments self-sustaining under competitive conditions, as early as possible. Therefore, government should avoid excessive liberality with financial aid that could cover up or offset basic economic weaknesses. Largesse

would only lead to disillusionment and misappropriation of national resources and in the long run would probably retard private industry. The safest guide seems to be to supply funds and financial services on a basis conforming reasonably well to standards which would prevail if there were a well-ordered private investment market, and to do so only to the extent necessary to supplement private financing or to stimulate banking and investment institutions. From the beginning of its aid program the government should lay careful plans for the systematic, progressive termination of that aid as soon as private investment can take over part or all of the functions of financing. Private financial responsibility and rewards are the essence of private industry. If the government has funds to spare, it will usually be better to reduce taxes or to invest more of its funds in general economic support functions than to risk pauperizing private borrowers or to enter into fields of industry which can be handled satisfactorily by private interests. The philosophy of government in industry will be discussed further in a later chapter.

Loans and Rediscounts

The repayable loan, made to private industry on a sound business basis, is one of the least intrusive forms of financial aid for the government to offer. To achieve the best results with government loans to industry--and perhaps also with investments and guarantees--it may be advisable to establish a development bank or similar development agency. The subject of development banks is discussed in the following

chapter. At this point it may be convenient to cover some of the broader aspects of government industrial loan policies.

The need for government to make loans to industry arises generally from the lack of other sources of capital. This deficiency is most commonly apparent when credit is needed for a period extending over several years. Commercial banks can usually provide short-term loans to enterprises for which equity capital and longer-term credit have already been supplied. In some cases, the commercial bank may be unwilling to lend to an extra-hazardous enterprise, whereupon it may be desirable for the government to help with short-term credit if the project is economically sound or vitally needed for the industrial development of the country. A guarantee of the debt which will enable the borrower to go to private sources is generally more advisable than a direct short-term loan by the government.

The theory supporting long-term government loans to industry is that the enterprise or industry is needed for industrial development, that it will do best under private control and responsibility, and that the loans will be repaid. It is usually implied that future earnings will provide the means to repay the loans. However, in some cases it may be contemplated that the loans will be refinanced by a private lender, or that they will be repaid from the proceeds of sale of capital stock. The safest guide is for the government to require evidence that the debt will be retired from earnings. At the same time, it is prudent to look to the assets of the enterprise as an

additional assurance of recovery of the loaned funds in the event of failure of the venture.

In contrast with subsidies or grants, a repayable loan need not cost the government anything; and if repayments are put into a revolving fund, more than one enterprise can be helped with the same appropriation. With loans, furthermore, the government is not permanently committed; it can more easily shift its emphasis, with changing conditions, and it can more readily withdraw from a venture when the loan is repaid.

High priority should be given to loans for new enterprises and for those entering new fields of industry. This is said on the assumption that the entrepreneurial functions of organizing and initiating new industrial ventures and getting them equity financing are the most difficult steps in industrialization, hence worthy of major encouragement. But this does not mean denying needed relief to an existing venture which may offer as much toward developing the economy as a new one. The fact that the existing enterprise was able to start without government help is a presumption that it has private means of financial support. If so, the government might fill a more useful function by supplying technical aid or some other form of assistance than loans.

So long as loan capital is available, loans should be granted to enterprises which are otherwise qualified for industrial development reasons and cannot obtain loan financing except from the government. This may often exclude public utilities under private management. Their services are a basic necessity and the stability of their

earnings, plus their legalized monopoly position, make them a good type of enterprise for private financing as long as they are granted rates that permit them to attract private financing.

The specific expenditures to be made from government industrial loans should be restricted to the approved purposes of the enterprise. In general, the proceeds of loans should not be used to pay off other debts, to make loans to third parties, to pay dividends, to increase salaries of owners, for purposes extraneous to the main business of the enterprise, to carry seasonal inventories, or to finance seasonal trade in place of commercial banks. Government loans may be most needed and most appropriate in order to acquire capital assets which cannot economically be leased or financed with private lenders, to carry on research and development work, and to cover organization expenses and normal operating losses during the "breaking in" period. On the other hand the applicant for a loan to purchase capital assets for integrated manufacturing should give convincing proof that it would not be better, at least in part, to rely on independent subcontractors rather than to attempt integration.

Where there is an acute shortage of foreign exchange, the government may wish to limit and select its loans for imports of materials and equipment. In this case, the exact nature and purpose of the expenditure must be reviewed before the loan can be granted.

The making and supervision of industrial loans is a specialized art which should be practised by an agency which thoroughly understands that function. As will be explained in the next chapter, such an

agency should be relatively free of political control, except for broad policies set by the government. Whether or not a development bank is established, the government should continue to promote the full use of existing commercial banking facilities and the legitimate prerogatives of private banks.

Rather than making loans directly to industrial borrowers, the government may make use of commercial banks. This may require change in the charter powers of some banks to permit them to make capital loans. And this, in turn, may call for special loans to the banks from the government, government subscription to their capital, guarantee of obligations of the banks or their borrowers, special government deposits which are committed for a long term, and provision for rediscounting of medium- and long-term notes of industrial borrowers with the central bank or other discount bank.

Guarantees and Insurance by the Government

Government guarantees and insurance are often an acceptable alternative to government loans, investments, and other forms of financial assistance to private industry. Their two great virtues are that they economize the use of government funds and at the same time engender private participation and responsibility. A further advantage is the saving in government administrative costs as compared with the administrative costs of making loans and investments. However, administration is not negligible if intelligent policies are to be formulated and if proper standards and compliance are to be enforced.

Likewise, guarantees and insurance do not eliminate the need for appropriating funds in order to give substance to the commitments of the government. Adequate provision must be made to take over the assets of the debtor in the event of default and promptly to make good his deficiency with creditors who have relied on the government guarantee. In the case of insurance, the funds and procedures for indemnification of losses should be formally established.

Certain financial advantages of guarantees accrue to those who provide and to those who use guaranteed funds. The provider of credit has a more liquid, shiftable and reliable type of security if it bears the government guarantee. Accordingly, the holder of a guarantee can usually obtain funds on a more favorable basis as to borrowing ratio and interest rate. In fact, government guarantees have often been given only on condition that interest rates charged on guaranteed obligations would not exceed a certain reasonable maximum. The rate need not greatly exceed that which the government must pay on its direct debt, after due allowance for administrative costs; however, an artificially low interest rate may contribute to a wasteful use of capital.

Some of the more prevalent types of government financial guarantees for private industry are those applied to loans from commercial banks, trade debts with foreign suppliers of materials and equipment, bonds sold to the public or to financial institutions, and loans made by international financing institutions. In rarer instances, the government may guarantee the stock dividends of an enterprise, or even the redemption price of stocks, bonds, or participation certificates--both of which are regarded as short-run measures to be used only when there

is a desperate need to inaugurate private investment under adverse conditions,

A guarantee may be either complete or partial. The partial guarantee preserves a greater degree of private participation and responsibility than a complete one. When the guarantee is partial, the first recourse in the event of default is usually to government.

Government insurance for the benefit of industry usually takes the form of protection of creditors against various losses and protection of the enterprise against loss on international transactions. Insurance of loans differs from guarantees mainly in respect to the provision of funds to cover losses. With insurance, even though it is carried by a government agency, the borrower pays a premium into an insurance fund which is usually guaranteed by the government. Losses are usually covered by this fund on an actuarial basis, without drawing on appropriations. The same may be true of insurance against loss on foreign exchange or loss through seizure, expropriation, or blocking of foreign balances.

A device used by some mutual insurance funds in which the government participates as administrative agency and as ultimate guarantor, is a government-guaranteed debenture issued against the fund in settlement of claims. This reduces immediate cash requirements and encourages the distribution of securities among investors.

In some instances, the government attempts to reduce risks of fluctuations in prices of industrial raw materials or finished products.

These measures are discussed later in this chapter under the heading of subsidies and above in Chapter II under the heading of purchasing activities of the government.

Industrial Sites and Districts

In Chapter I transportation, provision of water, drainage, or waste disposal, and protection of property were discussed as some of the economic support functions relating to land which are generally provided by the government. Government has further interests in land as a means of promoting industrial development. Industrial sites require considerable development before they can be used, and the required leveling, drainage, access roads and other transportation facilities, water, sewage disposal, power supply, and police and fire protection are best handled on an area-wide basis. Until an industrial area has reached productive operation it is not in position to provide these services or land improvements through local taxes. It is therefore often appropriate for the national or state government to bear the burden of financing the preparation of the land for industrial sites. This becomes a necessity when private developers will not do the job and when the new industries are to receive tax abatement as an inducement to their establishment.

By developing the land the government can exercise control over its use. It can offer good sites as grants, on long-term lease, on a lease-purchase basis, or by outright sales--all on terms designed to further the development program. The subject of land transfer to industry will be discussed below in connection with plant facilities.

Heavy industry may need a large tract of land with specialized characteristics for each establishment. However, lighter manufacturing industry, of the type predominating in any industrial economy, can be accommodated in industrial parks or districts which can be planned for a rational arrangement grouping many establishments. The organized or planned industrial district can take cognizance of community desires for efficient, yet esthetic, patterns in its orderly development; it can thus secure public approval of industrialization.

The plan of an industrial district should make provision for zoning and for architectural and structural standards which will protect the investment of industries locating in it as well as the government's own investment. The district should be laid out to make efficient use of streets, railroad tracks, dock facilities (if on water), and the usual utilities, such as water, power, sewage disposal, and perhaps common warehouse buildings.

Industrial parks or districts are especially useful in and around large urban centers and in areas where growth is rapid. They provide the means of reserving land for industrial use so that industrial users will not waste time and energy in negotiations, or through competition bid up prices unduly, or be subjected to inappropriate taxes. Industrial districts will prevent the intrusion of unwanted nonindustrial users of the land who might break up the industrial community, thus reducing its efficiency and its ability to allow expansion of individual enterprises and the addition of new complementary industrial establishments.

The so-called "external" economies are highly important to industrial success. Technical and financial services, access to

supplies and equipment as well as to nearby markets, mobility of labor, and the usual community services provided by government, are all enhanced by the grouping of factories in industrial districts, parks, or estates. Experience has shown that with the economies obtained, industrialization is accelerated in a cumulative manner.

The area surrounding an industrial park may in due course expect growth in population, housing construction, commercial developments, other industries, and many other features of an urban or suburban community. Planning for these induced effects should not be overlooked in the planning for industrial parks or estates.

The promotional value of a well-arranged industrial park may be considerable. It solves a number of the problems which face any entrepreneur looking for a place to establish his factory. It may shorten by many months the inauguration of an enterprise. It gives an identifiable character to the industry of the community by grouping it where it can be seen. The collective achievements of the industries located in the district can be made the subject of advertising which will attract still other enterprises.

Certain potential disadvantages of industrial estates should be recognized so that their effects can be minimized. Among the drawbacks sometimes found are a narrowness of industrial development, restriction of entry, limits to expansion possibilities, congestion, and overconcentration. Where the government's participation in the estates is comprehensive there may be an excess of paternalism or government domination with respect to private industry which tends to kill the spirit of private initiative.

Plant Facilities for Lease or Lease-Purchase

Whether or not the government undertakes to provide industrial districts, it will find that in a capital-shy country prospective manufacturers of all sizes will welcome the opportunity to lease plant facilities. Land and general, all-purpose buildings are easier to provide than specialized equipment. Governments like the leasing arrangement because it entails little risk; if one firm fails, the facilities remain intact to be leased to another with a minimum of legal procedure. This is a good protection against squandering of public aid funds. The government can make lease terms as favorable as it wishes. Without any subsidy, the industrial lessee is relieved of a substantial part of the need for money to pay for fixed capital. Through a modification of the lease contract, the government can provide for the lessee to acquire complete ownership on convenient terms. For instance, he can apply lease payments toward the purchase price or pay a modest purchase price at the expiration of the lease to cover the residual value of the property.

Equipment leases have many of the same advantages to the government as leases of land and buildings, but they entail much greater risk because of their specialized nature and more rapid depreciation. However, in the event of a bankruptcy or of a severe economic depression in the country, their mobility gives them more saleability than factory buildings. Because of the depreciation factor, leases or lease-purchase arrangements should be of shorter duration for equipment than they need to be for land and buildings.

Equity Investments and Joint Ventures

Government ownership of economic support facilities such as utilities, transportation and communication systems, and certain kinds of financial institutions is not unusual in countries throughout the world, whether or not socialist or statist policy governs the rest of the economy. The subject of government ownership of industry will be dealt with in Chapter VII. Some reference is made to the subject also in Chapter VI, which discusses development banks. In the present chapter it should be noted that in countries where venture capital is scarce or timid, the government may be called upon to participate jointly with private investors in ownership of almost any type of manufacturing or commercial venture. The investments of the government have often been instrumental in calling forth private equity capital in these circumstances and providing a base for private loans to the enterprise.

As a standard policy, assuming that the government is sincere in its program to develop private industry, investments of the government in industrial equities should be treated as temporary and only for the period necessary to launch and carry the enterprise to the point where its success or promise of success is good enough to induce private investors to take on complete ownership. At the same time, the policy of the government should not be capricious with respect to its financial support of the venture during its gestation period.

