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SMALL ENTERPRISES AND DEVELOPMENT
POLICY IN THE PHILIPPINES: A CASE STUDY

by

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Series: Studies in Employment and Rural Development No. 66

Division: Employment and Rural Development

Department: Development Economics

Development Policy Staff
International Bank for Reconstruction and Development

This report (i) describes the size and regional distributions of industrial development in the Philippines; (ii) examines the incidence of leading sector policies on small and large scale industries, and their effects on incomes and employment in each; and (iii) presents an ex post evaluation of financing and extension programs specifically aimed at increasing employment and incomes in small scale.

This study is one of a series being prepared under the World Bank's research project on small enterprises in developing countries (RPO 671-59).

The views and interpretations in this document are those of the authors and should not be attributed to the World Bank, to its affiliated organizations, or to any individual acting in their behalf.

Washington, D.C., October 1980

ACKNOWLEDGEMENTS

The following report is one of a series of case studies and surveys of small enterprises in developing countries being financed by the World Bank's Research Committee (RPO 671-59). The aims of this research are to examine the role of small enterprises in providing employment and earnings opportunities, and to compare the experiences of different countries with various policies. Since it is part of a research project, the findings and views expressed in the report are not necessarily those of the World Bank.

The present study began in May 1978 in collaboration with the Ministry of Industry. The Development Bank of the Philippines, the Industrial Guarantee and Loan Fund, the Private Development Corporation of the Philippines and several private banks and investment houses were all most generous in providing information about their programs and experiences. The NCSO were also helpful in providing access to preliminary tabulations and worksheets, and the University of the Philippines' Institute for Small-Scale Industries gave us some of their research material. The help and co-operation of the staff of these institutions is gratefully acknowledged. It does not follow, of course, that they necessarily agree with the findings, or that they are in any way committed to them.

Carlos Singer did the background statistical work on the text tables and annexes, and was responsible for reviewing source material. Mrs. Fajardo was general consultant to the project, and directed the interviews and the review of file data reported in Chapter IV and V. Mrs. Tengra administered the research budget and contracts.

Comments and discussions on the earlier drafts of various chapters, and on the progress of the study, were kindly provided by Raphael Sison, Rodolfo Manalo and Andres Castillo of DBP; Tomas Tan of PDCP, Mrs. Mijares of IGLF, and Evelyn Go (now with ADB). Tomas Paterno, Zoila Pedro, Nanette Agdeppa, Emanuel Almonte and Father Peron in the Ministry of Industry; and Cesar Macuja, Al Berry, Bob de Vries, Mike Gould, Ted Hawkins, Larry Hinkle, Ian Little, Ernie Pernia, Joe Pernia, John Powers, Yung Rhee, Marcelo Selowsky, Khalid Siraj and Larry Westphal. Ernie Pernia was also kind enough to arrange for a seminar on the report at the University of the Philippines in July 1980.

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SMALL ENTERPRISES AND DEVELOPMENT
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VOLUME I

The Main Report

I. OUTLINE

1.1 This report presents a review of the small and medium industry programs in the Philippines, and examines their relation to industrial and regional development policies. It also reviews the available evidence on the size-structure of industrial development by region and over time. This chapter presents a self-contained discussion of this material under one heading. The main conclusions of the report are also summarized at the end of this Chapter (paragraphs 1.36 et. seq).

The Scope of the Report

1.2 In most developing countries, manufacturing employment is predominantly in households, workshops and small factories. A large share - particularly in small-scale manufacturing - is also found in the rural and urban areas of agricultural provinces, serving the markets generated by agricultural growth. But institutional finance and the training and advisory services for industry are heavily concentrated on large-scale manufacturing in metropolitan areas. The idea behind small enterprise programs ^{1/} is to extend finance and supporting services towards small industries with the purposes of improving earnings opportunities for a greater share of the labor force, and achieving a more regionally balanced growth of industry.

1.3 These were broadly the purposes behind the small and medium industry programs introduced in the Philippines in 1974. In the previous twenty years the labor force had increased from 7 to 14 million, and by the mid '1970s 500 thousand people were entering the labor market each year;

^{1/} A note on the use of the term 'small enterprises' is provided in the Annex to Chapter 1.

there was (and remains) in consequence a continual pre-occupation about providing gainful employment opportunities for the labor force. The bulk of industrial investment was taking place in Manila and its surrounding regions, and had been facilitated by an extraordinary growth of the organized financial sector, at over 11% per year in real terms, from an already large base, over the previous 20 years. In 1977 for instance, 87% of the total loans and investments of the private commercial banks (the largest financial institutions in the country) were in Metropolitan Manila, with 83% of their industrial lending being to medium and large scale industries. In contrast, workshop and factory-based manufacturing employment was both more extensive and growing more rapidly in the provinces. This can be seen from the estimates provided in Table 1.1:

Table 1.1: DISTRIBUTION AND GROWTH OF MANUFACTURING
EMPLOYMENT BY REGION, 1960-75

Region and Scale of Activity	Distribution %, 1975	Growth Rate % per Year
Manila and Rizal (Metropolitan Manila):		
- Household Manufacturing	9	6.9 ^{/1}
- Establishments with < 10 workers	4	4.4
- Establishments with ≥ 10 workers	<u>17</u>	<u>3.8</u>
	30	5.0
Provinces:		
- Household Manufacturing	41	0.4
- Establishments with < 10 workers	13	8.3
- Establishments with ≥ 10 workers	<u>16</u>	<u>7.4</u>
	70	2.6
Total	100	3.2

^{/1} There is quite a large margin of uncertainty in this figure.
Source: Text Table 6.4.

The high growth rates of establishment-based production in the provinces are a comparatively recent happening, and apparently reverse a trend experienced in the 1950s (and probably much of the 1960s) when agricultural development was given a low priority.

1.3 The distribution of industrial employment by scale and by region are to be examined at length in the following report. But it might be noted, first, that the declining share of household manufacturing in the provinces should not be interpreted negatively. It reflects the structural changes towards establishment-based production resulting from gradual improvements in infrastructure and transport services in the provinces, and from the markets generated by agricultural growth. Second, a significant portion of the growth of medium and large scale industry has its roots in the expansion of once small firms. In the 1970s, an increase in the rate of growth of provincial industries was expected as a consequence of a new emphasis to be placed on agricultural development; it was this that led to the idea of a regionally based program to address constraints on the flow of finance and supporting services to small and medium industries.^{1/}

1.4 The first half of this report (Chapters 2, 3 and 4) presents an assessment of this program over its first five years. The program has several elements, including finance, extension and advisory services, training and entrepreneurship development; but the following considers finance and extension only, since the task would otherwise have been too great. Although the program was financed and administered entirely

^{1/} An outline of the arguments can be found in the ILO (1974) report. Most of the Government documents and memoranda, which naturally provide more detailed documentation, have never been published.

by Government agencies, it was designed to encourage a greater involvement of the private sector in financing and providing services to small enterprises; much of the report is therefore concerned with assessing how far this was achieved in practice and what constraints remain.

1.4 Chapters 5 and 6 examine the regional and size distributions of industrial development, and how they were affected by leading sector policies; it also presents interview data on the origins and growth of firms. Apart from providing basic descriptions on the changing size and regional structure of industry, these chapters seek to clarify how the policy environment is affecting the nature of employment opportunities in the country, and to discuss its implications for the small enterprise programs. While the programs are aimed at improving earnings opportunities, it is apparent that such opportunities - and thus the efficiency of the small enterprise programs - are overwhelmingly determined by leading sector policies. The indirect effects of investments in agriculture, and of industrial incentives and tariff policies on the incomes of those employed or seeking employment in small enterprises, are far more significant than those of direct interventions, such as financing and extension programs. Equally, the suggestion that the indirect effects of leading sector policies are important does not imply that direct interventions are not merited. If for instance they bring about a more rapid emergence and growth of small enterprises, as is currently happening with small-farmer agricultural projects in the Philippines, the benefits

of addressing the constraints in the capital markets and on the flow of supporting services are increased.

1.5 Chapter 7 reassesses the purposes of small enterprise programs in the light of the current pre-occupation with improving employment and earnings opportunities in the country. It winds up with a discussion of the use of the capital-labor ratio and the rate of return to capital as investment criteria, favoring the latter. The choice of criterion has implications beyond that of deciding whether or not a particular project is worthwhile, however, although this is undoubtedly one implication. As in other countries, the understandable pre-occupation with creating jobs for the labor force has led to preferences for financing fixed assets over working capital, for assisting new or expanding enterprises over those simply seeking modernization without expansion, and for financing direct investments in industry over those in services and trade. The elementary point to be established is that what the majority of the labor force are seeking is not simply more employment, but more gainful employment; the programs should thus be regarded as an agent of structural change, and support profitable activities that offer prospects of an income gain, irrespective of whether an expansion of employment, of fixed assets, of manufacturing or trading, or of working capital is involved. As will be seen, this suggests new points of departure for the future of the programs.

1.6 The final chapter (8) is a technical supplement, and discusses the theory underlying some of the earlier chapters. It provides a formal discussion of uncertainties in capital markets and their implications for

interest rate policy. Some analytical questions on project selection criterion are also taken up in this chapter.

Experience of the Financial Institutions (Chapters 2 and 3)

1.7 As of December 31, 1978 the total assets of the Philippine financial sector amounted to P 163.1 billion. Table 1.2 below indicates the types of institutions holding assets in excess of 1% of the total assets of the Philippine financial system:

Table 1.2: PERCENTAGE DISTRIBUTION OF THE ASSETS OF THE PHILIPPINE FINANCIAL SYSTEM AS OF DECEMBER 31, 1978

Commercial Banks	55.1
Development Bank of the Philippines	11.2
Finance Companies	4.8
Private Insurance Companies	4.7
Investment Houses	2.9
Finance Companies	2.9
Rural Banks	2.5
Savings and Mortgage Banks	2.3
Land Bank of the Philippines	2.1
Others	11.5
<u>Total</u>	100.0

Source: NEDA

The sector has two major components: the banking system and the non-banking system.^{1/} The former comprises commercial banks, rural banks, thrift banks, development banks and savings and loan associations, and which together accounted for 88% of loans and investments outstanding of the financial sector in 1978. The non-banking system accounted for the remaining 12% and consists of government sponsored insurance programs such as the Social Security System, the Government Service Insurance

^{1/} The roles of the various financial institutions are summarized in Annex 2 of Chapter 2.

System and the Agricultural Credit Administration; it also includes institutions such as investment houses, finance companies and public and private insurance companies.

1.8 The rapid expansion of the financial sector since 1950 has been associated with a corresponding expansion of branch networks throughout the country. This was mainly to broaden the resource base; the commercial banks for example now have nearly 800 branches in the provinces and about 500 in Metro-Manila; 70-75% of their incremental resources came from deposits in the years 1976 and 77. But as noted earlier, lending to small enterprises by financial institutions accounts only for a small share of their total lending to industry and commerce. As far as institutions in the private sector are concerned, four reasons are commonly put forward to explain why the share is small:

- (i) The risks of loans not being repaid, and the administrative costs, are both too high to develop a lending program for small enterprises;^{1/}
- (ii) Institutional biases in favor of lending to the corporate sector; historically the private financial institutions evolved expressly to mobilize resources for the corporate sector, and indeed commonly have joint ownerships and directorships;
- (iii) Transactions costs faced by the owners themselves of small enterprises in applying for institutional credit; and
- (iv) Interest rate ceilings and other structural constraints affecting the returns to lending to small enterprises.

^{1/} Risks and administrative costs are jointly referred to as transactions costs. Risks are defined below as being the probability of loans not being repaid.

(i) and (ii) led to the decision to finance small enterprises through the Government-owned Development Bank of the Philippines (DBP) on the assumption that the economic returns would outweigh the private returns perceived at the time by the private sector. The Government also introduced a rediscounting facility, known as the Industrial Guarantee and Loan Fund (IGLF), with risk guarantees built into it, and which was available to accredited private sector institutions; besides widening the reach of the program, IGLF was also intended as an inducement to the private sector to develop lending programs to small and medium industries, and to begin to lend to them using privately raised resources. (iii) led to the establishment of an extension service, and is discussed further below. Less attention was paid to (iv), however. What were the results?

1.9 Financial institutions in the private sector still make few short-term loans and even fewer long-term loans to small enterprises out of privately raised resources, except to a small minority of borrowers of good standing. The reluctance to lend can be explained in part by the administered interest rate structure, which allows maximum effective rates of 16% and 19% respectively for short-term and long-term loans. The value of compensating business often raises the returns above these levels, but it is only significant for prime - mostly large scale - borrowers. In 1978, the weighted average costs of resources to the commercial banks were estimated to be 13.3%, and would have been significantly higher had more long term resources been raised; in 1979 the weighted average costs rose for several reasons, with the consequence that both actual and planned lending to small enterprises were cut back further.

Analysis of the administrative costs and risks shows that lending to a broader class of small enterprises would be unprofitable to the private sector under the present structure of financial incentives. This conclusion applies less strongly to short-term than to long-term lending, in which the risks and administrative costs are greater while the spreads between borrowing and lending long are, quite probably, narrower.

1.10 Hence lending by the private sector to small enterprises is unlikely to develop unless there is a drop in the costs of resources such that lending becomes profitable within the existing constraints, or unless there is a lifting of the constraints themselves. These arguments are familiar. However, in the following report it is suggested that financial incentives alone are unlikely to induce the private sector to lend out of its own resources. The experience of DBP and IGLF shows that the risks of lending to small enterprises are (as expected) initially high, and reducible only through a sustained institutional development effort over a long period. One element in the risks is undoubtedly the higher closure rates of small enterprises, which averages around 4% per year. But a larger element stems from (i) poor information; (ii) the tasks of developing screening, appraisal and supervision procedures, and of training staff; and (iii) the tasks also of developing internal control procedures to eliminate diversions and misuses of funds. Some of the smaller private financial institutions in the provinces, who are able to administer very small loans efficiently, could not handle the larger small loans available through IGLF, and also left the program. In the first five years of the program the risks declined noticeably from high levels, almost wholly on account of the accumulation of experience and the development of procedures within the institutions involved. Hence our conclusion is that the role of the Government's program in

shouldering the early costs and risks of providing small enterprises with access to institutional credit is being fulfilled; but that the impact of the program would be greatly enhanced if the structural constraints preventing the flow of private financial resources to small enterprises were addressed.

1.11 Both DBP and IGLF have also concentrated on term-loans, although short-term loans are probably in as great a demand, are less risky and likely to be more attractive to the commercial banks. For these reasons we have suggested that the programs might introduce short-term lending. Lending to small commercial enterprises would help small industries further by opening up markets and providing additional conduits for working capital and trade credits. Other suggestions are for a re-structuring of incentives at the smaller loan end of IGLF, and possibly a removal of the floor limits: the smaller loans (in terms of numbers) are in greater demand; there is no prima facie evidence that they are more risky; as a percentage of loan size, they are not prohibitively costly to administer if accompanied by a decentralization and simplification of lending procedures; and there are institutions in the provinces capable of handling very small loans efficiently. Finally, a forum for the exchange of views and experiences between institutions is suggested, together with the establishment of a common credit record keeping system.

Industrial Extension (Chapter 4)

1.12 At the beginning of the program two types of extension services were introduced into the provinces; both were administered by the Ministry of Industry and were intended to complement the financing programs discussed above. One (known as MASICAP)^{1/} provided assistance

^{1/} Medium and Small-Scale Industries Co-Ordinated Action Program.

in the preparation of projects for finance. It was introduced since previous experience had shown that simply making finance available without the supporting promotional and advisory services was in itself likely to lead to a low demand and, where the demand did exist, to unsatisfactory proposals being put forward to the institutions. The idea was that once the extension and preparatory work had been completed for a sufficiently large number of projects, the information and experience gained would permanently reduce the average transactions costs all round, and financing would proceed independently of the extension service. As noted in the text, the service was and is not intended to be a permanent aspect of the financing programs. The actual decisions to lend are of course the responsibility of the financial institutions. The other service (known as the SBAC^{1/} program) was purely advisory in nature, and offered what are termed entrepreneurial counselling, business management, technical, marketing and referral services. For the most part, these services have been turned to by people planning to set up or expand their businesses in various ways, and are seen as centers for disseminating ideas and information on business opportunities and business practices.

1.13 Extension services for small non-agricultural enterprises are different in nature to those for agriculture. This is possibly because more experience has been gained with the latter, which are able to provide advice on husbandry and farm technologies, and more generally to act as an agent for up-grading farming practices in a region. As discussed in the text, however, a basic difficulty of

^{1/} Small Business Advisory Centers.

industrial extension stems from the heterogeneity of small business activities; they are found in practically all industrial sectors and, even within narrowly defined sectors at the 5 or 6 digit level, often differ in financial and technical respects, and in the location of markets and sources of raw materials supply. In the preparation of projects, an independent technical and business budget analysis is required for each case, based on an assessment of local wages and prices, the technologies available, and of market outlets. Exceptions are comparatively small projects for which simple checks on costs and profits will often suffice, and working capital finance, which can generally be tied to sales orders and collateral. The heterogeneity of small enterprises naturally restricts the range of advice that can be offered, raises the costs of extension, and requires the extensionsists to draw on the specialized trading, industrial and research associations: i.e. to act as referral services. Both programs have functioned within these limitations and, with one general exception, the main issues ahead relate to the supporting financial and non-financial services that exist outside the programs.

1.14 The MASICAP program ^{1/} has worked with a large number of enterprises in obtaining institutional finance that would otherwise have not had access to it. The existence and nature of the program largely ensures this, since people accustomed to drawing on institutional finance are generally not

^{1/} Since this study was prepared, the services provided under the MASICAP program have been formally taken over by SBAC. Below, the old acronym is retained for convenience,

referred to MASICAP by the institutions and have less need to draw on its services. The costs of the program have also been low, about 3% of project investments (or 5% if a small number of comparatively large projects are excluded). The risks of the loans made, while not above the averages experienced by DBP and IGLF in the first five years, remain high however, and are undermining the financial returns. Closure rates of the enterprise assisted are also high - more than twice the rate experienced by small enterprises not assisted. Analysis of records suggests that there were three main causes of arrears and closures, other than 'natural' causes: (a) optimism (by both owners and extentionists) about sales and profits, and which left many enterprise vulnerable to shortfalls in markets and supplies; we have suggested that supervision and ex post accountability would help make forecasts realistic; (b) a tendency to concentrate on new rather than (the large number of) existing enterprises that had already established their businesses and which are much less risky to finance; and (c) with respect to arrears, the financial institutions themselves were still in the throes of developing their procedures, as discussed above.

1.15 . Apart from these internal factors, the dependence of the program on DBP and the absence of working capital finance both restrict what might be accomplished. The dependence on DBP, which is having to shoulder a disproportionate share of the risks of financing small enterprises in the country, arises from the factors discussed above; that is, the structural constraints inhibiting lending by the private financial sector and, within the Government's own financing programs, the point that IGLF lending is unprofitable in the smaller loan range

(less than about P150,000 or \$22,000). Approximately 75% of MASICAP's clients request loans are in the small loan range, with 45% being below the current IGLF floor limit of P50,000 (\$7,000).

1.16 The value of SBAC's services is less tangible, though perhaps no less important with 7,000 new manufacturing enterprises emerging in the country each year. The services appear to be widely sought, particularly during the transitional stages of a business's life: e.g. from those seeking advice before or during startup; or during periods of significant growth, when recourse to specialized management and supervisory skills, a search for new markets or other major changes are being contemplated. Most of the services, however, have their counterparts in the private sector - in accounting and trading firms, in the banks and investment houses, and in the specialized trading, industrial and research associations. With respect to services that are in competition with the private sector (as with the consulting and accounting services), there is the possibility that, being free of charge, they are undercutting private sector initiatives. But for those that are complementary, as with the referral services, the issue of charges is minor. The main issue here concerns the development of the institutional structure in support of industry. At present, the trading, research and industrial associations have for the most part developed round the modern sector, and are not broadly represented in the provinces; their present contributions in providing market intelligence, disseminating information on industry practices, establishing and maintaining industry standards, and in providing training and other services are, therefore, somewhat fragmentary.

Industrial and Regional Development Aspects of Small Industries (Chapters 5 and 6)

1.17 Two features of Philippine manufacturing in the past 25 years were the slow rate of labor absorption - notwithstanding high levels of industrial investment - accompanied by marked changes in the nature of manufacturing employment. Between 1956 and 1975 the share of manufacturing in total employment actually fell, from 12.5% to 11.4%; and the elasticity of demand for labor with respect to output fluctuated between the extremely low levels of 0.1 and 0.3. These aggregates, however, conceal underlying structural changes: in the mid' 1950s, three quarters of manufacturing employment was found in households, most commonly as a secondary source of (off-farm) income for farm families. But the share has since declined systematically in favor of wage employment in workshops and small and large factories in urban areas, in which it is more commonly a primary source of family income; in these activities the rates of labor absorption and the elasticities of demand for labor were comparatively high (the elasticity averaged about unity in recent years). Table 1.3 shows some recent data. The growth rates, both of employment and of number of establishments, are noticeably higher in the small and middle size ranges.^{1/} It might be worth examining the reasons for this further in the light of their significance for the small enterprise programs.

^{1/} Previous studies based on survey data had found very low growth rates in small scale establishments. These data ignored the < 5s however, which employ the largest share of those working in small scale.

Table 1.3: GROWTH OF MANUFACTURING ESTABLISHMENTS AND EMPLOYMENT
BY SCALE OF MANUFACTURING ACTIVITY, 1967-75

Type and Scale of Activity	1967	1975	Growth Rate, % per year
Household Employment, 000s	827	882	0.8
Employment in Establishments (scale by No. of workers), 000s:-			
Less than 10	125	207	6.5
10 - 19	23	37	6.1
20 - 99	65	95	4.9
100 - 199	38	56	5.0
200 and over	<u>268</u>	<u>374</u>	<u>4.3</u>
	1,223	1,651	3.8
No. of Establishments (scale by No. of workers):			
Less than 10	41,018	70,597	7.0
10 - 19	1,747	3,172	8.2
20 - 99	1,570	2,339	4.6
100 - 199	278	400	4.7
200 and over	<u>384</u>	<u>481</u>	<u>2.9</u>
	44,997	76,989	6.9

Source: Census of Establishments and Labor Force Surveys Household employment is estimated as a residual.

1.18 Rural-led Origins of the Structural Changes. The changes from household to establishment-based manufacturing are occurring most rapidly in the provinces, and appear to be induced primarily by the markets generated by agricultural growth. The changes are more rapid in the more rapidly developing agricultural provinces, and less rapid elsewhere. In 1970, 68% of the Philippine population were rural, and a further 18% lived in a country-wide network of 488 towns and small provincial cities whose economic functions appear to be closely linked to local agriculture; the remaining 14% were in Metropolitan Manila and six regional cities of over 100 thousand inhabitants. ^{1/} Agriculture still accounts for 50-55% of the primary occupations of the labor force, and over the past 20 years provided roughly half of total labor absorption. Hence the growth of agriculture itself is capable of generating substantial markets for non-food goods and services in the provinces. Moreover, these markets (like the labor markets) are also suited for localized and labor intensive production on a small-scale: they are dispersed, for the most part consist of goods that can be produced by elementary technologies, and the comparatively poor quality of infrastructure and transport services both act as protection against external large scale production over a broad range of product groups. The extreme case of localized production is found in off-farm subsistence activities of the farm families themselves; such activities are still prevalent in the lowest income regions of the Philippines. But less extreme cases exist where the growth of rural incomes and infrastructure improvements have permitted a greater division of labor between farm and non-farm work, and for a rising share of the latter to become concentrated in workshops and small and large factories in the local urban centers. Further,

^{1/} There is a well documented study of conditions in rural areas by Mrs. Castillo (1977) entitled "Beyond Manila: Philippine Rural Problems in Perspective."

the growth of the urban centers themselves is now providing an endogenous source of market growth in the provinces. The evidence so far is that locally based small and medium manufacturers have been highly responsive to the growth of both local and regional markets (interview and file data on the market outlets of 500 small and medium firms are presented in Chapter 5).

1.19 The influence of agriculture on the product markets, the dispersion of the population, the advantages of localized small scale production for certain classes of products, and the growth of the provincial urban base together help to explain the structural changes from household-based to establishment-based production as agricultural output rises. They are consistent with the evidence in the Philippines that the growth of employment in workshops and factories is highest in regions where agricultural incomes are growing the most rapidly and broadly, as for instance in the small farmer rice and corn growing districts in Central Luzon, Southern Tagalog (Southern Luzon) and Mindanao. The available regional data are unfortunately not sufficiently disaggregated to document this point as thoroughly as one would like, though it is supported by studies of particular districts in the Philippines and other countries. As it is hoped is clear from the descriptions in Chapter 6, however, the changes are significant enough to be apparent even in aggregate regional data, some of which are reproduced in Table 1.4.:

Table 1.4: DISTRIBUTION AND GROWTH OF MANUFACTURING
EMPLOYMENT BY REGION AND BY SCALE, 1960-75

	<u>% Distribution, 1975^{/1}</u>			<u>% Growth Rates, 1960-75</u>		
	Households	<u>Establishments^{/2}</u>		Households	<u>Establishments^{/2}</u>	
		Small	Large		Small	Large
Metro-Manila	9	4	17	6.9 ^{/3}	4.4	3.8
Luzon ^{/4}	22	8	9	1.3	8.3	9.6
Visayas	13	2	4	-1.4	6.0	4.3
Mindanao	7	3	3	2.2	9.7	5.4

/1 The percentages in the three columns on the left add up to 100, and are included here to indicate the weights that should be given to the figures in the three on the right.

/2 Small Establishments have less than 10 workers, large 10 or more.

/3 There is a wider margin of uncertainty in this figure than in the rest.

/4 Excluding Metro-Manila.

Source: See text Table 6.4.

The figures are regional averages; the growth rates in the high growth districts in Luzon and Mindanao are higher than those shown in the above table. The urban growth rates in each of the regions are also broadly distributed, but tend to be higher in the high growth districts. For the country as a whole, the bulk of labor absorption in urban areas is occurring in the small provincial towns and cities, illustrating the point made above about the growth of the regional urban base. Currently, the annual rates of labor absorption stand roughly in the ratio 3.0: 2.5: 1.0 respectively for (i) small provincial towns and cities of less than 100 thousand inhabitants, (ii) Metropolitan Manila, and (iii) the six large regional cities of over 100 thousand inhabitants.

1.20 Although household manufacturing is declining overall, it is not doing so uniformly in all sectors and regions. In some it is rising

rapidly, as in the urban informal sector in Manila, and in the high growth engineering sectors. The declines are mainly in the "traditional" sectors such as foods, textiles and clothing, though even in these cases surveys have revealed activities in which investment and output are rising (piggeries, handicrafts, garment-crafts). Employment in garments and handicrafts in the Philippines has been further encouraged by the "putting out" of work by traders, on a system that appears in many respects to be comparable to the system once common in Japan. More generally, the incomes and conditions of employment in household manufacturing are broadly distributed; it still employs half the industrial labor force on a primary or secondary basis, and includes both the most primitive subsistence types of activities and others in high growth sectors.

1.21 Small Industries in the Long-Run. Further improvements in infrastructure and the growth of the urban base in the provinces is likely to result in a gradual reduction in the 'natural' protection of local small-scale manufacturers, and an erosion of their markets by large-scale. This has been the experience of the industrialized countries and the more recent experience of Korea and Taiwan. At present, small and large scale are not competing in a broad range of product groups. Bakeries, tailoring, furniture, structural concrete products and fabricated metal products, for example, are almost exclusively small scale activities at present in the Philippines, most of which are oriented towards small local markets; others, such as cotton and rayon textiles, plywood, chemicals, steel, and the manufacture of machinery are almost exclusively large scale activities, serving national markets, and in which economies

of scale are probably strong enough to offset the higher transport and marketing costs of distributing large scale's products. As these costs fall, competition is likely to occur in an increasing number of product groups and lead to a peaking and then a decline in the share of small-scale establishment-based manufacturing. The interview data presented in Chapter 5 suggest that much of the competition is likely to stem from the emergence and growth of small firms themselves; the large majority of medium and large firms begin with very small investments and expand in stages through the size structure - generally in the region of origin. Hence the role of small industries in the industrialization process is essentially a dynamic one, but with a lasting effect on the regional pattern of urban-industrial development.

