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SMALL AND MEDIUM ENTERPRISES

SOME BASIC DEVELOPMENT ISSUES*

by

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Note: This report has been prepared to provide a basis which may assist the Industrial Development Board in its decision regarding the possible convening of a Consultation on Small- and Medium-scale Enterprises including Co-operatives during the 1988-1989 biennium.

CONTENTS

I. INTRODUCTION

Role of small industry in growth

Empirical studies[1/], covering both developed and developing countries, and serveral decades indicate that in the course of economic growth, the size-structure of manufacturing enterprises passes through three broad yet distinct phases. Household and cottage-shop enterprises, also called the informal sector, predominate at the early stage, accounting for up to three quarters of total manufacturing employment. The predominantly rural and agricultural character of the economy leads to forward and backward linkages of processing and input supplies in rural and semi-urban household non-farm enterprises. Fragmented markets, insufficient infrastructure and low technology encourage labour-intensive manufacturing in cottage enterprises. The growth of incomes from the first phase of development generates changes in demand patterns and stimulates the development of technology and infrastructure. Small workshops and factories, often located in urban centres, using modern technology and equipment tend to displace household manufacturing in this second phase. With the growth of infrastructure, technology, urbanization and localization, large-scale production eventually tends to dominate and displace most of household manufacturing and a great proportion of small workshops and factories, the growth of the latter itself contributing appreciably to the development of large-scale industry.

While the above description of changes in the size-characteristics of manufacturing is broadly true, it should be noted that:

(a) different sizes of enterprises co-exist in most economies, since labour, capital and product markets are usually imperfect, and changes in technology, transportation, consumer preferences and life styles continually influence manufacturing.

(b) due to the dualistic nature of most developing economies, the stages of growth usually overlap, informal manufacturing dominating in the rural areas or in subcontracting activities, large-scale organized manufacturing taking over in certain branches and sectors of industry.

(c) structural changes in developed market economies since 1970 caused by comparative cost disadvantages in traditional manufacturing (compared with newly industrialized countries), accent on knowledge-intensive and skill-intensive industrialization (as against material and energy-intensive industrialization), computerization increasing advantages of decentralized work centres, accent on quality of life etc. have resulted in arresting the decline in small-scale enterprises and a new emphasis on small business.

The following tables provide some of the empirical evidence.

Table 1: PERCENT DISTRIBUTION OF MANUFACTURING EMPLOYMENT AMONG COTTAGE-SHOP, SMALL AND MEDIUM INDUSTRY AND LARGE INDUSTRY: SELECTED COUNTRIES AND YEARS

Country	Year	Cottage-shop (less than 5 workers)	Small and medium industry (5-99 workers)	Large industry (100 or more workers)
U.S.A. a/	1967	1.1	22.3	76.6
	1947	1.1	23.9	75.0
Canada b/	1939	2.3	31.9	65.6
	1933	2.8	30.3	66.7
	1930	3.9	31.2	65.9
	1920	3.7	35.5	60.8
Japan c/	1975	19.1 d/	36.6 e/	44.3
	1965	16.1 d/	37.1 e/	46.8
	1955	20.0 d/	40.2 e/	39.8
Taiwan f/	1971	3.0 g/	33.0	64.0
	1966	4.0 g/	39.0	57.0
	1940	25.3 g/	<——74.7——>	
	1920	60.6 g/	<——39.4——>	
Korea h/	1975	36	17	47
Colombia i/	1978	42.3	28.6	27.6
	1970	53.7	21.7	24.6
	1964	51.4	25.9	23.7
Philippines k/	1975	66.0 m/	8.0 n/	26.0
	1967	77.8 m/	7.2 n/	15.0
India p/	1973	60 q/	18 r/	22
Indonesia s/	1975	76	12	12
Nigeria t/	1972	59 q/	15 u/	26 v/
Kenya w/	1969	49	10 u/	41 v/
Ghana w/	1970	78	7 u/	15 v/
Tanzania w/	1967	55	8 u/	37 v/

a/ Data refer only to paid employees and therefore underestimate the share of employment in CS and in the smaller size categories of SMI. Source: U.S. Department of Commerce, Bureau of the Census, 1967 Census of Manufacturer, Vol. 1, Summary and Subject Statistics, Washington D.C., U.S. Government Printing Office, 1971, p. 24.

b/ Data are from M. C. Urquhart (editor) and K.A.H. Buckley (assistant editor) Historical Statistics of Canada, Toronto, Cambridge University Press, 1965, p. 489. They appear to exclude unpaid workers.

c/ Data are from Small and Medium Enterprise Agency, White Paper on Small and Medium Enterprises, various annual editions, as presented in H. Kaneda, Development of Small and Medium Enterprise and Policy Response in Japan: An Analytical Survey, World Bank, mimeo, 1979, p. 54.

d/ Establishments with 1-9 workers.

e/ Establishments with 10-99 workers.

f/ Samuel P. S. Ho, Small Scale Enterprises in Korea and Taiwan, World Bank Staff Working Paper No. 384, Washington, D.C. 1980, p. 5 Original sources are cited there.

g/ Not comparable with the figures for the earlier year since the population census definition of employment in manufacturing includes only persons who worked during the survey week more than 3 hours per day or 2 days per week.

h/ Samuel P. S. Ho, Small Scale Enterprises, p.5. If all temporary or daily workers are excluded from manufacturing employment, and it is assumed that all of these were in the household sector (it is not clear how exaggerated an assumption this is), then the share in that sector would fall to 16% (loc. cit.).

i/ Figures are from Table 2.25. For 1978 the lower of the total manufacturing employment figures of that table are used here. As discussed in Chapter 2, there is considerable uncertainty about the comparability of figures for the various years, so the trends suggested here should not be taken as proven facts.

k/ Figures from Dennis Anderson and Farida Khambata, Small Enterprises and Development Policy in the Philippines: A Case Study, World Bank Staff Working Paper, No. 488, Washington D.C., July, 1981, p.9.

m/ Establishments with less than 10 workers.

n/ Establishments with 10-99 workers.

p/ Dipak Mazumder, "A Descriptive Analysis of the Role of Small Scale Enterprises in the Indian Economy." mimeo, 1980, p.54 and p.2.

q/ Establishment of less than 10 workers.

r/ Establishment of 10-99 workers.

s/ T. Otsuki, I. Ohara, H. Iwayasu, T. Miki, M. Nondai and A. Rasida, Industrial Development in South East Asian Countries: Small and Medium Industries - Republic of Indonesia, International Development Center of Japan, 1977/78, p.3.

t/ John M. Page, Jr., Small Enterprises in African Development: A Survey," World Bank Staff Working Paper No. 363, Oct. 1979, p.2.

u/ Establishments with 10-49 workers.

v/ Establishments with 50 workers or more.

w/ Establishments with 5-9 workers (approximately).

Source: See footnote 1(c)/.

Table 2: Distribution of employment and MVA in very small and in large-scale enterprises, selected developing countries

(Percentage)

Region and country (year)	Employment		MVA	
	Very small enterprises	Large-scale enterprises	Very small enterprises	Large-scale enterprises
Asia				
Iran (Islamic Republic of) (1968)	83	17	44	56
Bangladesh (1976-1977)	87	13	45	55
Indonesia (1974-1975)	87	13	20	80
Philippines (1969-1971)	70	30	6	94
Sri Lanka (1968)	71	29	33	67
Africa				
Sierra Leone (1974-1975)	96	4	44	56
Egypt (1966-1967)	33	67	16	84
Ghana (1963)	87	13	39	61
Somalia (1974)	50	50	40	60
United Republic of Tanzania (1961-1964)	50-80	50-20	30	70
Latin America				
Honduras (1975)	98	2	59	41
Ecuador (1974)	78	22	17	83

Source: See footnote 1(d)/.

Table 3: Changes in the informal sector's shares in MVA

(Percentage)

Country	Year	Share of MVA	Year	Share of MVA	Coverage of establishments in the informal sector with
Australia	1975	13	1981	3	Less than 4 employees
Bangladesh	1975	43	1979	18	Less than 5 employees
Belgium	1970	16	1980	14	Less than 5 employees
Ethiopia	1971	39	1981	19	Less than 10 employees
Greece	1970	33	1977	26	Less than 10 persons engaged
Guatemala	1971	39	1978	29	Less than 5 persons engaged
Honduras	1971	24	1975	20	Less than 5 persons engaged
India	1970	38	1980	37	Less than 10 employees using power or less than 20 not using power
Italy	1970	19	1980	16	Less than 20 persons engaged
Kenya	1970	22	1978	14	Less than 50 employees
Mauritius	1970	25	1980	21	Less than 10 employees
Netherlands	1970	18	1979	14	Less than 10 employees
Pakistan	1970	43	1977	50	Less than 10 employees
Swaziland	1971	36	1979	31	Less than 10 employees
Trinidad and Tobago	1974	25	1977	8	Less than 10 persons engaged
United Republic of Tanzania	1970	39	1974	30	Less than 10 persons engaged

Source: See footnote 1(d)/.

Size differences in industrial groups

Thus, small and medium enterprises play an increasing role in the early stages of development and a decreasing role at later stages. The trend towards large-sized manufacturing enterprises as incomes increase reflects increases in market size, economies of scale, changing factor proportions, and better infrastructure of transport and communications. However, such economies are more important in some industries than in others. Other factors governing large-size establishments are government regulations, factor market imperfections, and legal and political advantages. Relative factor costs influence scale economies or optimum size and thus account for different size structures of the same industry in different countries.

Smaller-scale activities in developing countries are of major importance in food products, wearing apparel, leather and garments, wood products, furniture, non-metallic mineral products and metal products. The average size of plants in different industry groups in high income and middle/low income countries provides an indication of size characteristics in relation to development.

Table 4: Average size pf plants

(Number of workers)

Industry group	High income countries	Middle and low income countries
All industries	51.8	12.7
Tobacco products	324.6	1C8.2
Basic metals	306.3	80.2
Paper and pulp products	139.9	34.7
Textiles	105.3	103.3
Petroleum	301.4	41.0
Electrical machinery	131.5	27.2
Rubber products	69.0	41.9
Non-electrical machinery	61.5	26.6
Transport equipment	142.7	13.8
Non-metallic mineral manufactures	42.2	22.0
Printing and publishing	28.3	17.8
Beverages	31.6	15.3
Leather products	44.0	16.4
Food processing	48.0	27.4
Fabricated metal	38.3	15.4
Diverse industries	37.1	13.4
Apparel	43.0	13.4
Furniture	55.4	44.3
Wood	16.7	9.4
Food, beverages, tobacco	55.1	13.5

Source: See footnote 1(c)/.

Basic issues for consideration

Small-scale industry provides the seed-bed for growth. It provides training for entrepreneurs and managers and through this learning process small industries grow into large ones. Both the birth and the mortality of small enterprises are high - they grow and become large or they fail and disappear. A corps of dynamic enterprises plays a vital role even in a mature economy, as subcontractors to large industry or as meeting specialized and service requirements.

In developing countries governments play an important role through indicative planning, allocation of financial resources, industrial policy, trade and economic controls etc. in influencing and stimulating growth and development. Government regulations and controls tend to favour large-sized enterprises, often unintendedly, through the operation of incentive schemes, import quota allocations, financing etc. The scarcity of entrepreneurial and managerial talents tends to favour large-scale enterprises able to secure foreign investment and collaboration. Special programmes to assist small-scale industries through technical, financial and managerial assistance are expensive and are not able to help the informal sector and the really small artisants and entrepreneurs.