Grants and Subsidies

The basic motivation for a government grant to industry should be the same as for a direct investment or participation in ownership-- namely, to induce the participation of private capital and entrepreneurial effort. A typical device is the "matching grant," made only on condition that private investors put up money or property in equal or varying shares.

The grant is a one-time form of aid used generally to help initiate a project or an enterprise in an entirely new and untried field. It may carry with it certain performance provisions, but as a rule the only stipulation is that a certain amount of private capital be put into the enterprise. Therefore, when grants are used, the recipient enterprises should be quite free of governmental control.

It is difficult to justify grants to private industry in preference to other forms of government aid, except over certain types of operating subsidy to be discussed presently. Possibly the grant to private industry of public land and the use of public resources such as mineral deposits, water, and forests can be justified if the proper development of these resources can be enforced as a condition of the grant.

Intelligent administration of grants is a costly activity for which there is no direct compensation to the government similar to that enjoyed from loans or investments. Legislation providing for grants is more difficult to accomplish than that for most other types of financial aid because of the high net costs of grants and

because of the need to circumscribe their use. It is usually impossible to retrieve anything from cash grants which are made with faulty judgment.

Subsidies to aid industry take the typical forms of: artificially low interest rates; lease or sale of plant facilities on especially favorable terms; purchase by the government of goods or services of the industry at higher than market prices; sale of government furnished utility or transportation services, raw materials and technical services at less than cost; exchanges between domestic and foreign currencies at better than market or official rates; and direct cash payments to compensate for differentials between market prices and "desired" prices for purchased raw materials and services, and for products and services (including exports) sold by an enterprise. Subsidies are a form of grant or gift, but in general usage they usually imply gifts which are to be repeated or continued, in connection with operations of industry, whereas grants are usually not associated with operations nor are they repetitive.

Like the grant, a subsidy is a collaborative device used to encourage industrial effort and to help establish an infant industry to the point of viability. Unlike the grant, a subsidy becomes applicable usually as a result of actual performance. It is not an easy form of aid to establish or to administer, with justice to competitors, to other industries, and to other segments of the economy. It is usually disapproved by competing producers in other countries, and it may invite retaliation. Once started, it is difficult to terminate because the benefited industry seldom learns to meet world competition while operating under a subsidy.

And--lacking a true market test of the subsidized industry, the government cannot be certain that its support is in the best place or that the resources of the nation are being utilized to the fullest economic advantage.

Subsidies are usually more acceptable if their effect is to stimulate the use of abundant resources, or surplus labor, than if they are applied where scarce resources are to be used. By means of subsidies, real social costs (sometimes referred to as "accounting prices") can be adjusted to market prices. In this way a business may be induced by a subsidy to do the "right thing" about using up surplus resources or idle labor. If the subsidy is applied in a lump sum to the overhead costs of business, it has the desired effect of preserving competition among similar enterprises, maintaining the price structure and encouraging volume production at lower prices.

Protective Tariffs and Similar Measures

A number of measures having effects similar to financial aid should be mentioned, although they do not entail government appropriations, aside from administrative costs. This category includes protective tariffs, foreign trade and currency restrictions, price controls and rationing, direct taxation, patents, and the licensing of monopolies. Since these measures are actually alternatives to financial aid, they should be mentioned in order to complete the discussion. All of the devices enumerated have the major purpose of protecting new industry. In certain circumstances all may be justified on the basis that they provide

incentives and other conditions favorable to innovation and new enterprise. The objective is to nurture new industry until it is large enough to be economical and competitive. This is not the place to examine exhaustively the theory and practice of protecting infant industry or other effects of protective measures such as tariffs. The consensus of economists is that the "infant industry" argument is the most defensible one pertaining to protective tariffs and similar measures. Many believe that in overpopulated, and newly industrializing countries, industry should be protected in order to provide more work. It is correctly argued that in such circumstances economic costs of labor in the protected industries will be less than its money cost. But since money costs govern private enterprise, private industrialization tends to proceed at a rate which is below the economic rate. So long as the cost of protection is less than economic gain, it is worthwhile for the government to follow a protective or support policy. Other arguments, such as keeping money at home, raising wages providing revenues, improving the home market, and retaliation, are considered by most economists to be economically fallacious.

The celebrated shortcoming of protective measures for infant industry is that there is no easy agreement as to when the stage of infancy is over. Prolonged protection will retard economic development as much as initial protection will stimulate it. Also, industries to be protected must be carefully selected since indiscriminate protection does not make for sound development.

Tax Concessions

The general effects of taxation upon incentives of industrialists, upon savings and capital formation, and upon monetary phenomena have been considered in Chapter II dealing with fiscal and monetary influences on industrialization. The tax concession is but one of the various devices by which economic activity is affected through taxation policy. If the concession starts within a reasonable tax structure, it is seldom the major factor in the entrepreneur's decision to invest or not to invest. However, in a framework of high taxes or when the competitive tax situation in other countries might influence the export or import of capital, the marginal influence of tax concessions may be important. One of the main reasons for using tax concessions is to help direct the flow of capital into the desired investments.

One major difficulty of a tax concession is that when applied to new establishments only (even if a satisfactory definition could be found for new enterprises) it is discriminatory to the older ones; when applied to industry on a general basis, it destroys the ability to channel investment selectively; and removes the obligation of industry to support government. Clearly, good government is almost indispensable to good business; and in industrial countries, many government activities arise from business needs. Hence, considering direct benefits and costs there is not a good case for exemption of business from taxation. Whether tax concessions are handled through broad administrative authority and discretion or through specific and detailed laws, they cannot be depended upon as

permanent advantages of any enterprise. The sanctity of contract between government and the benefited enterprise is less well established with tax concessions than with loans, investments, guarantees, insurance, and perhaps some other forms of financial aid. Furthermore, as in the case of subsidies and controls on foreign exchange and trade, retaliation by other countries may nullify the intended advantages.

Financing from External Sources

As pointed out in the introductory chapter, rapid industrialization of underdeveloped countries creates a great demand for imports of capital goods, raw materials, and services needed for manufacturing. At the same time, expenditures for creating industrial establishments, by putting new purchasing power in the hands of people with low incomes, cause a sharp increase in the demand for consumers goods--a new demand which initially can be met only by imports. It is not unnatural for the demand for imports to rise faster than the increase in national income resulting from industrial growth. This import balance is usually accentuated by any imbalance in the rate of progress as between industry and agriculture, since this tends further to increase demands for imports and at the same time to absorb former exports in domestic consumption. This means that even a nation which has large government revenues--unless they are in the form of hard currencies or unless the new industry can speedily turn out exportable products or substitutes for imports--will need external financing to avoid foreign currency stringency during its rapid industrial development.

Aside from helping to satisfy the usual need for foreign exchange in the industrialization of a country, external financing can be valuable in carrying with it the economic intelligence, interest, managerial skills, and business connections of the foreign suppliers of capital. This is true in varying degrees depending upon whether the source of the funds is private or public, individual or institutional, whether "portfolio" investors or active foreign businesses related to new domestic enterprises. Often the participation of foreign capitalists with their proven managerial skills and demonstrated success abroad will bring forth domestic capital which is otherwise too timid for industrial investment at home. External financing of industrial growth has the further advantage of increasing the income of the host nation beyond what it would otherwise be during the spending phase of the transaction. Furthermore, foreign capital, by making the total development program larger, may make domestic investments more productive, from complementary efforts.

The foregoing arguments for the use of external financing are not sufficient to establish its superiority over domestic financing, where the latter is available. Foreign investment is regarded with misgivings in many parts of the world because of its past association with "imperialism" and because of failure of many local governments to protect the just interests of foreign investors. There is also a desire in most countries to be independent of the support of foreign investors, regardless of questions of ethics or justice. There is an aversion to the siphoning of profits out of the country, and there is the problem of repayment or repatriation

of funds coming from abroad. A further objection to financing from external sources is that, unless counteracted by imports, it is inflationary during the investing stage and, unless offset by exports, deflationary in the withdrawal or disinvestment stage.

On balance, there will be many occasions when external financing is not only desirable but quite necessary to the healthiest industrial development. The developing country will therefore find it advantageous to pay attention to the correlation of its own program of financial aid with the possibilities of external financing. When they can be arranged between domestic and foreign financiers, joint ventures or partnerships may prove especially useful.

While there is much to be said in favor of direct private foreign investment, it is likely that most industrial enterprises which rely on external financing will be obliged to deal with intermediary institutions, usually with government participation. Development banks working closely with such international financing institutions as the World Bank, the International Finance Corporation, the Export-Import Bank of Washington, the Development Loan Fund, and with private external sources of funds, are a means of filling this need, at least in part.

Conclusions

Nonindustrialized countries usually do not possess enough private capital to finance rapid industrialization, even if the holders of funds understand the problem and are willing to invest in industry. Therefore, to initiate and accelerate industrial growth

it becomes necessary for the government to act in supplying financial aid. The magnitude of the financial assistance required to carry out a given program of development may be conditioned by the extent to which external financing is also available. Under normal conditions, foreign investment should be encouraged to provide capital and foreign exchange and along with it, industrial know-how and business connections. Intermediary financial institutions, often sponsored by the national government, may be needed to channel external funds into industrial enterprises.

Repayable loans advanced to private industry by the government, or government guarantees of private obligations, are effective means for assisting private industry, but should be made only when private financing is otherwise unavailable or inadequate. Industrial sites and districts and plant facilities for lease or lease-purchase from the government, aid greatly in the solution of capital problems and ensure an industrial community where complementary services are available and where the cumulative effects of industrial growth are enhanced. All of the forms of assistance here mentioned have a low net cost to the government and cause a minimum of government intrusion into private industry.

Equity investments by the government and joint ventures between government and private investors are often a necessary substitute for complete private ownership. Here again, such measures are justified only when private funds and leadership are not sufficient for the task. The government will give greater help to private industry if it demonstrates its readiness to transfer its interest to private hands on a fair basis as soon as private purchasers can be found.

Grants, subsidies, protective tariffs, tax concessions, and similar measures may be justified in unusual circumstances; they stimulate private investment and help infant industries to reach the point where they are economically and financially profitable. However, these measures are not easy to administer with justice and satisfaction for all and in such a way as to avoid retaliation by competitor nations. For all but the one-time grant, once started they are difficult to terminate. While they are in force, they provide a "cover" which may hide the true economic or financial performance of the enterprises which they seek to help.

Chapter VI

INDUSTRIAL DEVELOPMENT BANKS

Origin and Characteristics

In its simplest terms, an industrial development bank is an institution for making long-term loans to and investments in new industrial enterprises. In practice, it may be owned by private interests, by the government, or jointly. Its first appearance as a new type of bank was perhaps in 1822 when a joint-stock company, the Société Générale pour Favoriser l'Industrie Nationale, was organized in Belgium. Its aim was to help finance new commercial and industrial ventures with funds derived from sale of the bank's own stocks and bonds. This was the culmination of a tendency on the European continent for commercial banks to assist to an increasing extent in the long-term financing of commercial and industrial ventures. A large part of the funds for this and for later development banks came from commercial banks. As a specialized institution, the Société Générale was a precursor of later investment banks, similar in many other respects, but now mainly dealing with seasoned enterprises or with government securities.

Belgium's lead was followed a few years later in France by the creation of the Crédit Foncier, which engaged mainly in making long-term mortgage loans to agricultural interests, and to a smaller extent in financing urban and industrial development. The Crédit Foncier was followed by the establishment in the 1850's of the most famous of the early development banks--The Credit Mobilier--which, with missionary zeal, promoted and financed many private ventures in French industry and

commence. The Credit Mobilier extended its influence to other countries by participating in similar development banks which it helped organize in most of the other leading nations of the European continent. It was the inspiration for a similar bank created in Japan in 1902. Although most of these banks were privately owned, they worked closely with governments in their goal to industrialize the country.

The increased importance of development banks in the past two decades--especially since World War II--is attributable to the existence in many less developed countries of a new political independence, strong nationalistic feeling, and rising economic expectations; to foreign aid programs and foreign private investment; and to the advance of the production sciences which open up new industrial opportunities. Even in relatively more advanced countries it is now common to find development banks often financed wholly or in part with government funds.

Objectives of Development Banks

The immediate objectives of development banks have varied markedly, from the developing, organizing, financing, and operating of government enterprises, to the stimulating of private industry alone, principally by making long-term loans to new enterprises and to those in need of modernization. The usual practice has been to foster both public and private undertakings, with greater emphasis on the private. In countries which regarded themselves as lagging, the purpose of the development bank has been simply to speed up the process of industrialization. In most instances, existing financial mechanisms were found wanting or were inadequate to marshal savings and long-term investment funds commensurate

with opportunities for profitable private ventures. A fuller comprehension of the various purposes of development banks may be gained by a review of the range of functions they have actually performed.

Functions of Development Banks

The pattern followed by any one development bank will reflect the activity of other financial institutions in the country, the state of the economy, the purpose and objectives of the bank, and the ability and stature of its administrators. This accounts for the great diversity of functions embraced by various banks, as well as for certain of the apparently illogical activities that some of them carry on. At the risk of presenting an unreliable stereotype, certain functions of development banks are listed as being basic, logically related, and best adapted to those countries having public funds for developing private industry and recognizing a great urgency to do so. In addition to these basic functions, many others are also being usefully exercised by development banks, usually because no other agency is available.