1.22 Effects of the Industrialization Policies. The recent study of Bautista and Powers (1979) makes it possible to examine the incidence of the industrial tariff and tax incentives on large and small scale, and to address the questions: how did they effect the efficiency of small enterprise programs? and, what would be the effects of a transition (now being planned) to a more efficient structure of incentives?

1.23 The policies have been examined at length in a series of studies (cited in the text) and can be summarized briefly. In the 1950s industrialization proceeded under the protection provided by exchange controls and tariffs, with both leading to higher effective rates of protection for manufactured consumer goods than for capital goods. Since the early 1960s, a roughly similar structure of protection was maintained under tariffs alone, and did not change fundamentally under subsequent revisions in the tariff code. In 1967 and again in 1970 tax exemptions - mostly

on capital costs - were introduced to promote the capital goods industries and industrial exports, both of which had been thwarted by the tariff structure. The Acts that introduced these incentives also contained laws to encourage and protect foreign investments. The effects of these policies are familiar:

- (i) Fast industrial growth in the 1950s (at 12-15% per year) at the height of the import-substitution process, followed, once saturation set in, by slow growth ever since (at 4-6% per year in the 1960s, and 5-7% in the 1970s);
- (ii) A labor saving bias in industrial investment;
- (iii) A huge shift of investable resources away from agriculture;
- (iv) Slower economic growth overall on account of the misallocation of investment (a) between industrial sectors, and (b) between agriculture and industry;
- (v) A slower growth of economic output in the provinces on account of (iii); and
- (vi) An excessive concentration of investment in Manila on account of (v) and also of the transactions costs to firms of dealing with controls, tariffs and incentives if not located in Manila.

1.24 The tax incentives on industrial investment favored large more than small industries, though they were not used much by either on account of the transactions costs involved. The tariff structure worked against both small and large scale activities employing large shares of the labor force - but particularly against small scale. The following

table uses the estimates of effective rates of protection (EPR) by sector provided in Bautista and Powers' study to show the relative incidence of the tariff incentives on large and small.

Table 1.5: EMPLOYMENT IN LARGE AND SMALL ESTABLISHMENT ACCORDING TO LEVEL OF PROTECTION 1974

Effective Rate of Protection; Range, % ^{/2}	No. of Sectors	Percent Employed In ^{/1}	
		Small	Large
> 500	6	13.1	9.8
100 to 500	20	1.5	11.7
75 to 100	9	1.6	17.1
50 to 75	8	.8	1.6
25 to 50	21	5.1	12.8
0 to 25	33	11.9	22.3
-25 to 0	5	1.6	16.2
-50 to -25	6	66.4	7.0
	108	100.0	100.0

^{/1} Small Establishments have less than 10 workers, large 10 or more. A more detailed breakdown for different size groups was not possible from the information available to us. Note the bimodal nature of the size distribution, however, from Table 1.3, with the < 10's and the > 200's accounting for 75% of establishment based employment.

^{/2} When an estimate is on the dividing line it is put in the upper category. E.g. and EPR of 0 is included in the 0 to 25% range.

Source: See Annex Table 7 to Chapter 5. The above is the same as Text Table 5.14, and is reproduced here for convenience. See also Table 5.15.

The 'underprotected' sectors would include those with EPRs of less than about 25%; about 80% of employment in small and 45% in large industries is found in this group. A similar analysis shows that employment shares in the more efficient sectors (ranked according to Domestic Resource Costs) are about 80% and 65% respectively for small and large scale establishments.

Hence . shift towards lower and more uniform tariffs would provide incentives to both small and large scale to concentrate investments in the more efficient sectors. The sectoral composition of small enterprise projects in the portfolios of the financing institutions would also be more efficient.

1.25 But the main effects would be to increase the growth of the domestic markets both overall, on account of the efficiency of lower and more uniform tariffs, and in the provinces, since there would be a greater share of investment in agriculture. Any reduction of the labor saving biases in the present incentives system (or the introduction of positive employment incentives) could be expected to stimulate product markets further through favorable effects on employment and wages. Such developments would also encourage the growth of small and medium industries at the present time, in the provinces and in Manila.

Purposes of Small Enterprise Programs Reconsidered (Chapter 7)

1.26 Unemployment, Wages and Incomes. The rapid growth of labor supply in the Philippines and the capital intensive development path that was followed did not act to increase unemployment, but to depress real wages and real earnings in self-employment. Unemployment rates have actually declined all round in recent years, in urban and rural areas, among household heads, and in all age groups; under-employment rates, according to the measure used by the NCSO, also declined. Table 1.6 shows some data for 1965 and 1976:-

Table 1.6: UNEMPLOYMENT AND UNDER-EMPLOYMENT RATES,
1965 AND 1976

	October 1965	August 1976
- - - - - Percentages - - - - -		
Unemployment Rate:		
- Urban	10.7	8.0
- Rural	4.1	3.6
Household Heads Unemployed	1.9	1.2
Unemployment by Age Group:		
10 - 24 years	12.2	9.5
25 - 44	4.1	4.0
45 - 64	2.9	2.4
All Ages	6.2	5.0
Visible under-Employment ^{/1}	9.3	5.1

^{/1} Percent working less than 40 hours per week and seeking additional work.

Source: Labor Force Surveys.

The movements in real wages are discussed in the text, which gives the full series dating back to the early 1950s. Briefly, for industrial labor the main features were rapid declines beginning in the late 1950s once the scope for import substitution became limited; a levelling off in the 1960s, followed by further declines - of nearly 40% - in the 1970s.^{/1}

^{/1} The declines in the '70s may have been exaggerated by inconsistencies in the wage series, though all series point in the same direction, and labor's share in value added also dropped precipitously. John Powers rightly pointed out to us that doubts still remain about the precise movements in real wages, however.

The declines have been attributed to the combination of a rising labor supply and a concentration of investment in the capital intensive sectors, induced first by the tariffs and investment incentives, and then in the 1970s by the effects of world inflation on the prices of locally manufactured goods. For agricultural labor, there were slow but continual declines in real wages for nearly 20 years, up to the mid 1970s; at this time the effects of an intensified effort to raise output in food-grains began to change the labor supply and demand conditions in some regions, and agricultural wages rose both in real terms and relative to industrial wages.

1.27 What were the effects of the declining wages on incomes? Many workers changed their jobs in response to a slowly growing demand for labor in the higher wage occupations, and in doing so increased their incomes even when the wages in the new jobs were declining. E.g. there were movements from wage labor in household manufacturing (where one in three workers are hired) and agriculture, to wage labor in workshops and factories, both small and large scale, and from unskilled to various grades of skilled jobs. Others moved into those entrepreneurial activities in which real incomes were rising - including household manufacturing in the more profitable activities. Occupational shifts have been widespread in the past 20 years, and for some workers have helped to diminish the adverse consequences of declining real wages.

1.28 In addition, the majority (60%) of the labor force are self-employed, principally in agriculture and non-farm activities in rural areas and towns. Their incomes were thus affected principally by yields and average labor productivities in agriculture. Although, on account of under-investment in agriculture, these quantities remained at very low levels in the 1950s and 1960s, both in fact grew slowly in this period; the growth rates then increased significantly in the 1970s under the influence of the development programs in food grains, and in rice production in particular.

1.29 Implications. The precise details of the recent changes in wages and incomes may become clearer in subsequent studies and surveys. They are however unlikely to alter the conclusion that labor supply and demand conditions in the past 20 years have affected the conditions of employment more than the levels of unemployment. Analysis of employment data and occupational shifts reveal relatively low unemployment rates - and also a widespread search, among those in the most ill-paying occupations, for more gainful employment. More gainful employment is obtained both through changing jobs, and through productivity gains in existing activities. What does this imply for the small enterprise program?

1.30 Principally, that it should support activities (where its services are in demand) capable of providing an income gain, whether or not employment is being generated directly by the investments. Initially, the program financed the fixed assets of mostly new enterprises with the frequently expressed purpose of creating employment. Since new enterprises proved to be risky investment propositions, however, the approach was gradually changed towards the finance of existing enterprises

capable of being expanded (often referred to as "growth" enterprises). While this approach is not inconsistent with the purpose of generating more gainful employment, it nevertheless places a limitation on the program by eliminating desirable projects that do not have these features. Although, as noted earlier, the emergence of medium and large scale activities is in good measure due to the expansion of small firms through the size structure, only a small minority have the qualities necessary to do this. Less than 1 in 40 small industries, for instance, expand into the larger end of the small size ranges or into medium scale, and of these less than 1 in 15 expand further into the large size groups (see Chapter 5). The majority of small industries remain as they are, are replaced by other small industries using upgraded production technologies in response to changing market opportunities and factor costs, or turn to not dis-similar technologies themselves without expanding significantly. The latter two instances often involve an elimination of the most labor intensive (and ill-paid) activities, and are not necessarily associated with a net increase of employment; they are nevertheless associated with an improvement in the conditions of employment.

1.31 Criterion for Small Enterprise Projects. Apart from favoring "growth" enterprises, the concern about generating as much employment as is possible from investment has also led to a preference for projects with low capital-labor ratios; projects with high ratios, relative to some average for manufacturing as a whole, were occasionally rejected. As discussed below, there are merits in examining the labor intensities of projects, if only to determine if the technologies chosen are optimal given the current costs of labor and capital. In the text, however, we have argued

that the familiar criterion, the rate of return to capital, provides a rigorous test of whether a project is likely to improve earnings opportunities. First, note that small industries in aggregate are more labor intensive than large, as Table 1.7 Below shows; hence by addressing constraints on investment in small industries, the programs should as intended help to raise the overall labor intensity of industrial investment:-

Table 1.7: RELATIVE CAPITAL-LABOR RATIOS IN PHILIPPINE MANUFACTURING BY SCALE OF ACTIVITY, 1974

Scale of Activity	Relative K-L ratio (Largest Scale = 100)
Household Manufacturing	5
Establishments: 5-19 Workers	18
20-49	34
50-99	59
100-199	76
200 or over	100

Source: See Text Table 7.7.

1.31 Another way of stating the rate of return criterion is to say that projects should be capable of providing for labors' income and earning a surplus after all other costs have been met; i.e. revenues from sales less material, running and capital costs should exceed labor costs. The recommended practice for treating labor costs is to estimate the opportunity costs of labor, which are the sum of:

- (a) the marginal products of labor in alternative (generally lower paid) occupations; and
- (b) the transport, resettling, personal and financial costs, plus the individuals' valuations of the desirability of the new location and type of employment.

From this it follows that projects having an acceptable rate of return are also likely to offer better employment opportunities than in the alternatives available. In this sense the criterion is consistent with the employment objectives of the program. Two points might be added. First, in a relatively unconstrained labor market, wages adjust to these levels ((a) plus (b)) in order to draw people into (or hold people in) the type of employment offered by the investments. This is roughly the situation in the labor markets faced by small enterprises in the Philippines, as the above outline of labor supply and demand conditions might suggest, where wages are generally a good approximation to the opportunity costs of labor. Second, the criterion would not in practice exclude working capital finance, or projects with high incremental capital-labor ratios that seek to upgrade production methods in a firm without increasing the number of employees; such projects too are not inconsistent with the objectives of improving the conditions of employment. A technical discussion of the criterion is provided in Chapter 8.

1.32 Labor Intensity. The idea of using the capital-labor ratio as an investment criterion was to encourage the search for more labor-using investments. In practice it did not prove to be very useful for this purpose, and was often in conflict with the interests of finding good projects. First, as one would expect, what determined the ratio for a project varied greatly with local wage levels. There were instances when it made sense to have projects that eliminated the more labor intensive and onerous of a firm's activities in order to raise output and labor

productivity: that is to have projects with negative K-L ratios. In other instances, little or no increase of employment was expected, but again an increase of output, leading to infinite K-L ratios. Second, the ratios varied greatly across industries, while only one average figure for manufacturing as a whole was used as a criterion; e.g. it varies over an 80:1 range at the two digit level. Intrinsically labor intensive project (e.g. in garments) easily fell below the average and the criterion had no influence on choice of technique, while others (e.g. ice factories for fisheries) fell far above it, and could not meet the criterion unless people employed indirectly (fishermen) were counted. Thus its use simply led to fudging. Apart from such practical problems, there were problems of interpretation that were ignored. Rising capital labor ratios might be an efficient and desirable response to rising wages or an inefficient consequence of capital subsidies, and need to be examined in the context of current economic conditions and policies. Finally, there is the point that it is the corporate sector rather than small scale activities that have inefficiently high K-L ratios, on account of the industrial incentives and tariffs policies discussed earlier. Labor intensive methods of production are already widespread outside the corporate sector, frequently burdensome and generally associated with low wages and earnings - indeed, this is precisely the nature of the employment problems in the Philippines today.

1.33 The attention that has been paid to the labor intensities of small enterprises reflects a common pre-occupation about the need for a more labor demanding industrial development path. What can be done about it? The relevant policies have been examined in several previous studies, dating back to and before Powers and Sicat (1971), ILO (1974) and more recently Bautista and Powers (1980) and several others cited in the text; they are therefore not reviewed in this report, except insofar as to determine what their findings imply for the small enterprise programs. The reforms proposed cover the structure of investment incentives, interest rates and tariffs, and were touched on briefly above (paras 1.22 et. seq.). Apart from being more conducive to growth, they have also been shown to be more labor demanding. Within the more modest scope of the small enterprise programs, an effort to examine and disseminate ideas about a broader range of investment choices in an obvious possibility for increasing the demand for labor on the projects it finances. The industrial and research associations that are now developing in support of industry could also be involved in the this task.

Technical Supplement on Interest Rates and Investment Criteria (Chapter 8)

1.34 The overwhelming factors preventing an efficient flow of capital resources from financial institutions to small enterprises are (i) administrative ceilings on interest rates, and (ii) the risks of loans not being repaid. Simply removing the ceilings, however, as an incentive for institutions to face the risks, is not a sufficient condition for an efficient flow of resources to take place. The reasons for this are familiar from recent research on the consequences of imperfect information in capital markets. Some of this research is reviewed in Chapter 8, which

examines how both administrative costs and risks change over time with the accumulation of knowledge and experience within the branch networks of the institutions. A forward looking view is suggested when deciding on what interest rates are appropriate.

1.35 A recurring question with respect to the provision of institutional finance, is whether its alternatives - trade credits, borrowings in the informal markets, and use of own savings and retained earnings - are superior. No general answer to this question is possible. In particular circumstances, however, a comparison of the different sources is strictly necessary to determine the economic merits of supplying institutional credit. In this report we have found that institutional finance often complements rather than substitutes for other sources. E.g. it is generally combined with own savings and retained earnings when used for the expansion of fixed assets or working capital. We have also argued that reliance on own savings and informal sources is more appropriate for new enterprises, which are inherently riskier to finance than those that have already proved themselves. Furthermore, practically all firms in the middle and larger size ranges start with very small amounts of capital and grow in phases; the owners believe this to be a less risky course for them too, and regard any lack of access to capital as being more of a barrier to expansion than to entry. Trade credits are used widely in some industries (e.g. where "putting out" and sub-contracting are common); but those having different capital structures and markets may rely more on the financial sector. In practice the financing arrangements for small firms are as heterogeneous as the firms themselves, and most use different sources at different times in their life-cycle, and may

even use several sources simultaneously. For these reasons we have concluded that the best rule is for institutions to follow the demand, and that the small and medium industries program has taken the right step in addressing the constraints that prevent them from meeting it. We have made several suggestions on how to address the constraints that remain.

Conclusions

1.36 The conclusions to this report can be grouped under four headings. The first concerns the role of small enterprises in labor absorption, and the others the Government's programs and policies.

1.37 (1) Labor Absorption. The structural changes occurring in manufacturing employment in the Philippines, from household to workshop and factory based production, are currently associated with a rapid emergence of small and medium scale firms, in which the rates of labor absorption are significantly higher than in large scale (e.g. about 6% per year as compared to 4.5%). A sizeable, if not precisely known, fraction of labor absorption recorded in the aggregate statistics for medium and large scale firms is also due to the expansion of a small proportion of small firms through the size structure. These trends are particularly apparent in - but not confined to - the small towns and urban centers in the provinces, where infrastructure conditions and the nature of the product market favor manufacturing on a small and medium scale. The growth of agriculture and of the regional urban base itself are generating the markets, and in doing so are helping to localize the structural changes from rural-agricultural to urban-industrial development. The trends are also likely to continue so long as a large share of the labor force is in the rural

areas and towns, and would probably accelerate with a restructuring of industrial incentives and tariffs, which have historically drawn investment away from agriculture and the provinces.

1.38 (2) Finance and Financial Incentives. The large majority of small firms are financed by family savings, retained earnings, trade credits and sometimes by borrowings in the informal markets; comparatively little institutional finance is forthcoming, except for that provided through the Government's programs or for borrowers of good standing. Although non-institutional sources have so far met the bulk of small firms' demand for finance, there is a rising demand for institutional credit, both long-term and short-term. The emergence and growth of small firms and the heterogeneity of their capital structure and supplier and buyer markets largely ensures this. There are also complementarities between different sources of finance, with institutional sources being combined with or added to other sources, rather than displacing them. Hence it is relevant to address the two principal constraints on the flow of finance from public and private institutions.

1.39 The first of these arises from the administrative constraints on interest rates and the structure of financial incentives open to the private sector, which currently offer no prospects of long run profits from lending privately raised resources to small enterprises - unless there is a drop in the costs of these resources. Consequently, there is an almost exclusive and growing dependence on the Government's programs, with the risks being borne disproportionately by a small number of institutions. This issue is quantitatively important in view of the huge volume of the private sector's resources relative to those that can be made available through the Government's programs.

1.40 The second constraint, afflicting all institutions, and thus a large number of sound and efficient small firms, are undoubtedly the risks of financing unsound and inefficient firms. The risks have not proved to be static quantities, however, but to have declined significantly with the accumulation of information and experience within the institutions, as originally intended by the programs. Hence we have concluded that the role of the programs in cushioning the initial risks of lending to small enterprises is being fulfilled, but that it is necessary to address the issue of financial incentives if the programs are to have both broader and longer-run benefits.

1.41 (3) The Government's Programs. Apart from the general issue of incentives, there are a number of ways in which, it seems to us, the scope of the programs could be broadened while reducing the administrative costs and risks:-

(i) Working Capital Finance. The small and medium industries program has so far over-emphasized the finance of fixed assets and under-emphasized the finance of working capital through short-term lending facilities. A greater emphasis on the latter would reduce risks, be more likely to involve the commercial banks, and would be consistent with the employment and regional objectives of the programs.

(ii) Non-Industrial Enterprises. Broadening the scope of programs towards non-industrial enterprises - and towards trading and service enterprises in particular - would improve access of small manufacturing firms to markets and materials supplies and provide added conduits for working capital finance.

(iii) Small Loan End of IGLF. For loans of less than about P 150-200 thousand, lending through IGLF is generally unprofitable; it is also not possible below the P50 thousand floor limit. Yet there are a very large number of firms seeking loans in this range. There are also institutions with the necessary basis and experience for making small loans efficiently in provincial communities, but which were not qualified for making the larger IGLF loans. Thus involving them in lending through IGLF led to high arrears rates and bad debts, and to the exclusion of those borrowers they could best deal with. Making IGLF more profitable at the small loan end, and possibly removing the floor limit, could greatly widen the scope of the program.

(iv) Risk Reducing Institutions. A forum for the exchange of information and experiences between institutions is needed, together with the establishment of a common credit record keeping system.

(v) Industrial Extension. This program has served both educational and screening purposes in providing a large number of small provincial firms with access to financial institutions for the first time; it has also provided counselling and referral services. The main danger ahead is the possibility of its becoming part of the bureaucracy of administered credit on account of the growing dependence, referred to in (2) above, of small firms on the Government's financing programs. Involvement of the extensionists in post-appraisal (supervisory) services, and a system of ex post accountability for the projects, would also help to improve the quality of the services.

(vi) Project Selection Criteria. When deciding on what kinds of projects the program might best support, if it is to provide more gainful employment, we have suggested that projects are best judged by the robust if old fashioned criterion, the rate of return to capital; that is, the loan appraisers and extensionists are doing the right thing in considering only profitable projects. The capital labor ratio has not proved to be practical as a device to search for more labor using projects, and has a number of theoretical defects, even bearing employment aims in mind. Ex post evaluations of samples of projects by the research and evaluation departments of the institutions involved could be helpful in determining ground rules and sector priorities for the Government's programs.

(4) Leading Sector Policies. The last and most general conclusion of the report is that, the more efficient the leading sector policies, the more efficient the small enterprise programs are likely to be. Lower and more uniform tariffs on manufacturers are now being considered and, if implemented, should encourage growth in the more efficient sectors, which account for 80% and 65% of the labor force currently employed in small and large scale respectively. But the main benefits would be to stimulate product markets via growth. Agriculture in particular should stand to gain, with generally beneficial effects on the growth of the provincial markets for non-food goods and services; as noted it is the growth of these markets that explains the current high rates of emergence and growth of small and medium industries in the provinces. Investments in small-holder agriculture and its supporting infrastructure and services work in the same direction. Also under review

are proposals to reduce the labor-saving incentives in the current investment and interest rate policies, or even to introduce labor-using incentives. The effects on markets would be similar, and not insignificant in magnitude.

II. EXPERIENCE OF THE FINANCIAL INSTITUTIONS;
(A) INDIVIDUAL EXPERIENCES

Introduction

2.1 Term loans for small enterprises are available from commercial banks, private development banks, the savings and loan associations, rural banks, and some nonbank financial institutions. ^{1/ 2/} But for reasons discussed below, most of the term-loans are provided through two Government programs: the Small and Medium Industry (SMI) lending activities of the Development Bank of the Philippines (DBP), and the Industrial Guarantee Loan Fund (IGLF), the Government's rediscounting facility available to financial institutions in the private sector. The IGLF program is intended to complement private sector and DBP financing in several ways. Since several commercial banks and non-bank financial intermediaries participate in it, the Government's program has a far wider geographic reach than would have been possible if SSE lending were confined only to DBP and its branches. Through its risk guarantee facility, the program also provides an inducement to private sector financial institutions to develop procedures for handling long-term loans to SSEs. In regions where both DBP and IGLF financing is available, the entrepreneur is provided with the opportunity of borrowing from either a government institution (namely DBP) or a private financial institution operating as the conduit for IGLF funds. Finally, the composition of the IGLF program enables the inherent risk of SSE lending to be spread between institutions rather than being concentrated in any one institution.

1/ Principally, the Private Development Corporation of the Philippines (PDCP), and the Philippine Investment Systems Organization (PISO).

2/ An outline of the institutions in the financial sector can be found in Annex 2 of this Chapter. See also Chapter I for a brief statement.

2.2 While the Government directly controls the resources of DBP and IGLF, it exerts an indirect control over the mobilization and allocation of private sector resources through its fiscal, monetary and interest rate policies. The structure and level of interest rates have had a major impact on the relative availability of short- and long-term finance in the economy as a whole, and the allocation of resources between different types of borrowers.

2.3 The following analysis assesses how these various programs and policies have affected the profitability of lending to small enterprises. For each type of financial institution the weighted average cost of their sources of funds is first computed, and compared with the use of and return on funds by type of borrower. The difference between the two gives the gross spread accruing to the financial institution. From the gross spread, transaction costs are deducted to arrive at the net spread to the institution.^{1/}

Commercial Banks

2.4 Background. As of December 31, 1978 commercial banks accounted for 55% of the total assets of the financial system; over the last five years the assets of commercial banks have increased fourfold (in current terms). The commercial banking sector comprises 25 privately-owned banks,^{2/} and

^{1/} The transaction costs faced by the financial institutions are the sum of (a) the administration costs of loan appraisal, supervision and collection, and (b) the risks involved, i.e., the probability of arrears and default and its associated cost. The two are inter-related in that a substantive effort in loan appraisal and supervision, for instance, considerably reduces the risk of arrears and default.

^{2/} The Government-owned Philippine National Bank is the largest commercial bank and in 1977 accounted for 27% of the assets of the banking system.

two government banks. Together they had an extensive network of 1,200 branches in 1978, reaching to all regions of the country. About one third of commercial bank lending goes to industry while another third to commerce.

2.5 Sources and Cost of Funds. At the end of 1977 the total assets of the commercial banking system amounted to P 70.4 billion (\$9.5 billion).^{1/} A summarized balance sheet of commercial banks is given in Annex 1, Table 2.3. Deposits, borrowings and equity plus reserves accounted for 50%, 41% and 9% respectively of total liabilities. In recent times there has been a sharp increase in the liabilities of commercial banks; over the period 1976-1977 deposits increased by P 8.2 billion and accounted for 74% of the increase in liabilities over the same period. The sharp increase in deposits has occurred both as a result of the expansion in the branch network of commercial banks^{2/} and legislative action taken by the Central Bank. The Central Bank Circulars of January 1976 attempted to increase the level of bank deposits both by raising the maximum interest rate payable on deposits and by reducing the yield on money market instruments which had been used by investors as an alternate form of investment to bank deposits.

2.6 All the commercial banks interviewed were offering the maximum permitted rate on deposits placed with them, namely 7% on savings deposits and 8.5% to 12% on time deposits depending on maturity; no interest is paid on demand deposits. Owing to both the structure of deposits and the interest rate paid on various types of deposits, their weighted average cost, in 1977, amounted to about 6.5%. This figure, however, reflects

^{1/} Exchange rate used US\$1 = P 7.4.

^{2/} New branches were established (109 in 1977) because it was felt that they could help mobilize deposits.

merely the financial cost of deposits and, since all commercial banks offer the maximum permitted rate on all deposit categories, ignores the various service costs involved in raising deposits. The cost of money market and other borrowings ranges around 14% while the cost of equity has been computed at around 12.8%^{1/} resulting in a weighted overall cost of capital of around 11% p.a. The cost of loanable resources is, however, higher than this, since Central Bank regulations necessitate holding 20% of borrowings in liquid assets which yield 3% while another 20% have to be held in specified securities yielding around 12%. Consequently, the weighted average cost of loanable resources is nearer 13.3%.^{2/} Clearly the cost of capital and loanable funds for individual banks will vary and will, to a great extent, be determined by the proportion of deposits and other borrowings in their liability structure. The weighted average cost of resources would also rise if the proportion of medium and long-term deposits were to increase; at present these account for less than one sixth of their resource base.

2.7 Uses of and Return on Funds. As of December 31, 1977 the asset portfolio of commercial banks comprised: loans (62%), investments (16%), cash due from banks (13%) and other assets (9%). The loan portfolio of ₦ 43 billion (\$5.8 billion) comprised loans, discounts and overdrafts. An

^{1/} In order to estimate the cost of share capital, the ratio of dividends (adjusted on a pre-tax basis) to the book value of equity has been considered. While there are a number of objections to estimating the cost of share capital in this way, no other data are available. A more precise estimate would not significantly alter the overall weighted average cost of capital, however, since this source of funds accounts for less than 9% of resources. E.g. if we doubled the above estimate, the w.a. cost would rise by about 1%.

^{2/} Or $[11.0 - 0.2 \times 3 - 0.2 \times 12]/0.6 = 13.3$.

interest rate ceiling is imposed by the Central Bank: the maximum interest rate permitted on loans under two years is 12% and 14% p.a. on secured and unsecured loans respectively. In addition, a service fee of up to 2% may be charged raising the effective rate to 14% and 16% respectively. The maximum effective lending rate (including service fees) on loans over 2 years is 19%.

2.8 As of December 31, 1977, 86% of loans outstanding were short-term (up to 1 year), 10% were medium-term (1-3 years) and only 4% were long-term (over 3 years). In the case of prime borrowers it was found the commercial banks were charging marginally below the maximum rates permitted. However, the return on compensating business (e.g. letters of credit, foreign exchange transactions and compensatory deposits) raised the rate by 2% to 3% resulting in an effective rate on short-term loans of 16-17% and of 18-19% on medium and long-term loans. Firms with good credit standing but which could not be regarded as prime firms were paying the maximum interest permitted on both short- and medium-term loans. Few loans were made to businesses not having an established credit rating.