The next chapter considers the environment for small industry development and policies appropriate to ensure a healthy growth of small enterprises.

Chapter III considers infrastructural and institutional factors supportive of small industry development, including the question of entrepreneurship development and the role of industrial co-operatives.

Chapter IV deals with the important questions of mobilization and allocation of domestic financial resources for small and medium enterprises.

Chapter V is concerned with domestic and international subcontracting and its contribution to integrated development.

At the end of each chapter conclusions and issues for consideration are summarized.

The terms of reference of the report, provided by UNIDO, are attached.

Terms of reference

1. The consultant is requested to prepare a report which will assist the secretariat in its preparations for a possible Consultation on Small and Medium Enterprises, including industrial co-operatives.

2. It has been decided that preliminary work would focus on three broad areas:

(a) Infrastructure and institutional factors supportive of the growth of SMEs, including industriel co-operatives;

(b) The mobilization and allocation of domestic financial resources to SMEs:

(c) Domestic and international subcontracting with its contribution to integrated development.

3. Within the area identified in 2(a) above, the consultant is requested to provide a chapter(s) in his report on a summary description of the network of institutions and framework of supportive infrastructure necessary for the growth of SMEs. In addition, particular attention will be given to an identification of the problems confronting existing institutions and infrastructure meant to foster the growth of SMEs.

4. Within the area identified in 2(b) above, the consultant is requested to identify the economic, financial and fiscal policies which affect domestic institutions and which govern the impact of their activities on SMEs. In this chapter, particular attention will be given to rural/urban disequilibria, as well as to disequilibria between SMEs/agriculture/the services sector.

5. Within the area identified in 2(c) above, the consultant is requested to summarize a description of the possibilities opened to the growth of SMEs by subcontracting at the national and international levels, and to identify the institutional constraints which militate against the use of such arrangements. In this same context, there should be an assessment of the possible contribution national and international subcontracting could make to the development of a coherent integrated production structure, and a preliminary identification of the implications to such a development strategy of the widespread use of subcontracting arrangements.

II. ENVIRONMENT AND POLICIES

Reasons for favouring small industry

The specific reasons for promoting small industries in a developing economy need to be appreciated in each case for creating the proper environment and adopting appropriate policies. They may be listed as follows:

1. Small industries provide the seed-bed for growth.
2. They stimulate indigenous entrepreneurship.
3. They mobilize capital not otherwise generated in the economy.
4. They save scarce capital and employ less scarce labour.
5. They can be developed on a decentralized basis in rural and semi-urban areas to meet local demand.
6. They provide linkages to agricultural and rural activities.
7. They use simple technology.
8. They use local resources - human and material- economically and save on transport costs.
9. They create a middle class of self-employment entrepreneurs.
10. They contribute to more equitable distribution of income and wealth.

The role of small industries in growth and their contribution to employment and incomes has already been emphasized in the introductory chapter. It has also been stated that in a healthy industrial structure both large enterprises and small enterprises play an appropriate role, varying in different branches of industry and at different stages of development, and depending on scale economies, infrastructure development and relative factor proportions and costs. It is thus necessary firstly to properly demarcate the small industry sector, and secondly to relate small industry policy to leading sector policy as well as to macro-economic policy in the economy.

Definition of small industry

A small enterprise, to be eligible for public assistance programmes or to be able to benefit from government policy measures, e.g. tax exemption, is usually defined with an upper limit of employment (usually 100 workers) or of fixed capital investment (e.g. $250,000). Such a definition is intended to

encourage labour intensity on the assumption that it is high in small enterprises. However, labour intensity alone may not be sufficient. Where capital is scarce, high capital productivity may be desirable. Efficiency criteria, or criteria of total factor productivity, or of social cost-benefit analysis may require a disaggregation within industry to examine how labour intensity/capital intensity, and capital and labour productivity vary in size within industries and sub-industries. Both capital productivity and total factor productivity are found to be highest in the middle ranges of enterprises having 50 to 200 workers. Thus, there could be merit in defining small industry in terms of some measure of capital used, so that enterprises which are medium in terms of employment are not excluded. While very small enterprises employing less than 10 workers are not the most labour-intensive or employ most efficiently the factors of production, they provide the bulk of employment in the lower-income developing countries and should not be discriminated against.

Macro-economic policies

Policies and measures towards small industry should form a continuum within national industrialization policies and general economic policy measures to promote development, having regard to the country's economic goals. Compartmentalization and a rigid set of measures, without reference to possibility of growth (from one size to another), often defeat the purpose and help those for whom the help was not intended, i.e. the large-scale rather than the small-scale sector.

The policies for development of agriculture, natural resources, education, training, financing, public sector etc. will bear on the prospects for the small-scale industry sector. These policies should create the proper environment for small private enterprises to grow and prosper. From the demand side, economic policy measures that usually encourage labour-intensive industries are the promotion of agriculture and rural development, of exports, and of income redistribution. These provide strong linkages towards stimulation of small-scale industry. Policies favouring agriculture will increase rural incomes (and their distribution) and expand local markets, the high income.elasticity of demand providing opportunities for small enterprises.

Leading sector policies

Industrial policies, including tariffs, investment incentives, industrial licensing, foreign exchange allocations etc. have tended to favour large-scale industry and capital intensity, at the expense of the small-scale and labour intensity. Eliminating such a bias of policies and regulations will in itself create a proper environment for small industry development. "The glaringly unequal terms on which capital funds, foreign exchange and economic services provided by governments are made available to the two types of manufacturing industry..... may be said to protect the large-scale modern factories not only from foreign competition but also from the domestic competition of the small-scale economic units..... A reduction in the unequal access to scarce economic inputs between the larger-scale and small economic units would make the latter more competitive and increase their share of economic output, thereby raising the proportion of labour to capital employed in the manufacturing sector as a whole".2/

Apart from eliminating biases, increased efficiency of leading sector policies will tend to improve efficiency of small industry programmes. This applies to tariffs and quotas (lowering and uniformity), incentives (favouring labour against capital), financial policy (including interest rate structure), and markets (liberalization from controls).

Small industry policies

Policies and programmes need to be designed, taking into account the situation and requirements in a particula country, based on an analysis of actual supply and demand constraints on small-scale enterprises.3/ It has been noted that the policy objective is not just to increase employment, but to improve total factor productivity, i.e. utilization of resoures. Secondly, while start-up assistance should not be restricted, efficiency improves with growth into medium-size. Thirdly, transformation of traditional into modern small industries, i.e. expansion into medium size, demands improved qualities of entrepreneurship and management, in order to eliminate X-inefficency and continuously improve productivity. Fourthly, capital market imperfections and the lack of access of small enterprises to financing need to be tackled to enable them to compete equally with large enterprises. Fifthly, linkages

between small and large enterprises through subcontracting promote integration and efficiency.

Three further points on a policy towards small industry may be made in the light of country experiences. Firstly, a well designed policy and programme should be comprehensive and yet selective, addressing different constraints simultaneously, but not indiscriminately assisting small enterprises, certainly not those which need the least assistance or on which assistance will be wasted. Secondly, positive and developmental measures lead to more efficiency than protective and restrictive measures. The latter segment product markets reduce competition for both small and large firms, inhibit growth and exports. Thirdly, delivery mechanisms for financial and extension services should be designed to reach the needy and deserving enterprise through decentralized organizational networks, preferably of small enterprises themselves, e.g. industrial co-operatives and associations or local self-financing organizations involved in, e.g. rural development.

Conclusions: issues for consideration

1. The role of small enterprises in the process of development should be carefully defined with reference to the requirements of the country and the goals of its economic policy.

2. Small industry policies should be related to leading sector policies and macro-economic policies as a single strategy in a continuum of development measures, in order to promote healthy, balanced and integrated development.

3. Macro-economic policies towards agriculture, rural development, education, training, natural resources, transportation and industrialization in general should create the proper environment for small industry growth through ensuring the equitable supply of inputs.

4. Efficiency of leading sector policies contributes to efficiency of small industry. Small enterprises should have equitable access to finance, incentives and other assistance as large-scale enterprises.

5. Small industry policies themselves should promote total factor productivity, remove X-inefficiencies, improve entrepreneurship and management, be positive and developmental, utilize decentralized delivery mechanisms, and ensure growth.

III. INFRASTRUCTURE AND INSTITUTIONAL FACTORS

Requirements

Infrastructural requirements of small and medium enterprises may broadly be either physical or institutional. Physical infrastructure relates to factory accommodation and related utilities. Institutional infrastructure is required to make up for market failure or insufficiency in supplying inputs to small enterprises and to remedy or remove operational inefficiencies of the enterprises. These relate to financing; extension and consultancy services; supply of equipment and materials; technical services of testing, quality control, tool rooms, repair and maintenance; training of entrepreneurs and managers; market promotion and marketing.

Physical infrastructure[4/]

Household and cottage enterprises by definition do not need factory accommodation. The provision of factory sheds is related, on the one hand, to the aspect of transformation and upgrading of traditional enterprises into modern ones, and, on the other hand, to the creation of new enterprises by ex-factory employees, young technicians or graduates, retired civil servants etc. mainly in urban and semi-urban areas. Facilities provided by local or public authorities may range from allotment of plots in industrial areas to standard sheds in industrial estates, to custom-built premises to suit individual needs. The device of the industrial estate has been transformed from the United Kingdom's and the United States' experience of the post-depression era to stimulate regional and local development and to relocate industry from overcrowded metropolises. In the case of new enterprises it has been used to provide start-up facilities in nursery factories or incubators for a short term until the new venture grows and finds its own accommodation. A further development has been the science and technology park to attract enterprises around a university or research institution. The basic idea of the industrial estate is to group together enterprises who could derive the economies of scale in construction and utility costs and through inter-trading amongst themselves.

Evaluation of experiences has not indicated that benefits have been commensurate with costs, or that the objectives of small industry development have been met. Success in urban locations has benefited the upper range of small enterprises. In semi-urban and rural areas occupancy has taken a very long period and sheds have been used as godowns or by disguised large enterprises. Capital intensity has been encouraged through low rents or long periods of repayment. Not much inter-trading or integration has resulted from common location.

The accent during the last decade has been to let private estate developers or co-operative associations of small enterprises undertake the construction of industrial estates to meet specific requirements. In rural areas efforts are better left to local bodies responsible for rural development.

Industrial financing

The issues of small industry financing are elaborated in the following chapter. Suffice it to state here that institutionalization of capital and credit availability for small and medium enterprises requires that:

(a) costs and risks involved are reflected, since subsidization increases capital intensity and benefits the upper range of enterprises;

(b) both expansion of activities of commercial banks and lead by public financing institutions (development banks) take place;

(c) credit and extension services go together;

(d) mobilization of resources and their allocation be combined, particularly in rural areas.

Industrial extension services

Industrial extension is a generic term used for services ranging from supply of economic and market information, identification of opportunities, guidelines on establishment and operation, managerial and technical assistance, trouble-shooting during operation and marketing assistance.