In underdeveloped countries, development bank activities in respect to private industry which seem most prevalent are as follows:

1. Extension of medium and long-term credit.
2. Acting as guarantor of borrowers' obligations.
3. Making equity investments in new enterprises, usually in participation with private investors.
4. Underwriting and distributing securities.
5. Giving technical aid and assistance to the management of enterprises in which it places funds.

While no bank exactly fits this characterization, some examples reasonably close to it can be found: The Industrial Development Bank

of Turkey is one of them. This bank has met with such success that it is now regarded as the most important source of financing for private industry in Turkey. In recent years it has been able to pay the maximum dividends permitted by law--12 percent--after setting aside surplus reserves.

Long-Term Loans and Guarantees

As a basic policy, concentration on long-term loans--those usually running from 3 to 15 or 20 years--has the merits of nurturing self-sufficiency in the borrowing enterprise; keeping ownership of the enterprise out of government's hands; revolving the use of funds so as to aid more borrowers; and, finally, avoiding duplication of short-term lending, the usual province of commercial banks. Other aspects of loan policy related to its long-term characteristics are discussed later in this chapter. Government ownership is discussed more fully in the following chapter.

By guaranteeing obligations of borrowers, the development bank economizes its funds, as compared with making advances for indebtedness of comparable risk. As applied to long-term loans, the guarantee may have limited applicability in countries which lack security markets or an investing class. However, it has proved an effective aid in obtaining funds from foreign sources, especially in connection with advances from the World Bank and loans by foreign governments. To an increasing extent, the development bank is called upon to guarantee lenders against foreign exchange risks. However, this assumption of the borrower's risk seems more appropriate for a central bank or some agency controlling foreign exchange, than for a development bank.

There may be many occasions when new and undercapitalized enterprises are not considered credit-worthy by commercial banks. In such instances the development bank can guarantee repayment of short-term loans, obtainable from commercial banks on the strength of the guarantee.

Equity Investments

In countries where the corporate form of business is in use, equity investments by government-sponsored development banks have usually been on a participating basis so that management and control remain with the private owners. Full or participating ownership by the bank is inadvisable except where there is a serious deficiency of private interest in the enterprise. Where family business is the rule, participation is very difficult to arrange. Generally, participation by the development bank should be considered transitory, existing only until ownership can be shifted entirely to private hands. Ownership of a business by a bank should seldom be tolerated if there are competing private establishments. Aside from considerations of ownership policy, it is highly desirable, through loans, to rotate the use of development funds so that they will benefit as many new enterprises as possible.

Midway between equity investments and loans are such arrangements as convertible debentures, bonds with options or warrants permitting the owner to subscribe to capital stock in the enterprise, or bonds with guaranteed interest in addition to profit-sharing provisions. If the development bank holds these types of security, it will increase its ability to dispose of its interest to private investors. In order to encourage the original private investors, it is advisable to give them

the first rights to acquire any additional securities which have equity privileges, before they are offered to other investors.

Underwriting and Distributing Securities

In countries that have no investment market, the function of underwriting and distributing securities of private enterprises is almost tantamount to ownership participation. However, as investors begin to take an interest in new ventures, the underwriting and distributing function can become highly beneficial in financing new enterprises and perhaps equally valuable in developing an investment market for the securities of seasoned establishments which need capital for expansion or improvements.

The elements of the underwriting operation are: Investigating the potentialities of the enterprise and the capability of its management; determining the securities to be issued; advancing the capital to the issuing corporation; selling the securities to dealers and ultimate investors; maintaining an orderly market for the securities, especially during their initial distribution; and, in some cases, making good any losses by investors. Even in highly advanced industrial countries this latter practice is seldom followed, but, if the development bank is willing to guarantee the obligations of private firms, it can logically guarantee security purchasers against loss. Such guarantees would not be expected to run for a period longer than the bank would ordinarily extend a loan.

Particularly when there is regulation of the securities business, it is almost inevitable that the investigative and promotional work accompanying underwriting should go beyond the scope of similar

activities associated with granting long-term loans. Moreover, equity participation and the purchase of bonds or notes, with the object of resale to private investors, put responsibilities on the development bank which are similar to underwriting. When there are no investment bankers, underwriting of stock issued by private enterprises may be appropriate for a development bank, even when its ownership of such securities is not permitted by statute.

Technical Aid and Management Advice

The need for the development bank to give advice and technical aid comes from the dearth of experienced entrepreneurs and managers in underdeveloped countries and from the necessity to protect the funds of the bank. Usually the real basis for the security of an industrial loan is the earning power of the borrowing enterprise, which in turn depends very much upon the capability and integrity of the management. In support of loans, there is no more appropriate assistance than giving advice on financial management--budgeting, accounting, financial structure, borrowing, handling of funds, depreciation, taxation, leases, wage and salary policies, pricing, reserves, and dividends--to name the principal elements. Most of these are not the subject of formal technical aid, but since they are so vital to private enterprise, it is unlikely that any agency is in a position to give more help on them than is a development bank.

Other forms of management assistance will be needed by new enterprises, including help on organization structure, production, marketing, and labor relations. But when agencies other than the development bank are engaged in these fields of technical assistance, the bank may not

need its own staff of technical management advisors. It will need some staff to make decisions about loans and investments; but it can hardly afford a permanent full-time corps of experts in all possible fields for investment. There may be enough concentration of interest in a given industry to justify one or more bank-employed specialists in the same field. These staff specialists can advise those who operate the industries financed by the bank, as well as those who approve or reject requests for financing. There is little point to a staff which merely duplicates the operating management of the borrowing enterprise. In the majority of cases, it may be more economical for the bank to employ consultants on a temporary basis, as the need for technical assistance arises. It is essential, however, that good management and technology not be neglected, even if it becomes necessary for the bank to take the initiative. Until some industrial maturity is reached in a country, the development bank's main mission may be the comprehensive supervision of its loans.

Other Important Functions of Development Banks

The regular functions of industrial development banks we have just described are usually performed both in developed countries and in those that have not yet reached a high level of industrialization. A possible exception to this statement is the underwriting and distribution of securities, which would be only an incidental activity of development banks in countries where investment banking is well established. In addition to the regular activities of development banks, it is not unusual to find a number of other functions carried on by such banks. Most of these other functions may be transferred from the bank to other

agencies as the country becomes more mature industrially. Even in countries where development has not proceeded very far, other agencies than development banks may be responsible for most of the activities not considered to be normal functions of industrial development banks.

The principal "special" functions may be listed as follows:

1. Extending credit for agriculture
2. Extending credit to the government or government enterprises
3. Developing, owning, and managing government enterprises
4. Extending credit to other financial institutions
5. Making commercial or short-term loans
6. Conducting or sponsoring economic and technical research
7. Acting as an investment company
8. Acting as a savings bank
9. Promoting and regulating the securities market
10. Administering foreign aid funds
11. Acting as a trustee or fiscal agent for the government
12. Acting as a financial counsellor to national, state, or local governments.

The most complex institution classed as a development bank is the Nacional Financiera S.A. of Mexico which, in varying degrees, embraces all of the items in the foregoing list. Even in this extreme case, the major purposes of the Nacional Financiera are the financing of utilities and industrial establishments and the creation of new enterprises. To these ends, it has been very active in obtaining, channeling, and administering financial aid from abroad, notably from the World Bank and the Export-Import Bank of Washington.

Credit for Agriculture

When the impetus for a development bank is the desire for rapid industrialization, it is not usual for the bank to be concerned about agriculture. However, when the bank has been established for general development purposes in a nonindustrialized country, its emphasis will probably be on government-sponsored development work, in agriculture, utilities, highways and waterways, irrigation and drainage, and other economic services. In such cases development of private industrial enterprises may be only one of many functions. Where no mechanism for financing agriculture is found, a bank organized primarily to help industry may appropriately help to finance farming operations, especially when the farms are to supply industrial raw materials. However, since the administration of agricultural credit is so different from industrial lending it is customary to find separate institutions in each field.

Financing Government Enterprises

In the early stages of an industrial development program it may be found expedient for the development bank to assist in financing some governmental undertakings, such as utilities and transportation facilities; when this is done, participation in the management, or even complete control of the enterprises by the government is not unusual. It is not advisable, as a regular policy, for the bank to spread its interests over both private enterprises and government undertakings unless every reasonable effort is to be made to transfer the latter undertakings into private hands as soon as possible. The danger is that private establishments will not receive the full attention of the bank and that funds which might otherwise have been borrowed by private

entrepreneurs will be diverted to the government side. This should not be interpreted as minimizing the need in backward countries for showing the way to industrialization by government initiative where little leadership exists in the private sector. This topic is examined more fully in a later chapter, particularly as it relates to the actual initiating of government enterprises.

Credit for Other Financial Institutions

Particularly if it operates on government funds, an industrial development bank should give high priority to aiding other financial institutions which make long-term loans to and investments in private industry. While there are not likely to be many such opportunities in countries just beginning to industrialize, there have been some privately owned development banks or commercial banks whose efforts to make industrial loans were hampered by lack of funds that could be committed for a long period or by inability to take appreciable risks. By re-discounting, the development bank may help these other institutions to extend their usefulness in regular fields of operation and give them a degree of liquidity for their long-term loans.

It is more usual to find commercial banks purchasing the securities of development banks than vice versa. However, when the development bank is generously financed by the government and the commercial banks are private institutions, it may be appropriate for the development bank to provide them with long-term funds to help finance industrialization. This could best be done by buying debentures or long-term notes from the commercial banks. The development bank might also buy

the other banks' stock but this would tend to change the private character of the commercial banks and to freeze the funds of the development bank.

In helping these private banks, and encouraging them in turn to help industry, the development bank will stimulate and strengthen the private sector of the economy. Furthermore, administrative costs as well as the risks of the government will be substantially reduced if its funds are channeled through private banks instead of being loaned directly to the ultimate borrowers. There is an even stronger case for leaving short-term loans entirely to the commercial banks. This is their main function and only in exceptional cases should it require the assistance of the development bank. Before resorting to short-term loans, the development bank should first try guaranteeing the indebtedness of borrowers who obtain funds from the commercial banks, a measure which is referred to again later in this chapter.

Economic and Technical Research

The decision to set up a new industrial enterprise should be preceded by thorough study of a number of factors: Markets; resources; available sites; labor supply; managerial and technical talent needed and available; construction, production, and selling costs; pertinent technology; legal and taxation factors; and financing. Ordinarily, a bank is not expected to make original studies on these subjects, but rather to appraise the findings of others engaged by the promoters of a prospective enterprise. If claims of the promoters are subject to serious question, the bank may order its own investigation and research. Since it would be uneconomical to maintain a permanent staff of experts

in many possible fields, the bank may employ consultants or independent research organizations to conduct studies. This approach would also be sound when, through lack of private initiative, the development bank finds itself in the role of promoter and originator of an industrial enterprise. A further reason for the bank not to conduct extensive research itself is that generally the government will be assuming the responsibility with respect to economic research and to technical research for major industries or branches of the economy. The government has its own need for the findings of economic and industrial research which is not directly related to the problem of financing private industry. Through cooperative planning and direction, much of the information needed by the development bank may be supplied from this source, without drawing appreciably on the resources of the bank. If the bank is the most competent agency to conduct research, the government should let it do so and should provide it with ample special funds for this purpose. Once an enterprise is approved by the development bank, the new concern might be expected to conduct or sponsor its own research studies designed to improve its performance.

Acting as an Investment or Savings Institution

A noteworthy case where a development bank acts as an investment company is again the Nacional Financiera of Mexico. It derives most of its private funds from the sale of certificates participating in earnings from the securities of private industrial corporations, and from the direct sale of bonds redeemable at par. The earlier issues of participation certificates were originally redeemable at par, a feature which caused embarrassment to the Financiera in 1954; later issues, not

redemable at par, have not been very attractive to investors, in spite of their high yield. Thus, experience in Mexico (and this might be even more true in lesser developed countries) suggests that redeemability backed by the government makes a stronger appeal than yield. If a development bank is needed because of a lack of private investors, it is not likely that it will find a good market for participation certificates which rest only on the private enterprises being financed through the bank. Later in this chapter, more will be said about the capital structure and sources of funds of the development bank.

If a development bank accepts savings deposits, it exposes itself to the possibility of withdrawals; if it should refuse to honor the demands of depositors, it would quickly lose its ability to attract any private funds. Furthermore, to accept savings deposits would certainly be a duplication of a function performed usually by private banks. If savers lack confidence in private banks, the latter should have their deposits insured or guaranteed by the government rather than to have the development bank bear this burden. If it is fear of inflation, of exposure to the tax collector, or of political insecurity which kills incentive to make deposits in banks, the development bank has no solution to offer.

Developing and Regulating the Securities Market

A market for industrial securities is one of the greatest aids to a program of industrialization and to the health of free enterprise. Since the development bank may be one of the first agencies to be concerned with the financing of new enterprises in an unindustrialized country, it may be an important factor in developing a securities

market. The first steps will be to assist in the promotion of new enterprises, to advance them money, and to sell their securities. As indicated above, some form of guarantee may be in order to give these securities an appeal to investors who have been employing their savings in other ways, such as hoarding, investing abroad, investing in real estate, or speculating in commodities.