EFFECTIVE RATES ON COMMERCIAL BANK LOANS, 1978 /a

Loan duration	Prime Borrowers			Credit-worthy Non-prime Borrowers		
	Nominal rate	Value of compensating business	Effective rate	Nominal rate	Value of compensating business	Effective rate
Short-term	14%	2-3%	16-17%	16%	n.a.	16%
Medium- and long-term	16%	2-3%	18-19%	19%	n.a.	19%

/a The rate of inflation over the period 1975-77 varied between 9.2% - 10%.

Source: Interviews with 10 Commercial Banks.

Given a weighted average cost of funds of 13.3% the effective gross margin on short-term loans to prime and nonprime borrowers would be around 2.7% while for medium-term loans it would be nearer 5.7%. As noted earlier, the latter overstates the spread on medium term loans, since the cost of term resources is above the weighted average estimated here.^{1/}

2.9 Term lending. While commercial banks are a major source of short-term credit they engage in relatively little long-term lending. For January-August 1977, 60% of total credit granted was for a year, 1% was for 1-5 years and 0.6% for over 5 years. The comparable figures for 1976 were 68.6%, 0.6% and 1.02%. Though nothing in the rules and regulations governing commercial banks prevent them from lending long, these figures show that little medium- and long-term lending is undertaken by them. This, in part, can be explained by their adherence to the "golden rule" of banking which states that the maturity structure of the resource base should match that of the loans made. Despite the rule some term transformation^{2/} can occur without jeopardizing the solvency of the individual institutions or the system as a whole. However, commercial banks appear to be extremely reluctant to lend long-term for several reasons.

2.10 First, and most important, taking all costs and returns into account, short-term lending appears to be at least as profitable as long-term lending. Until 1976, the maximum interest rate that could be charged on loans, irrespective of maturity, were 12% for loans secured by real estate

^{1/} PDCP have recently raised medium-term resources at 15-16% (para. 2.32), which would imply a spread of around 3%.

^{2/} For a more detailed discussion see the report of the Philippines Financial Sector mission (1979).

and 14% for others. As these maximum rates were being charged by commercial banks for short-term loans, there was no incentive for them to lend long-term, an activity inherently more risky than short-term lending. In 1976, interest rates were restructured and the maximum effective rate that can now be charged on loans up to two years is 16% while the maximum effective rate on loans over two years is 19%. However, while the CB is willing, under certain circumstances, to discount short-term paper (up to one year) it is not willing to do so for instruments with a maturity of over a year.^{1/} Further, in an economy where deposit and lending rates have fluctuated significantly^{2/} commercial banks are unwilling to lend long-term as they are then locked into a leading rate without knowing how deposit rates or lending rates may move. Finally, most commercial banks do not have the institutional expertise necessary to make term loans since most of their experience is with short-term, collateral based lending. The current nominal interest rate differential of about 3% between short-term loans and long-term loans is not sufficient to induce the commercial banks to lend long-term and face the liquidity constraint, the greater resource costs, the greater project risk and general uncertainty of so doing.

2.11 Instead of lending long, the practice followed by the commercial banks is to book a loan as short with the understanding that the loan will be rolled over.^{3/} On the basis of existing information, it is not possible

^{1/} This possibility is not being considered, however.

^{2/} There were substantial changes with respect to both deposit and lending rates in 1976 and 1977.

^{3/} With this arrangement the enterprise, not the institution, bears the risks.

to quantify the extent of rollovers. However, interviews suggest that up to about half of those loans booked as short-term may be rolled over for at least another year, and one third for 1-3 years. The process of rolling over is also profitable for the bank owing to the service fees and other charges involved. This additional income further reduces the effective differential between short- and long-term lending rates and may even turn short-term lending into the more profitable type of operation.

2.12 Lending to SSE. The proportion of loans outstanding going to home, small- and medium-scale industries as of December 31, 1977 amounted to 2%, 11% and 11% respectively. ^{1/} These figures probably do not reflect the situation accurately as a large proportion of these resources are IGLF funds which are merely being onlent by the commercial banks. There appears to be no data on the volume of commercial bank resources going to the small enterprise sector. Using a sampling technique, a study conducted by the International Development Center of Japan concluded that only 1% of SSE resources come from commercial or rural banks. There are several reasons which explain the reluctance of commercial banks to lend to this sector, except perhaps to a small minority of small borrowers of good standing. First, the effective return on loans to prime and near prime clients, once compensating business is taken into account, amounts to about 16% for short-term loans and 19% for longer term loans (para 2.07). Since these rates are the maximum that can be charged, the return on SME loans is not likely to be significantly greater than this, particularly as they bring in little compensating business. ^{2/} However,

^{1/} Annex 1, Table 2.4 provides a breakdown of commercial bank lending.

^{2/} It was pointed out to us that some SMEs bring in compensating business (e.g. through foreign exchange dealings), and others have good standings, and qualify as prime borrowers. They are, however, a small minority, and our remarks are not addressed to these cases.

while the return on prime and SSE loans is almost the same, the administrative costs per unit lent of processing SSE loans is significantly greater. The administrative costs are higher because there is no readily available information on the credit standing of the enterprise since most SSEs have neither audited financial statements nor long standing relations with the financial community. During discussions with commercial banks it became clear that the loan processing time for prime companies was minimal, and costs amounted to less than 0.4% of loan value. In the case of near prime companies, the complete loan processing time varied between 1-4 days and costs seldom accounted for more than 0.5% of the loan value. In the case of loans to SSEs without an established track record the processing costs amount to approximately 2-3% of the loan value. Hence, deducting these costs from the gross margin of 2.7% estimated above (para 2.8), the net margin accruing to commercial banks to cover provisions, writeoffs and profits would be 0.7% and 2.3% for SSE and regular loans respectively. If, in addition, it is assumed that SSE loans are more risky, then both elements of the risk-return trade-off favor larger loans. At present there is little hard data for commercial banks on the relative riskiness of SSE lending and other types of lending. Experiments involving commercial banks in SSE lending have shown that without rigorous appraisal and supervision procedures (which raises the administrative costs still further) small loans are prone to high arrears.^{1/}

^{1/} Some examples quoted were the money-shop program of the PCIB, the "social loans" programs run by some commercial banks in the 1960s and 1970s; and a NACIDA loan program, which was initially run outside the banking system, but later redesigned and run by the Philippines National bank. In each instance arrears were extremely high (in one case 93% of loans were in default).

2.13 Second, in the cases when commercial banks go in for SSE lending it tends to be collateral based. Many small borrowers, however, are short of acceptable collateral, particularly in the case of new projects, and are therefore ineligible for commercial bank credit. Finally, even if commercial banks were to lend to SSEs on the basis of project viability it might be difficult to do so as they currently do not have the necessary institutional expertise to undertake such lending.

2.14 Long-Term Lending and IGLF. Commercial banks operate as conduits channeling long-term IGLF resources to SSEs. When the lending to SSEs first began in 1974, the commercial banks would identify a project and send it to IGLF for approval. Once approval was granted, the project risk would be shared between IGLF and the bank on a 60:40 ratio, the bank having a gross spread of 5% on the transaction. Since none of the bank's own resources were tied up in the transaction, the spread was available to cover the administrative costs of lending and 40% of the risk. In theory, loans were to range between P 50,000 to P 800,000 although in practice no loans over P 500,000 were made. Maturities were for 5-10 years while the effective interest rate (including the guarantee fee) to the final recipient was 13.2%.

2.15 The initial response to the program by the commercial banks was encouraging; in the period July-December 1975, 91 loans were approved of which 25 were sponsored by commercial banks. However, the number of projects sponsored fell sharply and only 19 IGLF projects, in total, were approved in CY77. Two reasons were given by commercial banks for their lack of interest: the inadequate return and the "red tape" involved

in dealing with IGLF. The red tape problem was reduced significantly once the accreditation scheme was put into effect in 1976. Under this scheme an accredited institution could approve a loan without the prior approval of IGLF. Nevertheless, the commercial banks generally remained unwilling to participate in the program. Initially (in 1974/75) 19 banks participated, but as of September 1, 1978 only 10 had been accredited, of which only 5 made any IGLF loans. As of September 30, 1978 the IGLF loans outstanding to commercial banks amounted to P 42 million, or about 0.5% of their total loans outstanding to manufacturing activities.

2.16 The high level of arrears associated with earlier IGLF operations was the main explanation for the continued unwillingness of commercial banks to participate. As of September 1978 total arrears amounted to 34.2% of loans outstanding while loans affected^{1/} were 56.4% by number and 52.1% by value. When the final recipient was in arrears, the bank was still expected to make good to IGLF; in such a case the bank tied up its own resources on which it earned 12%^{2/} but might have earned 16% to 19% if these resources were lent to its regular clients. In addition there were the costs of processing the arrears which in their turn can be broken down into three parts. These are the cost of (a) rescheduling the loans for some clients,^{3/} which might involve a complete reappraisal; this cost is more closely related to the number of loans in arrears than the actual amount in arrears; (b) write-offs for "coffin" cases; and (c) litigation, which is an expensive but necessary step both to recover the value of the

1/ Based on a sample survey of participating institutions and their end users.

2/ While its own cost of funds was 13.3%.

3/ It is not known to what extent rescheduling costs are covered by penalty rates.

collateral and to maintain confidence in the institution.^{1/} It has not been possible to compute the costs associated with loan rescheduling, write-offs and litigation. However, from the reaction of the banks to IGLF, it appears that they exceeded the 5% gross margin on the loan, particularly since the commercial banks have had to make good to IGLF from their own resources.

2.17 The aggregate data, however, hide what has in fact been a very mixed experience among the commercial banks; some have used IGLF occasionally and have found the operation profitable, with less than 5% of their loans in arrears; others have used it rarely, but again with low or no arrears; while in the case of some banks, 50% to 90% of their loans were in arrears.^{2/} During the interviews it became apparent that there were two basic reasons for the relative success of some banks. First, the successful banks generally had applied far stricter standards in project selection, paying particular attention to the credit standing of the entrepreneur in the community, his previous track record and the value of the collateral offered; a personal knowledge of the 'character' of the individual, acquired by the local branch staff and branch managers, was also important.^{3/} In addition to the above, a fair amount of time and effort appeared to have been devoted to loan appraisal, supervision and collection. It became clear that, whenever one or more of these criteria had been relaxed, the level of

^{1/} It has been pointed out to us that the costs of processing arrears also decline as an institution's procedures are developed. Apparently the costs in Korean banks are now quite low.

^{2/} This information was obtained during the interviews; the estimates were provided unofficially and are not precise.

^{3/} Mr. Manalo of DBP made precisely the same point, which we found was independently shared by the staff of several commercial banks and investment houses.

arrears increased sharply. Several cases were cited in which borrowers had diverted funds or were giving a low priority to repaying the IGLF loan as the interest rate on the IGLF loan was lower than on other borrowings. These instances reflect the weak supervision and loan collection procedures of the financing institutions. In some cases collateral requirements had been relaxed to match the bank's share in the risk (40%) on IGLF loans; these had resulted in larger and riskier loans being permitted than if stricter appraisal standards had been applied. It should be added that such problems did not necessarily arise because the banks took IGLF lending lightly, but because for several banks IGLF was a new form of lending (long-term versus short-term and project versus collateral based) to a new category of client, and required much effort in appraisal and supervision than had been anticipated; only for a small minority of SMI owners, with good standing, is it possible to relax the discipline of appraisal and base the loans, as in short-term lending, on 'character and collateral'; most SMI projects did not fall into this category however. The experience of DBP, PDCP and of the Medium and Small Industries Coordinated Action Program (MASICAP) programs has shown that a substantial pre-loan service for preparing project and loan requests is required due to the extremely poor records and information kept by small enterprises.^{1/} None of the commercial banks help the entrepreneur prepare projects but, instead, concentrate almost entirely on collateral based lending.

^{1/} DBP states that the unreliable information presented by borrowers is one of their main problem areas. Rudy Manalo: Talk to the Small and Medium Industries Convention, May 1978, Philippines International Convention Center, Manila.

2.18 Conclusions. Commercial banks have found that the administrative costs and the risks of participating in the IGLF program were higher than originally anticipated. A few commercial banks have found lending to SSEs, both from their own resources and IGLF funds, profitable but only by concentrating on a small number of clients with track records and good credit standings. Since most SSEs most do not have an established credit standing, it is unlikely that the commercial banks would lend to them without financial incentives sufficient to cover the costs of pre-loan services (to complement those provided by MASICAP) and more rigorous loan appraisal, supervision and collection procedures. In cases when commercial banks have attempted to keep administrative costs low and sacrificed on loan screening procedures there have been high rates of arrears and default.

2.19 For these reasons, some modifications have recently been introduced into the IGLF program.^{1/} These were:

- (a) to increase the spreads and reduce the bank's share of the risks on small loans;
- (b) to raise the returns and reduce the risks further by raising the upper limit on IGLF loans (from P 800,000 to P 2.5 million), thus allowing the banks to lend to medium as well as small industries;
- (c) to reinforce the MASICAP program of technical assistance, particularly to the smaller enterprises, by improving the quality of information available on the enterprise, thereby reducing the transaction costs faced by the lending institution.

^{1/} In the second IGLF project.

In addition, a forum for the exchange of views and experiences between institutions seems desirable in the early stages of the program, together with the establishment of a common credit record-keeping system. The methods and criteria for appraising loans to SSEs and pre- and post-loan services have not yet been developed in the commercial banks as they have in some of the non-bank financial intermediaries.

2.20 Even with an expanded IGLF program, the volume of lending that can be undertaken will be small when compared to that which commercial banks might undertake from their own resources. One of the objectives of the IGLF program was to act as a catalyst to encourage lending by private financial institutions to SSEs, by absorbing some of the early risks and costs of developing term lending programs to small borrowers. Hence it is important to address the constraints that prevent commercial banks from lending their own resources to the SSE sector. Under the present set-up, commercial banks are mobilizing resources for the well established corporate sector only,^{1/} and the banks appear to be incurring financial losses in their attempt to develop a new SSE clientele.^{2/}

2.21 Precisely what steps are required to induce commercial banks to lend to SSEs from their own resources merits a much closer examination of interest rate and related policies than can be given in this report. The present policies are effectively closing off the large majority of small

^{1/} Loans outstanding to single proprietorships in March 1978 amounted to F 1.2 billion; to partnerships, co-operatives and associations, F 0.8 billion; and to corporations, F 30.9 billion. Annex 1, Table 9.

^{2/} It was pointed out that the corporate sector may (and in fact does) relend to SSEs, and that this might be an efficient way of approaching (i.e. of lending to) them. We agree with this, but would add two points. First, most SMIs serve local markets directly, drawing on local traders and suppliers, many of whom are themselves small scale. For this reason we later suggest, second, that lending to small (and medium) scale traders is also desirable (see chapters 3 and 4).

enterprises from access to an extremely large and rapidly growing volume of resources raised through the extensive branch network of the commercial banks. Essentially, the effective spreads need to be increased to make lending to small enterprises more financially attractive. This could be done through changes in interest rates, in service charges, or in tax incentives; it need not involve subsidies, however.

2.22 Even with major reforms in the structure of financial incentives, however, it is difficult to see the commercial banks voluntarily developing an active lending program to SSEs using privately raised resources; for this reason, we believe that any re-structuring of financial incentives should be seen as a way of enhancing the present programs of the Government, not of displacing them. First the experience of government and government-sponsored institutions show that the costs and risks involved in lending to SSEs are far greater than the commercial banks would be willing to undertake even if appropriate interest rate adjustments were made. An important exception would be the larger sized category of small loans to enterprises with an established track record and adequate collateral. This would, however, exclude a large number of small enterprises, as the benefits of developing a small enterprise program tend to accrue several years beyond the planning horizon of commercial banks. Second, the possibility of institutional biases in favor of lending to the corporate sector - both national and transnational - cannot be dismissed lightly, given the extent to which the commercial banks have evolved in response to its demands. Third, the large majority of the owners of SSEs are unaccustomed to, and untrained in, gaining access to and managing

institutional credit. This is why the extension programs and the pre-loan services of the Government financing programs remain important.

Development Bank of the Philippines (DBP)

2.23 Background. DBP was established in 1958 as an autonomous government-owned development bank with a mandate to supply long-term credit to the leading sectors of the economy. At the end of 1978, DBP held 11.2% of the assets of the financial system. DBP plays a major role in the Philippine economy, being the largest supplier of long-term credit. As of June 30, 1978, the proportion of loans going to industry, agriculture and real estate were 64.8%, 14.4% and 15.2%, respectively. About 80% of industrial lending goes to large industry with 10%, 6% and 4% going to medium, small and home industries ^{1/} respectively. In addition to its direct lending, DBP lends indirectly to home, small and medium industries through its association with the private development banks (para 2.35).

2.24 Sources and Cost of Funds. As of December 31, 1978, long-term borrowings, short-term borrowings (under one year), equity and deferred credits accounted for 53.9%, 25.0%, 18.9% and 2.2%, respectively of DBP's total resources. Savings and time deposits with maturities of under one year constituted 66% of short-term borrowings. The weighted average cost of short-term borrowings was about 8.0%. Long-term foreign borrowings comprised loans from international institutions and commercial sources with a weighted average cost of capital of 9.7%. Domestic long-term borrowings comprised bond issues, notes from government and financial institutions, IBRD resources onlent by the Government in local currency,

1/ Home industry loans are loans of up to P 50,000; small industry loans range from P 50,000-800,000; medium industry loans vary from P 800,000-3.0 million, while large industry loans are in excess of P 3.0 million. Note that these scales do not correspond precisely to HSMIs defined in terms of assets (see chapter 1).

and others. The weighted average costs of these borrowings is 12.4%. This figure is likely to underestimate the true cost of these resources as DBP has privileged access to low cost local currency funds.^{1/} As DBP declares no dividends, it is difficult to estimate the cost of its share capital. In order to compute the cost of capital, DBP's share capital might be viewed as a long-term debenture issue; the return on DBP's Countryside Bonds is around 9%.^{2/} If this is done, the weighted overall average cost of capital to DBP is around 9.9% p.a. As the cost of DBP's deposits, equity and long-term domestic borrowings is likely to be understated, the weighted average overall cost of capital should be seen as a base-line figure.

2.25 Use of Return on Funds. DBP's operations include loans, guarantees and equity investments. In FY78, loans accounted for 59% of all DBP approvals. The size of loans vary from a minimum of P 5,000 to over P 5 million. In terms of sectoral allocation, industry, agriculture and real estate accounted for 65%, 14% and 15%, respectively of all approvals. DBP's industrial loans alone will be considered below. In 1976, the weighted average return on industrial loans outstanding was 10% while the weighted average cost of resources at that time was 8.8%, resulting in a gross spread on industrial lending of 1.2%. Administrative costs incurred by lending to industry were estimated at 0.7% of industrial loans outstanding, leaving a margin of 0.5% for provisions, write-offs^{3/}

^{1/} Until January 1979, DBP bonds offered such privileged terms as tax exemption and reserve eligibility.

^{2/} The first three issues of DBP countryside bills offered an interest of 9% payable semiannually. In the fourth issue (January 1979), the Government decided to remove the privileged features on DBP bonds; the average effective cost of this issue to DBP was 14.69%.

^{3/} As of June 30, 1976, arrears on industrial loans were approximately 7.5% of loans outstanding while the portfolio affected was 41.4%.

and profits. The very small operating margin has resulted in DBP making some changes in its lending policies; there were also some concerns that cheap loans were making industrial investments too capital intensive. The rate of interest on loans not secured by land mortgage has been raised from 12% to 14% p.a. In addition, a supervision fee of 2% has been introduced for all loans in excess of P 150, 000. This has resulted in a weighted average return of 13.5% for industrial loans less than P 150,000 and 15.5% for those above. In FY78, less than 3% of DBP's industrial loans in value terms were below P 150,000. Hence, its weighted average return on lending is around 15.5%. Once these interest rate increases are reflected in the return on industrial loans outstanding, DBP will be operating on a gross margin of 5.6%. Even if administrative costs were to rise to 2% of loans outstanding, it would still leave a margin of 3.6% to cover provisions/write-offs and profits.

2.26 Lending to Home, Small and Medium Industries. DBP currently has a separate department to lend to these industries, the volume of lending to which increased from P 48 million in 1974 to P 158 million in 1978 (Annex 1, Table 2.5). The growth was particularly fast during the first two years during which time, however, a serious arrears problem began to develop (para 2.26). Apart from making direct loans, DBP has a program which provides Private Development Banks (PDB's) with equity and rediscounting facilities (para. 2.35), and which both widen the geographic reach of its own programs and encourage private sector participation. ^{1/}

^{1/} See para. 2.34, et. seq. Over the period 1974-78, DBP had rediscounted 3,000 industrial loans of the PDBs amounting to P 65 million, with an average size of P 30,000. In contrast, DBP had, over the same period, made 5,300 loans for P 650 million with an average loan size of P 120,000.

The returns and costs to DBP of lending to industry are given below:

DBP: RETURNS AND COSTS OF LENDING
(%)

	Large industry	Medium industry	Small industry	Home industry
Gross return	15.5	15.5	15.3	13.5
Weighted cost of rasources	9.9	9.9	10.5/b	10.5/b
Gross spread	5.6	5.6	4.8	3.0
Estimated administrative costs	0.3	2.6/c	2.6/c	n.a.
Net spread	5.3	3.0	2.2	n.a.

/a Approximately 10% (by value) of SMI loans are below P 150,000.

/b Loans to home and small industry are in local currency.

/c The administrative cost to the head office and branches is 2.5% and 2.7% respectively. The arithmetic mean has been taken.

Source: DBP (internal report).

2.27 DBP receives net spreads of 5.3%, 3.0% and 2.2% respectively on its loans for large, medium and small industries; the spreads are to cover overheads, profits, write-offs and provisions. The arrears position on the industrial loans by loan size are shown in Annex 1, Table 2.6. As expected, the risks for large industry loans are significantly lower; ^{1/} in 1978 principal and interest in arrears as a proportion of loans outstanding amounted to 4.7% and 20.9% for large and small respectively. Within the latter group, home industry loans appear to be only slightly riskier than loans to small and medium industries, though the level of arrears are high across the board. The arrears on loans to the smaller industries, however, are significantly lower (by a factor of four) in the branches than they are at head office; arrears on branch office loans in 1976 varied between 5.6% and 11.8% of loans outstanding, which was not significantly higher than arrears on loans to large industry.

^{1/} The arrears figures on large industry loans probably understate the actual level of arrears as no account is taken of loans rescheduled by DBP.

The manager of DBP's small and medium industry programs pointed out (as had people in other financial institutions) that lending in small communities was often easier and less risky than lending out of the head office in the Manila area as the branch staff have greater personal knowledge of the local community and its enterprises.^{1/}

2.28 In the first year of the program, the arrears as a percentage of loans outstanding were exceedingly high, but declined subsequently for several reasons. A fast growth in the portfolio and a restructuring of loans at first increased the share of loans in the grace period (up to six months for the finance of fixed assets, before 1979), and also the share of young loans on which arrears problems had not yet surfaced. But the size the portfolio peaked in 1976 and then declined in 1977 and 1978, so that the share of young loans and loans in the grace period declined. At the same time there were noticeable declines in the arrears levels, reflecting changes in policies and procedures as more experience was gained in lending to small enterprises. The principal changes included intensified efforts in the training of staff;^{2/} the development of stricter screening, appraisal, supervision and loan collection procedures (all of which were associated with an expansion of trained staff); and the introduction of monitoring and control procedures to reduce diversions of funds. Evaluation studies of problem accounts were also undertaken.

^{1/} Since these discussions were held in 1978-79, however, the arrears rates in Manila have declined significantly, while those in the branches rose (Annex Table 2.6).

^{2/} The institutional effort required to develop the program has been immense, as can be gauged from the level and growth of professional and support staff in DBP. Professional staff alone grew by nearly 50% from 1,900 to 2,800 in between 1976 and 1978, and total staff by 40% from 3,100 to 4,400. See Annex 1, Table 2.7.

2.29 Conclusions. Considering the net spreads on the different types of DBP lending, it is apparent that the profits made by lending to large industries are absorbing some of the costs of lending to smaller industries. In addition, small loans are more prone to arrears than are loans to large industry. Despite the changes, it is not particularly profitable (given current spreads) for DBP to lend to small industries, but it continue to do owing to the high priority placed by the Government on this form of lending. The DBP experience has, however, shown that the initially high risks of lending to small enterprises can be reduced as experience is gained, and as decentralizing decision making procedures for small loan approvals are introduced.

Private Development Corporation of the Philippines

2.30 Background. PDCP was established in 1963 and has been legally defined as an investment house although its operations are those of a development bank. PDCP is probably one of the only private financial institutions to make long-term loans and provide pre-loan services to their SSE clients.^{1/} A small business loan department was established in 1972 for this purpose. Loans approved by PDCP classified by the asset size of the recipient enterprise is given in Annex 1, Table 2.8. The number of small enterprises financed by PDCP increased sharply once PDCP received accreditation from IGLF in late 1976. The lower limit on PDCP loans is P 50,000; loans between P 50,000-500,000 are considered to be small loans while loans above P 500,000 are considered as regular loans. In the early stages of PDCP's small industry program most of the loans were in the Metro Manila area. P 500,000 are considered as regular loans.

^{1/} A recent convention of small and medium business owners passed a resolution requesting other financial institutions to provide pre-loan services similar to those now provided by PDCP. Philippines International Convention Center, Manila, May 27, 1978.

Recently, both as a result of PDCP's growing branch network and the Government's emphasis on regional development, approximately 50% of the loans are to borrowers located in the provinces.

2.31 Lending from PDCP's Own Resources. The volume of small loans financed by PDCP from its own resources has been relatively small, the major constraint on PDCP for this type of lending being that long-term peso resources are unavailable. At present PDCP is not allowed to accept deposits. Consequently, the only way it can mobilize peso resources for onlending is either by borrowing from other institutions or by issuing its own bonds. Given the current interest rate structure it is not possible for PDCP to raise resources through these mechanisms and earn an adequate spread by so doing. Hence, PDCP concentrates on foreign currency denominated loans; over the period 1963-78, approximately 78% of PDCP's lending has been in foreign exchange. As most small industries require local currency financing, PDCP is unable to finance a significant volume of SSE loans from its own resources.

2.32 Recently, PDCP has been able to mobilize some medium-term peso resources by issuing 1 to 5 year notes at around 15% to 16%. These resources are on-lent at 19%. Owing to the different tax incidence on the borrowing and lending rate, the gross spread accruing to PDCP is not 3%, but nearer 5%. The administrative cost of lending to SSE has been computed at 3%^{1/} of loans outstanding which leaves about 2% to cover provisions, write-offs and defaults.^{2/}

^{1/} When the necessary project data is not available, PDCP's appraisers might spend 4 to 6 weeks collecting it, a task which could cost as much as P 6,000 (excluding overheads). A project analysis is then undertaken which concentrates on the management, financial, technical and marketing aspects of the projects. Despite the project analysis, all loans are fully collateralized; for SMLs, land, buildings and machinery are valued at 100%, 900% and 70% of appraised value respectively, and for large industries at 80%, 70% and 60%.

^{2/} Katrine Anderson Saito and Dan P. Villanueva, "Transaction Costs of Credit to the Small-Scale Sector in the Philippines".

2.33 Lending through IGLF Funds. PDCP was accredited under the IGLF program in 1976 and has been using IGLF resources to finance a significant number of SSE projects; as of September 1978, 70% of the small industry loans financed by PDCP are from IGLF funds. IGLF funds have been obtained at 7% and were on-lent at 12% (excluding the guarantee fee).^{1/} In addition PDCP charged a one-time service fee of 1.5% giving a gross spread of 6.5% for the first year and 5% subsequently. In order to maximize returns from its IGLF operations PDCP has tended to concentrate on the larger of the small loans; the average loan size having increased from ₱ 175,000 (\$25,000) in 1974 to ₱ 370,000 (\$50,000) in 1978. Exceptions are made when the enterprise records are in good shape, in which case the administrative costs to PDCP are much lower;^{2/} this occurs for instance with second loans, which apparently require half or less of the processing costs of first-time loans.^{3/}

^{1/} Recently the IGLF lending rates were revised. For small industry loans (from ₱ 50,000 - ₱ 800,000), participating institutions charge interest at no less than 13.2% p.a. plus a service charge of 1.5% p.a. payable at the time of loan; for medium industry loans (₱ 800,000 - ₱ 2.5 million) participating institutions are allowed a spread of 8% on small industry loans and 6% on medium industry loans.