Institutions providing such services range from government departments for small industry development to semi-autonomous small industry service institutions, to extension departments of development banks or industrial estates to management development and training institutions. The crux of the problem is the difficulty in identifying and reaching recipients, i.e. managers and workers in enterprises. A combination of provision of loans with technical assistance (both pre-loan and post-loan), either by a development bank or by the financing institution and the extension agency in close co-operation, is often successful in increasing the productivity of capital. Another lesson of experience is that services provided free by governments are not effective, since no screening of recipients takes place and the quality of assistance cannot be maintained. Charges at cost or with some subsidy are preferable to free services. A further lesson of experience is the effectiveness of self-help organizations of recipients. Grouped together into an association or co-operative, it is possible to ensure effective contact with the extension agency and also to spread know-how within the group. The concept of assistance to a group is particularly relevant in dispersed locations and rural areas.

Entrepreneurship development

The functions of entrepreneurship development, management development, and development of consultancy services will be considered together, since they are closely related.

The supply of entrepreneurship in response to market growth in developing countries has generally been elastic. Small industry entrepreneurs have emerged from varying sources: artisans, tradesmen, factory workers, agriculturists, young engineers, civil servants etc. However, experience has indicated that the "learning process" alone is not enough to improve efficiency and enable small firms to expand to medium size. The entrepreneur reaches a managerial plateau or optimum in the absence of further training and development.

Apart from measures to tackle externalities of inefficient input markets, incentives and macro-policies, which constrain small enterprise growth (chapter II), conscious efforts are needed to identify, train and upgrade entrepreneurs, improve their managerial ability, and enable them to use

effectively consultancy services as they grow into medium size. Techniques have been developed for identifying entrepreneurs, motivating them, and equipping them with managerial skills to operate a successful enterprise. Entrepreneurship development programmes (EDP) are followed up with need-based financing and in-plant counselling. The management level is thus upgraded and X-inefficiencies eliminated.

Entrepreneurship development programmes may be undertaken by development banks, management development centres, engineering schools, small industry service institutions and co-operative training institutions. Close co-operation of financing and extension service agencies is essential. From the long-term point of view, the quality of entrepreneurship and management can be upgraded through incorporating such training within the educational and training system of the country, so that the products of agricultural, trade, engineering and commercial schools could be identified for their entrepreneurial qualities, and enable them to enter the managerial field.

Management and technical training of entrepreneurs and workers could be organized through part-time courses, evening programmes, one- or two-day programmes, by national productivity agencies, extension departments of enginnering colleges or technology institutes or research and development institutes.

In India, technical consultancy services for small industries have been organized by financial institutions, i.e. the development banks. Services undertaken are the identification of project ideas and entrepreneurs, preparation of feasibility studies, advice on technological choices, preparation of project reports and assistance in project implementation and operation. The success of these technical consultancy services is assured by the needs of the financial institutions themselves for technical appraisal of project proposals. Eventually such consultancy services should function autonomously and rely on income generated by its services, with only occasional subsidization by governments or financial institutions.

Industrial co-operatives[5/]

The co-operative form of organization offers a viable alternative institutional framework for rendering self-help and organizing help to small enterprises, particularly in rural areas. The example of co-operative associations and socities in Japan for financing small enterprises is cited in the following chapter. In certain areas, e.g. agro-processing and handicrafts, co-operative socities have been successful in some developing countries. However, co-operation tends to relate to supply of inputs and marketing of outputs rather than to production. Families, clans or tribes in rural areas may perceive the benefits of co-operative organization, which from the point of view of the Government or financial institutions offers an effective delivery mechanism. "An emphasis on co-operative methods with its self-reliance objectives would seem to imply a cost-effective channel for small-scale industry support..... There are several directions by which co-operatives may enhance small-scale production efficiency and profitability:

- the greater incentives following from the fact that each worker is also an owner;
- attainment of scale advantages through joint purchase, production and marketing;
- strength to withstand negative influence from competitors, trade monopolies and governments through co-ordinated policies;
- pooling of financial resources; and
- joint purchases of essential services, e.g. marketing, financial management, accounting, insurance etc."[5/]
- Co-operatives thus offer an alternative and perhaps more effective route for the industrialization of least developed countries and of rural areas. They could be encouraged through government support in areas of financing, marketing and training.

Viable institutional delivery mechanisms[6/]

Institutions and services for small enterprises, operated by governments and subsidized, are essential in the early stages and in backward and rural areas. However, mechanisms imposed from outside and not operationally linked to small enterprises tend to suffer from rigidly applied rules and regulations, bureaucratic inertia, inability to innovate and to take risks. As a result, the assistance may not reach the intended recipient. It is

easier and less risky to assist the better-off enterprises who are able to approach the extension agent than to assist the weaker enterprises.

In order to be viable, institutions need an operational link with the small enterprise so that the service provided is effective. A financial institution provides such a link, since it provides loans (chapter IV). A large enterprise can also provide a link through subcontracting to small enterprises (chapter V).

Besides the financial institution and the large enterprise, there are other possibilities for ensuring the viability of the institutional mechanism. Grouping together of small enterprises in a co-operative association or society makes it possible to derive effective benefits from the extension agency. This is particularly useful for financing the informal sector or small enterprises in rural areas (chapter IV).

Examples of other link-ups making possible viable and cost-effective delivery mechanisms are:

- An engineering college, or technology institute, or management institute providing extension services through a network of its alumni who have set up as entrepreneurs. Such institutes may also have link-up with associations of small enterprises or co-operatives.
- Sectoral research and development institutes, e.g. in food or leather, providing extension services to small enterprises in the subsector. Application of suitable technology for small enterprise could be spread through such efforts.
- Input or equipment supplying large enterprises, e.g. machinery manufacturers or dealers, steel or fertilizer manufacturers or dealers, providing technical/extension services to small enterprises purchasing and using such materials/equipment.
- An electronics research centre or a computer manufacturing firm providing assistance to small-scale assemblers or users (chapter V).
- A rural training institute located in a rural or semi-urban area providing services for repair and maintenance, assistance to tool-makers etc. in rural areas.
- University-industry linkages through contacts between extension departments of different faculties and industry associations. Innovations in

mechanisms and services have to be continuously adapted to maintain vitality and viability. Eventually help extended to self-help programmes would be the most successful in achieving cost-effectiveness and reaching the intended beneficiaries.

Conclusions: issues for consideration

1. The provision of physical infrastructure in industrial areas and industrial estates becomes important as small enterprises grow into middle size, i.e. grow from the nursery or incubator stage. Experience indicates that private developers or co-operative associations of small enterprises should undertake construction of factory premises, regulated by local and municipal authorities, rather than the government providing built-in accommodation at subsidized rates.

2. Institutionalization of capital and credit availability to small enterprises should be led by public banks, but undertaken equally by private banks, costs and risks being covered. Credit and extension services should go hand in hand.

3. Industrial extension services may be provided by a variety of institutions. However, the nature of the institutional mechanism will depend not only on the type of service to be provided, but also on its accessibility to those needing it.

4. The supply of entrepreneurship in response to market growth in developing countries has been elastic, but quality and internal efficiency have to be improved through entrepreneurship development programmes. There is also continuous need for management development and consultancy services.

5. Industrial co-operatives may offer a viable institutional framework for small industry development in rural areas and in less developed countries of Africa. They need government encouragement in areas of financing, marketing and training.

6. Finally, viable institutional delivery mechanisms providing for operational linkages with small enterprises need to take the place of initially government-operated mechanisms, in order to ensure vitality and cost-effectiveness.

IV. MOBILIZATION AND ALLOCATION OF DOMESTIC FINANCIAL RESOURCES TO SMALL AND MEDIUM ENTERPRISES

Introduction

The mobilization and allocation of financial resources for small industry development, in market-oriented and mixed economies, is generally related to the financial structure and its development and specifically to:

1. the development of appropriate financial institutions;
2. the availability of simple and convenient financial instruments to meet the savers' and the borrowers' needs and preferences; and
3. an interest rate structure that is rational and positive (to ensure effective mobilization and allocation).

The financial sector more than any other is, in fact, crucial for generation of indigenous entrepreneurship.7/ Furthermore, analyses of experience indicate that "innovations relating to the financial structure are as important, if not more, for the development process as innovations relating to the production structure".8/

Economic growth and development during the sixties and seventies in much of the developing world has increased monetisation, expanded the banking sector and led to the establishment of development financing institutions. The creation of money and capital markets and the institutionalization of credit have benefited large-scale enterprises and urban activities rather than small-scale enterprises and rural activities. While market imperfections exist even in developed market economies, the importance of imperfect and informal markets is inversely proportional to the degree of development. Dualistic structures have prevailed in most developing countries, the role of informal markets being even more significant for smaller-sized enterprises and for those located in semi-urban and rural areas.

Domestic savings

Domestic savings rather than resource inflows have financed investment in developing countries during the last two decades. The ratio of domestic

savings to gross domestic product (GDP) is higher in the developing countries than in the developed countries (except for the group of low-income countries). The contribution of resource inflow has, in fact, been very little except for the high-income developing countries in the sixties, and indeed negative for the low-income countries. The following table provides relevant information for developed market economies, developing countries as a whole and separately for the three groups of high income, middle income and low-income countries for three years, 1960, 1970 and 1980.

While income level and its growth rate stimulate the demand for savings, which in turn contributes to growing investment and increasing national product, the supply of savings is greatly dependent on the development of the financial structure - institutions, instruments and the interest rate. The major part of domestic saving has taken place in households and non-corporate enterprises. Public sector saving has been less than 25 percent of total savings. Government revenues have contributed to mobilising domestic resources, the ratio of current resources to GDP amounting to around 15 percent for many developing countries.

Capital markets for small-scale industries[9/]

Considerable scattered information is available on the state of capital markets for small-scale enterprises through borrower and lender surveys carried out or sponsored by the World Bank in recent years.[10/] Some general conclusions may be summarized straight away. Firstly, the vast majority of small enterprises depend for start-up capital almost entirely on personal savings, mostly their own plus loans from friends and relatives. Secondly, institutional credit, mainly from commercial banks, comes into play for working capital requirements as firms grow or as they become profitable. However, even in this respect, suppliers' or trade credit plays an equally important role. Thirdly, except in Africa, money lenders and other informal credit markets play a significant role in the expansion of the firm. Retained earnings are an important source of expansion, including in Africa.

Fourthly, the role of institutional finance and of special credit institutions, as well as of credit guarantee schemes, becomes important in the

upper ranges of small enterprises, i.e. medium-sized enterprises. The bias of financial institutions towards the larger sized reflects a natural tendency to want to lend where costs are lower and risks less.

Investment and its financing, 1960, 1970 and 1980
(Constant 1975 prices in percentages)

	Investment/GDP	Domestic Saving/GDP	Resource inflow/GDP
Developed market economies			
1960	21.76	21.49	- 0.26
1970	24.63	23.39	- 1.25
1980	22.07	22.80	0.73
Developing countries (total)			
1960	17.29	21.40	4.11
1970	19.19	27.84	8.85
1980	25.47	24.00	- 1.48
Developing countries(high income) - Per capita GDP above $1320 in 1978			
1960	18.82	30.84	12.02
1970	18.98	37.90	18.92
1980	26.81	26.58	- 0.24
Developing countries (middle income) - Per capita GDP $600-$1320 in 1978			
1960	15.31	15.31	- 0.00
1970	19.54	20.83	1.29
1980	25.35	24.13	- 1.22
Developing countries (low income) - Per capita GDP below $600 in 1978			
1960	16.62	13.48	- 3.14
1970	19.27	16.41	- 2.87
1980	23.06	19.07	- 3.99

Source: UNIDO Data base: Statistics and Survey Unit
Investment = Gross capital Formation
Domestic savings = Gross Domestic Product less final consumption expenditures
Resource inflow = Exports less imports

Finally, India, which has the most comprehensive inter-connected institutional mechanism for financing small enterprises, has, through a deliberate policy of credit allocation, engineered a large increase in commercial bank loans. More than 50 percent of those loans has probably gone to the upper half of the sector, i.e. to medium-size enterprises. In India, informal credit markets also play an important part in financing small-scale, and especially rural enterprises.