In the initial phases of industrialization the development bank may be called upon to act as a control agency to insure that reliable information about securities is available at all times and that manipulations harmful to investors are prevented. After the early stages in the creation and regulation of the securities market, such regulatory functions would become too burdensome to be administered by the development bank. More important, as a principal originator of securities, the bank should itself submit to regulation. The bank would not provide a proper check if it should attempt to regulate itself, and this defect would assume more importance as the development bank took on more participation by private interests or if it should become privately owned.

Administering Foreign Aid Funds

Since the objectives of an industrial development bank are often parallel to those of foreign economic aid, it may be desirable for it to administer that part of an aid program which is designed to develop and strengthen private industrial enterprise through long-term loans and investments. Many loans from the World Bank and the Export-Import Bank have been channeled through development banks; in fact, some development banks were set up at the suggestion of these two institutions. Direct foreign aid, such as that from the United States government and

increasingly from other countries, is often channeled through development banks, particularly when it takes the form of loans. In the instance of aid from the United States, the counterpart funds arising from certain aid operations have in turn been loaned to private industry by development banks. The criteria governing such loans and investments, and sometimes even the actual decision pertaining to them, are coordinated with the foreign and domestic governments concerned.

Care should be taken not to rely so heavily on foreign aid funds that local savings and investments are neglected. There is less danger in this respect with borrowed funds from foreign financial institutions loaned on market terms than with grants or direct assistance from foreign governments on "soft" terms.

Miscellaneous Services of Development Banks

The miscellaneous service functions sometimes performed by development banks, such as acting as counsellor to the national or local governments on financing problems and procedures, or acting as trustee or fiscal agent for the government, are arrangements based on convenience rather than logic. Usually they should be carried out by other agencies, such as the finance ministry or central bank, thus leaving the development bank free to concentrate on its main business.

While it seems unwise to require a development bank to perform so many functions and services that it cannot do any of them well, it is desirable to have charter powers that are broad enough to enable the bank to make a success of its credit functions by carrying on related activities, as circumstances dictate. But caution should be exercised not to create a "government within a government" by overextension of the powers of the development bank.

Organization and Ownership of Development Banks

The organization and ownership of a development bank will reflect the functions it is expected to perform, the sources of its capital, and the governmental, institutional, and social environment in which it is to operate. For the sake of simplicity, it will be assumed here that: The bank is to operate in a nonindustrialized country; it is to perform the functions classed above as "normal"; it will be financed partly by the government and partly by private investors; it will operate in a country where there is orthodox commercial and central banking; and, the government includes the usual cabinet ministries, such as agriculture, commerce, finance, education, labor, and defense. It will also be assumed that, to the extent that industry is nationalized, it will be administered by agencies of the government other than the development bank.

Basic Organization of a Development Bank

Based on these assumptions, the organization of a development bank usually includes (1) the general shareholders, (2) a Board of Directors, (3) a Director, and (4) an Auditor or Inspector.

The general shareholders usually meet annually and perform rather broad functions, such as receiving and approving the annual report and financial statement, and considering the disposition of profit. Shareholders elect those members of the Board of Directors who are to represent them.

The Board of Directors formulates broad policies within the charter framework. It has supervision of the management of the bank and chooses the Director. The membership of the Board generally

consists of representatives of the shareholders and of the government. Occasionally there are other representatives; for instance, one member of the Board of the Industrial Development Bank of Turkey is a banker by profession, selected by the Central Bank from among the stockholders. In Ceylon it is provided that the Director of the Ceylon Institute of Scientific and Industrial Research, as well as the Director of the Bank are ex-officio members without voting rights. From its membership the Board usually forms an executive committee or loan and investment committee to authorize loans and investments, subject to ratification by the Board.

The Director (sometimes called the General Manager) is responsible for the administration of the bank and must direct its activities in accordance with policy established by the Board of Directors.

The Auditor or Inspector is generally elected by the general shareholders. He must verify the property accounts and audit the books of the bank to see that financial activities have been carried out correctly, in accord with the charter, statutes, and regulations. He must be independent of the control of the Director.

Ownership Considerations

The ownership of the development bank is important because it affects the management policies, the ability and influence of the bank to stimulate private industrial enterprise, and its supply of funds. A government seeking to develop and assist private industry will have substantial interest in the development bank. If the government owns the bank--wholly or in substantial part--it will be a dominant factor in its management. On the other hand, if the government merely places

its funds at the bank's disposal as a loan or on an agency basis, it need not take an active part in the bank's management. However, in the initial stages of a development bank in an underdeveloped country, private investors may be reluctant to bear the ultimate risks embodied in the substantial equity ownership which is essential to the bank. They should be induced to play this part as far as possible, for their active interest in shaping the policies of the bank would help to keep it attuned to the practical needs of industry and to gain the confidence of businessmen. It would also advance the mission of the bank by keeping the business community aware of the objectives and services of the bank. In all but the more advanced countries, the inducement necessary to elicit private participation has been a fairly broad government guarantee of the securities of the development bank. Sometimes redeemability, at their option, has been demanded by investors.

If the bank is able to get private investors to buy bonds or stocks issued by the bank, it may generate an interest in investments which can grow and spread until it develops an investing class who might put their money directly into industrial enterprises or their securities.

Although desirable for financial and promotional reasons, mixed government and private ownership, or private ownership complicated by the presence of institutional investors, creates a problem in policy formation and management of the development bank. Conscious effort should be made to leave the loan and investment policy reasonably broad and flexible and to vest enough authority in the director of the bank to ensure a business-like operation.

Personnel of Boards and Management of Development Banks

The Board of Directors should have broad representation and should be made up of the best talent available. Ability, interest in the public good, intelligent enthusiasm for industrial development, and practical experience which can be brought to bear upon problems of the bank, should be given weight in the selection of Board members, over political influence or representation of special interests. The Board should be composed of men of such stature, wisdom, and independence that they can withstand any pressures from private or political sources which might work against the high purposes of the bank.

The Director or General Manager of the development bank must have sufficient ability and skill to merit the complete confidence of the Board of Directors so that they can delegate to him all aspects of the bank's operation without the need to examine all details of his recommendations or activities. Banking has aptly been called an art; built upon confidence, experience, and wisdom of individuals, it cannot be conducted entirely by statute or regulation. The search for the right top executives, as well as for competent technical staff, may lead to foreign countries where there is more experience in industrial banking.

Adequate technical staff is essential to sound operations of a development bank and in order to relieve the Director and the Board from impossible burdens. The principal need will be for economists, engineers, market analysts, financial analysts, and attorneys. As suggested earlier, the timely use of consultants can greatly extend the capacity of the technical staff, without overloading the permanent organization with excess personnel. However, the staff--including

consultants--should be large enough to permit the officers of the bank to take initiative in development financing rather than a purely passive approach.

Experience in many countries shows that a development bank will inevitably find itself acting as a training institution for personnel who will later be attracted into industry--often by clients of the bank. The bank should prepare for this, accepting it as a constructive contribution to industry. In so doing, it should prevent occasional attempts by businessmen to influence officials of the bank by offering jobs as inducement for favorable decisions on the financial help of the bank.

Sources of Funds for Development Banks

Guide Lines in Choosing Sources of Funds

In selecting sources of funds for the development bank there are two overriding considerations: To find an ample supply, on favorable terms, and to draw on sources which will bring the greatest indirect benefits to private industrial development, with the least disturbance to the economy and to desirable financial practices. In line with these criteria, the following guide lines are suggested:

1. Adequate risk or "patient" capital should be obtained to provide coverage for the waiting period before the bank earns dividends, to cover possible losses, and to furnish the equity base for other liabilities of the bank.
2. The cost of the funds should be low enough to permit the bank to make loans at reasonable rates and to earn a profit, but artificially low rates of interest should be avoided.

3. Private sources of funds should be used as much as possible in order to build up the investing community, to tap the know-how and support of the private investor, and to achieve political "independence."
4. Funds should not be diverted from direct private investments which are helpful to industry or from savings in private financial institutions.
5. Adverse monetary and inflationary effects should be kept to a minimum.

Choosing Between Private and Government Sources of Funds

Individual investors have provided the bulk of the financing needed for industrialization during the past two centuries, whether this has been by direct financing of private enterprises or through intermediaries such as banks or investment companies. Traditionally, private investors have served both as owners and creditors to a much greater extent than have governments. Not only in socialist countries but in many others, however, there is a tendency for the government to take an increasing financial interest in industrial development. Except under socialism, government policy has usually been to finance the development of industry in such a way that it will become independent of government support as soon as possible. With such a policy, the government should not provide the development bank with funds which could be obtained from private sources, or it should require the participation of private investors, whenever possible. Furthermore, it should set up a definite program for turning the government's interest over to private investors at a fair price and as soon as possible. It should not

retain its hold on the development bank--or on any profitable enterprises which are attractive to private investors--solely in order to offset losses on other unprofitable ventures it undertakes. If the government retained ownership for such a purpose, it would eliminate opportunities for successful private ownership and operation.

It can be anticipated that the government of a nonindustrial country may need to put up a large share of the initial equity capital, and perhaps much of the money to purchase bonds or long-term notes of the development bank; for otherwise, there may not be enough capital to absorb losses; and the average cost of funds may be excessively high. However, government participation may be lightened by offering inducements to private investors of the development bank, such as tax exemption, guarantee of dividends on stock or interest on bonds, redeemability of bonds, subordination of its own position as a creditor, convertibility of bonds into stock and participation of bonds in profits. But care must be exercised to avoid extremes which would produce a subsidy of such proportions that its existence becomes an unstabilizing influence upon private ventures.

Another way in which the government may avoid a dominant role in the development bank, though providing funds, is to take nonvoting securities which leave the active management in private hands. This does not deprive the government of all protection, for if it becomes dissatisfied with the management, it can use persuasion to bring about changes (since the bank usually cooperates with the government). In extreme cases, if the law permits, the government may withdraw its financial support.

Private funds for use by the développement bank can come from individuals, private banks, investment companies, pension and welfare funds, trust funds, industrial corporations with surplus funds or with a natural interest in an enterprise carrying on a business related to their own, or cooperatives of producers or distributors. Sometimes legislation or charter amendments will be needed to give some of the institutions mentioned the power to invest in bank stock or bonds. Most of them could invest in bonds, especially if they were issued by a governmental or quasi-governmental bank.

The Choice of Sources of Funds in Relation to Monetary Control

Under the earlier discussion of "special" functions of development banks, reference was made to the use of savings accounts and to the handling of foreign aid funds by development banks. One further comment seems appropriate at this point. Foreign funds which are spent in the receiving country have an inflationary effect, just as do bank loans or rediscounts based upon credit "created" by the commercial banks or the central banks. Likewise, money drawn out of long-standing hoards exerts an inflationary influence. In fact, it may be said that any expenditures within the country for new capital goods which are not offset by savings from current production tend to produce inflation, at least until the capital goods begin to supply the market with additional goods and services. Since development banks deal largely with new capital expenditures, and since they may draw on sources of funds which do not represent real current savings, they can become a potent force for inflation during an effort to industrialize rapidly. To reduce this inflation, some counter-measures should be considered by the central banks, the fiscal

authorities, or those who regulate foreign trade and foreign exchange. Fortunately, the inflationary effect of the inflow of foreign funds is often offset by the need for less developed countries to purchase capital goods from other countries.

Using the central bank as a source of funds for development is questionable for the reason that it may interfere with monetary control functions of the central bank. Perhaps the least objectionable form of financing through the central bank is occasional rediscounting of notes held by the development bank. A more acceptable form of financing on a temporary basis would be for the government to make interest-free deposits in the development bank as a part of the general government budget, with the understanding that withdrawal would take place after a certain time, or after the development bank has built up its resources to a certain point. If a continuation of the deposit accommodation is needed, another budget provision should be made for it.

Balancing the Sources of Funds

A judicious mixture of funds from different sources is often needed to keep the development bank in harmony with its objectives and to provide it with earnings sufficient to reward investors for their risks and build up reserves. This means that funds must be obtainable by the development bank at a lower cost than is paid as interest by the ultimate borrower. This favorable differential is obtained through the greater safety provided creditors by the equity cushion of the bank; through diversification of its portfolio; through administration and supervision of its loans and investments; and often through the participation of the government in the bank. By "trading on the equity" or by

"leverage"--that is, by using a high proportion of borrowed funds in relationship to ownership funds--the stockholders can enjoy high returns, provided losses are kept low. The ratio of debt to equity may run from 3-to-1 as a conservative standard, to as high as 10-to-1, as determined by the character of the risks and the experience of the bank's management, although the maximum is sometimes fixed by statute. In most cases, a new bank which exceeds the ratio of 5-to-1 will be taking an undue risk of insolvency. If any substantial part of a development bank's initial financing is to be obtained from the World Bank, the ratio may have to be as low as 3-to-1.

Bank Earnings as a Source of Funds

After its first few years, the earnings of the development bank should become an important source of funds upon which to base growth and expansion. In the private industrial enterprise of advanced countries, earnings retained by businesses constitute the major source of new equity capital. In a bank it is especially important that equity be built up from retained earnings so as to avoid the more expensive and cumbersome procedure of going into the capital market. Growth by retention of earnings will also help to avoid dilution of the stockholders' interest when stock is difficult to sell. When the leverage of a 5-to-1 debt-to-equity ratio is employed, a dollar of retained earnings provides the basis for an expansion of loans of \$5.