^{2/} PDCP head office and branch staff made the point that the services of SBAC and MASICAP can be useful in reducing the administrative costs simply by improving the records of the businesses, though they find that it is still desirable for their own staff to continue to provide pre-loan services and work with the proponent directly. PDCP staff often give lectures to and participate in the seminars of the MASICAP and SDAC field (extension) staff. In addition, PDCP run a training program for project analysts.

^{3/} In the past no single borrower could obtain more than ₱ 500,000 from IGLF resources. This prevented the borrower and the financing institution benefitting from these economies of scale.

2.34 The arrears and defaults on PDCP's small loan portfolio have been significantly lower than for other financial institutions. (Annex 1, T-9 shows the arrears position for both PDCP's small and regular loans). For small loans, principal in arrears over 3 months increased sharply from 3.7% in 1975 to 8.2% in 1976 but fell to 3.9% in June 1978, largely as a result of a substantial increase in PDCP's small loan portfolio and a corresponding increase in loans in the grace period. If principal and interest in arrears over 3 months is compared to principal outstanding in the repayment period, the improvement in the arrears situation is less dramatic but noticeable.^{1/} In comparing small and regular loans in terms of arrears and defaults it is apparent that on any criteria small loans have proved to be more risky. While it is difficult to estimate the costs involved in rescheduling, write offs and litigations, it appears that the gross margin accruing to PDCP from utilizing IGLF funds is sufficient.

2.35 Conclusions. Since PDCP carries out project appraisals for both its small and large loans, lending to small enterprises is more expensive for PDCP than lending to large industries, owing to the higher administrative costs in relation to loan size. By intensive efforts in appraisal and supervision, PDCP has kept the risks of lending to SSEs relatively low, and has made such lending profitable by concentrating on the larger of the small industry loans (loans in excess of about P 100,000). Their lending is,

^{1/} The percentage of loans in arrears fell by two thirds in 1978.

however, heavily dependent on IGLF, and the development of a lending program out of privately raised resources is constrained by the general scarcity of long-term peso resources in the economy.

Private Development Banks

2.36 Background. Private Development Banks (PDBs) are financial intermediaries constituted as stock corporations under the mortgage bank provisions of the General Banking Act. PDBs were set up to provide decentralized credit facilities to small agricultural and industrial enterprises that would not otherwise have had access to long-term credit.^{1/}

2.37 Source and Cost of Funds. As of June 1978, the total resources of PDBs amounted to P 666.4 million; a summarized Balance Sheet of PDBs is given in Annex 1, Table 2.3; deposit liabilities, borrowings and capital funds in the form of share capital and retained earnings accounted for 57.5%, 22.6% and 19.9%, respectively. The Central Bank permits PDBs to pay marginally more on their deposits than is paid by commercial banks, and in 1978 they were offering 7.5% on savings deposits and from 9% to over 12.5% on time deposits, depending on maturity, leading to an overall weighted average cost of deposits of about 8.8%. The share capital comes from private contributions and contributions from the Government in the form of preferred shares held by DBP and the Land Bank of the Philippines. The cost of share capital is difficult to estimate, however, since few PDBs have declared dividends and the returns to primary shareholders is often in the form of higher salaries, bonuses and fringe

^{1/} As of June 30, 1978, the 35 PDBs had 105 branch offices and employed a staff of nearly 1,500.

benefits. If share capital and retained earnings are viewed as a long-term deposit with a risk element attached to it then the minimum opportunity cost would be around 15%, resulting in an overall weighted average cost of funds for PDBs of about 10.5%. If, on the other hand, the cost of capital were computed on the basis of dividends actually paid, then the cost of the share capital would be about 2% ^{1/} and the overall weighted average cost of capital 6.8%.

2.38 Use of and Return on Funds. As of June 1978, the total loans outstanding to PDBs amounted to ₱ 400 million, of which approximately one third was in industry, somewhat over one third in agriculture and the remainder in commerce, real estate and other sectors. Over the period 1973-78, PDBs made over 10,000 loans to cottage and small industries as compared to 5,400 such loans made by DBP, PDCP and IGLF together (Annex 1, Table 2.10). About 70% (by number) of these loans were financed from the PDBs own resources, 29% from the rediscounting facilities provided by DBP and the Central Bank, and a small percentage by IGLF. Many PDB loans do not qualify for IGLF financing as they are for less than ₱ 50,000, which is the minimum acceptable IGLF loan size; over the period January-June 1978, approximately half the industrial loans made by PDBs were below ₱ 20,000 but a few large loans resulted in an average loan size of ₱ 40,000.

^{1/} The low return on capital has made it difficult for PDBs to raise additional resources from the private sector.

2.39 When lending from their own resources, the PDBs are allowed to charge an interest rate of 19% on loans with a maturity of over 2 years, resulting in a spread of 8.5% to 12.2%, depending on the assumption made about the cost of their share capital. The average administrative costs on all operations were computed at about 4.4% of loans outstanding.^{1/} It is not known by how much the administrative costs of industrial loans exceed this average, but they appear to be kept to minimal levels by basing^{2/} appraisals on the borrower's ability to meet collateral requirements and a personal knowledge of the "character" of the client.^{3/} Some PDB officers interviewed said that they would not lend to people they did not know well; as with the DBP branch staff, they benefit from having a good working knowledge of the local communities and enterprises. For these reasons, the administrative costs appear to be well within the spreads estimated above. The arrears, however, amounted to 10% of principal outstanding in 1978; but the conservative valuing of collateral has resulted in the PDBs having minimal write offs.

2.40 The spreads on loans rediscounted with DBP vary, since the extent of the rediscounting varies between 50% and 100% depending on the size of the loan and the economic sector of the business. On a fully rediscounted loan, the rediscounting rate is 12%, including a 2% service charge to DBP, giving the PDBs a gross spread of 7%.

^{1/} The low return on capital has made it difficult for PDBs to raise additional resources from the private sector.

^{2/} The General Bank Act requires PDBs to accept only real estate and high grade investments as collateral. In addition, the loan collateral value of various types of investments is also stipulated.

^{3/} Several managers interviewed said that this is often first acquired through the businesses becoming depositors in the branches.

2.41 IGLF loans made by most PDBs have been subject to high arrears; in 1978 principal and interest in arrears on IGLF loans as a proportion of loans outstanding amounted to 30%. (The rural banks have run into similar difficulties with IGLF, as will be discussed below.) Several explanations have been offered for the high arrears and for the inability of the PDBs (and the rural banks) to bring them down. A possible explanation is that IGLF has involved the PDBs in a scale of lending that was outside the capacity of all but a few banks to handle, with the average IGLF loan being ten or more times the average loan made out of their own resources. As a result, a different and more substantive approach to loan appraisal and supervision was required and the smaller PDBs were unable to structure their policies accordingly.

2.42 Conclusion. The PDBs are a well adapted and an effective channel for handling large numbers of very small loans with relatively low administrative costs; the arrears are still quite high, however, and a greater input into the development of the institutions is required to achieve significant reductions. The PDBs are thus filling a void in the credit market by making loans to the smaller end of the SSE distribution, and enjoy an advantage over large institutions, such as PDCP and the private investment houses, derived from their personal knowledge of the local communities. This advantage is less applicable, however, when it comes to making large SSE loans for which the appraisal procedures employed by PDCP and other similar institutions are better suited.

Rural Banks

2.43 Background. A rural bank is a locality specific unit bank. There are currently 960 individual rural banks which are privately owned but heavily dependent on Central Bank funds. The Government has used the rural

banks to implement many of its rural credit programs, such as Masagana 99 and Masagana Maisan for rice and corn production respectively. Despite their wide network, at the end of 1978 rural banks contributed only 2.5% to the total resources of the financial system.

2.44 Sources and Cost of Funds. As of December 31, 1978, the total resources of rural banks amounted to ₱ 4,037.2 million. A summarized Balance Sheet for Rural Banks is given in Annex Table 2.3. Borrowings (primarily from the Central Bank), deposits, other liabilities and paid-in capital and reserves accounted for 47.8%, 33.6%, 3.1% and 15.6%, respectively, of total resources. Borrowing by rural banks comprise special savings and time deposits, and bills and loans payable. A large proportion of these borrowings come from the Central Bank to finance particular programs and are secured by promissory notes from the recipient banks. In 1977, the weighted average cost of these borrowings was around 2% p.a., reflecting the large volume of low-cost Central Bank funds in the borrowings of rural banks. As of January 1977, no interest was paid by rural banks on demand deposits; savings deposits offered 7.5% p.a. while the return on time deposits varied from 9% to 12.5%. The weighted average cost of deposits was 6.3%. The paid-in share capital of rural banks comprise common stock and government-owned preferred stock. Inadequate data on dividends paid makes it difficult to compute the cost of capital for rural banks. In an opportunity cost sense, the share capital could be seen as being equivalent to a long-term deposit. On this basis, the cost of its capital has been estimated at 15% p.a., resulting in a weighted overall cost of capital of around 6% p.a.

2.45 Use of and Return on Funds. Approximately 83% of the assets of the rural banks are in the form of loans. Of the loans granted in 1978, 86.8% went to agriculture, 8.7% to commerce, 2.7% to industry and 1.8% to others.

In terms of maturity, approximately 90% or more of rural bank loans are short term; medium- and long-term loans being confined almost entirely to loans financed under the Central Bank/IBRD program. The rate of return on loans outstanding to agriculture, commerce, industry and others was 7.4%, 8.9%, 4.8% and 29.0%, respectively for 1978, resulting in an overall weighted return on the rural bank loan portfolio of 7.8% for 1978. Administrative costs for rural banks were computed at 3.6% for 1976, leaving a negative margin of 1.8% ^{1/} even before considering provisions, write-offs and profits.

2.46 Lending to SSE. In theory, rural banks could operate as ideal outlets of small loans as they have a wide geographical coverage; in practice, however, they have made very few loans except to agro-related cottage industries such as fisheries, piggeries and poultry. As outlets for IGLF resources, they have not been particularly successful: by the end of 1978, arrears as a proportion of IGLF loans outstanding amounted to 55%. A possible reason for the high level of arrears on IGLF loans is that in their normal course of business, RB make short-term production-credit type agricultural loans while IGLF loans were essentially long-term industrial loans; in addition, the average size of an RB loan out of non-IGLF resources is less than one-tenth of the size of loan they were typically expected to handle under the IGLF scheme. Consequently, IGLF loans required a different type of appraisal which RBs did not have the institutional expertise to undertake. ^{2/} The rural banks also had a major responsibility for administering

^{1/} If instead of imputing a value to the cost of capital, it were derived of the basis of dividends actually paid, then there is likely to be a substantial reduction in the cost of capital to rural banks.

^{2/} It was pointed out to us by Mrs. Mijares that the floor limit on IGLF probably raised the risks by limiting the options of the RBs (and the PDBs), who can manage very small loans efficiently.

the agricultural credit programs (Massagana 99), which severely strained their capacity to implement other programs.

2.47 Conclusions: Loans made by RB have tended to finance agriculture or agro-related industries. The RB loan portfolio has been faced with high arrears; as of December 31, 1975 arrears amounted to 21.4% of their outstanding portfolio. These figures, however, underestimate the true level of arrears since short-term loans are frequently restructured so that arrears are held below the 25% limit established by the CB as the rediscounting eligibility criterion. In addition, medium- and long-term loans made by RB are not deemed to be "in arrears", irrespective of the repayment performance, until after the maturity of the loan. IGLF loans to SSE channeled through RB have also faced high arrears, the long-term nature of the loan and the larger loan size serving to increase the likelihood of arrears.

Non-Bank Financial Intermediaries^{1/}

2.48 Background. Non-bank financial intermediaries (NBFIs) comprise institutions such as private insurance companies, finance companies, investment houses, and Government sponsored insurance programs. Private insurance companies make few loans to industry. When loans are made they need, by law, to be completely secured by real estate or by an iron clad commercial bank or parent company guarantee. Consequently, no lending is undertaken by private insurance companies to SSEs. The finance companies tend to be subsidiaries of commercial banks and are primarily engaged in

^{1/} While the Private Development Corporation of the Philippines is defined as an investment house it is not included in this section as it operates as a development bank and has been discussed above.

financing consumer durables and provide short and medium term finance to local manufacturers and traders. The investment houses also appear to provide a limited amount of financing to industry.

2.49 Lending by Finance Companies and Investment Houses to SSE. Two finance companies and two investment houses were interviewed. ^{1/} Two of the four institutions stated that they had made short-term loans (180 days to 1 year) for working capital financing. Even the short-term loans had gone to well-established on-going businesses which had, over time, developed a relationship with the NBFIs concerned.

2.50 None of the institutions had made term-loans to SSEs from their own resources. There was considerable reluctance to lend to SSEs. It was pointed out that the administrative costs per unit lent to SSEs was significantly greater than to their established customers. ^{2/} Processing time and cost were particularly high as it was difficult to obtain information on the SSE and its credit standing. For this reason, loans were only made to enterprises with a proven track record and which could provide collateral at least equal to the size of the loan. In addition to the cost of loan processing the NBFIs claimed not to have the necessary institutional expertise to undertake term-lending.

^{1/} The two finance companies were Manphil Investment Corporation and Multinational Capital Corporation. The two investment houses were Ayala Investment and Development Corporation and Bancom Development Corporation.

^{2/} According to one estimate the direct cost of processing an SSE loan varied between P 7,500 - P 12,000.

2.51 The experience of NBFIs using IGLF funds for onlending has been mixed. Most NBFI's complained about the red tape involved in dealing with IGLF, and argued that the high level of arrears on their lending through IGLF would be tolerable if the loan ceiling were raised, the guarantee feature improved and the red tape reduced. ^{1/}

2.52 To conclude, NBFIs to date have been averse to lending to SSE. While in some instances short-term loans are being made the volume of such lending is insignificant while the volume of term lending is non-existent.

^{1/} Most of the suggestions have been incorporated in the recent IGLF loan.

III. EXPERIENCE OF THE FINANCIAL INSTITUTIONS: (B) CONCLUSIONS

3.1 In the preceeding analysis, three categories of lending were considered: lending by the private sector institutions out of own resources; lending directly undertaken by the Government owned Development Bank of the Philippines, and indirectly through equity finance and rediscounting facilities provided to the Private Development Banks; and lending by private sector institutions using the Government's rediscounting facility (the Industrial Guarantee and Loan Fund) for term-loans to small industries.

3.2 Privately Raised Resources: Private sector financial institutions in the Philippines make few loans and even fewer term loans out of their own resources to small enterprises. Commercial banks, which are the largest source of institutional credit in the country, go in principally for short-term loans, undertaking very little medium- or long-term lending. The reluctance to lend long-term can be explained partly by the interest rate structure and the banks' adherence to the "golden rule" of matching maturities between borrowing and lending. Under the present system, the maximum effective interest rates on short-term (up to 2 years) and long-term loans (over 2 years) have been administratively set at 16% and 19% respectively. The weighted average costs of resources to commercial banks is currently 13.3%, but would be higher if a greater volume of long-term resources were to be raised. The spreads between borrowing and lending rates are about 2.7% on short-term loans; something in excess of this for short-term loans that are rolled over, allowing for the service fees and other charges involved; and probably not much over 3% for long-term loans, allowing for the higher costs of raising long term resources. Considering the greater administrative costs, project

risks and environmental uncertainties of lending long, the banks are finding it more profitable to lend short. The economy wide shortage of long-term peso resources is also affecting the privately-owned development finance companies and nonbank financial intermediaries, who traditionally concentrate more than the commercial banks on long-term finance.

3.3 The interest rate structure, aside from encouraging short-term lending, discourages lending to SSEs. Prime customers are charged marginally below the maximum rates permitted while creditworthy, near-prime customers are charged the maximum. In addition to the nominal return on loans, both prime and near-prime customers bring in compensating business which increases the effective return on loans made to them. Given that most SSEs bring in little compensating business but are charged the same nominal interest rate, the effective rate of return on SSE loans is lower than on loans made to near prime companies. In addition to the effective return being lower, the administrative cost per unit lent are significantly higher on SSE loans. All the financial institutions interviewed stated that the cost and time involved in processing a loan for an SSE, without an established track record, would be about 2.4% to 3.0% of the loan value as compared to 0.4% and 0.5% for prime and near prime companies respectively. The higher administrative cost results in a lower net spread to the institution. In addition, the risks of arrears and write-offs on SSE loans are higher than on loans to well established enterprises. Consequently, in terms of both return and risk there is little incentive currently for private financial institutions to lend to SSEs out of their own resources. When loans are made by private financial institutions to SSE's they tend to go to a small minority of entrepreneurs with adequate collateral and an established relationship with the financial institution concerned.

3.4 Lending to SSEs through private sector resources will therefore require greater financial incentives than are currently available; changes in the effective spreads through changes in the interest rate structures, service charges and tax rates are obvious possibilities. But as argued in the text, changes in financial incentives are needed to enhance the present programs, not displace them. The Government's programs have shown that the risks and arrears of lending to SSE are far higher than commercial banks would normally accept. Although there has been a reduction in arrears over the past 5 years, it is clear that the returns from developing a small enterprise clientele lie beyond the planning horizons of financial institutions in the private sector. A comparison of the experiences of the different institutions involved in implementing the programs reveals at least five reasons why risks are initially high:

- (i) Purely irreducible and random factors;
- (ii) Term loans to the larger sizes of small and medium industries being outside the scope and specialization of some private sector institutions (the smaller rural banks and PDEs);
- (iii) Internal and external diversions and misuses of funds until control procedures have been fully developed ;
- (iv) the shortage of information on small enterprises and the absence of a formal record-keeping system on credit worthiness; related to this is the point that the abilities and other qualities of owners are broadly distributed,^{1/} leading to difficulties in distinguishing between sound and unsound loan requests until sufficient information and experience have been gained; and

^{1/} This same characteristic also leads to high turnover rates of small enterprises.

- (v) The tasks of training staff and developing screening, appraisal and supervision procedures.

The last three items each involve high fixed costs and economies of scale in developing the lending programs. While the traditional economics argument would be to let interest rates rise to reflect costs, there are difficulties in implementing it in practice. Higher interest rates for loans to small than to large borrowers might be subject to political charges of discrimination. Even if interest rates went to high levels, this could raise doubts within the institutions about the capacity of SSEs to service debts; that is, supply curves could be backward sloping.^{1/}

3.5 Allowing for these factors makes it difficult to decide what mix of incentives is appropriate, and for this reason we have merely raised the issue. One obvious possibility is the adoption of mandatory ('forced balance sheet') measures to back up any shifts in financial incentives. But such methods are themselves easily avoided, without extensive controls and monitoring procedures. An alternative would be to encourage a small but select number of financial institutions to develop a long-term interest in small enterprise lending and derive benefits from economies of scale; IGLF was of course conceived with this in mind, except that it has been spread thinly across a large number of institutions in practice.^{2/} The development of a long term interest, however, would still require adjustments in the financial incentives.

1/ A comment made to us by Naburo Kawai.

2/ Concentrating on a few institutions would also make IGLF easier to monitor.

3.5 Government Programs: (a) The Larger Small Industry Loans. Since private sector financing is not available, there is almost exclusive reliance on the Government's programs. The lending rates on loans made through these programs to small enterprises are below the 19% ceiling rates,^{1/} but the spreads accruing to the financial institution have not been sacrificed as the funds were made available at less than the market rate.

3.6 Some commercial banks had found IGLF loans to be profitable, but only by accepting highly creditworthy clients with solid collateral, and have in consequence made very few loans. On the other hand, non-Bank financial intermediaries such as PDCP have made a greater number of loans, but concentrated on the larger end of the small enterprise size distribution, with loan sizes averaging over ₱ 350,000 (in 1978); the service charges^{2/} enabled them to put substantial effort into screening, pre-loan services, loan appraisal and supervision. Analysis of the experience of other institutions, including DBP, shows that such screening procedures are necessary if risks are to be kept down. In the IGLF program, institutions with high arrears tended to be those which did not have much past experience in term lending. In the case of the Rural Banks and the smaller Private Development Banks, the IGLF loan sizes were also several times greater than those of their normal loans, and they were unable to appraise and supervise them appropriately.

3.7 One of the achievements of the program has been the development of project-lending procedures within DBP and some private sector institutions (such as PDCP). The immediate aim is to develop these further and, in the

^{1/} With the exception of loans made by the PDBs, and rediscounted by DBP and the Central Bank. On DBP loans the rate charges is 15.5% while on IGLF it was 13.2% as of December 1978 (the latter was recently raised to 14.2%).

^{2/} These work out at about 2% of loan amount, regardless of loan size.

case of IGLF, to involve private sector institutions selectively. Given the difficulties encountered in the first five years of the program, and the progress made in developing procedures, a forum for the exchange of views and experience between institutions seems desirable; the establishment of a common credit-record keeping system (for both private and Government program loans) would also help.

3.8 Loans to small enterprises continue to be prone to high arrears, however, and a rapid rate of decline seems unlikely given the poor state of records in and information on small enterprises^{1/} - or more generally, the difficulties of servicing a diverse and largely unknown clientele. One method employed by DBP and IGLF to cushion the losses is to blend the small industry programs with lending to medium-scale industries so as to increase the return and reduce the overall risk on the institution's SME portfolio. In addition, it permits the financial institution to make second loans to expanding enterprises (loans to enterprises with track-records are much less risky).

3.9 Government Programs: (b) Cottage (or Home) Industry Loans. The formalized screening and appraisal procedures discussed above are too costly to apply to small loans (of less than ₱ 50-100 thousand), so simpler procedures have been adopted by DBP and the PDBs, who are the only institutions offering term-loans to home industries.^{2/} Loans are made at the branch level on the basis of character, collateral, and a personal knowledge of the local enterprises. The experience so far is that such procedures have cut both administrative costs and risks: arrears are significantly lower in the provinces (by a factor of four in the case of DBP);^{3/} and the administrative

^{1/} Which is why the MASICAP program and the pre-loan services of PDCCP are so important.

^{2/} PNB also have a cottage industry loans facility, but it is not actively promoted.

^{3/} The small industry loans of DBP also had similarly lower arrears in the provinces.

costs are within the gross spreads estimated above. The branch networks of DBP and the PDBs have thus proved to be low cost and relatively low risk channels for handling a large number of small loans to home industries. The PDBs have also lent quite extensively out of privately raised resources,^{1/} principally savings and time deposits.

3.10 Cottage (or home) industries in the Philippines are defined to include small manufacturing establishments and workshops with assets of up to ₱ 100,000. (The term is thus a misnomer, since these activities are not in the home.) As noted in the introduction, there are over 70,000 such establishments, which are one of the most rapidly growing sources of employment and earnings opportunities in the country. (Manufacturing employment in households has peaked and probably started to decline.) DBP and PDBs currently lend to this sector. However, the reliance on DBP and PDBs for home industry loans limits the geographical coverage of the program, and its ability to cater to a growing demand. The floor limit of ₱ 50,000 on IGLF loans also effectively closes off this channel to home industries. If the limit were removed, and accompanied by appropriate simplifications in loan procedures for "home" industry loans, the branch networks of the commercial banks could prove to be ideal outlets; as with the DBP branches and the PDBs, commercial bank branches benefit from a close knowledge of their local communities and businesses.

3.11 Government Programs: (c) Working Capital Finance. Since the programs concentrate on the finance of fixed assets and permanent working capital, we have so far not discussed working capital finance for small enterprises. At this point

^{1/} For reasons discussed above, the weighted average cost of resources to PDB is lower than for other banks. Consequently the gross spread accruing to PDBs is higher than would normally be the case.

it might be useful to anticipate some findings on the subject reached in the next Chapter. This entails duplication; but the issues are sufficiently important to warrant it, and were raised both during interviews with the enterprise owners themselves and by the staff involved in the program. The first finding is that the demands of small industries for the finance of working capital are probably as great as those for the finance of fixed assets. The historical experience of the industrialized countries, and the current (if sketchy) evidence from developing countries, indicates that more than half of the asset structure of small and medium industries is made up of working capital.^{1/} Second, the finance of fixed assets only, without tailoring the financial package such that subsequent access to short-term finance is guaranteed, places a financial stress on the business, and increases risks, by leaving it with high overheads and a limited ability to respond to changes in orders. Financing 'permanent' working capital does not provide for this since it is concerned only with minimum levels of inventories and cash reserves, not with needs resulting from day-to-day changes in sales and purchases. Third, because it can be related to current sales levels and contracts, working capital finance is inherently less risky. Fourth, it is also more likely to involve the commercial banks in the program.

3.12 For these reasons we have suggested that the provision of working capital finance ought to form a point of departure for the future of the program. The point was also made that the most effective - though by no means exclusive - channels for working capital finance in industry are trading firms, which provide the further advantage of coupling the finance with access to markets,

^{1/} Kennett (1979). Working capital includes the value of materials and supplies, work in process, finished products in stock, cash reserves and accounts receivable .

reducing risks all round. In the interests of providing small industries with improved access to finance and markets, therefore, it seems desirable to expand the scope of the program to cover small (and medium) enterprises, in the general sense that we have defined the term in Chapter 1.

3.13 Postscript: Further Changes in 1979. The interviews on which the above analysis was based were conducted with twenty institutions in November 1978. There have naturally been some changes since then, all of which, however, confirm the general conclusions reached above. Supplementary interviews were undertaken with six institutions at head and branch office levels in November 1979. The weighted average cost of resources had risen from 13.3% to close to 16% during the year (one institution was actually using a shadow price of 16% for planning purposes), on account of the pressure on short-term resources brought about by falling sugar prices and rising oil prices on the balance of payments. The effects on lending to SSEs were (predictably) a substantial cut-back on both current and planned lending, and a readiness to lend - on the part of the accredited financial institutions - only through the Government's IGLF program. One other private financial institution (Allied Banking Corporation) had begun to develop specialization in term-lending through IGLF, more or less in lines with arguments set out above, and in parallel to the efforts of PDCP.

3.14 Summing up. The Government's programs are providing an increasing number of small enterprises with access to institutional credit, and they have shown that the administrative costs and risks of lending to small enterprises can be reduced with experience and as appropriate screening procedures are developed within the institutions. But the volume of lending is small compared to both the demand for credit by small enterprises and the resources of the

private financial sector. The structural constraints preventing private financial institutions from lending out of their own resources to SSEs will have to be eliminated if financial institutions are to build on the experience gained through the Government's programs.

IV. INDUSTRIAL EXTENSION

Introduction

4.1 In parallel with the financing programs for small and medium industries, the Government introduced in 1974 two kinds of industrial extension service, both run by the Ministry of Industry. One offers assistance in the preparation of projects for finance out of the enterprises' own resources or by the financial institutions, and the other a range of entrepreneurial counselling and other advisory services. The former is known as MASICAP (the Medium and Small Scale Industries Coordinated Action Program) and the latter as the SBAC (Small Business Advisory Centers') program. The two are administered under one department and share the same field offices. This Chapter reviews the activities of the programs over their first five years and considers the questions:-

- what has been the demand for the services offered?
- what are the costs and the nature^{1/} of the economic benefits in providing them?
- in what ways might the services be improved?
- is the private sector providing them also and, if so, what is the role of the Government's programs?

4.2 The last question is often raised in connection with government-sponsored extension programs, and a discussion of it in a Philippine context helps to provide some clarifications. What is at issue is less whether the services in themselves are sought by small enterprises (though there is surprisingly little known about the extent of the demand) but whether they need to be provided through government programs. Further,

^{1/} Relevant data are not available for quantitative estimates to be made.

given the large number, the geographical spread and the heterogeneity of small enterprises there is also the issue of whether they can in fact be serviced effectively without great expense and establishing a large bureaucracy. The findings are summarized in the concluding section.