Thus, small industries in developing countries have in general little access to the resources of the organized financial sector. The reason is that the transaction costs of lending to small enterprises is quite high, ranging between 6 percent and 20 percent in different countries. Taking into account financial costs and profit margins, banks could not afford to lend to small enterprises at a cost less than 16-30 percent. At this cost, there will be no inducement to borrow, since the average rate of return of small enterprises is generally much less than this rate.[11/]

Financial repression

Government policies to promote financing of small-scale industries in developing countries have responded by holding down institutional interest rates below market equilibrium levels. Banks have no incentive to lend at these rates, except to the largest firms able to provide collateral and where transaction costs enable profits to be made. Savers have no incentive to make deposits at these rates, thus reducing the level of savings. On the whole, such a situation of financial repression has led to less financial intermediation and reduced efficiency of investment. On the basis of analysis of experience in Turkey during 1950-1977, M. I. Fry[12/] has calculated that a one percent fall in real deposit ratio of in. . reduces savings by 0.274 percent and raises the incremental capital output rates by 0.249 percent, having a combined effect of a half percentage point of economic growth foregone.

Fry defines financial repression as indiscriminate distortion of financial prices including interest rates and foreign exchange rates, which reduces the real rates of growth and the real size of the financial system relative to non-financial magnitudes. The role of financial intermediation is

to raise real returns to savers and, at the same time, lower real costs to investors by accommodating liquidity preference, reducing risk through diversification, reaping economies of scale in lending, increasing operational efficiency and lowering information costs to both savers and investors through specialization and division of labour.

Institutional finance

Developing countries, in their policies and measures for the promotion of small and medium enterprises, have attempted to provide institutional finance by setting up special lending schemes, generally on concessionary bases. Such schemes have been combined with provision of advice, business counselling, training and extension service.

Many governments have taken decisive steps to give inducements to lending institutions to advance credit on more liberal terms to SSI. The most common scheme for subsidized loans to SSI is the re-financing by the Central Bank. Funds are provided through a special "small business window" whereby the Central Bank re-finances all loans made to small business at a very low rate of interest which is intended to compensate the lending bank for higher risks and costs.

Credit Guarantee Scheme is also a common form of government support to commercial banks to cover the risks of credit to small enterprises. Commercial banks are thus encouraged to liberalize the terms of credit to small enterprises and to extend their operations to a larger number of small borrowers, having the assurance from the government that the extra risks they take in making such loans are covered.

Providing credit on liberal terms is not in itself an adequate form of assistance to SSI in developing countries. Supervised credit, in its commonly applied form of supply of machinery on hire-purchase basis, is introduced in several developing countries. The small-scale industry promotion agency arranges to supply equipment on hire-purchase terms and assists the entrepreneur to improve the production processes so as to achieve more economical operation. The entrepreneur is often able to pay the instalments on the equipment out of the additional earnings from the new machine. This

form of supervised credit ensures that the capital made available for a small entrepreneur is used for the purpose intended. Supervised credit may also take the form of assistance in the purchase of raw materials, the construction of factory buildings and the sale of finished products.

In addition to direct financing schemes there are a number of other measures which have been introduced by governments, small industry promotion agencies and major industries directed towards relieving the financial burden on SSI. Some of the common examples are:

- development of infrastructural facilities and building of industrial estates for rental of workshops to small-scale industrialists;
- establishment of common service facilities like maintenance centres; central tool room and training centres, etc.;
- Government assistance in marketing of products of SSI such as preferential price systems; reservations for purchases exclusively or partially from SSI sector;
- Government assistance in bulk import of essential raw materials by state corporations and distribution of the same in smaller quantities in order to relieve the SSI from stock-building and the problems associated with imports especially of small quantities;
- setting-up of ancillary industries by public sector undertakings and large private sector enterprises whereby finance is made available to SSI as they are guaranteed prompt payment against assured offtake of production. Further, the small-scale units are relieved of investments in costly raw materials and components, testing equipments, training, etc.

Special funds for loans to small-scale industries through development financing institutions; credit guarantee funds; co-financing amongst such funds, commercial banks and small enterprises themselves etc. have been developed in many Asian and Latin American countries, and to a much lesser extent in African countries. Some illustrations are given below.

India.[12/] Since nationalization of 14 major private banks in 1969, small-scale industrial sector has been accorded priority status in the banks' lending programme in India. Then the bank loans outstanding with 50,850 small-scale units stood at RS.2.51 billion; by 1980 these figures had risen to 800 thousand and RS.27.50 billion, while the banks outstanding gross credit with SSI sector had further risen to RS.54.12 billion at the end of March 1984. This phenomenal growth in the number of small-scale enterprises has been mainly the result of the Government's policy thrust in favour of the small sector which included the following measures: (1) reservation of increased number of industrial production items for the small units to the exclusion of medium and large sector; (2) reservation of a number of items for supply to government and semi-government organizations; (3) price preference for specified items produced in SSI sector for government purchases; (4) concessional credit and finance on liberal terms to the small sector units; and (5) marketing assistance and supply of scarce raw materials through the state level small-scale industries development corporations.

While the nationalized and other commercial banks are encouraged to give liberal credit assistance to small-scale units through the operation of the credit guarantee scheme and targets laid before them under the priority programme, the State Financial Corporations (SFCs) have been impelled to give liberal term finance to small units through the grant of re-finance from the Industrial Development Bank of India (IDBI) at concessional rates of interest. IDBI, since its inception in 1964, has been granting re-finance to SFCs and banks for enabling them to assist SSI units on concessional terms but the volume of such re-finance markedly increased in the latter half of the 'seventies' as seen from the following table. The IDBI's re-finance assistance to the small-scale sector moreover assumed an increasing share in the period. The number of small units benefiting from re-finance also rose during the period, particularly during the latter half of the 'seventies'. Nevertheless, it is to be noted that the number of units benefiting from re-finance was 121,000 out of the total number of registered units of 596,000 at the end of March 1983. It is thus obvious that the spread and benefits of re-finance from the IDBI have not yet been distributed widely. The number of units benefiting from re-finance has also to be seen in relation to the total number of small-scale units having borrowal accounts with commercial banks (about 800,000 in 1980). At the same time, it has to be borne in mind that at

least about 25 per cent of registered units would not be functioning and that re-finance is provided selectively - more in backward areas, less in metropolitan cities - and that not all units are eligible. Moreover, there is reason to believe that relatively developed states continued to secure a sizeable share in IDBI's re-finance assistance; in fact, the figures of IDBI's assistance in 1979-1980 to 1982-1983 disclose that around one third of IDBI re-finance came to be disbursed to the three industrially advanced states of Maharashtra, Gujarat and Tamil Nadu. During that period, the 18 State Financial Corporations were the principal state level financial institution

Assistance sanctioned by IDBI to the small-scale sector
1964-1965/1983-1984

Years (ending June)	Total assistance to SSI by refinance and bills rediscounting (RS.million)	Aggregate assistance by IDBI (RS.million)	Share of SSI in total assistance by IDBI (%)	No. of SSI units assisted (No.)	Average per unit ref.assistance to SSI units (Rs.)
1964-65 to 1969-70	94	2989	3.2	1012	92885
1970-71 to 1975-76	2204	11503	19.2	19042	115744
1976-77 to 1981-82	20390	63000	32.4	225492	90424
1982-83 & 1983-84	15517	46403	33.4	121645	127559
Total	38205	123892	30.8	367191	104046

(Compiled from Table 3.3, Annual Report, IDBI, 1983-1984.)

catering to the term loan requirements of small-scale enterprises. Of course, commercial banks have also supplied term loans on an increasing scale. Total outstanding term credit to small-scale industries from the commercial banks stood at RS. 5542 million at the end of June 1981. This compares with the gross bank credit outstanding to the SSI sector from 50 banks (which account

for about 95 per cent of gross bank credit) at RS. 54120 million at the end of March 1984 and at RS. 34060 million at the end of June 1981. The SFC's assistance disbursed during the four years 1980-1981 and 1983-1984 to SSI was RS. 1533.9, RS. 2107.1, RS. 2911.0, and RS. 3161.2 million respectively, their cumulative disbursements at the end of March 1984 having been RS. 16096.5 million. These are quite impressive figures as they go, but the share of SSI in aggregate financial assistance disbursed by all the financial institutions in the country just amounted to about 9.5, 10.2, 12.3 and 11.0 per cent in the four years 1980-1981 to 1983-1984 respectively. The cumulative share of SSI in total financial assistance disbursed by all financial institutions till March 1984 was only 10.71 percent.

Indonesia[13/] may be accorded the distinction of having the largest number of credit schemes for small and medium businesses (SMBs), most of these coming under the aegis of the Department of Industry's Project for the Guidance and Development of Small Industry, BIPIK. The project takes an integrated approach to small business development; financial and other aid is only one aspect of a programme package which includes creating a favourable environment for small industry, providing support services and upgrading equipment and skills. Thus in the financial sphere, for example, a "Bank Co-operation Group of Small-scale Industry" and several state banks are charged with the task of identifying groups of SMBs requiring financial assistance and facilitating the loan process for the groups identified. There is official support for the Bapak Angkat (Foster-father) scheme. Also worthy of mention are efforts to collect together groups of SMBs, in clusters of small enterprises producing similar goods, or in mini-industrial estates.

Of the financial programmes themselves, the most significant by far are the KIK (small Investment Credit) and KMKP (Working Capital Credit) Schemes. Soft credit generated by a World Bank loan programme is conduited through a national network of more than 1,000 branches of five major banks. In 1982, the maximum individual loan amount in both schemes was Rp. 10 million, with supplementary credit of Rp. 15 million. Lending rates of 10.5 percent (KIK) and 12 percent (KMKP) per annum, respectively, still provided a generous differential for participating banks, since the rediscount rate from Bank Indonesia was 3 to 4 percent per annum for up to 80 percent of credit.

It is difficult to assess the success of the KIK/KMKP schemes from available information. Bank Indonesia's Annual Report for 1983/1984 shows the number of applicants for KIK/KMKP loans increasing almost exponentially from 387 thousand in 1978 to 743 thousand in 1980, 1.47 million in 1982 and 1.85 million in 1984. This effectively portrays the increase in demand for credit by small business. However, since the number of applications realized is not given, it is impossible to say whether the number of loans actually approved increased as much.

In the Philippines[14/], the major source of funds for SMB financing is the Industrial Guarantee Loan Fund (IGLF). Set up in 1952 through an agreement between the Philippine and US Governments, the IGLF was re-oriented towards small industry finance in 1973, with funds drawn from IBRD and USAID assistance. In 1983, IGLF funds helped finance 57.5 percent of total loan approvals to SMBs. Of these, more than 60 percent were disbursed through four financial aid programmes - Central Bank - IGLF, the Development Bank of the Philippines' Small and Medium Industries Lending (DBP-SMILE) Programme, the Industrial Guarantee Fund (IGF) and the Export Industry Modernization Programme (EIMP).