The objective of an industrial development bank is development of the country, rather than profits to investors in the bank--particularly when the government is one of the large investors. However, complete success is attained only if private investors receive a fair return.

In the early life of the bank it will be fortunate to earn anything above its expenses. But unless shareholders can expect to receive dividends starting from the first year, they may not commit their funds to the bank. If the investor's insistence upon dividends is strong, the government should consider guaranteeing a dividend during the formative years of the bank. It can also help the bank to earn dividends in the first years by placing deposits in the bank, without interest, accepting a low interest rate on government loans, or investing in stock of the bank. The government may go even further by supplying what is sometimes called "paid-in surplus" upon which no dividends are payable, or by buying stock with dividend privileges which rank below those pertaining to privately-held stock of the bank. Some of these rather strong measures enabling the bank to pay dividends are necessary only because it is important for the bank to build up its reserves against loss and to keep its ratio of debt to equity in sound balance, while at the same time building up the participation of private investors in the development bank.

Loan and Investment Policy of Development Banks

All aspects of industrial development banks are governed by a two-fold central policy question: What types of enterprises are to receive financing, and in what form? In turn, as pointed out in the foregoing discussion, the form and direction of financing engaged in by the bank is conditioned by the availability of funds for its own capital. Nevertheless, the aims of the bank as expressed in its loan and investment policy will usually set the course for all its other activities, including raising of funds.

Selection of Industries to be Developed

It is assumed in this discussion that the government will have an important interest in the development bank; accordingly, the policies of the bank in selecting industries to be financed will conform to the economic and social aims of the country. In the interest of sound industrial development, loan and investment policies should be kept as free of political considerations as possible. Since economic and social factors are treated in the next chapter, it remains to discuss here the banking aspects of policy in selecting industries to be financed. What is said about the choice of industries applies in large degree also to the selection and approval of borrowers.

It must be admitted that seasoned industries attract bank funds much more readily than untried ones. Still, it is the nature and mission of the development bank to bear the risk of ventures into new fields which offer reasonable prospects of success, but for which adequate financing cannot be obtained from private sources. A measure of such promise may usually be found in the success attained by similar undertakings in other countries with comparable opportunities. In the case of alternative opportunities, where two fields are equally acceptable on other grounds, the bank should be guided in its choice by the following considerations: The undertaking with the less uncertain payout; the prospect of earlier repayment of funds advanced by the bank and independence from the bank; the lighter demand on the administrative and technical staff of the bank; and the smaller need for equity funds from the bank, as distinguished from repayable loan funds.

The amount of funds which the development bank has at its disposal and its own financial structure have a bearing on the choice of industries to be financed. Other factors being equal, the bank will select a field which requires the least amount of capital. It will also deploy its funds in several fields so as to provide diversification for its hazardous undertakings, while at the same time attempting to gain expertness by a reasonable degree of specialization in the fields it chooses to develop.

The true development bank does more than to choose between rival propositions that may be presented to it. It actively seeks opportunities for investments and loans to further the aims of industrial development. Part of the search consists in looking for industries that conform to purely banking criteria as well as to economic and social goals.

Selection of Enterprises to be Financed

The three characteristics of the applicant for credit which the banks traditionally examine before making loans are: The integrity of the borrower; his capability as a business manager; and, the amount of his own capital which he will put into the business or will offer as collateral. These characteristics are of no less concern to industrial development banks than they are to commercial banks, and their importance is not affected whether the entrepreneur seeks loan capital or participation by the bank in the ownership of his venture. Nevertheless, a development bank will be called upon to grant loans and to make investments when the recipient enterprise does not have the equity capital it might need to be eligible either for short-term credit from commercial banks or for industrial bonds in a well-organized investment market.

The development bank may of necessity be more lenient than other banks regarding the managerial ability of those it finances, simply because an industrial development program cannot wait until there is an ample supply of good business managers to operate all the new enterprises contemplated. An important part of this program should therefore consist in training managers during the early process of industrialization. The development bank is also expected to give guidance to the management of enterprises it finances. In the integrity of borrowers, however, there should be no compromise with high standards. There is little opportunity for the bank to make its loans and investments in new enterprises secure, except by reliance on what the borrower is able to do and on his dependability. Accounting practices in nonindustrialized countries are usually so poorly established as to be of little help in restraining illicit or careless uses of funds. Likewise, accounting data are almost valueless in verifying the facts pertaining to a borrower's business or financial situation. As mentioned below, credit analysis in underdeveloped countries must go far beyond paper work.

In common with all types of credit institutions, development banks must carefully consider the amount of funds needed by any individual enterprise. They will prefer an enterprise for which a loan will suffice rather than one needing equity capital, since they will have a limited amount of their own equity funds and since sound practice requires these to be kept in balance with borrowed funds.

For the same reason that a bank may want to diversify its loans and investments among several industries, it will want to avoid concentrating

too large a proportion of its funds in any one enterprise. A balancing consideration--the cost of administering financial aid--has led some development banks to prefer larger loans and investments to smaller ones. This point should not receive overemphasis, however, since it would be a mistake to neglect sound industrial development because it calls for many small enterprises or to avoid small business only because of an unimportant difference in costs of administration. If industry is to bear the costs of financing, as suggested below under the heading Interest Rate, administrative costs do not constitute a major issue in the selection of enterprises to receive financial aid.

Credit Terms of Development Banks

Credit terms concern the duration of loans, repayments, interest rates and service charges, and the form of security for the debt. Where industrial development loans are concerned, these credit terms must be appropriate to the needs of the borrower, but at the same time they should conform as nearly as possible to accepted standards for private lenders, in order that private refinancing can be facilitated.

Maturity. Inventory or seasonal loans maturing within three years can usually be liquidated from proceeds of normal sales of products and services, and should usually be obtained from commercial banks. Loans of longer duration or bonds are more in line of the operations of development banks, for new industrial enterprises can seldom expect to pay debts out of the earnings of initial years of operation. When debts have been incurred for the purchase of fixed assets or for permanent working capital, they can be repaid only in three ways--by using the

profits of the business, by refinancing, or by liquidation of assets. The last means is unacceptable if the business is to remain a going concern. Refinancing is appropriate if the asset values remain sound or if there are good prospects for business success. But the original maturity of the debts should be set so that refinancing will not be necessary until the venture has had a reasonable chance to prove itself. If it succeeds, its earnings may be a sufficient source of funds to retire the obligation, or at least to provide a basis for favorable refinancing, when an investment market exists.

Many repayment schedules are set so that instalment repayment of the loans or serial retirement of bonds can be made from anticipated earnings--a basis which is especially desirable in countries lacking investment markets. If prospective earnings appear insufficient to retire the debt within a period of about 12 or 15 years, after allowing an appropriate period of grace (frequently of one to three years), the enterprise probably should not be given a repayable loan. The bank may then either refuse to extend credit or else take an equity or ownership position in the enterprise.

Interest Rate. Industries which can succeed in a competitive free-enterprise economy should be financed on the basis of market rates of interest. Where financial markets are lacking, there will be no accurate standard to indicate a true market rate, and, in such cases, as well as in countries with a securities market, the borrower should be expected to pay a rate of interest high enough to cover: The cost of funds to the development bank; administrative costs of the bank that are associated with supplying funds to industry; adequate reserves for losses;

a reasonable surplus for growth and expansion of the bank; and, sufficient dividends on equity investment to attract private capital to the bank. If the government is the sole owner of the bank, the return on its equity should be no less than the cost of funds to the government, unless a deliberate subsidy is intended. Such a subsidy may not mean much to a new industry or new enterprise unless the rate is considerably lower than that which the government has to pay for its own borrowed funds. A substantial subsidy of the rate of interest would mean that the industrial debtor could borrow almost without interest. In the calculations of those who embark on a new business venture, however, it is doubtful that any practicable differential between market rates and subsidized rates of interest is as significant as the differences in the schedules for repayment of debts. High risks and the promise of generous returns characterize new industries, so that wherever possible these characteristics should be taken into account to govern rate of interest.

In theory, the rate of interest should vary with the degree of risk and it should not be difficult to charge a higher rate for long-term than for short-term loans. However, for a public or quasi-public bank to charge differential rates of interest to different types of industry may affect goodwill and involve administrative difficulties; it is more of a problem to make interest-rate distinctions between individual borrowers in the same industry. The amount of capital supplied by the borrower himself is one objective basis for such a distinction.

The general level of interest rates in underdeveloped countries will usually be high as compared with more advanced countries. These high rates reflect shortage of capital, a tradition against putting

savings in banks or domestic currency, a lack of confidence of lenders in borrowers, the low rate of savings possible from low incomes, risks of fluctuation in foreign exchange rates, the tendency towards inflation, and the general economic and business risks which characterize new ventures undertaken by unproved managers in countries without much industrial experience.

In a country just beginning to industrialize there is an inherent lack of capital goods and usually an abundant supply of labor willing to work at relatively low wages--far below levels in industrial countries. A heavily subsidized rate of interest may induce the entrepreneur to use a disproportionate and uneconomical quantity of capital goods, most of which must be imported. By the same token, in any given establishment fewer jobs will be provided for local labor if interest rates are held to unrealistically low levels.

Forms of Security. When the ultimate protection of an industrial loan is the economic success of the enterprise, it is prudent to utilize certain legal instruments and certain formal pledges, to enhance collectibility. The unsecured promissory note and debenture depend essentially on the borrower's integrity, except where some other party may endorse the note and thus become liable for the debt jointly with the borrower. However, this use of a co-signer may lead to bad feeling and misunderstanding. In advanced countries, when the stock is held by a few stockholders, a corporate borrower may be granted credit only if its note is endorsed by the individual stockholders. To exact this type of endorsement would be self-defeating in a nonindustrial country that is

trying to promote the use of the limited liability form of industrial enterprise to stimulate private investment.

In instances when a new venture is being undertaken in a new industry, there will usually be limited opportunity to strengthen a loan by the pledge of property. Aside from land which could be used for various purposes, industrial property usually derives its value from its earning power; it is usually too specialized or immobile to have a very high general market value. However, to help prevent misuse of funds or misappropriation of assets, it is a good precaution for the development bank to take mortgages on property, when this is possible.

The use of debenture bonds instead of a promissory note usually results from the need of the borrowing enterprise to employ many sources of credit. When such bonds are used, a division of the creditor's interests, in participation with the bank, may be desirable to utilize a number of private investors and to permit the bank to extend its service to more enterprises. At the same time, it requires of the bank additional analysis, watchfulness, and coordination of creditors. Because of legal formalities in issuing and retiring them, debentures provide less flexibility in financing than do promissory notes payable to a single creditor. It should be observed, also, that where limited liability corporations are not permitted, debentures are inappropriate.

Special features attaching to debentures are sometimes employed with good results, such as convertibility into stock at a stated price, at the option of the creditor, or provision for participation in any profits which remain after interest payments. These features add greatly to the marketability of debentures and should be considered if

the bank wishes to resell these securities to private investors. Another provision sometimes used by development banks to attract additional investors other than purchasers of debentures, is to subordinate the debentures to the claims of all other creditors.

When the development bank makes advances by rediscounting notes of other banks or other creditors, it should accept these notes with the right of full recourse to the first lender. By so doing, it will reduce its risks by relying on the strength of the discounting agency and the ultimate borrower; it can also reduce its administrative costs since it will need to make a less intensive analysis of the credit risks.

Investment Terms

The preceding discussion deals with the terms pertaining to loans made by development banks. Investments--meaning ownership of part or all of the enterprise which the bank finances--require a different set of terms. Once the bank decides to furnish equity money, the important decisions relate to control, participation in management, distribution of earnings, and future disposition of the bank's holdings in the enterprise.

In general practice and as conceived in this discussion, management and control of business enterprises is not a primary objective of development banks. Consequently, the bank should exercise a voting privilege or management control only when it feels that the private participants are unreliable or incapable of doing the job. Voting rights are inherent in the capital stock of a corporation; but the bank need not have these rights formally waived, even when it does not intend to

use them. As a usual practice, preferred stock (normally, preferred as to dividends and as to assets in the event of liquidation) is denied voting rights by formal waiver. Since it will seldom choose to own preferred stock, this should not concern the bank, unless there seems to be a good possibility that the stock can be distributed to other investors. Against this possibility, preferred stock can be made more attractive to general investors by making them convertible into common stock at the option of the stockholder or by allowing them to participate in earnings above the amount of preferred dividends.

A voice in the management of a borrowing enterprise is not needed by the bank where good relations prevail between it and the borrower. The bank should be kept informed on the progress of the enterprise, and it should be asked to furnish appropriate advice and aid, whether or not it is represented on the board of directors of the enterprise. When close family ownership of business is a strong tradition, as is often the case in underdeveloped countries, the bank should take special pains to avoid unnecessary interference, even though there has been a need for it to supply equity financing.

A special form of investment instrument--called a "participating certificate" or collateral trust note--is sometimes employed to enable private investors to participate in a group of enterprises through the development bank. With this device the bank acts as a trustee for certificate holders who are legally co-owners of various securities (usually stocks) held in trust in a special account. In essence, this is like an investment trust, but the fact that it is handled by the development bank gives it greater strength in the minds

of investors. This does create one difficulty in the expectation that the bank will cash the certificates whenever the holder desires, even if there is no such promise given.