4.3 While the following analysis concentrates exclusively on the Ministry of Industry's programs it should be added that several other Government agencies offer services to small enterprises. Their activities have not been reviewed here because the task would be too long. They have been documented in a thesis by Chico (1976) and more recently in a study by the University of the Philippines' Institute for Small-Scale Industries (1979). The various agencies are represented on a Commission for Small and Medium Industries, which has the responsibility for developing overall policies; a review of the Commission's work is also outside the scope of the present report.^{1/}

Project Preparation Services (the MASICAP program)

4.4 Background. The idea that led to the MASICAP program can be summed up by noting that small enterprises, like financial institutions, face transactions costs (risks and administrative costs) in obtaining loans. Moreover, the poor shape of their records raises the transactions costs to the institutions. Before the extension programs were introduced

^{1/} Members of the CSMI are: the Ministry of Industry (which chairs the Commission); the Department of Trade (to which the National Cottage Industries Development Authority is also affiliated); the University of the Philippines' Institute for Small Scale Industries; the Development Bank of the Philippines; the Central Bank of the Philippines; the National Economic and Development Authority; the Department of Local Government and Community Development; the National Science Development Board; the National Manpower and Youth Council; the Design Center of the Philippines; and the Food Terminal Incorporated. Other agencies (such as the Technology Resource Center) are also involved in the program but are not members of the CSMI.

in 1974, lending facilities were already available to small enterprises, but had been little used in practice. The reasons given were "(a) that the institutions had not developed the capability of handling a large volume of small loans to small industry, and (b) the majority of small industries, having previously had no access to institutional credit, were unable, at least initially, to exploit this new resource properly and fully." With the introduction of term-lending facilities in 1974, transactions costs to both borrowers and lenders were expected to rise further since project analyses (involving forecasts of cash flows) were considered to be necessary for all except small projects and businesses of good standing. The idea was to absorb at least part of the transactions costs in the extension program, since the extension workers could undertake much of the preparatory work in submitting projects to the banks: in doing so they could also serve an educational purpose of disseminating ideas about business management practices and information on production methods. The theory was that once the preparatory work had been done successfully once for an enterprise, the transactions costs would be permanently reduced on both sides; furthermore, with increasing numbers of projects financed, there would be a greater willingness on the part of the institutions - provided the program had generated a satisfactory proportion of successful projects - to finance small enterprises independently of MASICAP.

4.5 The program was in fact designed not to be a permanent aspect of the Government's programs. It was also intended to be educational in itself, and a means of supplying public and private institutions with

experienced field workers having a knowledge of the workings of small businesses. The extension workers are given two year appointments, and practically all are recruited by financial institutions, industry or other government agencies on leaving the program.^{1/}

4.6 The program covers all regions outside Metropolitan Manila, in accordance with the regional objectives mentioned in Chapter 2. In the first five and a half years, project studies had been completed for 5,000 businesses^{2/} and submitted for financing. The annual volume of projects prepared has fallen somewhat in recent years as the extension workers have begun to work increasingly in the towns and villages away from the regional centers. The decision to finance is at the sole discretion of the financing institutions, who have so far^{3/} approved 50% of the projects submitted; 24% were withdrawn or rejected after a preliminary screening, and 6% were disapproved after full appraisal; on account of long queuing and processing times (to be discussed further

1/ A key feature of the staffing policies is the recruitment of senior students with outstanding academic records from colleges and universities; they may substitute some course work for field work in the program. In 1978 the MASICAP staff totalled 147, of whom 134 were field staff on two year appointments, and only 4 (all at headquarters) were permanent. Since then a core of regular and experienced staff have been recruited in each of the 12 field offices to supervize the extension work and introduce more maturity and continuity in the program. Training of the extension workers is provided through lectures from representatives of various public and private financial institutions, government agencies and the senior extension workers.

This staffing policy was in part a compromise, since it was necessary to recruit people "(a) willing to live and work in rural areas and towns, and (b) with the technical ability to identify promising projects and turn them into bankable propositions. At the beginning of the program the first qualification was considered more crucial than the second. Moreover, it was expected that the banks would provide the quality control through appraisal." These descriptions, together with the one quoted in the previous paragraph, were provided by Joe Pernia.

2/ Plus a further 500 small rice mill projects submitted to the National Grains Authority for licence permits. (The NGA requires the mills to conform to certain standards, including maximum allowances on wastage levels.)

3/ See Annex Table 4.1 for more details.

below), about 20% are still awaiting decision.^{1/}

4.7 In practice, it is the smaller and more uncertain cases that are generally referred to or identified by the extension workers. As discussed in Chapter 2, the private financial institutions using IGLF offer preloan services to the larger of the small enterprises requesting loans upwards of about P 100-150 thousand, for which the service costs, as a percentage of loan amounts, are relatively low; loans in this size range have so far formed practically all of their portfolios. About 75% of MASICAP projects are far less than P 150 thousand, and 46% for less than P 50 thousand^{2/} (Annex 1 Table 4.2). The large majority (96%) are also single proprietorships, employing less than 20 workers at the time of loan requests; in comparison, between one half and two thirds^{3/} of the enterprises financed independently of MASICAP are incorporated.

4.8 Before turning to issues facing the program, one other aspect of the extensionists' work that merits comment is the heterogeneity of businesses encountered; it is this that necessitates an independent technical and financial analysis of each case. Small enterprises are found in practically all sectors of industrial activity,^{4/} and may differ

^{1/} See paras 4.18 et. seq.

^{2/} The large volume of small loan requests has also created a dependence on DBP, as discussed further below.

^{3/} Source: File records of IGLF reviewed in Mrs. Fajardo's report.

^{4/} Annex 1, Table 4.3 provides a three digit breakdown of a sample of MASICAP, DBP and IGLF projects.

in technical and financial respects even within narrowly defined industrial sectors. In contrast to agricultural projects, it is not possible to consider different scales of activity, make an assessment of the cash flows and business budgets for various technology packages, and determine the economic and financial merits of a program of inputs for a region; even the market outlets and sources of material supply may differ between businesses that are otherwise similar,^{1/} some for instance concentrating on local and others on national or export markets. Industrial extension presents difficulties fundamentally different to (though certainly not greater than) those found in agricultural extension. The costs of industrial extension are also raised by the need to assess the technical and financial merits of each case individually.

4.9 Issues.^{2/} The issues facing the program can be grouped under four headings: (a) Risks, as reflected in the arrears on loans and the closure rates of the enterprises assisted; (b) the costs and risks of the program in relation to its economic returns; (c) the dependence of the program, and thus of the enterprises financed, on DBP; and (d) the shortage of short-term loans for working capital finance.

4.10 (a) Arrears and Closure Rates of Enterprises Assisted.

Monitoring surveys were undertaken by the Ministry of Industry in 1977 and 1979, the first taking a 50% sample of all projects, and the second a 100% sample of all manufacturing enterprises having received loans

^{1/} See Chapter 5 for a discussion of the markets of small industrial enterprises.

^{2/} The following is based on analysis of records; interviews with extensionists and the branch and head office staff of several financial institutions; visits to 30 enterprises assisted under the program; and the interviews reported in Chapter 5 with 80 enterprises not assisted.

of over P 15,000.^{1/} The questions considered were, are the enterprises still operating? are they up-to-date or in arrears in loan repayments? if in arrears, what are the causes? and how do actual sales, profits and employment compare with what was projected?

4.11 The statuses of the enterprises assisted, and of the loans made to them, are shown in Annex 1, Table 4.4. About 25% had closed down by 1979, an average closure rate of about 9% per year.^{2/} The latter is higher than the "natural" closure rates of 3 to 5% per year for small and medium enterprises as a whole, estimated in Chapter 5 from NCSO and interview data,^{3/} and appears to have increased significantly since the 1977 survey. Forty six percent of the projects had loans in arrears. Total arrears in principal and interest outstanding were 15%, which is lower than the averages reported in Chapter 2 for IGLF and DBP, but much higher than the private sector would consider as being acceptable. Higher risks might be expected on MASICAP projects since as noted earlier it is the more uncertain cases that are referred to the extension workers in the first place. In addition, the arrears levels are partly a consequence of the still evolving appraisal and supervision procedures

^{1/} Also included were non-manufacturing enterprises with loans of over P 50,000. Unfortunately, self-financed enterprises assisted by the extension workers, which could have provided some useful contrasts, were excluded from the sample.

^{2/} Estimated as follows. Let n_t be the number of enterprises assisted in year t, t years before the monitoring survey, f the closure rate and P the proportion having closed down by the time of the survey. Then the proportion remaining (1-P), is given by

$$\frac{\sum n_t (1-f)^t}{\sum n_t}$$

Values of n_t are provided in Annex 1, Table 4.1, and (1-P) is 0.252 from Annex 1, Table 4.4.

^{3/} Paras 5.16 et. seq.

of the financial institutions; the financial institutions are solely responsible for accepting or rejecting a loan request and, with hindsight, several of those involved in directing the MASICAP program were surprised that the rejection rate of MASICAP projects during appraisal was so low (Annex Table 4.1). Nevertheless it is necessary to inquire if MASICAP's own procedures can be improved in various ways to reduce the risks; on this, two suggestions can be made.

4.12 First - a not uncommon phenomenon - there is a tendency for project benefits to be overestimated and costs to be underestimated. Examination of a sample of 100 projects showed that sales levels in the first year were at least 50% below what was forecast in 66% of the cases, and between zero and 50% below forecasts in another 24%.^{1/} Actual employment levels were also substantially below forecasts. Since the loans went to finance an expansion of fixed assets, the costs of which were also underestimated, most firms (including many not subsequently in arrears on loan repayments) immediately ran into cash flow problems. While the monitoring surveys commonly attributed the arrears problem to a lack of markets, the reality was that the markets, and the firm's share in them, had been overestimated. One safeguard against the optimism would be to involve the extension workers more in follow-up work on the projects, as has recently been proposed in the Ministry. At present the projects are left entirely to the banks after appraisal, and the extension

^{1/} Reported by Mrs. Fajardo (1979).

workers have no systematic knowledge of how they work out in practice. The idea is that, apart from being useful to the banks in their own supervision work, an arrangement which involved the extension workers visiting and reporting on the projects periodically would also introduce more realistic expectations into their forecasts. Having to be accountable for the quality (as opposed to quantity, as at present) of projects would also be a good discipline.^{1/}

4.13 A second way of reducing risks would be to make finance available only to existing enterprises,^{2/} and to relate the amount lent to the current size of the business. This would not preclude offering advisory and training services (through the SBAC program) to new or prospective businessmen, but the evidence is that to finance them when new, or to increase the size of a business substantially in one step, significantly increases the risks. An additional point is that the majority of businesses start with very low levels of investment in order first to develop the products and establish their markets and supplies before expanding into larger entities; very few need large amounts of finance when beginning.^{3/} Annex Table 4.5 presents data on the characteristics of enterprises in arrears and up-to-date in loan repayments. Comparing the percentage distributions shown in the Table, the percentage of projects in arrears on loan

^{1/} The annual and quarterly reports on the program currently give only the numbers of projects prepared and in various stages of processing, but no records as to their status after finance.

^{2/} C.f. the practices of the private financial institutions discussed in Chapter 2, which only lend (other than for small personal loans) to people having been in the business for some time.

^{3/} For a further discussion see Chapter 5.

repayments are relatively high among enterprises (a) that were new, (b) had received the largest loans (of P 500,000 and above), or (c) had received large loans relative to the size of the enterprise before the loan. All three situations leave the businesses with comparatively large overheads and highly vulnerable even to small shortfalls in markets and supplies.

4.14 Another feature of interest in the Table is the lack of any association between the incidence of arrears and the type of ownership, the location and type of product market, or the size of the loan (below about P 500,000). There is no apparent variation in arrears with respect to the type of ownership (single proprietorships or incorporated enterprises), market location (local, regional, national or export), or market group (low or high income).

4.15 One other possibility for reducing risks would be for the program to respond more explicitly to the demands for working capital loans, which are inherently less risky than loans for fixed assets. As working capital finance raises several issues not related to risks, however, it is taken up under separate heading below.^{1/}

^{1/} Paras 4.22 et. seq.

(b) Effects of Extension Costs and Enterprise Closures on The Economic Returns to the Program. The costs of training and paying for extensionists to work individually (often over a long period) with each of a large number of small enterprises naturally raises the question, how seriously do they affect the chances of having a satisfactory economic return to the program? A similar question can be raised about the high closure rates discussed above. The lack of reliable ex post estimates of profits and earnings in the enterprises assisted unfortunately prevents specific estimates of economic returns being made at the present time; but by considering a range of values, some general answers are possible. The economic benefits of each project can be estimated by comparing the present worth of incremental sales with incremental costs. If these are aggregated up over all projects and an economic rate of return is calculated, denoted by r^* then the actual returns to the economy are given by:^{1/}

$$r = \frac{r^*}{(100 + e)} - \lambda$$

where e represents the costs of extension, expressed as a percentage of the capital costs of the investments, and λ the closure rate (percentage of enterprises closed per year).

4.16 Overall costs in the first five years of the program were P12.8 million (\$1.8 million), and the number of projects prepared and subsequently financed,^{2/} 1,800. Average loan size was P190 thousand,^{3/} so that assuming

^{1/} See Addendum. The formula does not include the administrative costs faced by the financial institutions, since here we are only considering the effects of extension costs on the returns. r and r^* should therefore be compared with the opportunity cost of supplying capital from the banks.

^{2/} Allowing for those in the pipeline at the time.

^{3/} Based on a sample of 100 projects. (Only the size of loans requested appear in the MASICAP reports.)

20% equity finance the costs of extension worked out at about $e = 3.0\%$ of the total investments in the projects. If a small number of large projects are excluded, ^{1/} however, involving loans of over P500 thousand and which are not representative of the program's work, the figure would more realistically be close to 5%. The closure rates for the enterprises financed after the assistance from the program averaged about 9% per year, though as discussed earlier there are some grounds for thinking that the figure is rising. If, then, to take an example, the rate of return on financing the enterprises was 15%, ignoring extension costs and closures, it would fall to $15.0/1.05 = 14.3\%$ including extension costs, and by nearly two thirds to 5.3% allowing for closures. Considering a range of values of r^* gives the following:

Rate of Return, not including extension costs and before allowing for enterprise closures	5.0	10.0	15.0	20.0
Rate of Return, including extension costs but before allowing for closed enterprises	4.8	9.5	14.3	19.0
Rate of Return, including extension costs and allowing for closed enterprises	-4.2	0.5	5.5	10.0

Hence the closure rates are probably having a more adverse effect on the economic returns than the costs of extension, which by comparison are insignificant. The extra costs of introducing supervision procedures, as suggested above, and placing during supervision a greater emphasis on the quality (as opposed to quantity) of projects would no doubt be justified if, as intended, they were to reduce the closure rates.

4.18 The larger question as to the ex-post benefits of the program cannot be answered at the present time without information on the profits and labors' earnings variables noted in the Annex. Ex-post estimates at present might in any case be misleading as to the long-run value of the program, if, as argued above, there is scope for improving it further. Ex ante estimates are possible but would be undependable until a

^{1/} Comprising 8% of the number of projects in the portfolio.

better forecasting record has been achieved.^{1/}

4.19 (c) The Dependence of the Program on DBP. About 75% of the projects generated by the program were financed by DBP, 11% by IGLF, and 14% by the owners' own equity, other public banks and (a very small percentage) by private banks and investment houses out of private resources.

4.20 The low involvement of the private sector (other than via IGLF) is a consequence of the structural constraints discussed in Chapter 2, which make private lending to SSEs unprofitable. There is consequently a high demand for DBP and IGLF loans, for which queuing times average four months, and are often six months to a year (Annex Table 4.6). The low interest rates of DPP and IGLF further encourage queuing, and also a number of enterprises to seek the assistances of MASICAP that would not normally do so, but see the program as a way of obtaining low cost funds. A survey of the file data and visits to enterprises showed that a not small percentage of MASICAP and IGLF clients had had very good educations, and had both the income and familiarity with banks to undertake or otherwise organize the preparatory work themselves. These points highlight a danger facing the MASICAP program. This is that, so long as the structural constraints inhibit the private financial sector's involvement, there is a possibility of the program becoming a permanent part of the bureaucracy of administered credit.

^{1/} See also Chapters 7 and 8 on methods of estimating benefits.

4.21 Within the Government's financing programs the dependence on DBP follows from the size distribution of loan requests in MASICAP's projects; 44% are for under P50,000 which is below the floor limit on IGLF, and 74% for under P150,000, which is about the minimum size of loans (though there are exceptions) that the private institutions using IGLF find profitable. If then the intention is to use IGLF to encourage a wider involvement of the private sector in lending to small enterprises, there is a case for making the spreads on IGLF greater at the very small loan end, and for removing the floor limit.

4.22 (d) Working Capital. The shortage of working capital finance is (like the program's dependence on DBP) not strictly an issue to be taken up in connection with the MASICAP program; but since it is the experience gained through the extension program that serves to highlight the issue, it is appropriate to raise it in this Chapter.

4.23 The present financing programs of the Government are almost wholly concentrated on term lending. While some of the finance is for "permanent" working capital, the main part is for fixed assets.^{1/} The share of finance

^{1/} See Annex Table 4.2, footnote 1.

for working relative to fixed capital is also often reduced during appraisal, ^{1/} in part because the latter can be used to secure the loan. Although we were unable to demonstrate the point quantitatively, interviews with several proprietors suggested that perhaps over one third of the projects would have been better suited for working capital finance, or required a better blend of working and fixed capital finance. In some cases, the projects were applications 'in disguise' for working capital, in which the fixed assets (on buildings, especially) had been dressed-up in various ways; this had often placed a financial stress on the business, by adding to overheads without adding correspondingly to output. In other cases the owners said explicitly that what had been needed in the first place was working capital. ^{2/}

4.24 The available data on small manufacturing enterprises shows high proportions of working capital in the asset structure. In the industrialized countries, it has historically been the principal element. Kennett (1979) remarks that "the technological transition of the Industrial Revolution was largely financed in the form of working capital. In the middle eighteenth century the ratio of inventory to fixed capital in metal working and textiles in England was around 8:1 The technology change saw an increase in fixed capital, but well into the nineteenth century the value of inventories was 3 or 4 times the replacement value of fixed capital." For US manufacturing in 1974 his estimates of the ratios of working to fixed capital were 2.03, 1.70 and 1.33 respectively for small, medium and large firms. Precisely comparable

^{1/} See Annex Table 4.2.

^{2/} This point is also apparent from the monitoring surveys of the MASICAP program.

data are not available for Philippine manufacturing. Working capital assets include accounts receivable, cash and short-term securities, and inventories. Data are only available for inventories, which according to estimates from other countries comprise less than half of working capital assets; ^{1/} they are shown in Table 4.1:

Table 4.1: FIXED ASSETS AND INVENTORIES
IN PHILIPPINE MANUFACTURING, 1974. (PERCENT DISTRIBUTION)

	5 - 19 Employees	20 or More Employees
<u>Fixed Assets</u> (Based on Book Values)		
Land	11.9	3.1
Buildings	12.4	8.2
Machinery and Transport Equipment	34.5	34.4
Other	4.2	3.3
Total	<u>64.0</u>	<u>48.9</u>
<u>Inventories</u> (Based on Year End Values)		
Finished Products	9.7	15.4
Work in Process	3.6	5.9
Materials, Supplies, etc.	22.7	29.8
Total	<u>36.0</u>	<u>51.1</u>
Total	100.0	100.0

Source: NCSO Annual Survey of Manufacturers.

The data are not dis-similar to those footnoted below for India. The share of inventories in total assets varies greatly with industry, ranging from about 26% for food processing, 32% in textiles, 41% in wearing apparel, and 62% in the manufacture of machinery and equipment (these figures are all for small scale). ^{2/}

^{1/} Kennett's estimates for small-scale industries in India (in 1970) and in the U.S. (1974) are as follows; the figures shown are percentages of total assets:

	<u>India</u>	<u>U.S.</u>
A/C receivable	24	26
Cash	3	13
Inventory	35	28
Fixed Assets	<u>38</u>	<u>33</u>
	100	100

Kennett adds that the 'cash' figure for India may be higher for various reasons.

^{2/} Source. As for Table 4.1.

4.25 It may help to make issues in working capital finance more concrete if an example is taken. If a business expands its fixed assets by P 100 thousand using a DBP or IGLF term-loan, it is likely to require at certain times of the year an expansion of assets in working capital ranging from about P 70 thousand to P 200 thousand or above depending on the sector - say P 150 thousand on average, corresponding to 60% of assets being in the form of working capital. Of this, about P 30 thousand or 20%, will be a minimum below which stocks and accounts receivable will not fall, unless the business is in dire straits; this is the 'permanent' working capital of the business, and by coincidence it is roughly the amount that DBP and IGLF finance on average. The remaining P 120 thousand - which is still greater than the original investment in fixed assets - must come out of retained earnings, trade credits or further loans. But in most cases, further loans are forestalled by the collateral already tied up in the loans on fixed assets, unless the appraiser and the owner were prescient enough to anticipate the need to leave some collateral 'in reserve' for working capital loans. Trade credits in the form of advanced purchases may be common for some firms, such as those to whom work is 'put out' or subcontracted; but however important this source may be, it is not universally available or useful to all firms. Trade credits on materials supplies are often available too, and are common in the garments industries (where putting-out is also common). But what about firms with relatively long production periods, in which labor costs and overheads are high while material costs and stocks are low? Similarly, what of the firms in the agricultural provinces - e.g. those maintaining or supplying agricultural equipment,

or others catering for fairly steady demands where the consumers incomes fluctuate seasonally - which may need to offer credit to, rather than receive credit from, their customers? In these cases, trade credits are either not available, or supplied rather than received, and, in the absence of short-term finance from banks, the business must turn to the curb market or retained earnings. If these sources are also scarce, the result is a substantial financial stress on the business.

4.26 To sum up, both the needs for and the sources of supply of working capital finance vary greatly between businesses, and in practice many businesses 'blend' different sources of finance. Further, some may need for more short-term than long-term finance.

4.27 There is then a case for the programs to respond more explicitly to the demand. First, there are several disadvantages of supplying working capital finance "permanently" since the timing and the magnitudes of a businesses' demands for working capital are highly uncertain, and vary with the flow and size of job-orders and the availability of supplies. Second, it would eliminate the financial stresses just mentioned that are unnecessarily placed on some businesses, and which are reported by the extension workers to have caused several closures. Third it would reduce the risks on the program. Working capital finance is intrinsically less risky since the amounts requested can be related to current sales and assets or contract orders, instead of to forecast values. There may also be some merit in financing more of the former and letting a greater share of investment finance come out of retained earnings. It would, for instance, constrain an enterprise to grow

more naturally in relation to the growth of its markets, and avoid the dangers of expanding (as happened in several of the cases discussed above) in large steps to meet anticipated but as yet unrealized markets; one can be too conservative in these respects, but as seen above it is also too easy to be excessively optimistic. Fourth, the demand could be met more speedily, and the policy would reduce the congestion now faced by DBP, and the long-processing times (which are not admissible for working capital finance) faced by the borrowers. There is also no reason why it should not - and perhaps more so than with long-term loans - act to familiarize institutions in lending-to small enterprises and reduce their perceptions of the risks involved; it would be consistent therefore with the basic ideas of the Government's financing programs. Lastly, it would probably be a better way of involving the commercial banks in the program.^{1/} Although there are exceptions (as discussed in Chapter 2) IGLF has met with resistance in part because term-lending is not a specialization of commercial banks, and has proved to be more acceptable to those non-bank financial intermediaries more specialized in term finance.

4.26 As to supply, the ideal policy would be to release the constraints on effective spreads, discussed in Chapter 2, and support the changes as necessary with risk-guarantee or risk-sharing schemes (analogously with IGLF). Alternatives are possible, however, and the purpose of the present discussion is merely to raise the issue. There also seems to be no good reason why the supply points of working capital to industry should be concentrated on the financial sector alone; trade credits from commercial enterprises in many respects make much more

^{1/} Joe Pernia pointed out that, if the extension program were involved in providing assistance with working capital finance, it would require a revision of procedures.

efficient and lower risk suppliers - if only because they also offer the market outlets, materials supplies and a range of product design, advisory and training services as well. This was particularly apparent in a series of interviews held with enterprises in the garments and handicrafts sectors. In several cases the enterprises were ostensibly in manufacturing, but most of the work was in fact put-out to households; the owners themselves were mainly involved in designing the products, marketing, obtaining raw materials supplies and training the household workers.^{1/} Hence the Government's policies - and in particular their financing aspects - could be more effective if they did not concentrate specifically on small industrial enterprises, but responded to the demands of small enterprise more generally.

4.27 One objection to supplying working capital might be that it is less likely to be associated with an increase in the demand for labor. There is, however, no evidence for this, as the examples provided in the preceding paragraph illustrate. The demand for labor is determined more by the growth of markets than perhaps any other factor. By improving access to supplies and the capacity of business to meet larger orders, working capital finance should have a measurable influence on employment and earnings opportunities.^{2/}

^{1/} Two of the small enterprises of this type that we interviewed (one in garments and blankets, the other in macrame) were marketing the output of over 200 households (the figure was easily checked from figures on the sales volumes and the times taken to produce the articles). One had since established a central weaving and garment making factory, but continued putting-out work to households; in the other, only a dozen employees worked in the main establishment, some to provide training, the others handling materials and storage. The households work in groups, each with a group leader, to whom a commission is paid, responsible for passing out the materials, supervision and controlling quality. "Putting-out" appears to be quite widespread in the Philippines, as it was historically in Japan.

^{2/} See Chapter 7 for a discussion of methods for assessing the benefits and costs of alternative policy and project measures.

Advisory Services (The SBAC program)

4.28 So far the discussion has only considered the preparation of projects for finance. But the larger element in the Government's extension programs, at least in terms of professional staffing, is to provide advisory services to small industries. From the beginning of the Government's SMI program these have always been considered desirable since it was felt that the demands of small enterprises would not necessarily be solely for finance. This is particularly true for enterprises just starting up (as the enterprise interviews reported in the next chapter will show), when most begin with very small investments. Since 1974, Small Business Advisory Centers have been set up in each of the 12 administrative regions of the country; they now employ over 100 regular professional staff variously specialized in engineering, finance and business management. Before examining questions (a) about the demand for such services, and (b) what the Government's role is in providing them, it is necessary to discuss what they are intended to do. Some points will also be footnoted from another report on the same subject;^{1/} although produced in a very different context it provides evidence and conclusions remarkably similar to those following from the Philippines' experience.

4.29 Services Offered. The services are provided free of charge,^{2/} and cover most aspects and stages of small business activity. Most of the clients are "walk-ins" or referred to the SBACs by others (Annex Table 4.7). About 30% of the SBAC's work is in what is called entrepreneurial

^{1/} The Bolton Report on Small Firms in the U.K. (November 1971; Reprinted 1978.)

^{2/} The issue of whether to charge for services is taken up further below. Para 4.

counselling ^{1/} for new or prospective business people, and another 40% for established businesses with "no serious problems" but who visit the SBAGs to talk to the staff about the running or expansion of their businesses. ^{2/} While advice on specific technical, marketing or

1/ The advice offered here is about marketing opportunities, whether the industry is over-crowded, sources of equipment, sources of finance, suggestions on cash flow management, various pitfalls (of which starting too large before markets are established is common). Seminars for small business proprietors are sometimes held in the centers.

2/ One of the distinguishing characteristics of very small businesses is that the owners control all aspects of the business, are often able to keep records in their heads, and have no felt need for accountants or managerial support. The SBAC staff find that the most noticeable tendency of small businesses when expanding is for the owners to cling to the control of all aspects of the business, even when it becomes too large for one person to manage. Workshops also become congested and expand haphazardly. Discussions on when to employ people with, say, management or accounting skills, showing what other businesses have done, are apparently helpful to the owners in making their own decisions. It is interesting to compare this experience with what the Bolton Report mentioned above had to say about small industries in quite a different setting (op. cit. p.112):-

"The majority of small firm proprietors have no professional or other formal qualifications and only a tiny minority have specific qualifications in management. They run their business on the basis of their experience and commonsense. This may be very effective so long as the scale of the firm's activities remains small enough for one man to control them all effectively, and so long as no serious crisis overwhelms his pragmatic management. Either of these eventualities, however - significant growth or a need to consider drastic changes in the firm's policy - is likely to reveal a need for certain specialist skills which are most unlikely to be found within the average small firm.