Private sector programmes generally depend on deposits and Central Bank rediscounting as sources of funds. Programmes cited as popular were the series of Venture Capital Corporations (VCCs), Ventures in Industry and Business Enterprises Inc. (VIBES), Philippine Business for Social Progress (PBSP) and Philguarantee.

Defaults on repayments appear to have increased in recent years, an understandable development in the light of the country's economic situation. Thus, the DBP-SMILE programme was suspended in 1983 because of high arrears, while similar problems forced Philguarantee to seal off holdings of borrower firms, and the number of projects assisted fell for almost all credit programmes. The major exception was IGLF loans, which actually doubled in total amount from 1983 to 1984. While repayment problems have developed, the financial assistance schemes were on the whole regarded as successful and able to meet the needs of SMB's.

Liberia.[14/] Small Enterprise Finance Organization (SEFO) was set up in 1980 as a limited liability corporation by the Liberian Bank for Development and Investment (LBDI), the Liberian Finance and Trust Corporation (LFTC), Partnership for Productivity (PEP) and Netherlands Finance Company for Developing Countries (FMO). At a later stage, the Agricultural and Co-operative Development Bank (ACDB) and the National Housing and Savings Bank (NHSB) decided to participate in SEFO. PEP and National Investment Commission (NIC) provide technical assistance. All these institutions are represented in the Board of SEFO.

SEFO provides short, medium and long-term loans. It plans to get into leasing of fixed- and moveable assets, risk capital (equity), participation and provision of guarantees. It has a head office in Monrovia and a branch office in the province of Nimba.

SEFO was fully operational by the end of 1982. As of 30 June, 1983, 37 projects had been approved (10 long- and 27 short-term) for L$ 330,000.

Japan.[15/] Among the developed countries, Japan provides an experience most relevant for developing countries. Its non-corporate sector saves about 21 per cent of its disposable income and 60 percent of this is in the form of net financial assets, mostly deposits in banks. Institutions and policies have promoted this pattern - through branches of banks (one office for 10,000) credit associations and co-operatives, a postal savings system; positive though low real interest rate (3 per cent); incentives for savings and security of the banking system through insurance and supervision.

As can be seen from the following table, banks provided 52.6 percent, co-operative institutions 36.4 percent and special financial institutions 11.0 percent of loans to small businesses in 1984.

While the bulk of finance is provided by the commercial banks, these tend to meet the requirements of small businesses at the upper limits or higher range. Also, the allocation of banks' funds to small businesses fluctuates from time to time depending on the financial institutions. Therefore, financial institutions of small businesses play an important role and are supplemented by special government financial institutions.

Mutual loan and savings banks are corporations with a combined savings and small lot instalment loans scheme which particularly meets the needs of small businesses. They receive deposits, there is a restriction on the size of individual loans, there is a statutory liquidity (and deposit) requirement, and their territorial jurisdiction restricted.

Credit associations are financial co-operatives, non-profit, restricted to localities, loans being made to members but deposits received also from others. Members are proprietors of small enterprises, liquidity and deposit requirements are imposed and there are ceilings on lending rates as well as amount of individual loans.

Outstanding loans and discounts for small businesses by financial institutions

Type of institutions	Number of institutions	Outstanding loans and discounts End of March 1984 (billion yen)	Outstanding loans and discounts Comprising ratio (%)	Ratio of loans for small enterprises End of March 1984 (%)
All banks	86	82,294	52.6	45.2
City banks	13	36,844	23.5	43.7
Local banks	63	31,851	20.3	64.9
Others (Trust banks long-term credit banks)	10	8,858	5.7	28.9
Trust accounts	(10)	4,741	3.0	26.5
Financial institutions for small businesses	995	57,004	36.4	100.0
Mutual loan and savings banks	71	23,119	14.8	100.0
Credit associations	456	25,175	16.1	100.0
Credit co-operatives	468	8,710	5.6	100.0
Government financial institutions for small business	4	17,252	11.0	100.0
National Finance Corporation	1	4,535	2.9	100.0
Small Business Finance Corp.	1	5,182	3.3	100.0
The Shoko Chukin Bank	1	6,785	4.3	100.0
Environmental Sanitation Business Finance Corporation	1	750	0.4	100.0
Total	1,085	156,550	100.0	61.1

Source: The Bank of Japan, "Economic Statistics Monthly".

Credit co-operatives are confined to members and there are restrictions on employment of surplus funds as well as guidance provided on ratios of resources and of loans to deposits and equity.

The Central Bank for Commercial and Industrial Co-operatives (Shoko Chukin Bank) facilitates financing of associations of small enterprises, is funded on a mutual aid system and its deposit and loan transactions are confined to member organizations which subscribe to its capital. Government contributes 50 ercent of the capital. The Bank is authorized to issue debentures which are the main source of its funds.

The Small Business Finance Corporation (SBFC) is entirely government-owned and supplies long-term funds for the promotion of small businesses with a capital of not more than Y 100 million or not more than 300 employees.

The National Finance Corporation (NFC) is similar to SBFC but extends long-term loans to businesses of a smaller scale, i.e. with a capital of not more than Y 10 million or with not more than 100 regular employees.

The credit guarantee system of the Credit Guarantee Associations, and the Credit Insurance System of the Small Business Credit Insurance Corporation (SBCIC) provide small business credit supplementation. The former, which consists of about 50 local credit guarantee associations, guarantees the obligations of small business obtaining credit from financial instititions. The latter provides insurance for the guarantees made by the former. Funds to Associations have been provided by local governments. The funds of SBCIC have been provided by government. SBCIC also provides loans to credit guarantee associations.

Informal credit markets[16/]

It has been noted earlier that informal rather than formal capital markets provide the bulk of small enterprise financing, especially in the lesser developed countries, in the smaller-sized categories of enterprises and in rural areas everywhere. The continued importance of informal markets despite the growth of monetisation and commercialization in the subsistence

sectors of developing countries is due to restrictive and repressive financial policies, lack of innovative measures and instruments to integrate informal and formal markets and often the lower transaction costs of certain informal market credit intermediaries.

The essential characteristic of informal markets is that they are far more loosely monitored and regulated than formal finance markets. Informal financial intermediaries include friends, relatives, traditional mutual aid groups, middlemen, landlords and professional money lenders.

India has a well-developed system of intermediaries, lenders and borrowers in the informal credit markets. They include indigenous bankers who take deposits and make loans; commercial financiers who mainly lend; financial brokers who intermediate for commercial financiers; and commercial paper discounters. Informal markets are estimated to cover 10 to 30 per cent of the capital needs of small producers. Interest rates are 2 to 4 per cent higher than the bank lending rates. Very small enterprises, however, may pay even 10 per cent higher than normal bank rates. Thus availability rather than cost of credit determines demand and supply of funds. The transaction costs and default rates of informal markets are, by and large, lower than for commercial banks. There are legal restrictions on some segments of the informal market and the Government in India is gradually bringing them into licensing procedures.

In Africa informal markets consist mainly of circles of friends and relatives and sometimes traders and middlemen. In many countries ROSCAS (rotating savings and credit associations) play a prominent role in the rural economy. The ROSCA is a group in which participants make a regular periodic contribution, the proceeds being shared by each member in turn. Personal relationships are the dominant factor in the setting-up and functioning of those groups, often based on village or ethnic origins. Thus, there is a great deal of trust between lenders and borrowers and social pressure to reduce or eliminate moral hazards. ROSCAS display a high degree of flexibility and versatility. They fulfil the three functions of consumption, insurance and investment, the first two being more important. ROSCAS exist in many African countries and are known by different names. In Cameroon, they

are known as tontines, and engage in four activities: (a) purely tontine activity (pooling of savings); (b) mutual aid activity (contribution from every member); (c) savings activity (savings banking function); and (d) credit activity (making loans).

Informal credit markets (ICMs) are generally complementary to formal markets. Since they are able to both mobilize and allocate savings, they are characterized by a smaller scale of operations and they enable direct contact between borrower and lender. ICMs need to be closely integrated in the capital market structure in order to serve the needs of the rural market and of smaller enterprises, in an effective and efficient manner.

It has been noted earlier that policies of financial represssion have led - despite the growth of institutional finance - to the financing of larger borrowers and to the limitation of deposit mobilization. ICMs have met a large part of the requirements of small enterprises in both urban and rural areas, because of their ability to assess risk and ensure repayment and their lower loan transaction costs. Nevertheless, there is still a large unmet demand for credit by small borrowers. Besides improving the efficiency of institutional finance through higher deposit rates and subsidies for small borrowers (targeted on the rural poor), refinancing of ICMs by formal financing instititions, would help to fill the unmet demand. Indigenous bankers have thus been refinanced in India and pawnbrokers in the Philippines and Malaysia by the formal sector. Other examples are the provision of trade credit or using input and output dealers to onlend to small farmers and small enterprises in rural areas. This kind of integration enables the use of lower transaction costs and closer contacts of ICMs for "widening" and "deepening" the financial market.

External Financing

Small and medium enterprises do not generally receive external project finance. They are, however, sometimes assisted indirectly through loans extended by international financial agencies (e.g. the World Bank, Inter-American Development Bank and the Asian Development Bank) and bilateral agencies (USAID, German or UK funds) to national development banks, earmarked for on-lending to small enterprises. Such loans help to meet the foreign

exchange gap on the national level, at the same time enabling financial institutions to provide for the import requirements of equipment and materials of small and medium enterprises. They may also be required to focus on disadvantaged sectors, e.g. microbusinesses or rural enterprises. External financing of this nature is accompanied by technical advice as well as policy advice on credit assessment, project appraisal, pre-loan screening, post-loan monitoring, interest rate structure and extension service organisation and operation. While such loans supplement and complement formal financial mechanisms and enable their development to meet the needs of small and medium enterprises, they are still dependent on the proper functioning of national financial structures and policies. When properly integrated with the domestic structure, such external financing can make and has made a valuable contribution to modernization and upgrading of small enterprises and expanding their objectives. However, they might have contributed to increasing capital intensity, without improving capital productivity.

One important aspect of external capital mobilization for small and medium enterprises relates to foreign remittances by emigrant workers of developing countries to their families and friends at home and savings brought back by them. Enough attention has not been paid to utilising such small savings to meet the needs of small enterprises. Such remittances have mostly been used for luxury consumption and land and farm purchases rather than as start-up capital or operational capital for enterprises. India has provided incentives for investment by non-resident nationals by offering attractive interest rates on deposit and tax exemptions and holidays. Turkey offers incentives for investment in small businesses by nationals returning home.

In general, the efficiency and effectiveness of national financial structures and policies influences the flow of external finance as well as its efficient utilization. Prudent policies and mechanisms can, in turn, make it possible for external financing to generate and expand the flow of domestic financing resources into investment. However, external financing is of limited significance for the establishment and operation of small and medium enterprises.