The basic merits of participation certificates are the safety afforded by diversification and the investment intelligence which the bank presumably applies in selection and supervision of the enterprises in which investors share. Such participation arrangements based on bonds instead of stocks have little to recommend them, for it would generally be better for the bank or the government to guarantee the bonds if they do not appear secure enough by themselves. In the case of stocks, a great attraction is the prospect of high earnings which may accrue to stockholders or those holding participation certificates. In very hazardous circumstance, or in the event that participators want safety beyond that inherent in diversified stocks, a combination of stocks and bonds would be appropriate.

Administration of Loans and Investments

The basic requirements for good administration are similar with both loans and investments; in both cases there should be adequate economic and business analysis. The credit-worthiness of the borrowing enterprise needing long-term loans is determined in much the same way as is the financial soundness of the company which seeks to obtain funds by selling its shares. In granting loans there must be closer attention to cash position and cash flow, while in judging the soundness of stocks, more attention is paid to income possibilities. Earning power may be important in granting long-term loans, but extraordinary earning power is of more interest to stockholders than it is to creditors in general.

Economic studies should be made of each industry which is to receive financial aid from the bank, before sound application of funds is possible. In many cases the bank will need to make these studies because other agencies and the applicants for financing may not deal adequately with the exacting questions which investors need to have answered. The information must also be up to date to be of any value as a basis for loans and investments. If, as mentioned earlier, the bank finds itself doing most of the economic research for the country, there is a good case for reimbursement from the national budget for the costs of this research. In any event, the bank will need at least a minimum staff for economic research and this can be supplemented by employing consultants, university personnel, or research organizations to conduct specific research or to deal with specialized problems as they arise.

A committee on loans and investments selected from the Board of Directors can facilitate the screening of applications for financing and assist in maintaining a consistent policy. Experience will indicate to what extent the Board can delegate authority and responsibility to this committee. Often the Board needs only to formulate general policy and to make a cursory review of recommendations or decisions of the committee.

One of the advantages in dealing with a well-managed development bank is the experience gained by business managers in preparing prospectuses of their enterprises. The bank's requirement that the borrower must demonstrate what he plans to do with his business venture has a salutary effect, not only avoiding many costly mistakes, but delineating a definite course of action for the common guidance of all concerned.

Regular progress reports--preferably in writing--are essential to effective supervision of the enterprises which receive financing from the bank. These should include the essential facts pertaining to the flow and use of cash, income and expense, production, marketing and labor problems, and other matters on which the bank asks for information. Reports should be supplemented by consultation between officers of the bank and of the borrowing enterprise, and in some cases by attendance of bank officers at its directors' meetings. Such technical advice may constitute a very large part of the administrative work of the development bank, especially in its early years.

It should be recognized that the type of business to be financed directly affects the administrative burden the bank will be called upon to assume. To the extent that capable personnel are available, it is better to adapt the administrative organization to the needs of industries being financed, rather than to select industries because they bring no administrative problems to the bank.

Conclusions

At least one industrial development bank is needed in almost any country, but it may be of maximum value in areas where private industrial investment has never flourished. The importance of the development bank may be slight in its early months, although it can eventually become the most important influence on industrial development. In time, a number of its functions may gradually be absorbed by other financial institutions or by private investors. Such an outcome bespeaks the real success of the bank, for its mission is to encourage private investors to the point where they no longer rely on it.

The development bank may be called upon to take strong leadership in promoting private industrial enterprise. In doing this it must be willing and able to take long-term risks. When the venture succeeds, the bank must be ready to turn the bank's interest over to private investors on terms favorable to them.

The development bank should cooperate closely with the government in carrying out whatever program for industrial development the government espouses. Besides providing leadership, it should attempt to fill financial and managerial needs that may otherwise be neglected. It should make sound loans and should transfer its investments to private purchasers as soon as possible so as to keep funds revolving. It should function as a catalyst in the development of capital markets, particularly by nurturing new enterprises to the point when public capital is no longer needed. To the extent that a development bank pursues these objectives, it will be one of the most effective, direct, and inexpensive ways of applying public funds to the task of private industrial development.

Chapter VII

GOVERNMENT IN INDUSTRY

Introduction

In earlier chapters the role of government in economic development has been discussed as it relates to the industrial environment, economic support functions, fiscal and monetary influences on industry, and various forms of financial and technical aid to industry. Brief mention has been made of the government's attitude toward private industry. We may now give fuller consideration to government's actual ownership and operation of industry.

In the context of private industrial development through the use of public funds, the issue is not so much private versus public ownership as it is to determine the areas and the manner in which the two may best be combined in promoting private industry. Therefore, the subject is viewed here from the pragmatic point of view, in considering simply the consequences to industrial development. To facilitate this type of analysis the following assumptions relative to political philosophy are made:

1. The general type of government in existence is not to be altered.
2. Some degree of choice can be exercised in determining whether industry is to be private or public.
3. Economic development of the nation is a major aim of public policy.

4. Private industrial enterprise is desired, primarily for the assistance it gives to economic development and secondarily for its own sake as a part of a free society,

In a governmental environment which is devoid of extreme devotion either to statism or to laissez faire, the problems of state-operated enterprise are not essentially different from those of private enterprise. The main differences in the effect of the public and private sectors on economic development derive mostly from differences in the incentives of managers and in the manner by which finance capital is secured. These differences are significant enough to warrant special attention in deciding what are the best relative applications of private and public ownership. Furthermore, if one of the two approaches is pressed too vigorously, the advantages lost through the neglect of one may offset the gains made through the first approach.

Reasons for Government Ownership in an Underdeveloped Economy

Economic justification for government ownership or participation in industry in a country where industrialization has been adopted as a major objective may be summarized as follows:

1. Entrepreneurship is usually scarce in countries with little or no industrial activity. This deficiency can be corrected more rapidly under strong leadership by government backed by adequate financing than it is apt to be through the undirected efforts of inexperienced and poorly financed individuals.
2. With organized capital markets lacking, government (or some foreign source) is usually in the best position to risk loss

of capital or to wait a long time for new ventures to prove themselves. Often private sources are not capable of supplying the large quantities of capital needed for a successful industrialization program. Government may be the only instrumentality with the financial power to carry industrialization over the threshold of viability.

3. The authority possessed by government can ensure that intelligent effort is applied to all sectors of the economy which are essential to industrial success. Better coordination of effort is possible through over-all planning by the government and through enforcement of this plan, than is likely through private activity alone.

4. If government invests its own funds in industry it will tend to carry out governmental policies conducive to industrial success. In nonindustrialized countries major changes in the business environment, such as only the government may accomplish in a reasonably short time, are needed before industrialization can make major progress.

In addition to these reasons for having government directly involved in industry there is the normal expectation that the social or socio-economic objectives in industrialization will receive greater attention in public enterprises than in private ones. Thus, it may be desirable from a social point of view to promote an industry in a surplus labor area which provides many new jobs rather than one elsewhere which may yield the highest profit to investors. Other things being equal, then it is

desirable to give higher priority to an industry which confers benefits of national security, public health, or culture than to one which does not. Such considerations are not usually prominent in the minds of the private investor; moreover, he is not in a position to judge the relative security or sociological needs of the country as well as a corps of trained civil servants should be. Response to the needs determined by government can be made by private investors, of course, but an adequate response may require a considerable degree of government regulation. Too much regulation tends to kill the incentive, initiative, and competitive ingenuity, of the private capitalist. Therefore, it may be more desirable for the government to engage in industry, to some extent, than to pursue a policy of excessive regulation of private industry in order to achieve the same objectives.

Shortcomings of Government Compared with Private Ownership of Industry

On the other hand, in an effort to industrialize a country, state ownership of industry has some inherent deficiencies as compared with private enterprise. These arise largely from the nature of government, and the seriousness of the weakness is conditioned by the type and quality of government and by its economic, social, and legal policies, as well as by the characteristics of its citizens. The relative deficiencies of government ownership of industry may be summarized as follows:

1. The initiative, individual incentives, and responsiveness to consumer desires and competitive stimulation which characterize

private enterprise are often weak or entirely lacking in government industry. Unless a high degree of autonomy is given to well-qualified management, initiative in government enterprise often comes from a single source, whereas in private enterprise it usually comes from many entrepreneurs who are not bound by any set approach. The government cannot offer to managers of its enterprise personal gains which are comparable to private profits without virtually abandoning government control. While government may compete with private enterprise, it will seldom be regarded as a fair or equal competitor; furthermore, it will probably not compete with other state-owned enterprises.

2. Barring the complete elimination of private ownership, government entry into industry tends to result in discrimination against competing private enterprise and thus to discourage private investment. The fear of nationalization deters private initiative and investment in private enterprise.

3. Inefficiencies are fairly characteristic of government ownership. The use of public funds requires elaborate controls and accountability procedures. Much effort is used up unproductively in justification of plans and of results. Special interests bring pressures upon the government through political channels. Not infrequently, political aims win out over economic objectives or result in uneconomic compromises.

4. Lack of policy continuity or long-term effort in government industry usually results from changes in the political party in power, or in the chief of state in authoritarian governments.

In some countries it is usual for the successor government or chief of state to repudiate the economic program of the predecessor.

Sometimes the program itself is a bone of contention.

5. A government which enters into industry tends to favor large-scale enterprise. Government overhead cost per dollar of investment is decreased as the size of the enterprise increases. Also, the importance of a large industry is attractive to those who want the government to make an impressive showing or those in government who for more selfish reasons want to build personal empires. Once a large enterprise is in operation it usually has considerable political power. It clearly enjoys an advantage over small establishments in competing for government capital or other favors. In the private field large enterprise has similar advantages over small concerns, but the individual investor has relatively small capital and will tend to favor small enterprise, where he can maintain close control of his investment, or where he can provide self-employment and reap all the rewards of success.

These undesirable aspects of government ownership of industry are less pronounced when large enterprises rather than small ones are being compared. The absentee ownership characteristic of large concerns tends to put reliance upon hired managers, whether ownership is public or private. In fact, the greatest success in both instances usually occurs where management is given considerable autonomy. Private ownership is not in itself a guarantee that monopoly powers will not be exercised by the large firm or that special governmental favors will not be effectively sought.

Antisocial and unethical motives aside, the degree to which government enters into business will usually be determined by: political philosophy relative to the degree of freedom to be accorded to workers, consumers, and citizens in general; the policy governing distribution of the national income and wealth; and, the objectives of economic growth--particularly in the industrial sector--with the attendant problems of incentives to entrepreneurs and access to natural and financial resources. Anything like a comprehensive analysis of the first of these three considerations lies outside the scope of the present report. Reference has been made to the second point in Chapter II dealing with fiscal and monetary influences on industrialization and in various contexts in other chapters. The third consideration has been mentioned in various parts of the report, especially in connection with financial aids and development banks; further reference to it will also be made in the following chapter.

Appropriate Role of Government

Where the government is dedicated to a policy of developing and encouraging private industry through the use of public funds, it must exercise a healthy restraint upon its tendency to plunge deeply into all phases of economic activity. If it goes too far into industry it will leave little room for private initiative, and even if its entry is supposedly temporary, experience indicates that withdrawal is usually slow and painful. To achieve national objectives, government intervention in industry and its alternative--government regulation of industry--must be carefully handled in order to preserve the values of a vigorous private enterprise economy while

at the same time making up for the deficiencies of private enterprise in a newly developing economy.

Certain fields of economic activity and certain functions closely associated with economic endeavor are more appropriate than others for government action. For convenience in discussion, these activities or functions may be outlined in three categories--namely, those generally accepted as clear fields for government action, those generally considered appropriate for private ownership, and an "optional" category in between, as follows:

1. Activities for which government is generally given major responsibility
 - a. National security
 - b. Preservation of law and order and administration of justice
 - c. Monetary management and control of the currency
 - d. Provision of streets, highways, bridges, waterways, and a postal system
 - e. Education
 - f. Public health and sanitation
 - g. Care of the destitute and helpless
 - h. Licensing and regulation of business
 - i. Labor legislation and control
 - j. Collection of statistics
 - k. Technical assistance and research
 - l. Conservation and regulation of the use of scarce or exhaustible natural resources

2. Activities for which government sometimes assumes a major responsibility

- a. Utilities, such as electric power, gas service, water service, telephone, telegraph; radio and television broadcasting
- b. Transportation services, such as railroads, motor transport, shipping lines, port facilities, airlines, and airports
- c. Banking and insurance
- d. Medicine and dentistry
- e. Housing

3. Industries in which private ownership is generally given major responsibility

- a. Competitive manufacturing industries making articles for the general market
- b. Basic industries, such as iron and steel, mining, cement, and lumber
- c. Agriculture (except for experimental purposes)
- d. Wholesale and retail distribution and merchandising
- e. Personal and professional services

In deciding which activities related to economic development should receive first attention by the government, nothing seems clearer than that the first choice should be the support functions enumerated above in group 1. Whether public funds are plentiful or scarce or whether industrial development is in an advanced or a retarded state, the general environment for investment should be a primary concern of the government. Industry cannot thrive in a poor economic climate. Many functions basic to that climate, as enumerated above and as discussed in earlier chapters, constitute normal activities of the

government; and even if not, there is no private agency which can be expected to provide them adequately. However, private support is important in the fields of education, care of the helpless and destitute, collection of statistics, and technical assistance and research.