"Every large company as a matter of course employs specialists in the functional fields of management. These include, for example, financial management and accounting, purchasing, production planning and control, marketing and personnel management. The small firm is prevented by the scale of its operations from employing a specialist in every function, and in any case, the imposition of a management structure more suited to a large organization would lead only to confusion and/or unnecessary expense. So far as they are needed therefore, and so far as the need is recognized, sophisticated management skills and specialist knowledge must usually be brought in from outside. It is very often the case that the need is not recognized: The implication of this is that there is a very large potential market among small firms for advisory and management services of all kinds."

financial issues is often sought, the SBAC staff say it is as often difficult to pinpoint precisely what it is that the owner may wish to discuss, or, in the case of a business with "serious problems," what the causes of the problems are.^{1/} Reports are prepared if requested, and the SBAC staff member may work with a business over a long period; when a matter lies outside the specialization of the staff, referrals to the specialized trading, industrial and research associations are common.

1/ There is again a close parallel here with what the Bolton Report found about small firm consultancy services in the U.K. (op.cit. pp.122-123):-

"There are two serious difficulties in providing consultancy for small firms: first, the consulting operation is not, as might be thought, necessarily more simple than advising a large firm, but in some ways more difficult; and second, the strong sales-resistance of the typical small businessman necessitates a powerful marketing effort which the majority of consultants, given a high level of demand for their services, are not prepared to make. It is consequently very difficult to run such services profitably.

"Because the small firm will rarely have identified correctly the problem giving rise to the need for advice, the consultant will need very wide experience, since his first task will often be to survey the whole of the firm's operations and identify the basic trouble. This point was well made by a representative of the Management Consultants Association, who said: 'If ICI ask you to come in and do some time study on the loading bay you can be pretty sure that is what they want, whereas if a small business asks you to do that you have not a clue whether that is really the problem.' The small businessman who calls in a consultant is normally aware only that something is going wrong and he expects the consultant to diagnose the trouble and suggest a solution. Very often, he is unwilling to discuss his problem with his staff and [has] nobody else with whom to share the decision making. In these circumstances, if the consultant can gain the businessman's confidence he may perform a very valuable service in providing a sympathetic ear, putting the problems in perspective (which involves pointing out that they are not unique, but have probably been faced and solved in most successful business), and generally acting as a trusted counsellor."

4.30 Follow-up and Evaluation of SBAC Projects. There are presently no procedures which require the SBAC staff to follow-up and report on the progress of the enterprises after they have sought advice. Current records provide descriptions on the backgrounds of the clients and often quite detailed analyses of the technical, financial and managerial aspects of the business. Since the staff often spend a considerable time with the business (from a few hours to several weeks in some cases) a detailed picture of the business and whatever problems are faced is obtained; in the process, the staff workers generate more than a little trust and goodwill. Contact is commonly maintained with the business afterwards, but only informally. As with the MASICAP program, there are good grounds for formalizing the follow-up work and keeping records on current sales, employment, investments and expenditures in the enterprises assisted, and reporting on any current issues. Apart from providing feedback on the program, the information so generated could be useful for reporting on the conditions of small businesses in the provinces (though in both instances it would need to be supplemented by studies of businesses not assisted by the program). While, for instance, the NCSO, the Central Bank and several private sector institutions publish reasonably up-to-date surveys and studies of large industries, there is no up-to-date information on small businesses; this alone is a major source of risks.

4.31 The absence of information on the subsequent developments of business after the SBAC staff have worked with a firm also makes it difficult to assess the usefulness of the services. The costs of the program over the first four years ^{1/} were about P 8m (\$1.1m), and averaged about

^{1/} The program started in 1975, one year after MASICAP.

₦ 2,500 (\$340) per client;^{1/} but there is no information at present that would enable the benefits to be determined. From an economic viewpoint, the purpose of the services is to increase the economic returns (that is, r^* and r in the formula above) by encouraging the adoption of better business practices and production methods, and assisting in the search for markets. If, then, material were collected on the economic returns to capital for a sample of SBAC-assisted enterprises, and compared with enterprises not assisted, it should be possible to estimate the economic returns to the program using variance analysis.^{2/}

4.31 The Government's Role in Providing Small Business Advisory Services: A Comment. The SBAC staff classify their services under the following headings: financial (advice only), accounting and record-keeping, management, marketing, technical and general services (covering more than one aspect of the business). It is not difficult to think of instances where these services may be found or developed in the private sector, so some comments on how the Government's services relate to those in the private sector are appropriate.

^{1/} The average is ₦8,000 if only clients for whom written reports were prepared are counted. It would, however, be wrong to ignore those assisted less formally.

^{2/} It would evidently be necessary to allow for differing endowments of the owners. If r_j is the return to capital of enterprise j , then one might correlate r_j with variables from the following groups (each in themselves being characterized by several variables):- educational background of owner; initial wealth or income; access to infrastructure (roads and electricity in particular); location; management practices adopted; types and vintages of production methods and equipment; and whether SBAC advised or not.

4.32 Accounting firms, banks and consulting firms are common sources of financial and management advice in many countries, and employ people who can back their advice with substantive experience of their industry or profession and (as important) a knowledge of local business.^{1/} In the Philippines the services offered by banks (which as seen in Chapter 2 presently are accessible to only a small percentage of the small business community) can be expected to grow with the growth of savings deposits and of loans made under the SMI program; in this, as with the SBAC's advisory services on accounting and management, the Government programs serves to create an awareness of the value of proven business management practices, and should if anything stimulate the demand for private sector services. The only potential conflict arises from the SBAC's services being free of charge in certain categories of services in which the program is competing with the private sector (e.g. in accounting). Since the program has an educational purpose that goes beyond the strict idea of supplying services, full cost recovery would probably not be merited from an economic viewpoint at the present time; there are in addition fixed

^{1/} In the industrialized countries they are probably more sought after than the Government's services. In the Bolton Report (op.cit. p.116) for the U.K., the results of a survey were quoted in which the question was asked: "If you need help, to which of the following would you be most likely to turn?" Replies were received from 3,740 firms as follows:

Accountant	1,383
Solicitor	561
Bank Manager	543
Chamber of Commerce	496
Trade Association	485
Business Consultant	143
CBI	129

The report added that "the outstanding feature of this Table is that the sources most likely to be called upon are localized and familiar; accountants, solicitors and bank managers will usually be personally known to the businessman seeking help. The same is true of chamber of commerce officials (another localized service) and to a lesser extent of trade associations."

costs to the economy in promoting the services, which set average costs above marginal costs.^{1/} But charges for certain categories of services, or for selected costs might be considered - e.g. for repeater clients, and for the expenditures on staff and materials when written reports are requested.

4.34 Marketing and technical services (including research) by their nature require a highly specialized knowledge of the industrial sectors in which they are demanded; and, in the provision of them, it seems important not to overlook the role of the industrial and trading associations. In most countries such associations were formed for purposes quite different to those which they eventually came to serve, many of which were (and still are) identified with the avoidance of competition. But the range of services now offered are also important for the growth of industry - the provision of market intelligence, legal advice and technical publications; supporting trade missions, exhibitions and industrial research; and in some cases providing training and advisory services for their members.^{2/} In the Philippines they cover quite a large number of industries, but for the most part are fragmented and confine their activities to industries in Manila. Most appear to have been formed as a consequence of the exchange controls in the 1950s, but are now beginning to offer

^{1/} On this see the third footnote to para 4.27 on the problems of developing consultancy services.

^{2/} A report known as the Devlin (1972) Report on Industrial and Commercial Representation in the U.K. provides a review of the origins and current work of the industrial and trade associations in Europe. Many of its comments and views are not irrelevant to a discussion of the future role of such institutions in developing countries.

a forum for promoting their industries and opening up marketing opportunities; ^{1/} a number have also introduced training programs. These developments are being further encouraged through a series of dialogues between the Ministry and the Associations.

4.35 What the above suggests, from the viewpoint of developing the SBAC program, is that many of the specialized services needed by both small and large industries are capable of being developed by firms and institutions in the private sector. The temptation to develop a plethora of specialized and costly services within the program might better be resisted, therefore, in favor of the current emphases of the program. These are (i) to increase awareness among the small business community of the advantages (once the businesses are no longer very small) of adopting proven principles of business management and finance; (ii) to improve the quality and timeliness of information on small industries; and (iii) to act as referral services for the firms and institutions capable of providing specialized advice. (This suggestion is of course only intended for the extension programs, not for the industrial development programs of the Ministry as a whole, and which may well require specialized inputs. What is not clear at present is that it is necessary to develop specialized capacity within the extension services for each and every industry that merits 'promotion'.)

^{1/} A recent survey of subcontractors for vehicle parts manufacture found that 72% were members of one association or another, including the following: Philippine Chamber of Industries, Consolidated Automotive Parts Association, Philippine Foundry Society, Machine Shop and Builders' Association, Confederation of Philippine Exporters, Manufacturing Electronics Component Association, Anodizing Association of the Philippines, Purchasing Association of the Philippines, and several regional chambers and other industry and suppliers' groups. One can gather from this that a varied and complex institutional structure is emerging in the engineering sector (as it apparently is in others). When asked about their reasons for joining half said that it was to achieve an exchange of market information and technical know-how.

Conclusions

4.36 The project preparation services (of MASICAP) have helped to make institutional finance available to a large number of enterprises in the provinces that would not otherwise have had access to it. Administrative costs were also low, about 3-5% of project investments. The main issues identified in the course of the present study were the following:

(1) Arrears rates and closures of the enterprises assisted. Both are high and seriously affecting the economic returns to the program. Both could be reduced by preparing projects only for businesses already in existence and by relating expansion to the current size of business (expansion in too large a step increases risks all round). As will be seen in the next two chapters, the rate of formation of new business establishments in the Philippines is already high, and there is little need for the program to attempt to create new ones. But the main causes of arrearages and closures are unrealistic expectations for the projects, leaving many enterprises with little or no cushion against shortfalls in markets and profits. Involving the extension workers in follow-up work and supervision of the projects after finance would help in making expectations more realistic. Ex post accountability for the quality of the projects would also help.

(2) Economic Returns. The conclusion about the desirability of supervision and follow-up work was also supported by an analysis of the effects of extension costs and closure rates (risks) on economic

returns; the returns are much more sensitive to the latter than to the former. (Since the economic returns cannot yet be estimated, given limitations on the data, a range of possible values was considered; a method for estimating the returns was also proposed.)

(3) The dependence of the program on DBP. The lack of the private sector's involvement, for reasons discussed in Chapter 2, has made the program dependent on DBP and (to a much lesser extent) IGLF. This has placed a disproportionate share of the risks and the administrative burden on DBP, in contrast with the original aims of the program. Seventy-five percent of the projects are either below the P 50,000 floor limit of IGLF or below the point (about P150,000, though there are exceptions) at which IGLF lending becomes profitable to the private sector. Adjustment of spreads at the smaller loan end and a removal of the floor limit would help to involve more financial institutions in the program. A restructuring of financial incentives to secure a wider involvement of the private sector out of its own resources would still require attention however.

(4) Working Capital. Several advantages of increasing short-term lending - both out of private sector resources and through the Government's own programs - were outlined in the text. The main ones would be to lower risks and obtain a greater response from the commercial banks; both would be consistent with the aims and ideas behind the Government's programs. Trading enterprises would be particularly effective conduits for the flow of short-term resources to industry, and could be expected to open up markets and further lower the risks; this is one reason why the program might be reoriented to respond to the demands of small enterprises in general rather than just industrial enterprises in particular.

4.37 The advisory services (SBAC) program has similarly reached out to a large number of enterprises in the provinces, also at a low cost per project. The issues identified were:

(1) Follow-up work. Not much is known about the subsequent developments of the enterprises after the services are provided. A systematic follow-up and reporting procedure would be valuable both as an information service and as feedback.

(2) The Government's role in providing advisory services. Many of the services are either available or gradually developing in the private sector - in the banks themselves, in accounting and consulting firms, and in the specialized trading, industrial and research associations. In many respects the SBAC program should stimulate the demand for rather than displace private sector activities; this is most obvious in the SBAC's work as a referral service, but other examples were cited. Since SBAC's services are provided free of charge, there is a tendency (particularly with respect to accounting and general consultancy) to undercut initiatives in the private sector; hence charges for certain types of services and costs are worth contemplating. The future development of specialized services ought not to be planned or proceed independently of the development of the specialized associations in the private sector.

Addendum to Chapter IV

Effects of the Costs of Industrial Extension
and of Enterprise Failure Rates on the
Economic Returns to Small Enterprise Projects

If there are N small enterprise projects financed each year, each increasing annual sales on average by S, and running costs (materials, labor and other variable costs) on average by R, the present worth of the net benefits obtained in any subsequent year t is:

$$N(S-R)/(1+r)^t \quad (1)$$

where r is the opportunity cost of supplying capital (i.e. including the costs of raising and lending funds). This assumes of course no closures. If a fraction λ fail each year, the number of projects available to generate these benefits in year t would be:

$$N/(1+\lambda)^t \quad (2)$$

assuming no reopenings 'under new management.' In practice reopenings could offset most of the losses to the economy if the capital was used at full capacity. If u is the average reopening rate (adjusted for time lags between closure and reopening), then the net closure rate is $\lambda' = (\lambda-u)$, and is the quantity to be used instead of λ in (2). At present there is no information on u; but it is likely to be quite small given the nature of the closures experienced so far, since most have been due to markets being less than forecast and to a shortage of working capital; even before closure, output was well short of full capacity output.^{1/} Hence one might not be far wrong - and may even underestimate the effects of closures - by using λ instead of $(\lambda-u)$ in the denominator of (2). Hence adjusting (1) for closures, the net benefits in year t are roughly:

$$N(S-R)/(1+r+\lambda)^t \quad (3)$$

^{1/} See para 4.1.2.

Summing over the average lifetime, T of the projects gives:

$$N(S-R) [1-(r+\lambda)^{-T}]/(r+\lambda) \quad (4)$$

If the average capital costs of the project are denoted by K ^{1/} and the extension costs, expressed as a proportion of K, by e, then (4) needs to be compared with total project costs for the N projects of

$$N(1+e)K \quad (5)$$

Equating (4) and (5) and using a linear approximation^{2/} for the numerator of (4) gives the following formula for the rate of return:

$$r = (S - R)/(1 + e)K - 1/T - \lambda \quad (6)$$

where the first term represents the economic returns before depreciation, the second depreciation, and the third losses due to enterprise closures. Considering the case where extension costs are ignored and where there are no enterprise failures, the rate of return, denoted by r^* in this case is

$$r^* = (S-R)/K - 1/T$$

and, substituting for $(S-R)/K$ in (6) shows the effects of extension costs and of enterprise closures to be given by

$$r = r^*/(1+e) - \lambda - e/(1+e)T$$

$$\approx r^*/(1+e) - \lambda$$

since e is likely to be small relative to $(1+e)T$, and the last term small relative to the first two.

^{1/} K would also include the "permanent" working capital costs associated with the project.

^{2/} $[1-(1+x)^{-T}]/xT(1+xT)$.

V. SMALL ENTERPRISES AND INDUSTRIAL DEVELOPMENT

5.1 This chapter first examines how the size structure and patterns of Philippine manufacturing have developed over the past 25 years, and presents data obtained from interviews on selected characteristics of small and large firms - their origins and growth, closure rates, sources and uses of finance, and the location and types of product markets.^{1/} Data on characteristics of household manufacturing are also presented. It then examines the incidence of the country's industrialization policies on large and small and considers the questions, how do these policies affect the coverage and efficiency of small enterprise programs? and what would be the effects of a transition (now under review) towards more efficient and labor demanding policies based on revisions in tariffs and investment incentives? The aims are therefore both descriptive, in that it provides some clarifications on the backgrounds and workings of small enterprises; and normative in that it assesses the efficiency of various policy options.

5.2 The analysis covers manufacturing activities only, since Chapter VII discusses incomes and employment more generally. But to keep things in perspective, data on output and employment by sector are provided in Annex Table 5.1, from which the following might be noted: (i) Manufacturing as a whole still provides only 11-12% of total employment in the country; the share in fact declined from 12.5 to 11.4% between 1956 and 1975. (ii) Large scale manufacturing (using NCSO definitions of large of large as being establishments of 20 or more workers) employed only 3.6% in 1975; if one follows the definitions of

large scale used by other government agencies (roughly 100-200 or more workers, the share would be about 1.6 to 2.0%. Hence at least with respect to large scale manufacturing, one is dealing with a very small percentage of the labor force - though not a small percentage of total investment and output in the country. (iii) Agriculture still provides the bulk of employment (about 53.5% in 1975) and labor absorption (47.2% in the period 1956-75); as will be discussed further in Chapter 6, it is the growth of agriculture and the level of urbanization that still exert the greatest influence on the size structure of industrial development in the Philippines.

Data: Sources and Definitions

- 5.3 A distinction is drawn between
- household manufacturing activities,
 - small manufacturing establishments and workshops employment less than 10 or 20 workers,^{1/} and
 - establishments employing over 10 or 20 workers, and often referred to as the factory sector.

Establishments in the factory sector are often classified into small, medium and large factories, and its size structure is also examined below where the data permit.

5.4 Employment in household manufacturing is estimated in the usual way as the difference between the estimates of manufacturing employment provided in the population censuses or (in inter-census years) the labor force surveys, and those provided in the censuses of establishments. The

^{1/} In the census years, the NCSO classify manufacturing employment into enterprises with less than 10 workers, and enterprises with 10 or more. In the establishment survey years, the classification used is 5-19 workers, and 20 or more workers.

latter includes any manufacturing activity at "a fixed location and having permanency of assets such as goods for resale, materials, products, equipment; etc., in its premises;" activities not thus counted are generally those that take place within the households. In the establishment census years, all establishments with one or more workers are counted, but in the survey years (between censuses) only those with five or more. Since establishments and workshops with less than five workers are quite numerous, ignoring them leads to an underestimate of employment in small non-household enterprises, so the census data are used as far as possible.

5.5 Apart from differing in scale, the three groups also differ greatly in their use of labor and in their product markets. Staley and Morse (1966) note that household activities include artisanal homework, the manufacture of items for consumption or use by the family, and the manufacture of goods for industry and trade under the "putting out" or dispersed factory system. But perhaps the most distinguishing feature is their use of family labor; in the Philippines three out of four workers in household manufacturing are family workers. Small establishments (with less than 20 workers) market a larger share of their output, make more use of hired labor, and are generally owned and run full-time by the family's main income earner. Thus while household manufacturing is commonly a secondary source of family income, manufacturing in small establishments is commonly the primary source. Factory activities make a much greater use of hired labor, and of management, clerical and supervisory staff.

Aggregate Changes in Size Structure Over Time

5.6 Household activities are still the largest source of employment in Philippine manufacturing. But their share in manufacturing employment declined from about 75%^{1/} in the mid '50s, to 65% in the mid '60s, to less than 55% in the mid '70s (Table 5.1), and may be entering a period of decline in absolute terms. They are however likely to remain an important source of earnings for the labor force for some time, and their current employment of 900 thousand is approximately five times the employment in small and medium factory based industries (of about 20 to 200 workers) to which the Small and Medium Industries Program is addressed.

5.7 A noticeable feature of the size structure is the extent and growth of employment in the smaller size groups; e.g. establishments with less than 20 employees have been significantly faster growing sources of employment than any other size group since the mid' 1960s, and indeed this is true for small and medium establishments as a whole (up to, say 200 employees) compared to large scale. The same patterns are apparent when examining the net formation rates of small and medium establishments (Table 5.2):-

^{1/} This figure is based on the residual between the labor force and establishment surveys for 1956. The residual (which came to 80%) was adjusted downwards by 5% to allow for firms with 1 to 4 workers.

Table 5.1: EMPLOYMENT IN PHILIPPINE MANUFACTURING
ACCORDING TO SCALE OF ACTIVITY

Scale (by No. of Employees/Establishment	1961	1967	1972	1975	Annual Growth Rates	
					1967-75	1961-75
<u>Households</u> ¹	665	827	690	882	0.8	2.0
<u>Establishments:</u>						
Less than 10	96	125	204	207	6.5	5.6
10 - 19	267	23	27	37	6.1	5.5
20 - 99		65	69	95	4.9	
100 - 199		38	43	56	5.0	
200 and over		268	285	374	4.3	
Total	1,028	1,223	1,323	1,651	3.8	3.4
<u>Percent of Total Employed in Year</u>						
<u>Households</u> ¹	64.7	67.6	52.5	53.4		
<u>Establishments:</u>						
Less than 10	9.3	10.2	15.4	12.5		
10 - 19	26.0	1.9	2.0	2.2		
20 - 99		5.3	5.2	5.8		
100 - 199		3.1	3.3	3.4		
200 and over		21.9	21.5	22.7		
Total	100	100	100	100		

¹ See text for definition.

Source: Establishment data are obtained from the NCSO censuses of Manufacturing for 1961, 1967, 1972 and 1975 (preliminary tabulations). Total Employment in manufacturing is obtained from the National Sample Surveys of Households for 1961 (October), 1967 (October) and 1972 (November); for 1975 it is taken from the NCSO Population Census. Household employment is calculated as a residual.

Table 5.2: GROWTH OF NUMBER OF ESTABLISHMENTS BY SIZE CATEGORY, 1961-75

Establishment Size (No. of Workers)	1961	1967	1972	1975	Annual Growth Rates	
					1967-75	1961-75
Less than 10	33,310	41,018	63,052	70,597	7.0	5.5
10 - 19	1,803	1,747	2,075	3,172	8.2	4.2
20 - 99	1,731	1,570	1,665	2,339	4.6	2.2
100 - 199	233	278	306	400	4.7	3.9
200 and over	206	384	432	481	2.9	6.2
Total	37,2	44,997	67,5	76,989	6.9	5.3

Source: NCSO Censuses of Establishments for respective years. 1975 data are preliminary tabulations.

Some of the recorded increases could of course be due to improvements in the enumeration procedures of the NCSO, though it is difficult to know how to allow for this. The measurement errors in the second smallest category (10 to 20 workers), on the other hand, are probably quite low, since such enterprises are more visible, and less susceptible to counting errors; here too, the net rates of formation have been high.^{1/}

5.8 The above Table also indicates quite high rates of "emergence" of small and medium factory establishments employing 10 to 200 workers, confirming an assumption of the SMI program that it is servicing a growing sector. The growth of employment in such establishments averaged about 5.1% per year during 1967-75, and was systematically higher than for employment in large factories.

^{1/} The NCSO's Annual Surveys of Manufacturing establishments also indicate high net rates of formation in the 5-20 size range. The number increased from 7,200 in 1960 to 13,300 in 1974, a growth rate of 4.5% per year.

Enterprise Expansion

5.9 The above trends understate the extent of labor absorption in small enterprises since firms rarely start out by setting up medium or large establishments, but begin small and expand in stages. ^{1/} To assess the significance of this process, 72 firms ^{2/} were interviewed about their origins and growth and other aspects of their business. The sample covered all size ranges; 50% were taken at random from various size groups in NCSO listings of large establishments of over 20 workers), ^{3/} and the remainder contacted in during the course of field trips. The records of a sample of 55 now large enterprises that had once borrowed from IGLF in the 1950s and 1960s were also checked, and led to conclusions similar to those reached below. ^{4/}

^{1/} Exceptions in the establishment data tabulated above are the new branches of large corporations; since the census data do not indicate whether an establishment is a branch or a whole firm, it was not possible to determine precisely how much labor absorption was accounted for by branch expansion of large firms, and how much by the growth of smaller firms. A recent survey made by the UP Law Center of the top 1,000 Corporations in the Philippines found that 461 were in manufacturing, of which 212 were partly or wholly foreign owned. A sub sample of 117 of the 212 accounted for 140 thousand employees, or 22% of the factory sector labor force in the mid '70s. Scaling up, about 40% of manufacturing employment (in the factory sector) may be in the branch establishments of corporations partly or wholly foreign owned. This leaves 60% of employed in wholly Philippine-owned large corporations; but it is not possible at present to divide any increases of employment in them between (a) expansion of existing corporations themselves, and (b) the emergence of new large corporations from the middle size ranges. As the interview data suggest below, however, (b) could be sizeable; several of the firms interviewed were expanding rapidly through the size structure.

^{2/} 80 were interviewed but in 8 cases the results were unreliable.

^{3/} The actual number that were identified for interview in this way was selected from a much larger number first identified at random, and which had to be pared down on account of the costs and difficulties of interviewing enterprises in some regions. This naturally imparted an 'urban bias' in our sample.

^{4/} Report by Mrs. Fajardo (1979).

5.10 Of the 72 firms interviewed only two were contracting; slightly less than half were maintaining sales and employment at more or less constant levels, or expanding slowly, while half were expanding at varying rates through the size structure. The data on employment are provided in Annex Table 5.5, and are summarized below in Table

5.3. Full time series data could not be obtained in every case; it

Table 5.3: SIZE DISTRIBUTION OF FIRMS OVER TIME:
RESULTS OF INTERVIEWS OF 66 FIRMS

Size Group of Firm (No. Employed)	First Year of Operation ^{/1} No. of Firms (%)	In 1976 ^{/1} No. of Firms (%)	In 1978 No. of Firms (%)
1 - 5	30 (71)	7 (23)	6 (9)
6 - 10	4 (10)	4 (13)	12 (18)
11 - 20	3 (7)	4 (13)	10 (15)
21 - 50	3 (7)	11 (37)	17 (26)
51 - 100	2 (5)	3 (10)	14 (21)
101 - 500	0 (0)	0 (0)	6 (9)
Over 500	0 (0)	1 (3)	1 (2)
Total ^{/2}	42 (100)	30 (100)	66 (100)

Average Size of Firm (No. Employed), all firms

8.1

96.2

78.0

Average Size of Firm (No. Employed), excluding the one firm in the sample with over 500 employees:

8.0

23.9

43.0

^{/1} Note that the data were not always obtainable for firms in the first and intermediate years of operation.

^{/2} Data were not available in all firms, hence the totals are not the same for each year.

was of course easier to obtain current employment than employment in intermediate years (though quite a large number of owners could recall roughly how many were employed at startup, if only because most began with less than half-a-dozen employees). The main pattern that emerges is that the majority of firms either start small and remain small, or, if they expand sales and employment, they do so continuously or in steps. For the sample as a whole the number of employees averaged about 8 in their first year of operation, rising to 24 in 1973 and 43 by 1978.^{1/} These averages exclude the largest firm in the sample, which had grown rapidly and continually from a dozen employees when it began in 1963 to over two thousand in 1978.^{2/} They also include firms not expanding or expanding slowly and thus understate the rate of growth of firms that do expand, which is often extremely fast once they have gained a footing in the market; e.g. for the 12 expanding firms on which recent time series data were obtained, employment increased by 160% in the period 1976-78 (all these firms were in the size range 10 to 99 employees in 1976).^{3/} Since the sample is small, it would be hazardous to place too much emphasis on the precise values of the figures estimated; but it is sufficient to reveal the importance of the growth of small and medium firms through the size structure as a source of industrial labor absorption.

1/ Note that reliable time series data were generally more difficult to obtain (and so were not recorded) for the more quickly growing firms, so these series probably underestimate the growth in the samples.

2/ Case 49 in Annex Tables 5.2 to 5.6.

3/ Cases 3, 9, 10, 14, 17, 41, 45, 51, 63, 66, 70, 71. Case 49 was excluded since it is so large.

5.11 During the interviews it became apparent why starting small and expanding continuously or in stages was the general rule. A high investment, either initially, or to increase output several-fold after startup, leaves the business highly vulnerable to short-falls in supplies and markets. If in addition the owner's collateral is fully committed to a previous loan obtained for purposes of investment, it is difficult to obtain a working capital loan to meet business overheads if, for instance, there are slippages in production.^{1/} We also noticed one particularly critical period in the expansion of the firm, which occurred during their transition from back-yard, part-time to factory based, full-time operations. Before the change, the owner generally has an alternative source of income (which is lost after the change), low overheads (which are high after the change) and running the business may require few management and record-keeping skills (but which are required after the change). It might be added that advisory services can be particularly helpful during this period.