Venture capital financing

Financing of venture capital for small industries has been attempted in some developing countries, in combination with programmes for entrepreneurial development or introduction of new technology (e.g. in electronics or computers). In the United States, institutional investors raise money for venture capital funds from individuals, co-operatives, insurance companies, pension funds, endowments, etc. besides financing of new ventures by small business investment companies. In the Philippines, venture capital companies finance small enterprises before they can qualify for public underwriting. The enterprise financed has usually potential for growth through rationalization and has a linkage (backward or forward) with other enterprises, including large-scale ones. Equity capital investment is provided with sharing of risks and provision of management and technical advisory services. In India, the technical entrepreneur is provided with a financial package of assistance, after training and screening, but owned equity of at least 10 per cent is insisted upon. An entrepreneurial training and development programme precedes such assistance. In practice such schemes help in modernizing and upgrading existing small ventures having potential for diversification and expansion. It is not certain, however, that such special schemes provide the best means for transfer of technology. On the one hand, linking up R+D to establishment of small and medium enterprises often requires outright grants to establish viability of new technology or process. On the other hand, inter-firm or inter-industry transfer of technology might take place through subcontracting and development of ancillary relationships.

Financial innovations

Innovations in credit or financial instruments are required in developing countries - taking into account relevant socio-cultural factors in each country - to reduce cost of transactions as well as both borrowers' and lenders' risks. The risk-reducing effect of an innovation should be greater than its cost-increasing effect. The role of informal markets is important in identifying opportunities for financial transactions and introducing innovations. On the basis of experiences of Japan, India and other middle income developing countries, certain successful innovations which have reduced overall transaction costs and risks involved in financing, may be cited:

1. The provision of guarantees reduces risk without increasing transaction costs. Such guarantees range from personal guarantee by a person or firm in the trust of both borrower and lender, to mutual guarantees by mutual loans and savings banks, to co-operative credit arrangements among relatively homogenous groups, to credit guarantee schemes supported by public or common funds created for this purpose.

2. An objective substitute for personal guarantees is provided by the innovation of collateral or security, comprising real or financial assets. Such collateral enables short-term credit to be renewed or rolled over, e.g. against the security of raw materials or goods-in-process. The degree of the lender's and borrower's knowledge of each other and mutual trust reduce risks and costs.

3. A further innovation is that of loans based on the security of assets created out of it. The loan size would be less than the market value of assets, to reduce the risk of capital loss. Such security-cum-equity type of innovation includes medium/long-term instalment loans for purchase of equipment, buildings and other fixed assets.

4. Provision of leasing finance to machinery manufacturers or dealers will enable hiring of equipment (or purchase in instalments) rather than outright purchase by small enterprises or job workers or ancillary units or subcontractors. This will reduce the extent of medium or long-term borrowing requirements of small and medium enterprises.

5. Development banks or commercial banks may lend to informal market dealers or agents rather than directly to small enterprises, in order to enlarge the credit market and make use of the informal market mechanisms. Both administrative costs and risks may be lower under such arrangements. Links may similarly be developed with co-operative credit societies/banks/associations, rural banks and money-lenders, by refinancing their loans to small and medium enterprises.

As in the case of allocation of resources, savings could be mobilized through innovative institutional and policy measures, particularly in the rural areas, which, in turn, improve the effectiveness and efficiency of informal credit channels. Some of the ways in which this can be done are mentioned below:

1. Expansion of banking and availability of savings instruments, e.g. savings and time deposits, in rural areas. Postal savings banks play a vital role in many countries.

2. Savings mobilisation schemes combined with extension of group credit based on group guarantees and combined with extension services in technologies, supplies of inputs and marketing, will benefit the poor in rural areas, both in agricultural and non-farm occupations.

3. Mobile banks, door-to-door collection of savings, pigmy deposits, confining a savings-cum-lending institution to a local area are other investments for tapping rural savings.

4. Compulsory provident-and-pension schemes and insurance policies (including group insurance) have stimulated rural savings.

Conclusions: issues for consideration

1. Economic growth in the developing countries has been financed during the last three decades largely through domestic savings, which have accounted for 80 to 90 per cent of gross investment. Savings in the household sector have accounted for 50 to 60 per cent of domestic savings.

2. Financial intermediation through institutionalization of credit and the expansion of money and capital markets, has benefited the larger enterprises in urban areas and in the middle and high income developing countries.

3. The bulk of the capital and credit requirements of small enterprises has been met by own savings, loans from friends and relatives, trade credits and transactions in the informal markets. Institutional credit has mainly benefited small and medium enterprises in the upper ranges in urban areas.

4. Financial repression, through holding down the interest rates, credit allocation/planning/rationing, segmentation of credit markets, special credit schemes, etc. has tended to reduce the volume of savings and the volume of loans (or not increased them to the extent possible), since it is not profitable for financial institutions to lend at the controlled rates (to small and medium enterprises) and the rate of interest for savings is not sufficiently attractive to savers.

5. Financial innovations are required both to mobilize savings and allocate them for small enterprises and for rural areas. Innovations which reduce lenders' risks and the transaction costs of loans include personal guarantees, collective guarantees, credit guarantee funds, security-collateral linked to asset creation, and integration of formal and informal markets.

Loans to collective entities and groups, the successive disbursement of a loan by instalments and reimbursement through domicilisation of sales revenue have been tried successfully. The granting of loans should be based on the viability and profitability of the project rather than on collateral. Reliance on expansion of insurance mechanisms - for both deposits and loans reinforce financial soundness. Besides insurance mechanisms, innovations which increase mobilisation of savings include expansion of branch banking, increased availability of simple savings instruments (e.g. savings and time deposits), collection of pigmy deposits, co-operative and collective savings and loan associations, etc.

6. The utilization of informal markets - which increase the market for savings and loans and provide needed funds to small-scale and rural sectors not available from institutional channels - can be improved by forging links with the formal sector. Such links can be provided by (a) refinancing of informal sector by formal sector; (b) providing competition by formal

sector setting up facilities and improving efficiency; (c) improving performance of informal financial institutions through government regulations; and (d) encouraging the transformation of informal into formal financial institutions. An integrated financial structure should provide a continuum from purely formal to purely informal institutions and markets, rather than a dualistic system, dichotomising between formal and informal.

7. Provision of credit combined with extension services, rather than subsidisation of interest rates, has been found more effective in developing smaller sized enterprises, particularly in rural areas.

8. In rural areas, the elements of savings mobilisation, investment and extension services may be combined by assisting homogenous groups on a collective basis, without the need for provision of collateral for loans. In some cases, savings generated in a locality or region may be used within that locality or region, by linking formal and informal markets, and combining credit with technical assistance.

9. In regard to interest rate policy, while interest rates considerably lower than market equilibrium rates lead to reduced savings as well as reduced loans, a freely determined market rate may itself be too high, tend to drive away low-risk borrowers and defeat the purpose of efficient allocation of resources between large and small industries. A pragmatic policy[9/] would be for interest rates to reflect the estimated costs of lending to low-risk small firms, screening and monitoring costs as well as costs of extension services being borne by the financing programme (public authorities) during an initial period and until the learning process is effective in the financial institution. Losses may also be covered by credit guarantee and insurance schemes.

10. Advisory and extension services are a necessary complement to a financing programme, especially for the smaller-sized enterprises and for rural areas. The cost of providing such services may in the long run be outweighed by improved marginal efficiency of capital loaned and reduced marginal cost of capital to the borrower.

V. DOMESTIC AND INTERNATIONAL SUBCONTRACTING CONTRIBUTION TO INTEGRATED DEVELOPMENT

Introduction

In the process of industrialization, linkages between enterprises grow with the development of the infrastructure and of specialization in the functions of the production system. Such linkages contribute not only to coherent and integrated development but also to economical and often effective allocation and use of resources.

Linkages or inter-relationships between or among enterprises may be broadly of three types. Firstly enterprises of a similar nature may co-operate with each other in the form of a guild or an association to face and tackle common problems of technology or supplies or marketing. Secondly, two or more enterprises may collude in production or market sharing with a view to obtaining oligopolistic profits. Thirdly, there is a relationship in the same production chain between one enterprise and another or others, in which some parts, components and sub-assemblies are manufactured and supplied by some to be incorporated or assembled into the end product by another or others. This last kind of relationship between an enterprise and its supplier or buyer is the one referred to as between a contractor and a sub-contractor, or between a primary enterprise and an ancillary enterprise, or between an assembler and a feeder enterprise.

Definitions and scope

The most comprehensive definition of subcontracting is provided by UNIDO in its publication "Subcontracting for Modernizing Economies", 1974, viz., "A subcontracting relationship exists when a company (called a contractor) places an order with another company (called the subcontractor) for the production of parts, components, sub-assemblies or assemblies to be incorporated into a product to be sold by the contractor. Such orders may include the processing, transformation or finishing of materials or parts by the subcontractor at the request of the contractor."17/

It should be noted that the definition could be interpreted to include the possibility of subcontracting the manufacture of finished products to be marketed as such by the principal without any need for prior assembly. On the other hand there is no subcontracting when the large company purchases shelf items or commonly available services, such as transportation, electricity, telephone, auditing, research, design and maintenance.

International subcontracting is distinguished from domestic subcontracting when the principal and the subcontractor are located in two different countries. However, sometimes "the foreign origin of the principal, which may be a subsidiary of a multinational corporation or a firm under foreign control"[18/] even when located in the same country as that of the subcontractor, is regarded as sufficient to be defined as international subcontracting, particularly if experts or foreign exchange earnings are generated for the country of the subcontractor.

A distinguishing feature of the subcontracting relationship is that it is between firms of different sizes and often of unequal bargaining power. Subcontracting refers to a specific aspect of the organization of industrial production where large and small firms co-exist (with a high degree of specialization) with informal co-operation in production and sometimes in investment decisions as well.[19/] The parent firm can exercise considerable control over its subcontractors through technical, financial, input and market linkages.

Several forms or types of subcontracting are distinguished in the literature on the subject. UNIDO[17/] provides a classification into (a) Full-capacity subcontracting or peak-load subcontracting, where due to insufficient capacity in the principal's firm a percentage of total output is regularly subcontracted; (b) Specialized subcontracting, where subcontractors manufacture and supply on a more or less permanent basis, parts or components including the use of specialized machinery or equipment or techniques; (c) Marginal subcontracting, where infrequent or small orders are passed on to subcontractors; and (d) Cost-saving subcontracting, where costs of production of subcontracted items are much lower in subcontractor firms because of lower overheads, lower taxes and lower expenses in wages and other payments to labour.

A distinction may be made between industrial subcontracting and commercial subcontracting, the former involving manufacturing, or processing or assembling by both parties, the latter involving only marketing and distribution by the contractor or principal. Most international subcontracting is stated to be in the nature of commercial subcontracting.

A further distinction is between purchasing -, supply -, and task-oriented subcontracting.[20/] Purchasing-oriented subcontracting is similar to specialized subcontracting, where specialized parts and components are purchased from subcontractors. Supply oriented subcontracting refers to parts and components which can be used in various end products in the automotive, electrical and electronics industry, and are supplied to several clients. Some analysts[19/] regard these as traditionally bought out components and not proper subcontracting. Task-oriented subcontracting means that the subcontracted and the purchasing company jointly develop and produce, on the basis of research and development, new parts, components and end products.