It is noteworthy that public funds spent to improve the industrial climate usually do more to promote industrial growth than do direct government investments in industrial enterprise. At the same time, government expenditures on economic support functions do not interfere appreciably with private opportunities or incentives to invest.

The activities listed in group 2 above, although sometimes undertaken by government, are in many instances appropriate for private enterprise, except where financial problems are serious. At times the government chooses not to leave these activities in private hands because of its desire to control the prices for the services rendered or the quality of the service. However, these reasons for government ownership can usually be satisfied by government regulation of private enterprises. This is particularly true with respect to public utilities, transportation services, and banking and insurance. These three general fields usually offer attractive opportunities for successful private enterprise even in early stages of industrial development. It is far easier to raise capital for them from local and international sources than it is for most other manufacturing or industrial establishments. It seems advisable, therefore, to encourage private investment in the fields of utilities and banking as well as in industry, and to channel government funds into fields where private

capital cannot or will not do the job. Given reasonable encouragement and opportunity, if private investment and enterprise do not respond to these economic needs, the government should assume the responsibility for undertaking them, as otherwise industrial development may lag because of inadequate support facilities.

In utilities and transportation the economies of monopoly with respect to each specific type of service in each market are usually so prominent as to rule out competition between government-owned and private establishments. This does not hold in the fields of banking and insurance, medicine and dentistry, technical assistance, and education. Usually a good industrial environment will be achieved more rapidly and may be made permanently better by concurrent participation of government and private enterprise in these fields, where monopoly is not a distinct economic advantage. The degree to which government enters into the activity should be tempered by the extent to which private enterprise is able and willing to do what the program of industrialization needs.

Government ownership in the industries classified as basic industry, manufacturing, distribution and personal and professional services is not the rule. It is likely to be more extensive in the basic industries such as iron and steel than in general manufacturing or distribution. In a relatively free economy, government ownership in industrial enterprise, in distribution, or in agriculture may be justified where large amounts of capital are needed to inaugurate the enterprise, where the risk of failure is high, where the industry is regarded as essential to industrial development, or where pilot operations or demonstration plants are undertaken for their educational and stimulative effects.

There is a danger that national pride, motives of national security, unreasonable mistrust of foreign sources of supply, overoptimism about "multiplier" effects, and the cost-savings of basic industry will lead the government to overdevelop them or to introduce them before they are economically justified.

Pilot Plant and Trial Enterprises

The purposes and methods of pilot plants and enterprises were discussed above in the chapter on technical support. The choice between government or private sponsorship of such projects usually turns upon the relative willingness and ability of the sponsors to assume a high degree of risk. This means that in most countries where development is retarded the government will usually be the sponsor. Although the government is usually more able than private investors to sustain losses, this very fact may weaken the validity of the business test for which the pilot operation is designed. It is essential, therefore, that the pilot experiment be conducted under conditions which closely simulate those of private enterprise and that strict accounting and reporting of results be maintained. To encourage private investors to enter industries at pilot stages of development the government should establish a policy to retire from those fields where private interests wish to carry on, provided they give satisfactory evidence of competence and intention to do as good a job as the government would do.

Ventures with Joint Government and Private Participation

In the preceding discussion attention has been confined to the alternatives of government ownership, private ownership, and concurrent

government and private ownership of separate establishments within certain fields of economic activity. There remains another important ownership arrangement which has been discussed in the chapter on entrepreneurial aids and financing; namely, joint ownership of individual enterprises by government and private investors.

The virtues and the faults of joint ownership of industry by government and private investors are pretty much a mixture of the good and bad features of government- and privately-owned enterprise. While tempering some of the strong and weak points of each form of separate ownership, the joint arrangement introduces some entirely new features. Without attempting a complete analysis of possible combinations of the variables, certain good and bad features can readily be identified with the joint venture.

The sources of strength in the government-private joint venture are impressive. First, the amount of potential capital is augmented to the fullest extent by the joint arrangement. Second, the ability of the government to absorb losses or to wait long periods while an enterprise develops, exceeds that of private investors. Third, commitment of government funds to a venture tends to generate a feeling of confidence on the part of the private participants, including creditors, that the undertaking is sound, that it will receive favorable treatment from the government, that injustices of management to absentee or minority investors will be minimized, and that the project will be carried through to ultimate success. Fourth, the leadership of the government, because of close and continuous contact with the private participants, can be used effectively to develop managerial skills and to nurture new entrepreneurs.

The weaknesses which tend to reduce the effectiveness of government-private joint ventures are mainly qualifications of the advantages just mentioned. First, while potentially all sources of capital in a country can be tapped by the joint arrangement, the presence of government in the enterprise will deter some investors who dislike or mistrust the influence of government or who would rather be free to manage the business and reap the entire rewards, without interference, particularly since managing the joint enterprise is likely to be a cumbersome job. Secondly, changing regimes or shifting political attitudes may affect the patience and perseverance of the government. In the third place, enterprises which do not have government participation may be placed at a competitive disadvantage. Finally, the leadership of the government in developing entrepreneurs may not be inspiring because of the weak personal incentives and lack of successful business experience which often characterize government employees.

Government Sponsorship of Cooperatives

Another approach which the government may make to bolster private enterprise is to encourage cooperative activities within private industry. Where cooperation is voluntary, most of the attributes of free private enterprise can be preserved, while the strength of numbers is also enjoyed. The successful cooperative may act in several capacities, much as the government would act in serving individual enterprises or specific industries. Hence, it would be logical for the government to encourage cooperatives to relieve it of certain burdens and to foster self-reliance on the part of industry.

The cooperative in industry is usually designed to finance or control an aggregate activity related to the activities of individual units. For example, the cooperative creamery processes and distributes the dairy products of many farmers, who may have neither the financial means nor the desire to set up individual processing plants. In a hypothetical case, independent investors may not be attracted to a particular creamery because of small profit margins and the difficulties of dealing with numerous farmers. Aside from government investment, a cooperative may be the only solution to the problem of providing this economic function essential to related production units, but for which capital will not readily come forth. The cooperative combines small investments into large ones and binds patronage to the cooperative enterprise. Since the cooperative directly serves all its member-investors, it is an effective means of spreading overhead costs and risks which might be unduly burdensome under completely independent operation. Other principal economic functions are to control or improve the quality of products and to temper wasteful competition.

In the early stages of industrialization there are many instances of gaps between industries, which are sufficiently important in themselves to warrant private investment to fill those gaps. One alternative is to integrate the missing process or product into the establishments to which it relates--often a wasteful solution and one which uses too much scarce capital. Frequently, a better alternative is to fill the gap by cooperative enterprise, at least until the function becomes important enough to maintain itself independently or until one member of the cooperative becomes large enough to perform the function economically. Opportunities for cooperative activities in an industrial

economy are of special importance in the early years of development and cover a wide range, as illustrated by the following examples:

1. Savings and lending institutions and insurance funds
2. Chambers of commerce and trade associations
3. Cooperative distribution and sales promotion
4. Research and product development; statistics; quality standards and testing; technical aids of many sorts; and vocational training
5. Supporting production or industrial processes, such as: cooperative tool and die making; enameling; power and steam supply; textile dyeing and finishing; transportation or delivery service; refineries for crude products of mining or agriculture
6. Cooperative housing developments

The government may lend its assistance to cooperatives by: providing a legal framework for them; giving them information and technical advice; taking leadership in promoting their formation; helping them to finance their activities; and rewarding participation of members by various means.

The legal status of the cooperative needs definition, just as does that of the corporation, joint-stock company, trust, partnership, or other contractual form of association. The rights and responsibilities of the members, governing bodies, and creditors should be clearly established in the general laws or statutes of the country. The tax status of the cooperative needs to be made clear. Finally, the law should provide general procedures for formation and dissolution, and it should indicate the scope of functions permitted the cooperative,

the limitations on chartered powers, and any reporting or regulatory requirements which the state may wish to establish.

The government may assist in the formation of cooperatives by providing advisors who are familiar with cooperative activities and who will help to bring the elements of a cooperative together. Since the cooperative movement has made great advances in some countries such as Sweden, the United Kingdom, the United States of America, and Israel, the government may well afford to have its cooperative specialists observe the successful practices in these countries and make the knowledge of them available locally. Until its own officials gain competence the government can draw on the aid of foreign experts in cooperative organizations.

With an adequate legal framework, the credit strength of a cooperative may be very good because it aggregates the financial strength of the members, even though they may seldom assume liability for cooperative debts to the extent of their entire individual estates. But, even so, the cooperative can use the pooled limited liability of each member to good advantage and thus prove worthy of government credit when many of the members might not be able to qualify separately.

The cooperative can provide a mechanism for making governmental policy effective. If the government wishes to encourage cooperatives to accomplish economic purposes--such as to improve quality, to upgrade business practices, to take the edge off unwise competition, or to help the government administer the use of scarce resources--it can require membership in the cooperative as a condition for certain government actions. These may consist of licenses to do business, franchises,

allocations of foreign exchange, scarce material or resources, production or marketing quotas, loans and grants, purchase contracts from the government, technical aid, or possibly even a favored tax position.

Conclusions

In a country which embarks on a program to use public funds for the purpose of bringing about rapid development of private industry, the issue of government ownership is mainly one of degree--that is, the extent to which government ownership can do the most effective job of stimulating private enterprise, without threatening to become a substitute for it.

The differences between government and private enterprise of most significance to an industrial development program are principally differences in the incentives of investors or industrial leaders and differences in access to capital. In early stages of development, the government may have more initiative and will nearly always have command over more capital than will private investors. Given the same intelligence and desire to industrialize, government may accomplish more in a short time than private interests because of its authority to issue a plan and to enforce its recognition by all elements of the economy that must work in harmony in order to accomplish what is planned.

The distinctive contributions of the private sector of the economy are the strong personal motives for profits which come only out of successful enterprise and the great amount of ingenuity, flexibility, and responsiveness to the market found in a host of competing enterprises, all striving to win patronage. Through the use of the joint venture in which the government and private investors have common ownership,

and through granting sufficient autonomy to qualified managers of government enterprises it is possible to gain many of the advantages of each type of ownership. The joint venture has been found to be a useful bridge between government and private industry and between stages of development, progressing from one requiring at first a heavy government interest to one which later calls for a preponderant private interest.

The sphere for sponsorship of economic activities either exclusively or to a major degree by the government seems to be most clearly in the field of general government and economic support functions. There is a large responsibility upon the government to provide the favorable industrial climate needed for development. In the field of transportation, communications, and public utilities in general, the government may need to become a leading investor in early stages of development so as to avoid uneconomic delays in development. However, since these fields are among the most attractive to private investors who seek dependable returns on their investments, the government should not become overeager to dominate in these fields. In any case, there should be adequate constitutional guarantees against arbitrary nationalization without fair compensation.

When it comes to the usual competitive manufacturing industries making products for the general market, to wholesale and retail trade, and to personal and professional services, there is less justification for government ownership. When government ownership becomes necessary, it is usually desirable to grant the management a considerable degree of independence and in other ways to have the business conducted as much like a private establishment as possible. The possibility of the

cooperative approach by private industry with government help or of joint ownership by the government and private investors should be given due consideration before resorting to complete government ownership.

Chapter VIII

PLANNING A DEVELOPMENT PROGRAM

Rationale of a Planned Program of Industrial Development

Whether or not the government plays a prominent role as an investor in industry, it is almost certain to have the major responsibility for most of the economic support functions referred to in earlier chapters. Industry, whether private or government, is organically related to other parts of the economy. For many of these parts the government must make plans and justification if only for purposes of the budget. It is logical, therefore, to extend the plan to all parts of the economy. In the less developed countries, it is apparent that the policy of letting nature take its course has not produced industrialization, and it is in these countries that the mission of the government may be most important in accelerating industrial progress.

Economic planning has been suspect on the grounds that it is dictatorial and that it is unresponsive to true economic demands, costs, and values. Its most serious critics usually prefer the decisions of a free price system to the contrived results of government planners in the regulation of economic activity. In answer, it may be said that a plan is not necessarily an order of government, but more often a guide. And in an underdeveloped country which is being subjected to the stresses of industrialization, some degree of planned direction of industry offers promise of better economic results than the mandate of market prices alone. It was pointed out in earlier discussion that industrial growth in less developed countries is

typically accompanied by inflation; by shortages of capital, skilled labor and foreign exchange; and often by a surplus of unskilled labor. Adjustment for these conditions by advance planning and by certain deliberate controls exercised by government seems worth the effort, even though some miscalculations and inequities may be unavoidable.

The "true" or long-run economic costs and values often differ from current prices, as illustrated by the "infant industry" argument. Many industries which initially could not pass the market test have been nurtured by protection, subsidy, or other device to a size and competence which made them viable. It is noteworthy that many functions of government are of great economic worth to industry and to society in general; and yet in only a few cases would these functions be performed in the normal operation of a free market. However, planning need not be an instrument of coercion. Even if parts of a plan are made mandatory, other parts may be left to the operation of the free price system, even if included in the plan for information purposes. Because of the great difficulties and sacrifices entailed in industrializing a country, the government's role is to put forth a positive development program designed to pull together all possible influences to advance the economy. At the same time, the costs and gains must be weighed against one another in various combinations as a part of the planning for best results with scarce resources.