5.12 In practice the majority of businesses remain small, and it should be re-emphasized that the above sample, by including middle and larger sized firms, is not representative of those that do. In 1967 there were about 41,000 establishments employing less than 10 workers (Table 5.2); by 1975 the number of establishments with 10 to 99 workers

^{1/} There is therefore some sense in the ground rules adopted by some financial institutions of limiting the loan size to a given multiple of the current sales and asset levels of the business; the rule may be relaxed if the enterprise owner has sufficient collateral to provide for contingencies. While the policy is often criticized for being conservative, the evidence is that less-conservative policies put both business and the banks at risk. (See Chapter 2 for a further discussion).

had increased by about 2,000 implying that less than one in twenty could have expanded into this large size group. Furthermore, of those that had expanded into the size range of 10-99 workers by 1967, less than one in fifteen could have expanded into yet larger entities by 1975.^{1/} These figures are over estimates since (a) they ignore the growth due to new branch establishments of large corporations, and (b) do not allow for the failure rates of small establishments.

5.13 To sum up, the growth of employment in non-household manufacturing is made up of (1) the formation of small firms, (2) the expansion of once small firms through the size structure, and (3) branch and central expansion of large firms. The data on (1) were given earlier (Table 5.1) and appear to have accounted for about a quarter of employment growth (in non-household manufacturing) in recent years. While only a very small percentage of small firms make the transition to medium or large scale production, those that do provide a significant source of employment growth in the factory sector.

Enterprise Closure Rates

5.14 The closure rates of enterprises can be estimated from two sources of information supplied by the NCSO:-

- (i) the number of enterprises actually existing in a particular year, and
- (ii) the number existing in the same year and still existing at some later point in time.

^{1/} In 1967 there were 3,317 establishments with 10-99 workers; the increase in the number with over 99 workers in the period was 219 (Table 5.2).

The latter can be obtained directly from data on the age profiles of industrial enterprises which appear in the NCSO's listing of establishments.^{1/} The difference between (i) and (ii) gives the number having closed in the intervening years. Estimates for small and medium industries are provided in Table 5.4. In 1977 there were 15,777 manufacturing establishments in the NCSO listings; column (3) of the table shows how they were distributed according to year of formation, and column (4) the cumulative total of column (3). Thus, to take an example, there were 4,039 establishments formed during or before 1966 and still existing in 1977; but the actual number existing in 1966 (shown in column 5) was 9,666, so that $9,666 - 4,039 = 5,627$, or 58.2% had closed in the following 11 years, an average annual closure rate of 7.9% per year (on a logarithmic basis). The same calculation is repeated for each year in the Table. The closure rates averaged about 7% per year in the 1960s, though seem to be lower (about 4%) for the early 1970s.

5.16 The term 'closure', as used above, is somewhat misleading since enterprises may not close down yet disappear from the establishment listings because of a change in location or in the nature of the business; counting errors in the listings also cannot be totally avoided. Further, it does not imply that they had failed financially since the owners may have sold the business, retired, or moved into another form of employment. (Changing the product line, or even the member of the family who owns the business, is also a common way of re-qualifying the business for tax holidays.) These kinds of changes are reportedly commonplace among small enterprises, particularly among the smallest

Table 5.4: DATA FOR ESTIMATING ESTABLISHMENT SURVIVAL AND CLOSURE RATES SINCE 1957

Year (1)	Age, T Years (2)	No. Formed in Year (3)	Cumulative No. Formed = NT (4)	Actual No. in Year = NA (5)	Percentages which by 1977 had		Average Annual Closure Rates, %	
					Survived (6)	Closed (7)	Linear (8)	Logarithmic (9)
		^{/6}						
1977	1	31	15,777	15,777	100.0	0.0	-	-
1976	1	151 ^{/6}	15,746	n.a.	-	-	-	-
1975	2	2,372	15,595	15,169	^{/7}	^{/7}	-	-
1974	3	1,622	13,223	12,808	^{/7}	^{/1}	-	-
1973	4	1,544	11,601	n.a.	-	-	-	-
1972	5	1,860	10,057	12,206	82.4	17.6	3.5	3.9
1971	6	1,013	8,197	9,857	83.2	16.8	2.8	3.1
1970	7	1,255	7,184	10,135	70.9	29.1	4.2	4.9
1969	8	720	5,929	n.a.	-	-	-	-
1968	9	744	5,209	9,703	53.7	46.3	5.1	6.9
1967	10	426	4,465	9,628	46.4	53.6	5.4	7.7
1966	11	291	4,039	9,666	41.8	58.2	5.3	7.9
1965	12	645	3,748	n.a.	-	-	-	-
1964	13	294	3,103	n.a.	-	-	-	-
1963	14	292	2,809	n.a.	-	-	-	-
1962	15	258	2,517	8,224	30.6	69.4	4.6	7.9
1961	16	166	2,259	10,333	21.9	78.1	4.9	9.5
1960	17	397	2,093	7,023	29.8	70.2	4.1	7.1
1959	18	142	1,696	7,185	23.6	76.4	4.2	8.0
1958	19	157	1,554	7,411	21.0	79.0	4.2	8.2
1957	20	1,397	1,397	7,421	18.8	81.2	4.1	8.3
and earlier								

^{/1} I.e. cumulative total of column (3).

^{/2} (4) + (5), % (or NT/NA).

^{/3} 100 - 6, % (or 1 - NT/NA).

^{/4} (7)/(2), % (or (NA - NT)/NA).

^{/5} In (NA/NT) + T.

^{/6} The very low numbers of enterprises recorded as having being formed in these years are probably due to the lag between the date of formation and their "appearance" in the establishment surveys.

^{/7} Closure rates are not calculated for these years since the measurement errors are too great, and would be negative according to the figures shown. In recent years, the closure rates are small differences between two large numbers. The measurement errors become less significant the further back one goes in time because the difference between col. (5) and col. (4) becomes larger.

Sources: Estimates based on data and calculations of Fajardo "Study on Small and Medium Industries in the Philippines, April 1979, Vol. II, Table 1.3, (mimeo). Data on enterprise ages, obtained from establishment listings (preliminary tabulations) of 1977 Survey of Manufacturers. Data on actual number of enterprises are from NCSO Annual Surveys of Manufacturers for respective years. Small and medium industries are defined as those with 5 to 200 employees.

enterprises in large urban areas in which the competition between wage and self-employment is greater.^{1/} An attempt was made to allow for these points by contacting the owners of a sample of 170 enterprises recorded in the NCSO's 1972 listing of establishments. In 100 cases, the enumerators simply verified if the enterprise was still operating or not.^{2/} In the other 70 cases (all in Metro-Manila), additional information was obtained on whether (i) the firm was operating in the same place or had changed location; (ii) it had been merged, sold, or taken over by a relative; or, after checking secondary sources,^{3/} (iii) it had closed down. Since the sample was based on the establishment listings, which do not cover establishments with less than 5 workers, there is still no information on the closure rates (which are probably quite high) of the smallest enterprises. Nevertheless, some patterns do emerge quite clearly, as shown in Table 5.5.

Table 5.5: DISAPPEARANCE RATES OF SMALL AND MEDIUM INDUSTRIES BY SIZE OF FIRM AND BY REGION

Region and Firm Size in 1972	No. of Firms or Firm Owners Traced	No. Closed Down	% Closed Down
<u>Metro Manila:</u>			
> 20 Workers	24	2	8%
5 - 20 Workers	43	9	21%
Firm Size n.a.	71	14	20%
<u>Provinces:</u>			
Firm Size n.a.	<u>31</u>	<u>1</u>	<u>3%</u>
Total	169	26	15%

Source: H. Fajardo "Study on Small and Medium Industries in the Philippines" (Mimeo), April, 1979, Vol. II, Tables 1.6 and 1.7. The interviews were between June and December, 1978.

1/ See Chapter 7.

2/ Quite a large proportion of enterprises change location or change names, so tracking them down can be time consuming.

3/ Neighbors mainly.

5.16 The results conform with the common perception of closure rates being higher in small than in larger enterprises. The closure rates are also significantly higher in Manila, and probably reflect the greater competition both among small manufacturers themselves and between large and small manufacturers found in that region. (Note that the greater turnover rates reconcile quite well with the experience of the financial institutions, which find lending to small enterprises more risky in Manila than in the provinces.) The above data also square quite well with those just estimated from the NCSO data. The weighted average percentage of firms disappearing in the 6 year period in Metro Manila would be about 19%, according to the above data (and assuming one firm in five with over 20 workers), giving a weighted average disappearance rate of $\ln(100/80)/6$, about 3.5% per year.^{1/}

5.17 The questionnaire was not sufficiently detailed to determine the causes of closure or other changes in the business, a task that must now await further study. Why businesses fail financially, as opposed to merely changing their product line or location in some ways, is of particular interest to those involved with the small enterprise programs. One commonly discussed factor is undoubtedly the great variation in natural and acquired entrepreneurial abilities among the owners; it is apparently one explanation for an equally large variation found in the technical efficiencies of otherwise comparable businesses. How far the extension and training programs are able to improve the acquired abilities is also a task meriting further study.

^{1/} The closure rates as calculated from NCSO data were 4.9%, 3.1% and 3.9% for 1970; 71 and 72 respectively. See Table 5.4.

5.18 Since the above study of closures was undertaken, a more comprehensive study of the extent and causes of closure due to bankruptcy among small firms has been completed by Mr. Itao of the University of the Philippines Institute for Small Scale Industries,^{1/} based on interviews with the owners or former owners of 260 small firms identified from the 1975 establishment listings of the NCSO. The principal findings were:-

- about 3.6% of small firms closed each year due to bankruptcy, though the closure rate varied greatly between years (this estimate compares quite well with the estimates provided above);
- relatively short life-spans (of about 3 years on average) for firms going bankrupt;
- closure rates due to bankruptcy not associated with the educational or social background of the owner,^{2/} nor with the level of development of the region; and
- closure rates strongly associated, however, with the management practices of the business.

Annex Table 5.8 summarises some data on the last two points. It is interesting that the tendency to keep books and records, to separate business and family accounts, and to use the services of professional accountants, were all noticeably lower in the firms that went bankrupt.

^{1/} See Itao (1980).

^{2/} Their educational backgrounds, on the other hand, were generally quite of high standard (see Annex Table 5.8), the majority having been to high school or college.

Further Micro Data: Sources and Uses of Finance

5.19 Given the emphasis in the Government's program on supplying credit to facilitate the expansion of small enterprises, there is some interest in the sources of enterprise finance during startup and subsequent operations. (Fifty six of the 72 enterprises interviewed were started before 1974, the first year of the Government's program.) The enterprises' answers to our questions on this subject are summarized in Annex Table 5.2.

5.20 All but three had begun with very small initial investments;^{1/} e.g. less than P 5,000 (in 1978 prices) in 10% of the cases on which information was obtained, and P 5,000-50,000 in half of the cases.

Table 5.6 provides more details:-

Table 5.6 SIZE DISTRIBUTION OF INVESTMENTS
BY ENTERPRISES AT START OF BUSINESS

Size Range of Initial Investments in P 000s (Constant 78 prices at time of start-up)	No. of Cases
5 or Less	4
6 - 20	15
21 - 50	8
51 - 100	7
101 - 500	7
Over 500	3
	<u>45</u>

This pattern of small beginnings applied to the seven large enterprises in the sample with assets of over P4 million (the Government's definition of large), including the nation's largest jeepney manufacturer with over 500 employees, and a large electrical appliance manufacturer and subcontractor with assets of P31 million and over 2,000 employees.

^{1/} The one that had begun the longest had obtained a P 3.4 million (\$500,000 loan from a financial institution; it was one of two businesses in the sample in trouble, having poor market outlets and very low capacity utilization (case 44 in Annex Table 5.2).

5.21 The majority began with their own savings, sometimes supplemented by small inheritances or by revenues from another business; only five (8% of the total sample) mentioned that they had borrowed from financial institutions when starting up, two had obtained small credits from suppliers, and one had rented all the facilities and equipment. No instances were found in which credit has been obtained or sought from moneylenders and other "informal" ^{1/} sources. When some owners were asked if they would have preferred to have started larger, finance permitting, it became apparent that they saw advantages in starting small in order to first establish their markets and contacts with suppliers.

5.22 Once the enterprises had become established, however, there was a significant rise in their use of institutional credit. The rise is of course partly due to the financial institutions' own preference for dealing with enterprises having track records; but it was also noticeable that several of the owners interviewed had actively sought to develop their credit standings with the institutions almost from the outset of their business. All reinvested a portion of their profits, either for working or investment capital purposes, and in 20% of the cases the businesses were financially self-sufficient. But most businesses used a mixture of re-invested profits, commercial bank loans, loans or equity finance from DFCs, supplier and buyer credits, and loans from friends and relatives. Again, there was no instance of borrowings from informal sources of credit, unless friends and

^{1/} See however the second footnote to para 5.25 below on the use of institutional credit by cottage industries in the Ilocos Region.

Table 5.7: MAIN SOURCES OF FINANCE AFTER
STARTUP OF ENTERPRISES

Sources of Funds	/1	Purpose	
		Working Capital	Investment Capital
Profits Plus Institutional Credits			
- DFCs		2	18 ¹ / ₂
- Commercial Banks		15	10 ²
- Other ³		0	5
Profits Plus Trade Credits		12	3 ⁴
Profits Plus Borrowings from Relatives etc.		5	4
Profits only ⁵		31	24
Sample Total ⁶		65	64

/1 Other combinations, such as institutional and trade credits plus profits for working capital were not identified because the questions were not detailed enough; in practice, it is likely that these combinations of finance also exist.

/2 Some IGLF loans, plus 3 cases in which short term borrowings were rolled over to finance the investments.

/3 Equity finance from various institutions.

/4 Includes one case where rented equipment is counted as a trade credit.

/5 Both figures include 12 businesses that were financially self-sufficient.

/6 Data are not available in all cases.

relatives are counted as such, though several attempts were made during the interviews to determine their extent.^{1/} Details are provided in Annex Table 5.2, and summarized in Table 5.7. Note that the institutional credit is used as often for working capital as for investment purposes.

5.23 The increasing use of institutional credit was not associated with either excessive capacity in equipment and buildings - the workplaces were overcrowded and congested in most cases - or a decline in the enterprises' desire to find low cost equipment best suited to their needs. Some evidence on these points is presented in Annex Table 5.6. The owners' responses to questions on capacity utilization were naturally less precise and more difficult to verify than those on equipment costs, but tended to show utilization rates of 75% or more in four out of five cases. The responses on equipment costs were more revealing, and we noted a widespread tendency to purchase second hand or renovated equipment wherever possible (the tendency was particularly marked in the metals and machinery sectors, where it was not uncommon to find workshops with second hand machines from several countries);^{2/} about 40% of the firms on which reliable information was obtained used such equipment for one purpose or another, and in 20% of the firms, it accounted for over half their fixed assets. Furthermore, those purchasing new equipment were as

^{1/} One reason perhaps why we found little use of informal credit was that our sample contained a high proportion of people with good family incomes, higher education and professional experience, and who were able to pass the credit worthiness checks of the financial institutions. (We did not know in advance of the interviews anything about the owners backgrounds, and it is possible the propensity of an enterprise to expand is correlated with the educational and professional background of the owner; our sample is not large enough, nor does it have sufficient information, to test for this, however.) Mrs. Fajardo (1979) also found that 103 out of 148 IGLF accounts were for businesses run by people with college educations.

^{2/} Cortes and Escandon also find second hand equipment used extensively by small enterprises in Colombia, and for this reason undertook a special investigation on the subject. "Use of Second Hand Equipment in Colombia" (Mimeo) IBRD, August 1979.

likely to do so out of their own resources as out of institutional credit, as indicated in the following Table; i.e. we found no evidence of institutional credit leading to extravagance:

Table 5.8: USE OF NEW AND SECOND HAND EQUIPMENT
IN SMALL ENTERPRISES

Equipment (% Composition By Value)	No. of Enterprises Using:		Total
	Own Resources & Instit. Credit	Own Resources Entirely	
Over 75% New	16	14	30
25%-75% Mix of Old and New	6	2	8
Over 75% Old (Second Hand)	<u>8</u>	<u>3</u>	<u>11</u>
	30	19	49

Source: Enterprise Interviews. See Annex Table 5.6.

Product Markets

5.24 Two sources of data were used to determine the nature of the products and product markets of small enterprises. One was the file records of the technical assistance (MASICAP and SBAC) and financial institutions, which routinely comment on the markets of the enterprises financed or assisted. For household goods, this source does not give any indication of the income groups most likely to purchase an enterprise's products; but this could be deduced not inaccurately from descriptions of the products and of the products' qualities provided in the reports. The second source was our own interviews of 72 enterprises. The locations of the markets according to industrial category are summarized in Table 5.9, the first four columns showing the interview data, the last four the data from both sources; the full interview data are in Annex Table 5.4.

5.25 The main characteristic of the markets is their diversity with respect to sector, location and income group, and it is not possible to place them in a few categories. All the high growth enterprises interviewed were in high growth markets, but the markets were spread across several sectors and specializations - a range of food processing, canning, preserving and baking activities; metals, machinery, and transport equipment; furniture of all types and qualities; garments and fabrics for all income groups and for exports; and ornaments and handicrafts. Production for local markets is commonplace in all sectors, though a surprisingly large number were found to be producing for national and export markets (Table 5.9). Given the diversity of products and market locations, it is not surprising to find no tendency for small and medium industries to cater for any particular income group or industrial sector. A summary of market structure of enterprises in the two samples is as follows (the numbers indicate the percentage of enterprises in the samples):

<u>Main Market Location</u>		<u>Main Market Group</u>	
Local	55	Agriculture	7
Regional	17	Industry	26
National	12	Construction	4
Export	16	Service	3
	<u>100</u>	Households:	
		- high income	15
		- middle income	31
		- low income	14
			<u>100</u>

Source: As for Table 5.9

Table 5.9: MARKET LOCATIONS OF SMALL AND MEDIUM INDUSTRIES IN THE PHILIPPINES, 1978

Code	Industry Classification	Interview Data /1				Full Sample /1			
		Local	Regional	Natl.	Export	Local	Regional	Natl.	Export
311	Food Manufacturing	10	6	11	4	48	19	19	9
312	Animal Feeds/grain & Poultry	3	2	-	-	32	11	3	-
313	Beverage Indus	-	-	-	-	-	-	-	-
314	Tobacco Manufacturing	-	-	-	-	-	-	-	-
321	Manufacture of Textiles	1	1	1	-	23	3	6	6
322	Wearing Apparel ex. Footwear	5	-	1	4	45	11	6	26
323	Leathergoods, Leather Substi.	2	1	1	1	5	3	3	4
324	Footwear	2	2	-	-	14	2	5	3
331	Wood & Cork Products	2	-	-	1	45	5	9	26
332	Furniture/Fixtures	2	1	-	-	37	14	5	10
341	Paper and Paper Products	11	-	1	-	6	2	3	-
342	Printing/Publishing	-	-	-	-	12	4	1	-
351	Mfr. of Industrial Chemicals	-	-	-	-	8	5	1	-
352	Other Chemical Products	-	-	-	-	10	2	-	-
353	Petroleum Refineries	-	-	-	-	-	-	-	-
354	Misc. Prods. of Petroleum & Coal	-	-	1	-	-	-	1	-
355	Rubber Products	2	1	-	-	10	3	-	1
356	Plastic Products	-	-	-	-	13	1	5	1
361	Pottery, China & Earthenware	1	-	-	-	6	2	-	2
362	Glass & Glass Products	-	-	-	-	1	1	1	1
363	Mfr. of Cement	-	-	-	-	1	1	-	-
369	Non Metallic Mineral Prods.	-	-	-	-	30	5	1	2
371	Iron & Steel Basic Indus	-	-	-	-	1	-	2	2
381	Fabricated Metal Prods.	-	-	-	-	2	2	-	-
382	Machinery ex. electrical	1	1	-	-	34	13	5	6
383	Elec. Machinery, Apparatus Appliances & Supplies	11	6	1	-	46	14	5	2
384	Transport Equipment	1	-	2	-	10	1	8	3
385	Professional, Scientific, Meas. & Controlling Equip.	2	1	2	-	21	7	6	1
386	Furniture/Fixtures of Metal	-	-	-	-	3	-	2	-
390	Other Mfg. Industries	1	1	-	-	2	1	-	-
	Non-Manufacturing								
	Agriculture	1	1	-	-	15	3	1	1
	Tourism	-	-	-	-	10	-	-	-
	Services	-	1	-	-	26	3	2	-
	TOTAL	48	24	23	10	483	148	106	136

/1 Note that the horizontal totals add up to more than the sample size because enterprise frequently cater for more than one market.

Source: Interviews with 72 enterprises plus file data of MASICAP, DBP, PDCP and IGLF. Draft by Mrs. Fajardo (1979), Table 2.9.

Sectoral Patterns and Trends in Size Structure

5.26 The rising share of manufacturing employment in workshops and factories in the Philippines, and the declining share in household activities, follows the trends observed for other countries. As in other countries, however, the trends differ both in magnitude and in sign between sectors, as shown in Table 5.10; employment in household activities may be declining rapidly, stagnating, or increasing rapidly, depending on the sector being considered. In food processing household activities have entered a period of rapid decline in favor of both small and large scale mechanized activities. In textiles, employment in households appears to have peaked, and it is large scale manufacturing that is providing most of the labor absorption. Similarly in wearing apparel household employment seems to have peaked, though at a very high level, but here it is small scale activities (particularly tailoring and seamstressing) that are providing most of the new employment opportunities. In the engineering sectors (metal, mechanical and electrical products and transport equipment) household employment has increased rapidly along with employment in workshops and in both small and large factories. The engineering sectors all have high growth markets, and the data in Table 5.10 are consistent with those of the interviews discussed above in which it was found that small manufacturing enterprises (a) are highly responsive to market opportunities, and (b) commonly begin as household activities.

5.27 Further analysis of household employment is made difficult by an almost total absence of relevant information, other than the two-digit data provided in the population census years. The only documented information that is available is provided in a survey undertaken by NACIDA in the region of Ilocos in Northern Luzon in 1977.^{1/} Since over 80% of the region's

^{1/} The survey aimed at obtaining a 100% coverage of all cottage industries in the region; the estimates of people engaged in manufacturing employment were quite close to those of the population censuses. NACIDA's estimates of employment in cottage industries in the region were 68,000; in 1975 the labor force in manufacturing was 70,000 according to the regional volumes of the population census, of which about 6,000 would be in establishments of over 20 workers (see ASM for 1974).

Table 5.10: ESTIMATED EMPLOYMENT IN HOUSEHOLD AND SMALL AND LARGE MANUFACTURING ESTABLISHMENTS, 1961 AND 1972

	Employment 000s		Growth Rate % per Year
	1961	1972	
<u>Food</u>			
Households	87	6	- 21.6
Est. < 10 Workers	31	67	7.3
Est. > 10 Workers	55	90	4.6
	<u>173</u>	<u>163</u>	- 0.5
<u>Textiles</u>			
Households	97	109	1.1
Est. < 10 Workers	2	5	8.7
Est. > 10 Workers	30	61	6.7
	<u>129</u>	<u>175</u>	2.8
<u>Clothing and Footwear</u>			
Households	230	229	0.0
Est. < 10 Workers	35	81	7.9
Est. > 10 Workers	24	22	- 0.8
	<u>289</u>	<u>332</u>	1.3
<u>Wood and Cork</u>			
Households	*	20	*
Est. < 10 Workers	2	7	12.0
Est. > 10 Workers	29	56	6.2
	<u>30</u>	<u>83</u>	9.7
<u>Furniture & Fixtures</u>			
Households	14	16	1.2
Est. < 10 Workers	4	9	7.7
Est. > 10 Workers	5	8	4.4
	<u>23</u>	<u>33</u>	3.3
<u>Metal Products, Mech. and Elect. Machinery, Transport Equip.</u>			
Households	2*	126	High*
Est. < 10 Workers	10	15	3.8
Est. > 10 Workers	33	57	5.1
	<u>45</u>	<u>198</u>	14.4
<u>All Other</u>			
Households	237	174	- 2.3
Est. < 10 Workers	13	20	4.0
Est. > 10 Workers	87	145	4.8
	<u>337</u>	<u>339</u>	0.1
<u>All Manufacturing</u>			
Households	667	680 ^{/1}	0.2
Est. < 10 Workers	96	204	7.1
Est. > 10 Workers	263	439	4.8
	<u>1026</u>	<u>1323</u>	2.3

* Estimates of residual are small and not accurate enough for growth rates to be estimated reliably.

^{/1} Note that there are quite large irregularities in the household employment data: the figure for 1967 and 1975 (preliminary) are over 800 thousand; see Table 5.2.

Sources: The basic data for the estimates are provided by the Population Censuses of 1960 and 1975 and the Manufacturing Censuses of 1961 and 1972. Since no two-digit breakdown of total employment is available other than in the Population Census years, the following procedure was used to estimate household employment. The percentage distribution of the labor force among the two digit classification shown were calculated from the Population Censuses for 1960 and 1975, the former distribution was then applied to the total labor force in manufacturing for 1961 and the latter to the total labor force in 1972. The Manufacturing Censuses gives the data for less than 10 and 10 or more employees; household employment is then calculated as a residual. A similar exercise using the 1967 Manufacturing and the 1970 Population Censuses was not done on account of apparent inconsistencies in the data on female employment in clothing and footwear, NEC in 1970.

population are rural, the survey covered a large proportion of off-farm activities such as piggeries and poultry, as shown in Table 5.11. Otherwise, the data show similar patterns to the two-digit data in Table 5.10, with a large proportion of workers being in garment craft and weaving, metal and wood crafts, and various handicrafts based on bamboo, ceramics and others. There was also some evidence of investment and growth in the activities surveyed; asset levels per worker averaged about P 1,500 (\$200) and apparently most households had invested further in the activities after they were started.^{1/} While most of the growth has stemmed from the growth of local markets (as with piggeries, poultry, metalcraft and food preservation) certain traditional handicrafts (bamboo, garments, needlecraft and ceramics) have benefitted from a fourfold increase in the export markets for cottage industry products in recent years.^{2/}

5.28 The data in Table 5.10 suggest that the net shift away from household manufacturing is occurring towards both small and large manufacturing establishments, with the pattern again varying between sectors. An attempt is made to show the pattern in more detail in Table

^{1/} The investments were mostly self-financed, though a surprisingly large number appear to be turning to financial institutions for credit. In a sub-sample of 7,000 households over 1,500 (or 22%) had obtained loans from financial institutions; 65% financed their own investments; the other 13% had used informal sources and a now defunct credit facility offered by NACIDA. The institutional sources were not identified in the sample, but they probably include Rural Banks (which offer short-term loans for poultry and piggeries), the small loans facilities of the Private Development Banks, and the small "home" and "cottage" industry loan facilities of DBP and PNB respectively; for reasons discussed in Chapter II, they are unlikely to include the private commercial banks.

^{2/} NCSO Foreign Trade Statistics.

Table 5.11: CHARACTERISTICS OF COTTAGE INDUSTRIES IN ILOCOS, 1977 /1

Activity	No. of Industries Counted	Labor Force					Assets		Percent Increase
		Total	%	%	%	%	P 000s		
							Female	Male		Family	Hired	Initial	Present
Bamboocraft	469	1,834	34.3	65.7	60.9	39.1	348	1,862	435
Ceramics	863	2,442	10.9	89.1	44.6	53.4	1,677	12,715	658
Garmentcraft	4,178	6,989	63.8	36.2	38.7	61.3	2,584	7,728	199
Fibercraft	106	265	32.8	67.2	77.0	23.0	93	268	188
Food Preservation	509	1,655	42.6	57.4	55.2	44.8	1,470	4,947	236
Loom-Weaving	1,258	3,934	81.7	18.3	34.1	65.9	1,362	7,862	477
Metalcraft	1,490	3,681	5.7	94.3	47.3	52.7	2,478	8,286	234
Needlecraft	906	1,930	91.2	8.8	68.4	31.6	909	4,908	441
Other Crafts	2,052	9,075	53.9	46.1	89.0	11.0	1,067	5,171	384
Piggery	10,121	19,189	55.1	44.9	88.2	11.8	11,580	26,900	132
Piggery-Poultry	2,390)	8,120	35.7	64.3	79.8	20.2	1,137	2,569	129
Poultry	2,913)								
Shellcraft	892	1,155	62.8	37.2	79.0	21.0	464	1,567	237
Agricultural Hand Tools	23	45	0.0	100.0	60.0	40.0	107	371	267
Other Industries	665	1,791	28.3	71.7	60.0	40.0	883	3,648	313
Woodcraft	1,981	5,505	13.5	86.5	58.7	41.3	4,201	15,722	274
TOTAL	30,816	67,610 ^{/1}	46.4	53.6	73.9	36.1	30,360	104,524	244

/1 Since cottage industries are defined to be those with assets of up to ₱100,000, a number of small establishments are probably included.