Nagaraj[19/] distinguishes among four types of subcontracting. Component subcontracting is similar to specialized subcontracting, the parent firm concentrating on a limited range of technology intensive segments of the final product and on assembling, marketing after-sales service and research and development. Such component subcontracting takes place in the metal working and machinery industries. Another type of subcontracting is where an entire process or activity could be subcontracted. This is known as activity subcontracting, illustrated by the cotton-textile industry where large firms produce yarns, get it woven in separate powerloom units and get the cloth printed in other specialized firms. A third type is that of assembly subcontracting, where the subcontracted small and household enterprises assemble the final products in a highly labour and skill-intensive manner. This is typified by the electronics industry where production of components like chip, capacitor, transistor, picture tube, etc., includes high technology capital-intensive processing carried out by large specialized enterprises, while assembling of final product is done by small enterprises. Nagaraj's fourth type is called product subcontracting, where the complete product is made by the subcontractor, the parent firm performing only the marketing function. This is akin to commercial subcontracting and prevalent in apparel and clothing, footwear and leather goods, small motors, transformers, electrical appliances, etc.

In regard to international subcontracting, four types are again distinguished.[18/] Across-border subcontracting is between two firms located in different countries. It is 'commercial' when the finished product is made by the subcontractor and exported to the contractor. It is 'industrial' when parts and components are exported by the subcontractor and assembled and finished by the principal. Within-border industrial subcontracting takes place between a subsidiary of a multinational corporation and a local firm located in the same city. When the subcontractor makes the finished product, it is within-border commercial subcontracting. Subcontracting may also take place between a parent company and a subsidiary located in different countries or between two subsidiaries of different multinationals located in the same country. Relations between a multinational company and its subsidiary may often be in the nature of off-shore manufacturing and may not strictly be called international subcontracting. Benefits to a developing country are stated to arise substantially only when the relationship is between a multinational and a locally-owned enterprise.[21/ 22/]

Factors influencing growth of subcontracting: benefits and costs

A number of combinations and variants of the forms of subcontracting outlined above takes place in different industries, in different countries and at different stages of development. Growth and development leads to a whole spectrum of inter-firm relationship, in which subcontracting is only one form of linkage. The fundamental basis of subcontracting in manufacturing is, on the one hand, the principle of division of labour and specialization and, on the other hand, the prevalence of lower labour and overhead costs in small-scale enterprises. "Make or buy" decisions of the principals is based on the relative costs of production within the factory or outside. Such decisions, of course, depend on the availability and reliability of small-scale suppliers, their technical competence, critical quality considerations, etc. Thus the stage and status of industrialization, the organization of the industrial sector and the institutional framework greatly influence the' make or buy' choice of the principal manufacturer. The well-developed and integrated institutional structure and system in industrialized market-oriented and mixed economies makes it easy for subcontracting and other linkages to exist and flourish. However in today's developed countries, especially the United States and Japan, government policy played an important part in stimulating and strengthening inter-linkages. Anti-monopoly and

anti-cartelization policies, as well as encouragement to small business through mandatory government and defence purchase requirements[23/] in the United States -- apart from the operation of competition and the market mechanism leading to size characteristics of manufacturing enterprises adapted to product and demand characteristics -- stimulated the development of subcontracting relationship.

In Japan both government policy and industrial organization have favoured the coexistence and co-operation of large giant enterprises with thousands of small-scale enterprises to derive the maximum of comparative cost advantages. In India a conscious government policy in the post-independence period has provided a framework of institutional as well as incentive measures for the stimulation of subcontracting.

As is well known, the division of labour is limited by the extent of the market. Beyond a certain scale of production, average costs are reduced through the operation of specialized firms. Furthermore, the development of batch production enables growth of specialization. Another factor is localisation or spatial concentration of factories, making subcontracting economical through reduced capital investment and reduced transport costs. It is noteworthy for instance that "in any industry average size of factories in backward region tends to be larger than that in advanced region. And in any region older plants tend to be of much larger size than the newer ones."[19/] Thus the economy as a whole can benefit from a network of subcontracting relationships through stimulation of investment, diffusion of technology and skills, economical use of capital and labour and balanced growth of small and large enterprises.

As for small-scale enterprises they receive from the large contracting firms (and sometimes from public institutions set up by government or by government and industry together) information, technical assistance and technology transfer to plan investment and production; flow of business and an assured market; financial, management and extension service assistance.

While there are benefits to small enterprises, large enterprises and the economy, there may also be costs involved. Reduction of competition is inherent in a linkage relationship, unless and until the existence of a large number of suppliers and buyers (subcontractors and contractors) ensures market

competition in the classical or neo-classical sense. Such a state exists in developed market economies. Moreover large-scale enterprises in developing countries run the risk of or the costs of the "learning experience" of small enterprises until effective communications and transfer of technology take place and quality of subcontracted output ensured at economical cost.

Usually, however, it is the small-scale supplier, being unequal in economic power with the large contractor, who runs the risk of being squeezed or exploited. The parent firm can pass on the burden of market fluctuations to the subcontractor, by delaying payment or refusing delivery or postponing inspection. Onerous terms and prices could be imposed on the subcontractor, while on the one hand government measures of protection are designed to prevent such abuses, on the other hand, even in a recession large enterprises may often find it more cost-saving to retain subcontracting activity rather than incur higher cost through maintaining employment of higher paid labour in their own factories. The latter situation is particularly relevant in labour surplus economies or those having labour market rigidities.

The experience of Japan

Subcontracting has played and continues to play a crucial role in the Japanese economy. The Japanese features of lifetime employment and the seniority system have introduced rigidities in the labour market. Large firms overcome this inflexibility through the system of subcontracting. They provide financial assistance and raw materials to small firms in return for an assured supply of manufactured parts, components and products. The availability of sufficient low cost and skilled labour provides the basis for capital substitution and farming-out of production.

In Japan two thirds of all small and medium enterprises engaged in manufacturing are shitauke kigyo or subcontracting companies. The total number of these companies is estimated at 46,5000.[23/] Eighty percent of them are in the textile and clothing and machinery manufacturing industries.[24/] Dependence between parent firms and subcontractors is mutual. Technology is transferred from parent firm to subcontractor through delivery of materials and machinery and through provision of training. Also former skilled employees of parent firm may be set up as subcontractors. The parent firm is highly dependant on the technological level of subcontractors for the quality,

function and productive efficiency of its own products. K. Ito[24/] has described the development of the system as follows:

"From the mid-1950's through the high economic growth period, subcontracting production systems developed. Fierce competition between large parent firms has worked to ensure a constant raise of standards in technology, as well as production and quality control of the subcontracting firms, and has also provided them with instruction and material aid necessary. This is the general trend which distinguishes the Japanese subcontracting system from those of other countries. Here are the major technological transfers made from large parent firms to subcontractors in Japan: (1) Reforms on facilities and machinery; instructions on production and quality controls. (2) Aid for facility funds; transferring of technology through leasing of facilities and machinery. (3) Transferring of technology through receiving trainees and sending out technological instructors."

Ito describes furthermore the characteristics of the subcontracting system in the machinery industry:

"1. Subcontracting firms are divided into parts makers, parts assemblers, special processors, etc., and the degrees and types of specialization are surpassed from other developed countries.

2. The subcontracting firms are classified into different levels, i.e. first, second, third, fourth, etc.

3. Subcontracting system, far from being static, dynamically transforms itself according to the strategies of the parent firm switching from outer order to in-plant production and vice versa, as well as changing firms for orders.

4. At first the parent firms used subcontracting firms in order to save on initial capital, take advantage of the low wage rate and as a shock absorber of industrial fluctuations. But these factors have ceased to be the main motives and now they have shifted to the utilization of subcontractors' specialized techniques and equipment and to compensate for the limited production capacity of the parent firm."

While the Japanese system is unique in itself, there is no doubt that even here the vulnerabiity of subcontractors is greater than that of parent firms. For example, to make up for the sharp appreciation of the yen,

reduction in production costs of about 20 percent is required from the subcontractors.[23/] To prevent malpractices by contractors, the Japanese Ministry of International Trade and Industry (MITI) and the Fair Trade Commission issued on 19 November 1985 an unprecedented notice to contractors "Warning them not to delay payments to subcontractors or force them to make unreasonable price cuts or return parts already made to order and delivered." Apart from such regulation of transaction terms to prevent exploitation, the Government sets a target for the share of public procurement from small companies and prevents the entry of big business into many small business fields. The ready provision of low-cost finance to small business is the biggest incentive. In 1982, Y 1.8 trillion or 56.4 percent of all loans outstanding from government financial institutions were provided to small companies.

The Shitauke companies are assisted by Government-funded subcontracting enteprise promotion associations operating in each prefecture of the country. There are 16 offices in Tokyo of the Metropolitan Small and Medium-sized Enterprises Promotion Public Corporation. A staff of 30 acts as match-maker for about 15,300 subcontracting companies. They introduce the big companies and the Shitauke Subcontractors, ensuring the flow of orders in an appropriate manner. A newspaper advertises subcontractors' specializations, advises on tax and legal matters, and analyses business trends.

Continuous cost reduction is attempted by subcontractors through both technological and managerial efforts. On technology, numerical control machines and computer applications are on the increase. On management, total quality control and just-in-time system of inventory control (Kanban system) are increasingly employed.

Even though the mortality of Japanese small business (20,000 per year) is double the rate of the USA's, small subcontracting companies maintain dynamism and vitality through continuous adaptation and change. A survey by the Shokochukin Bank (Central Co-operative Bank for Commerce and Industry) indicates that 25 percent of Shitauke do not wish to increase dependence on one large contractor, but to develop as independent specialized manufacturers; 49 percent of firms had introduced mechatronics machinery, 36 percent numerically-controlled machinery and 15 percent industrial robots. With these

dynamic developments, the subcontracting system is expected to expand - rather than contract - in Japan.

The Indian Experience

Since the mid-sixties there has been considerable growth of small scale enterprises, particularly ancillary enterprises, in India. Government policies - both positive and protective - have consciously promoted both the expansion of small enterprises and the development of subcontractor relationships, known as ancillarization in India.[25/] Apart from the network of institutions for technical and extension service assistance, fiscal policy providing differential excise duty and exemptions for small enterprises and financial policy of loans at lower rates of interest may have especially promoted subcontracting. Tax differentials and lower labour and overhead costs make the products of small enterprises cheaper for large industries to buy, rather than manufacture within large factories. Availability of credit to small enterprises makes it possible for ancillary units to extend credit to parent firms through delayed payments by the latter. A further incentive to growth of small subcontractors has been the policy of reservation of a large number of items (over 800) for production by small enterprises, thus making product subcontracting feasible and profitable.

Direct attention in the form of institutional finance, supply of machinery on hire purchase and supply of raw materials, as well as indirect assistance through factory sheds in industrial estates, provision of extension and common service facilities, testing facilities and market information, are especially available to ancillary enterprises, in whose case the eligibility criteria has been extended to include enterprises with a fixed capital investment of Rs 4.5 million (as against Rs 3.5 million for other small enterprises). Moreover, public sector enterprises receive guidelines and instructions to identify parts and components and suitable subcontractors and to farm out supply orders to them. Private large scale enterprises have also been active in promoting subcontracting through their associations as well as through subcontracting exchanges set up by governments as part of its industrial extension service.