A plan for industrial development in a free country is primarily a coordinating device which seeks consistency in the various elements of industrialization. It also should reduce the likelihood that resources will be squandered in monument building, excessive consumption, the serving of selfish interests, wasteful duplication, futile

or ill-timed projects. In its fullest expression, the plan is comprehensive, including both government and private aspects of the industrial program, it is long-range, extending as long as 15 years into the future, and it expresses realistic, attainable goals.

Without a well developed plan, it is impossible to determine if the various efforts to build industry are consistent and coherent. Neither is it possible to determine whether these efforts are comprehensive enough to achieve any given goals or whether stated objectives are feasible. A plan helps to determine rationally what is the best over-all development of the national production and its optimum distribution and ultimate use.

General Outlines of Industrial Planning

The industrial plan must be worked up as an integral part of the total economic program of a country. After the program has been formulated, that part which applies directly to industry can be abstracted and set forth as the industrial program. It can in turn be segregated to show the public sector separately from the private, and each can be supported with whatever detail is available.

The final plan for an economic program can be stated rather simply in terms of an outline such as follows:

1. Estimates of national income by major sectors.
 - a. Agriculture, forestry, fishing, minerals
 - b. Manufacturing
 - c. Private trade and services
 - d. Government services

2. Distribution of the national income to major categories.
 - a. Consumption
 - b. Government services
 - c. Savings (capital information)
3. Estimates of numbers of workers of various skills to be employed in each industry and service.
4. Raw materials, by major types, and capital goods--buildings and equipment--required by each industry and service.
5. Capital requirements (finance) and sources of financing for each industry and service.
6. Estimates of imports and exports and of the demand for and supply of foreign exchange; sources from which any deficiencies in foreign exchange can be made up.

There are two ways to proceed in formulating an economic plan. One is to start at the top, using over-all calculations based on major trends in population, past economic growth in the country (or in other countries with comparable conditions), empirical or assumed coefficients expressing economic relationships, and desired economic goals. The other way--far more laborious but perhaps more realistic--is to build up to the desired goals by making estimates for each industry or service and aggregating these estimates into a composite. Each of the two approaches has merits which may be preserved by using both approaches together. But until there is a considerable accumulation of statistics and a corps of trained industrial estimators, reliance on the first method must be relatively great. Even where the detailed method of estimating is well developed, it is advisable to use the more general method as a check and safeguard.

One simplified routine used in preparing over-all estimates of industrial requirements is to multiply the estimated active population by productivity per person in order to derive an estimate of total productivity. Allowance can be made for a rate of increase in productivity, based on recent trends, and for improvement in this rate as an attainable condition. To this estimate of domestic production imports are added at the usual or at an assumed rate and the total national income derived. Also, the calculation, after estimating capital imports, gives an indication of the volume of exports which will be needed to balance imports.

The procedure continues by applying tax and savings rates-- again either empirically or at desired rates--to arrive at the revenues available to government and the total savings available for investment. By use of capital coefficients--the ratio of capital investment to income produced--it is possible to make a rough test of the total capital required to raise national income to a given level. The other elements in the general plan are filled in by the use of ratios based on established trends and relationships, modified by any different relationships that the program seeks to develop or that will result from the working out of the plan.

Turning now to the planning procedure applicable to separate sectors of industry, major emphasis is given to market aspects. While it is true that a government sponsoring an industrial program will often select industries for development for reasons other than market demand for their products or services, the market is the soundest guide for most enterprises engaged in industrial production. This is true whether or not the industries in question are sponsored by the

government. The selection of industries on other bases than indicated market demand is a subject worthy of special attention which it will receive later in this chapter.

In appraising the domestic market for the products and services of industry, one must take into account both demand at given prices and comparative costs. It is not too difficult to allow for population growth in estimating demand for established products at given prices. It is somewhat more difficult, but not impractical, to deduce domestic demand from the experience of other countries in case there is no domestic consumption of a given product. The volume of imports indicates one dimension of the potential market for domestic substitutes, but actual substitution may depend on relative costs, protection, and consumer loyalties. In projecting such estimates into the future, when allowance is to be made for rising real incomes, the tendency to change the proportion of expenditures induced by increased income should be noted. When it comes to estimating foreign demand, it is usually more practical to rely on studies prepared by foreign countries on their own markets than to engage in world-wide research on behalf of the exporting country.

A crucial test in determining the volume of production to be expected--especially with an export demand for which protection and domestic loyalties offer no help--is comparative cost. It is most difficult to arrive at suitable estimates of costs when a country has had no experience in producing a given commodity. Furthermore, the elasticity of demand--that is, the degree by which demand changes in response to changes in price--is seldom known with any degree of reliability. Accordingly, the country that enters a new industry

with the hope of capturing a substantial share of the market must be prepared to do some probing through trial production and sales before it can refine into dependable market expectations estimates which are based solely on imputation, analogy, and intelligent guessing.

Guides to Choice of Industry for Development

As earlier mentioned, the limitations of the free price mechanism as an alternative to economic planning make necessary a deliberate policy for selecting industries which goes somewhat beyond price and business profit calculations. The following comprehensive enumeration of criteria, includes those which apply to both the public and private sectors of the economy and those which may apply mainly to one sector only:

1. The commercial test. Will the earned revenues of the industry cover all costs, with a reasonable margin of gain? Will a long period be required to establish the viability of the industry? Will the industry need temporary protection or subsidy?

2. Comparative advantages. Is the industry based on special advantages such as valuable local natural resources, strategic location, extraordinary labor skill, or efficiency not easily duplicated? Can its product be imported through exchange with other domestic products or services which use less real national resources? (In other words, does the economic law of comparative advantage work against it?)

3. Trade balance and foreign exchange. Does the industry earn net foreign exchange? Does it earn the most desired kind of foreign

exchange? Is it dependent upon an unstable international market?

Does it contribute to or does it alleviate monoculture or overspecialization?

4. Employment. Does the industry provide many jobs, with good wages and working conditions, stability, and personal satisfaction? Does it alleviate unemployment or underemployment? Does it strain the supply of skilled workers?

5. Capital requirements. Does the industry use capital efficiently to increase the national product? Does it require large amounts of capital and is the gestation period long? Is the industry naturally favored by investors? Does it build up capital for its own use? Does it make capital available for investment in other industries?

6. Complementarity. Is the industry needed to remove a bottleneck in the development of other industries? Does it support other industry directly by furnishing supplies or services? Does it tend to propagate other desirable private industry? Does it compete unduly with existing industry either for inputs or for markets? Is it properly timed with respect to related industries?

7. Income distribution. Will the products, services, and earnings of the industry be distributed to the different segments of the economy or to different income groups in such a way as to improve the general standard of living? Will the distribution adhere to the desired balance between savings and consumption and between savings and investment? Will the income distribution maintain desired proportionality between large and small enterprises, different types of industry and different regions?

8. General well-being. How well does the industry contribute to the general well-being in its net effect? Does it tend to generate unwanted social conditions?

9. National security. Does the industry contribute to the security of the nation against aggression, internal strife, disaster, economic instability, or exhaustion of natural resources? Will the industry contribute to the prestige of the nation among other countries?

If industries to be developed were selected under the free price system for privately sponsored development, the commercial test would by definition be the main criterion of choice. In addition, the criteria of comparative advantage, trade balance, employment, capital requirements, and complementarity would be of vital and direct interest to the promoter of the enterprise. On the other hand, even if the government were to control all the choices of industries to be developed, it should not ignore any of the criteria listed above. Unless it were to abandon free enterprise entirely, it would still have an interest in the commercial test. In any case, the government will probably have major concern for such criteria as trade balance and foreign exchange, employment, income distribution, general well-being, and national security. But as long as government and private industry work hand in hand for industrial development, it seems appropriate that all proposals for investment be viewed in the light of each of the criteria listed above. Only common sense can determine what weighting to put on each factor that goes into the selection process. However, the relative emphasis on each criterion depends on the stage of development, the presence of

economic bottlenecks (such as scarce capital, foreign exchange, skilled manpower, or raw materials), and the existence of special advantages (such as abundant resources and strategic location).

Choosing the Methods of Industrial Production

In most industries there are alternative methods of production, and there are products and services which can be substituted for one another. In choosing among these different means, it is useful to refer to the same criteria used in choosing the type of industry for development. Especially important is the relative extent to which the alternative methods rely on scarce resources.

Two points bearing on the comparative use of capital should be considered. One point is that, other things being equal, capital should be used for the method which will yield the highest real benefits to the economy, whether or not that method has a higher capital coefficient or higher commercial net return than a competing method. In this respect, in a country with a pronounced labor surplus, preference should be given to labor-intensive methods in the allocation of capital when this approach shows the best results using the real cost of labor, which, if labor is in surplus, will be below the market rate of wages.

Consistency and Balance in the Industrial Development Program

After preliminary selection has been made of the industries to be developed and after tentative decisions have been made concerning the government's activity during the period of development, a master plan should be put together which incorporates all parts of the program and the government's budget in order to see how well the

parts fit together. Not until certain tests have been met satisfactorily, or the program adjusted accordingly, should the final plan be adopted and executed.

The most important test is to see if the program calls for more total resources than are estimated to be available. The requirements for each major resource, by types and localities, is another major test which often discloses shortages of capital, foreign exchange, and skilled labor. Estimates of production should match up with estimates of market demand and planned disposition of the products.

Planned outputs should be checked back with the inputs which they entail to make sure they are covered in the program of development. To estimate scientifically and on a long-term basis the cumulative results of interindustry inputs and outputs, a complex and costly mathematical computation may be needed, even for a country which is only beginning to industrialize its economy. However, a simplified approach using crudely developed capital coefficients available from other countries, after some allowance for differences in circumstance, may provide helpful estimates. It is usually better to use imperfect estimates than to ignore entirely the ramified interindustry effects.

The consistency of capital requirements with projected savings is an important test. It would be unusual in a less developed country for voluntary savings to cover all the requirements of an industrialization program in which there is the usual time urgency. Industrial countries must make a capital expenditure of about \$4 in order to increase the national income by \$1 per year. With a

rising population and with expectations of higher income per capita in the future, the need for capital may call for a rate of saving several times the usual one.

Comparison of total estimated imports with total estimated exports gives an indication of the size of the foreign exchange deficit, if any. If this deficit is too large to be covered by the development of additional export industries, by foreign grants, or by foreign loans which can be repaid, then some parts of the program making a heavy drain on foreign exchange will need to be modified.

Program plans should be examined to see whether the right balance is to be achieved between agriculture and industry and between the major types of industry, in order to facilitate the flow of resources to desired uses, to induce savings, and to reduce harmful effects of inflation. As an agricultural economy turns to industry, the productivity of its agriculture should usually be stepped up to permit higher food production per worker and thus to release labor for industry, while at the same time providing for the higher consumption of food per capita resulting from the higher incomes earned in both industry and agriculture. If there is too much investment going into the production of capital goods and too little into production of things wanted in the present by consumers, inflation will be aggravated and competition for scarce foreign exchange will increase. If the excess is on the other side, consumption will reduce savings and markets may be so glutted as to cause serious deflation and unemployment. An excess in either direction is the enemy of stability because it sets up conditions which bring a harmful reaction.

As a final and important test of the consistency of the industrial program, the revised plans should be reviewed by the highest officers of government and by a select committee of industry and labor representatives to see how well the objectives of industrialization are furthered by the program in its entirety.

Putting the Program into Action

Since the industrial program involves many different elements in the economy, its acceptance by those affected by it calls for considerable preparation. One experience-tested method of getting cooperation is to see that the views of all concerned receive consideration during the formulation of the plan. Full publicity on the objectives of the plan, the required sacrifices, and the methods of procedure should be given. The real test of the planning is not how well the government performs its allotted tasks in industrial development, but how well private industry and the general public respond to the challenge. However, the government must take special pains to meet its own commitments, in order not only to set a good example, but also to ensure that the many aids and incentives provided to private industry become realities. If changes become necessary, they should be made with the counsel and participation of private industry in order to preserve confidence in the program.

Conclusions

This chapter has dealt with many features of industrial development, including incentives and rewards for private industrialists and the aids designed to help private industry grow and prosper.

It has covered the purposes and the desired effects of private and public industry.

Planning is the means of coordinating all the efforts required to bring about industrial development. It need not be dictatorial or too rigid to reflect the ever-changing needs of the people and to adjust for errors in estimating. Only by some sort of plan is it possible to test out the completeness of the industrial program, its internal consistency, and its feasibility in terms of the total and specific resources available to the country. A plan serves to prevent the squandering of resources for purposes not in the public interest. At its best, it utilizes a set of criteria by which projects and activities can be selected, evaluated, and assigned appropriate dimensions and priority. A clear formulation of aims and the means of accomplishing them serves not only to guide the government and private industry to economic goals by the best route, but also to stimulate greater effort. It does this because it breeds confidence in successful results and acts as a standard by which progress can be measured. Belief in the results of industrialization and confidence that they are achievable is the mainspring of action.