While the role of governme[illegible]olicies and measures in India has been to stimulate and promote the growth [illegible]ll and medium enterprises, including

ancillary industries, it seems that with the establishment of a viable and growing small-scale industry sector by the mid-sixties subcontracting relationship has expanded considerably in the last 15 years through natural and spontaneous growth. Analysis of comparative performance of small-scale sector and the corporate sector[26/] indicates that "the profitability as well as capital efficiency in the small-scale sector as a whole is much higher than that of the corporate sector", due to "lower wages and greater exploitability of labour on the one hand and fiscal concessions on the other." A growing subcontracting relationship between large and small engineering firms is indicated by the fact that "a very large proportion, over four-fifths, of output of the metal-based industries is used as inputs for industrial production". "A majority of enterprises (of small-scale sector) directly supply their output -- which invariably are intermediate products -- to units in private, public and small-scale sectors." Lower labour and overhead costs in small firms and reducing employment of workers in large firms seem to have monitavted growth of subcontracting.

There are only scattered data available on the extent of subcontracting in India. The number of small enterprises in India grew from 60,000 in 1950 to over 1 million in 1983. The value of production increased five times, employment twice and value of exports six times, in the small scale sector over a 10-year period ending in 1983.[25/] Purchases from ancillaries by public sector enterprises increased 3 1/2 times over a five-year period, 1975-80.[19/] Potential for ancillarization is estimated[25/] to range from 60 to 90 percent in the transportation industries, 50 to 75 percent in the communications industries and 20 to 40 percent in industrial machinery and machine tools.

India provides an example of the advantages of subcontracting in a labour surplus and capital-scarce dual economy. Large and small firms face different market conditions. Large firms have greater accessibility to finance and tend to be capital and technology intensive, with high labour productivity. The smaller firm has access to cheaper labour and has the advantage of lower wage rates and lower labour costs. Subcontracting enables small firms to grow and acquire technical and managerial skills. Some small firms expand into medium firms often with independent products made for the market.

With the continuous expansion of the Indian small-scale industry sector - both in number and in size - which is encouraged by the Government through periodical revision upwards of the definitions of small-scale enterprises and ancillary small scale enterprises, there is increasing scope for subcontracting in technology-intensive and skill-intensive industries, e.g. electronics and computers. The present system which leaves market and product development to large parent companies, and specifies rigid purchasing obligations on them, may not be adequate to develop ancillarization. Small-scale enterprises will need to adjust to rapid technological innovations and keep abreast of market and product development.

International subcontracting

The pure form of international subcontracting involves a contractual relationship between an independent supplier in one country and a buyer abroad. It enables enterprises in developing countries to develop and grow through technology transfer from the parent buying company and to export their products abroad. Much of it takes place on considerations of comparative costs by the buyer in the developed country and can be influenced only very little by the government of a developing country, except by maintaining a favourable environment within the country for such subcontracting to take place.

There is of course a wide spectrum of linkages between foreign and domestic enterprises, ranging in the developing country from a foreign-owned (or multi-national) enterprise or its subsidiary (including location in an industrial free zone) to a publicly-owned or privately owned-national enterprise (including small-scale or medium-sized). Not all of the linkages, however, qualify as international subcontracting.

One of the fastest growing elements in the growth of exports of manufactures from developing countries - particularly from the so-called newly industrializing countries - during the last two decades has been in the form of off-shore assembly of components exported to developing countries by developed countries under provisions of special tariff schedules in the latter exempting from tax the value of components exported by the developed country

Such activities concentrate in Latin American countries adjoining the United States of America, North Africa and Mediterranean countries neighbouring the EEC, and Far Eastern countries neighbouring Japan, although Singapore, Hong Kong, the Republic of Korea and China (Taiwan) export even to US markets. Some data on such exports to the US are given below:

Exports to the United States under U.S. Tariff Items 806.30 and 807.00 as percent of total manufactured exports

Country	1970	1975	1980
Barbados	42.5	40.4	62.0
Brazil	1.2	3.7 (1976)	1.7
Colombia	0.5	6.8	2.6
Dominican Republic	2.6	16.8	152.0
El Salvador	0.6	32.9 (1976)	35.0
Haiti	63.3	177.8	181.0 (1978)
Hong Kong	6.4	2.8 (1976)	3.1
Indonesia	n.a.	4.3 (1976)	10.0
Korea	4.4	3.1	2.2
Malaysia	0.6	25.5	34.0
Mexico	60.5	115.6	139.0
Philippines	9.0	17.7	35.0
Singapore	7.6	10.2 (1976)	8.8
Thailand	n.a.	2.4 (1976)	5.3

Source: See footnote 22/.

The total value of these US imports amounted to $541.5 million in 1970 and $2245.9 million in 1975, the respective taxed value being $245.9 million in 1970 and $1202.9 million in 1975.[18/] The principal items covered and percentage of the total value of imports are:

Semi-conductors	23.6%
Television sets	19.1%
Electronic machinery components	10.2%
Textiles	8.6%
Office machines	8.3%
Toys and dolls	5.9%

Source: See footnote 18/.

In the case of Morocco[18/] international subcontracting takes place mostly with French principals. While operations are by subsidiaries of MNC's in the case of tyre and chemical industries (and not subcontracting), private small and medium enterprises are subcontractors in engineering, electrical and electronics industries; textile and leather industries, and agro-food industries. In the case of Tunisia[18/] promotion has taken place through the public industrial sector, the development bank and the establishment of a subcontracting exchange (Bourse Tunisienne de Sous Traitace). Relationships have been with France, Italy, FRG and Benelux. The majority of contracts are for ready-made clothing, but they also cover metal, mechanical and electrical equipment industries.

Multinational corporations (MNC's) dominate in the automobile industry. They set up subsidiary factories, or have collaborative arrangements, or penetrate into component manufacturing in the developing countries.[27/] Purchase of parts and components is mostly a commercial transaction and sometimes in the nature of commercial subcontracting. MNC's located in developing countries have developed backward linkages with both large-scale and small-scale enterprises.[21/]

Foreign assembly activities have concentrated on two sectors: garments and electronics.[22/] In both cases value to-weight ratios are high and thus transport costs low. Both types of manufacture involve segmented and separable operations in time and space. However, the life cycle is short, fashions and technologies frequently change. While in the garment sector international subcontracting has taken place between independent firms, operations in electronics have been carried out mostly by subsidiaries of MNC's. In the latter case (electronics), "the orginally expected technological spill-over effects, through the promoted off-shore manufacturing of international companies, have by and large remained limited, and have had little effect on the development of a domestic electronics industry - large industries rather than small-scale have profited by technology transfer through joint ventures."[20/]

Foreign assembling whether it involves international subcontracting or not - seems to have attained a stability not affected by recessions. Indeed, "during a business downturn producers seem to reduce their high cost operations in the United States in favour of production abroad, and the trend is not reversed during the subsequent economic recovery."[22/] Furthermore, value added in assembly has been continually increasing.

Foreign assembling (including international subcontracting) is a critical source of employment, incomes, and foreign exchange earnings in small countries of the Caribbean basin, e.g. Barbados and Haiti, and for Singapore and Hong Kong. They are also important for Mexico, the Republic of Korea and China (Taiwan).

Foreign assembly production by subsidiaries (not involving nationally-owed enterprises through subcontracting lacks linkage effects and is not integrated into the production activities of the host country. Tax and tariff incentives, e.g. provided in industrial free zones, prohibit shipments to local markets and thus prevent inputs to national production. However, in countries of Eastern Asia there has been progressive substitution of nationally produced inputs for imported materials, especially in textiles and garments.

Inducements for international subcontracting are reduction of costs and increase of flexibility from the part of principal contractors. It is also

stated to reduce the risk of direct investment and of losses by increasing dependence on countries of subcontracting firms.[18]. However the basic engine has not been developing country policies but rather the advantages of redeployment of production stages which are no longer competitive in industrialized countries.[22]

Economic linkages of assembly production can be greatly increased through greater integration into national economies by deliberate development country government policies and actions. "Subcontracting rather than intra-US (MNF) firm activities that now predominate abroad facilitates the transfer of technology and provides the opportunity for national firms to improve their expertise through practical experience."[22]

Since small-scale enterprises suffer from severe financial, technical and informational constraints arising from their size, production structure and management, public measures could stimulate linkages through various means:[17] fiscal concessions, incentives and assistance to small-scale industry; setting up of industrial estates - functional (e.g. for electronics) or ancillary (e.g. linked to a large enterprise); systems for putting small subcontractors in touch with buyers (e.g. subcontracting exchanges); training schemes, transfer of technology schemes, and production reservation schemes. In regard to international subcontracting, stability, infrastructure and appropriate location of small-scale enterprises is particularly important, as well as provision of information to buyers and subcontractors, provision of materials, quality control practices, market research and stability in contractual terms. The Trade Development Authority in India acts as a middleman between buyers abroad and small-scale enterprises in the country.

Conclusions: issues for consideration

1. Subcontracting involves linkages between lead and linked enterprises - large-scale and small-scale enterprises - whereby long-term contracts are entered into, product information is exchanged, prices are negotiated, technologies shared or diffused, and other forms of assistance made possible. The development of such linkages in developing countries makes possible integration of production and a self-reliant industrial structure. On the other hand, industrial growth - particularly that of metal and engineering

industries - itself leads to development of such linkages. Subcontracting relationships are beneficial to the economy through reduction in costs of production and improved allocation of capital, labour and other resources, thereby improving economic performance.

2. Industries characterized by specialized and separable operation over space and time, e.g. textile and garments, metals and engineering and electronics, are suitable for subcontracting relationships rather than chemical and metallurgical process industries. As differentiation and hierarchization of industrial structure develop, opportunities increase. While most opportunities exist in middle income and high income developing countries, initial promotion could be undertaken in lesser developed countries through encouragement to small-scale engineering industries and their institutional and linkage mechanisms.

3. Linkages are of various types and could be provided by large industries themselves or their associations, small industry associations or co-operatives, public industrial extension services, development banks specialized in small industry operations, subcontracting exchanges etc. The government's role is important in ensuring the right environment of fiscal, financial and licensing policies which encourage linkages. Informational linkages provide for exchange of information on demand, future investment, market conditions etc. and are best carried out by chambers of commerce and associations or autonomous public institutions. Technical and transfer of technology linkages related to assistance in innovations and product design, process know-how, production costs, quality control, testing, training, tooling etc., are provided either directly by the principal contracting large firm or by a public industrial extension service. Financial linkages relate to provision of loans, negotiation of prices and contractual terms. In order that the initial low bargaining power of small-scale enterprises is not exploited by large contractors, regulatory and assistance measures should be set up by the government. An industrial extension service, or the large contractor, or an association of small industries could also provide managerial assistance in accounting, computerization, control procedures, purchase of materials.

4. International subcontracting has developed largely in the form of foreign or off-shore assembly set up by multinational enterprises or large foreign enterprises in developing countries offering adequate infrastructure, trained labour and lower costs of production. Developing countries benefit most where national enterprises get involved as subcontractors and gradually reduce dependence on imported parts and components. There is evidence that international subcontracting is of a permanent nature, although the industries involved may be different from time to time, depending on varying comparative costs of labour and capital, and on technological change. There is considerable scope in the electronics industries, which is of a different nature than the traditional textile and garment industry, in that assembling rather than component manufacture is labour and skill-intensive. A proper economic environment engendering stability and confidence in the developing country location, as well as incentive policies, are required in the initial stages for developing international subcontracting operations.

5. In view of hierarchization and differentiation of industrial structures, as well as sophistication and skill development in the high and middle income developing countries, international subcontracting could be a means for the promotion of economic and technical co-operation among developing countries (ECDC/TCDC)[28/], thereby providing stimulus to industrial development in the current world context of slow growth in North South co-operation.

Footnotes

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