Source: "The Profile of Cottage Industries in the Ilocos," NACIDA publication, 1977.

5.12, which presents data for 29 industries at the 5-digit level. The industries shown accounted for 98% of employment in establishments with less than 10 workers in 1972, and 92% of employment in establishments with 10 or more workers. They have been divided into three groups in order to identify the sectors in which the movement out of household is: (A) Mainly towards very small establishments (with less than 10 workers); (B) mainly towards larger establishments (with 10 or more workers)^{1/}; (C) towards both larger and very small establishments. In summary, the growth rates and percentage shares in employment (in manufacturing establishments) for the three categories are as follows:

Movement of Employment Mainly Towards:-	% Total Employment (1972)		Growth Rates (1967-77)	
	Small	Large	Small	Large
A. Very small	27	5	14.0	-2.5
B. Large	3	45	- 3.7	8.1
C. Both	<u>5</u>	<u>15</u>	<u>7.7</u>	<u>1.6</u>
	<u>35</u>	<u>65</u>	<u>11.0</u>	<u>5.2</u>

Source: See Table 5.12.

5.29 Most of (A) appear to be activities in which small enterprises derive advantages by concentrating on local markets - bakeries, tailoring and dressmaking, furniture, structural concrete products and fabricated metal products. Rice milling is the only exception in that it serves both local and national markets, though small scale activities presumably derive some advantage from being close to their sources of supply. A large proportion of small activities are also located in the provinces,^{2/} and

^{1/} A breakdown of size structure at 5-digit level is not available for establishments with 10 or more workers. They thus overestimate employment in large and underestimate it in small; to emphasize this point the terms "very small" and "larger" establishments are used in this and the next two paragraphs.

^{2/} In both (A) and (C); see Chapter 6.

Table 5.12: SECTORAL CHANGES IN EMPLOYMENT IN VERY SMALL AND LARGER ESTABLISHMENTS, 1967-72

	Very Small Establishments with less than 10 Workers			Larger Establishments with 10 or more Workers		
	1967	1972	Growth Rate	1967	1972	Growth Rate
A. Employment (in 000s) in Selected Activities in Which Employment Growth is Occurring More in Very Small than in Larger Establishments.						
Rice Milling	18.9	34.5	12.8	8.1	7.2	- 2.3
Bakeries	12.4	20.2	10.3	8.2	5.9	- 6.4
Tailoring Shops	31.8	55.1	11.6	(23.9) ^{/1}	(2.5) ^{/1}	-
Dressmaking Shops	9.9	19.6	14.6	0.4	0.3	- 5.6
Furniture (incl. upholstered)	2.4	8.2	27.9	4.2	5.6	5.9
Structural Concrete Products	1.8	5.6	25.5	2.9	2.8	0.7
Fabricated Metal Products	5.2	10.2	14.4	19.4	16.2	3.5
SUB-TOTAL	32.4	133.4	13.3	43.2	38.0 ^{/2}	- 3.5
B. Employment (in 000s) in Selected Activities in Which Employment Growth is Occurring More in Large than in Small Establishments.						
Sugar Milling	2.5	2.0	4.4	21.4	29.9	6.9
Dessicated Coconut	0.0	0.0	0.0	8.4	9.2	1.8
Cotton Textile Mills	0.0	0.0	0.0	24.7	29.9	3.9
Rayon and Fibre Textiles	0.0	0.0	0.0	3.6	10.8	24.6
Garments (Womens & Childrens)	0.3	0.8	3	2.1	10.8	38.8
Sawmills	0.2	0.4	3	20.7	21.6	0.9
Veneer, Plywood & Hardwood	0.0	0.0	0.0	22.2	23.7	1.3
Paper Mills	0.0	0.0	-	2.6	12.4	36.7
Other Printing and Publishing ^{/4}	0.8	2.4	3	2.4	11.1	35.8
Pharmaceutical & Medical	0.0	0.1	3	6.5	8.2	4.8
Other Chemicals and Products ^{/5}	0.7	1.3	3	17.6	38.3	15.6
Other Structural Concrete Products ^{/6}	1.4	2.6	3	14.6	17.0	3.1
Black Furnaces & Rolling Mills	0.0	0.0	-	3.9	6.1	9.4
Other Basic Metals ^{/7}	0.2	0.0	3	1.8	3.1	11.1
Machinery and Equipment	2.1	1.7	3	6.1	9.9	10.2
Electrical Machinery & Apparatus	3.2	0.4	- 34.0	9.1	13.6	8.4
Transport Equipment	6.5	3.1	- 13.8	14.7	16.0	1.7
SUB-TOTAL	17.9	14.8	- 3.7	182.4	271.6	3.3
C. Employment (000s) in Selected Activities in which Employment Growth is Comparable, in Both Sizes of Establishments						
Other Foods ^{/8} (incl. canneries)	4.3	11.9	19.9 ^{/9}	33.8	40.0	3.4 ^{/9}
Other Textiles ^{/10}	3.4	5.1	8.4	12.5	17.6	7.1
Other Wearing Apparel ^{/11}	5.3	1.5	- 22.0	19.3	11.2	-10.3
Other Wood and Furniture ^{/12}	3.6	7.1	14.5	8.9	12.5	7.0
Commercial Job Printing	1.5	1.4	- 1.4	5.8	5.8	0.0 ^{/13}
SUB-TOTAL	18.6	27.0	7.7	80.3 ^{/2}	87.1 ^{/2}	1.5 ^{/13}
TOTAL	118.9	195.2	10.5	305.9 ^{/2}	396.7	5.3
(Total Manufacturing)	(125.2)	(204.0)	10.3	(393.6)	(429.2)	1.7

^{/1} The decrement implied between 1967 and 72 seems unusually large.

^{/2} Excludes tailoring shops from sub-total (see f.n. 1).

^{/3} The rates of increase or decrease are quite large for these sectors but the initial bases, and in most cases the absolute changes are too small for the calculated rates to be meaningful.

^{/4} Includes printing of periodicals, books, cards and newspapers, electrotyping, bookbinding and related work.

^{/5} Includes industrial chemicals, and petroleum, coal, rubber and plastic manufacturing.

^{/6} Includes all manufacturers of non-metallic products except structural concrete products.

^{/7} Refers to iron and steel foundries, furnaces and mills; and the manufacture of non ferrous metals.

^{/8} Includes such products as meat, milk, fish and grains.

^{/9} Although growth rate is much greater in small, these sectors were grouped under (c) because the labor absorption is large was comparable to that in small; they might well, however, be better grouped under (a).

^{/10} Includes weaving, spinning, knitting mills, etc.

^{/11} Includes mens and boys garment factories, manufacture of hats, gloves and neckwear.

^{/12} Includes manufacture of lumber, doors, windows and rushes; sawah, migra and split cane factories; manufacture of rattan furniture and wood carving and crafting.

^{/13} Growth rate is 4.5% p.a. excluding "other wearing apparel."

Source: NCSO, Census of Establishments, 1967 and 1972.

are likely to face increasing competition from large scale (e.g. in tailoring, dressmaking and furniture) as transport and marketing costs decline with improvements in the country's infrastructure. Most of (B), in contrast, serve large markets - e.g. cotton and rayon textiles, sugar milling, plywood, chemicals, steel, basic metal and the manufacture of machinery and transport equipment - and the economies of scale are probably strong enough to offset the higher transport and marketing costs of centralized production. Most of (C) are in an intermediate category in which the trade-offs between economies of scale and transport and marketing costs probably vary significantly with location, and with the type and quality of product;^{1/} they include for instance foundries, furnaces and mills; knitting mills; meat, fish and dairy products; printing of books, periodicals and papers; bookbindings; rattan furniture; and other.

5.30 The census data are neither sufficient nor reliable enough for a quantitative analysis of the relationships suggested in the previous paragraph, and special surveys^{2/} would be required into production technologies and costs, product design and qualities, and marketing and transport costs in order to provide further clarifications. The above data suggest that very small and large generally have a non competing relationship, with each tending to concentrate on those products in which it holds a distinct economic advantage over the other. These advantages vary

^{1/} The data in Table 5.12 are at the five-digit level, and are thus not detailed enough for analysis of product type and quality.

^{2/} Such as are now being undertaken in Colombia and India, as part of the present research project.

with location (i.e. with transport and marketing costs) and with the type of product. A more detailed breakdown of the size structure might of course reveal more competition between the larger-end of small scale, and the medium and large scale manufacturers; though again, the infrastructure conditions may also be protecting even medium scale manufacturing in the provinces. What can be said at present is, first that four fifths of establishment-based employment is either (a) in sectors in which very small activities are growing rapidly, while the larger scale are declining, or (b) in which the converse is true. Second, it is likely that improvements in infrastructure in the provinces, and the growth of markets, will both act to draw small and large scale into greater competition in some sectors.^{1/} And third, recalling the interview data presented above, that competition will occur as much from the emergence and growth of small as from the expansion of already large enterprises.

Industrial Policies and the Size Structure of Industry

5.31 Summary of Policies.^{2/} Though differing in detail between years, the industrial incentives' policies of the Philippines have fallen broadly into three phases; the first two were:

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- ^{1/} Staley and Morse (1966) observed a tendency when this happens for the two to become reorganized into a less-competitive and more complementary relationship. The examples they cite include the emergence of small-scale maintenance, repair and installation services for large-scale's products.
- ^{2/} The policies have been documented and analyzed extensively in several studies, most recently by Bautista and Powers (1979) and the research group that they directed. They are therefore summarized very briefly - no doubt inadequately - below, as a background to their effects on size structure. Other studies that have been influential and which provide valuable documentation are Powers and Sicat (1971), Baldwin (1975), collected papers of Sicat (1972), ILO (1974), World Bank (1976 and 1979), Valdenpenas (1970), and Hicks and McNicoll (1971).

- (1) Import substitution under protection provided by exchange controls in the 1950s, and then
- (2) Under tariffs in the 1960s.

In both periods the protection was greater for consumer goods than for intermediate goods and machinery; in addition an increasing number of firms belonging to "new and necessary" industries were exempted from taxes and customs duties on imported machinery and equipment. Powers and Sicat (1971) estimated the average effective rates of protection in 1965 to be 86%, 65%, 34% and -19% respectively for manufactured consumer goods, intermediate goods, machinery and exports. The effects of the incentives on output and employment have been well documented in the references cited. The capital goods industries hardly developed; and the growth of manufacturing became increasingly restricted by the growth of the domestic market. Manufacturing output grew at 12-15% in the early 1950s when import substitution was proceeding at a high rate, but declined to 6% in the late 1950s and then to less than 5% by the mid 1960s as the import substitution possibilities became exhausted; the growth of manufacturing employment in the factory sector fell correspondingly. It was this situation that led to the third phase of the incentives' policies, and which has lasted throughout the 1970s:

- (3) Maintenance of protection under tariffs, but a broadening of tax incentives to raise industrial investment and exports, and to promote backward linkages in industry. The policies were expressed in the Investment Incentives Act of 1967 and the Export Incentives Act of 1970.

5.32 Since the two Acts, the industrial growth rate has risen from 5% per year in the mid' 1960s to about 6-7% per year in the early and mid' 1970s.^{1/} But the Acts themselves made only a slight contribution to the rise; manufactured exports, though expanding rapidly, accounted for only 5% of output in manufacturing by 1975,^{2/} while the use of the investment incentives was much less than hoped for, and has even declined in recent years.^{3/} The tariff system still dominates the incentives' structure. Tan (1979)^{4/} estimated the average effective rates of protection to be 247%, 23%, 18% and 16% respectively for manufactured consumer goods, intermediate goods, machinery and exports in 1974; her estimates allow for the tax incentives under the two Acts, and show if anything that the incentives' structure is yet more strongly oriented towards domestic consumer goods markets than it was in the 1960s. The higher growth rate in the '70s must therefore be explained by the growth of the domestic markets, in which two factors appear to have been important. First has been the more rapid rise in agricultural output in response to the land reform programs, the introduction of HYVs and the expansion of irrigation, infrastructural and agricultural services since

1/ The annual growth rates have fluctuated too much for a precise trend to be estimated for this period. E.g. from 14.8% in '72-73 to 2.9% in '74-75.

2/ Further, devaluation and the adoption of a floating exchange rate in 1969-70 did more than the Acts to stimulate manufactured exports.

3/ In 1972, total tax concessions under the Acts amounted to P70 million, or less than 2% of industrial investment. The number of projects registered by the Board of Investments (who administer the Acts) fell from a peak of 169 in 1973 to 39 in 1977 for the Export Incentives, while the number remained constant in the 60-80 range for the Investment Incentives. The reasons for the low use of the concessions have been the "red tape" and costs involved in obtaining them.

4/ In Bautista and Powers (1980).

the early 70s.^{1/} Second, the factory sector is itself becoming larger in both relative and absolute terms, and its continued expansion is having a larger influence on the domestic product and labor markets (notwithstanding the labor saving bias of the industrial incentives). Employment in establishments with over 20 workers rose from 17% in 1956, to 21% by 1966 and 32% by 1975 (Table 5.13); the higher labor productivities and earnings in these establishments (also shown in Table 5.13) will have acted to increase the rate of growth of domestic expenditures on manufactured goods.

5.33 Two other aspects of the industrialization policies that should be mentioned were the concessionary finance to industry through DBB and IGLF, and the ceilings on the lending rates of the organized financial sector. Concessionary finance has accounted for only a small fraction of industrial investment, however. The interest rate ceilings, on the other hand, were probably a disincentive for industrial investment since their practical effect was to restrict the supply of long-term peso resources in the economy, as discussed in Chapter 2 and 3.^{2/}

5.34 Effects on the Aggregate Demand for Labor. From the perspective of the present study, the policies outlined above raise several questions. What were the likely effects on the demand for labor in large and small enterprises? How would the demand (again, in large and small enterprises) be affected if - as most economists have urged - the policies were to become less protective, more outward-looking and less labor-saving? And what would such policy shifts

^{1/} The links between agriculture and industrial growth will be discussed further in Chapter 6.

^{2/} The analysis in Chapters 2 and 3 only covers recent years; but interest rate ceilings have been in effect throughout the past 30 years; the private financial sector has historically made few term loans to industry, while short-term lending - which only recently has been at or near to ceiling rates - has expanded rapidly for over 20 years.

Table 5.13: INDUSTRIAL OUTPUT, EMPLOYMENT AND WAGES: 1956-75

Size and Type of Establishment	Quantities					Growth, Rates, Percent Per Year				
	1956	1962	1966	1971	1975	1956-62	1962-66	1966-71	1971-74	1956-75
<u>Employment in Manufacturing, 000s</u>										
Establishments \geq 20 Workers	151	230	276	353	525	7.2	4.7	5.0	10.4	6.8
Establishments 5-19 Workers	55	48	51	68	89	- 2.2	1.5	5.9	7.0	2.2
Households and Estbs. of < 5 Workers	686	767	1004	1051	1037	1.9	7.0	0.9	- 0.3	2.3
Total	892	1045	1331	1472	1651	2.7	6.2	2.0	2.9	3.3
<u>Value Added, Constant 1972 Prices, Million Pesos</u>										
Establishments \geq 20 Workers	2427	4046	4950	7854	10043	8.9	5.2	9.8	6.3	7.8
Establishments 5-19 Workers	288	193	288	346	230	- 5.5	10.4	3.7	- 9.7	- 1.2
Households and Estbs. of < 5 Workers	n.a.	755	548	608	n.a.	n.a.	3.8	-17.9	-16.3	n.a.
Total	n.a.	4994	5786	8808	6755	n.a.	5.1	8.1	7.6	n.a.
<u>Value Added Per Worker, Constant 1972 Prices, Pesos</u>										
Establishments \geq 20 Workers	16073	17591	17935	22429	19219	1.5	0.5	4.6	0.4	-3.6
Establishments 5-19 Workers	5236	4020	5647	5088	5284	- 3.3	8.9	- 1.7	-15.9	- 0.9
Households and Estbs. of < 5 Workers	n.a.	984	546	578	n.a.	n.a.	- 1.2	-19.8	-12.5	n.a.
Average, All Manufacturing		3042	3182	3769	4747	n.a.	1.1	3.4	8.0	n.a.
<u>Wages, Constant 1972 Prices, Pesos</u>										
Establishments \geq 20 Workers	-	4127	4633	4174	3291	n.a.	3.0	- 2.1	- 7.6	n.a.
Establishments 5-19 Workers	-	1642	1878	1659	1020	n.a.	3.3	- 2.4	-15.0	n.a.

Sources: NCSO, Annual Survey of Manufactures.

imply for the Government's small industry programs? For example, would employment in large scale increase and in small scale decrease such that the "demands" of small-scale for the services provided by the programs would also decrease? - or would the opposite happen? To answer these questions, it is first useful to consider the general effects of the incentives on the demand for labor, and then the relative effects on the demands of large and small industries.

5.35 According to the studies cited there were several ways in which the policies eventually reduced the overall demand for labor; they can be grouped into substitution effects (of capital for labor) and market effects (in both domestic and export markets). The substitution effects occurred on two counts: the comparatively low levels of protection on capital goods and equipment, supported by tax exemptions on capital inputs.^{1/} Concessionary finance, to the extent that it was available, would have worked in the same direction. Some indirect evidence of substitution occurring is provided by Bautista (1979), who found a weak Spearman Rank Correlation between the effective rate of protection and capital intensity for 51 industrial sectors.^{2/} Since capital intensive sectors need more protection than labor intensive sectors, there may have been some lobbying for extra protection; but the conclusion to draw from Bautista's study is that the incentives have encouraged the emergence and growth

^{1/} The Investment and Export Incentives Acts included some provisions to encourage industry to employ more labor (such as a tax deduction on labor training expenses, and another on the labor costs of some exporting firms), but they were quite minor, and more than offset by a range of tax reliefs on capital inputs - on the compensating tax on imported machinery, double deduction of shipping costs, tax credits for locally produced machinery, accelerated depreciation, re-investment allowances, tax credits for taxes on foreign loans, and others. During 1970-72, about 80% of all tax reliefs under the two Acts were estimated to be on capital costs, IBRD (1976).

^{2/} The correlation coefficient was 0.183, significant at the 99.0% level. The data used were the Powers-Sicat EPR data for 1965, and the ASM data listed in the ILO (1974) report for 1969.

of the more capital intensive manufacturing sectors, though the effect was slight.^{1/}

5.36 The market effects were probably greater on account of the inefficiencies in the incentives' system. The low level and growth of manufactured exports up to the 1970s has already been noted, and is discussed elsewhere.^{2/} As far as the domestic markets were concerned, these were depressed in two ways (once the import substitution possibilities had been exhausted). One was through the costs (in terms of slow economic growth) of the misallocation of resources between agriculture and industry,^{3/} resulting in too slow a rate of growth of demand for manufacturers in the agricultural provinces. The other was through the misallocation of resources within manufacturing itself;^{4/} the costs of this are indicated in a recent study by Bautista and Tecson (1979) who found strong correlations between the effective rates of protection and the domestic resource costs of industrial sectors in 1969 and 1974.^{5/} The incentives' system thus eventually acted to reduce the growth of the markets it was protecting, and for this reason has adversely affected the demand for labor in both small and large scale.

^{1/} The correlations provide only a partial indication of the degree of capital-labor substitution, however, since they cover only the allocation of resources among sectors; within sectors, it is likely that the substitution of capital for labor was greater (though no empirical evidence is available to estimate extent of this effect).

^{2/} See e.g. Powers and Sicat (1971) and IBRD (1979).

^{3/} Powers and Sicat estimated the EPRs for agriculture and manufacturing to be 17% and 51% respectively in 1965.

^{4/} In Bautista and Powers, op. cit. special paper 5.

^{5/} Spearman Rank Correlation of 0.654, significant at the 5% level; 76 industries were in the sample (1974 data.)

5.37 Relative Effects on Large and Small. The tax concessions and concessionary finance evidently reduced the demand for labor more in large than in small establishments, since they were mostly available to the former. Since 1974, concessionary finance has been made available to about 5,000 small manufacturers, and it is likely that their demand for labor would also have been greater had interest rates been cost reflecting.^{1/}

5.38 The structure of protection has similarly worked against small scale, with 80% of those people engaged in small establishments being in sectors with low, zero or negative rates of protection (c.f. 45% in large), as shown in Table 5.14.^{2/} A more detailed breakdown by industry is provided in Table 5.15, from which it is apparent that the bias against small is largely due to the concentration of employment in garments and rice milling (EPRs both less than minus 25%). Otherwise the system is relatively neutral, and there are instances of small industries rising behind protective barriers. A more detailed breakdown by scale of activity to examine the incidence on activities in the intermediate size ranges was not possible from the information available to us.^{3/}

^{1/} As noted earlier, however, the main gain from cost-reflecting interest rates would be to increase the supply of long-term peso resources.

^{2/} We are grateful to John Powers for spotting a number of errors in an earlier version of the following table - as well as for his constructive comments on several other aspects of the study.

^{3/} Note that the distribution of employment in manufacturing is strongly bimodal, however, with 75% being either in establishments of less than 10 workers (28%), or of over 200 workers (47%) in 1975. (see Table 5.1). Still, the possibility remains that the incidence of the tariffs is itself inhibiting growth of the very small scale through the size structure.

Table 5.14: EMPLOYMENT IN LARGE AND SMALL ESTABLISHMENTS
ACCORDING TO LEVEL OF PROTECTION

Effective Rate of Protection; Range, % ²	No. of Sectors	Percent Employed In ¹	
		Small	Large
> 500	6	13,1	9,8
100 to 500	20	1,5	11,7
75 to 100	9	1,6	17,1
50 to 75	8	.8	1,6
25 to 50	21	5,1	12,8
0 to 25	33	11,9	22,3
-25 to 0	5	1,6	16,2
-50 to -25	6	66,4	7,0 ⁴
Actual No. Employed, 000s ³	108	100,0	100,0 ⁴

¹ Small Establishments have less than 10 workers, large 10 or more.

² When an estimate is on the dividing line it is put in the upper category. E.g. an EPR of 0 is included in the 0 to 25% range.

³ For the sample of industries studied.

⁴ Data not available for all sectors listed in Annex Table 7.

Source: Annex Table 7. The estimates of EPRs are those of Tan (1980).

5.39 A shift to a more uniform and less protective incentives' structure would act to encourage growth in several sectors in which small enterprises now provide a significant level of employment; examples are rice and corn milling, some dairy products and preserves, footwear, embroidered products, custom tailoring and garment making,^{1/} furniture, printing of books, leather products,^{2/}

^{1/} This is not included in Tan's data, but it is a large source of employment in the country, which probably has the same ERP as ready made clothes (i.e. minus 26%). See also ILO (1974) for a study of the effects of protection in the textiles and garment industries.

^{2/} See Bautista (1979) on the effects of protection in the leather and leather products industries. The results are almost exactly parallel to those of the ILO's study of textiles and garments (Ibid): low protection for an efficient sector that provides a large amount of employment, but which has to use a costly and inferior raw material input from highly protected domestic producers.

Table 5.15: EMPLOYMENT IN SMALL AND LARGE INDUSTRY BY RANGE
OF EFFECTIVE PROTECTION AND SECTOR, 1972 AND 1974

Effective Rate of Protection: Range % and Sector	Employment		Percent	
	Small	Large	Small	Large
≥ 500				
Flour Milling & Cereal Flour	68	2566		.7
Bakery Products	21097	10019	12.3	2.9
Candy & Chewing Gum	1382	3240	.8	.9
Cocoa & Chocolate	-	740	-	.2
Starch & By Products	-	1549	-	.4
Cigarettes	-	15685	-	4.5
Subtotal	22547	33977	13.1	9.8
100 - 500				
Slaughtering; Poultry Pressing	84	-	-	-
Distilled, blended liquors	624	154	.4	-
Wines	22	2206	-	.6
Paper products	5	1102	-	.3
Paper & Paperboard containers	390	3089	.2	.9
Miscellaneous paper	102	385	.1	.1
Tanning & leather finishing	106	779	.1	.2
Rubber footwear	209	4439	.1	1.3
Tires and inner tubes	124	3636	.1	1.0
Paints, varnishes	27	1332	-	.4
Soap and other compounds	33	4701	-	1.4
Structural concrete	-	2731	-	.8
Metal cans, boxes, containers	587	3408	.3	1.0
Household, radio, TV sets	52	3911	-	1.1
Refrigeration and A.C. equipment	46	3053	-	.9
Motor Vehicles, Manuf. & Assembled	20	5425	-	1.7
Jewelry, Silverware	314	266	.2	-
Subtotal	2603	40762	1.5	11.7
75 - 100				
Canned fruits, vegetables	42	8247	-	2.3
Other fish products	648	2641	-	.8
Macaroni, spaghetti, noodles	511	1290	.3	.4
Textile mills products	-	41683	-	11.9
Structural metal products	1421	4499	.9	1.3
Heating Apparatus	54	311	-	.1
Sport equipment	53	893	-	.3
Subtotal	2727	59564	1.6	17.1
50 - 75				
Meat products uncanned	419	134	.3	-
Butter, cheese	18	895	-	.3
Plastic materials	40	1943	-	.6
Electrical wires	-	1210	-	.3
Motorcycles, cycles	359	880	.2	.3
Musical Instruments	351	346	.2	.1
Toys, dolls	130	40	.1	-
Subtotal	1317	5448	.8	1.6
25 - 50				
Processed coffee	120	2321	.1	.7
Prepared food for animals	58	2590	-	.7
Carpets, rugs	253	663	.1	.2
Pulp, paper, paperboard	-	12487	-	3.6
Fertilizer, lime	-	1371	-	.4
Glass	116	6683	.1	1.9
Pottery, china	1433	859	.8	.3
Basic ferrous metal	-	9061	-	2.6
Cutlery, handtools	2847	471	1.8	.1
Stamped, coated Prods.	3501	192	2.0	.1
Other electric Machines	23	734	-	.2
Communication Equipment	-	246	-	.1
Electrical Lamps	14	1272	-	.4
Shipbuilding	373	5370	.2	1.5
Subtotal	8738	44320	5.1	12.8

Table 5.15: (Continued)

Effective Rate of Protection: Range % and Sector	Employment		Percent	
	Small	Large	Small	Large
0 - 25				
Meat products, canned	-	1361	-	.4
Evaporated, condensed milk	-	1210	-	.3
Flavoring extracts	-	181	-	-
Footwear	5611	2556	3.3	.7
Lumber	389	5993	.2	1.7
Plywood & Veneer	-	24579	-	7.2
Furniture	9067	8041	5.2	2.3
Books & Pamphlets	1156	2456	.7	.7
Other rubber	193	2344	.1	.7
Compressed, liquified gas	-	1518	-	.4
Medicinal pharmaceutical	124	8134	.1	1.3
Insecticides	9	588	-	.2
Petroleum refineries	-	1014	-	.3
Other oil products	29	99	-	-
Fabricated wine	14	667	-	.2
Agricultural machinery	604	1600	.4	.5
Other special industry	86	1049	-	.3
General industrial equipment	1043	7648	.7	2.2
Electrical Distribution & Control	28	603	-	.2
Motor vehicles engines	1979	4861	1.1	1.4
Scientific equipment	101	691	.1	.2
Office supplies	10	365	-	.1
Subtotal	20403	77558	11.9	22.3
- 25 to 0				
Fish canning	45	234	-	-
Sugar milling	-	31266	-	9.1
Dessicated coconut	-	9422	-	2.7
Cigars	-	1482	-	.4
Knitting mills	-	7707	-	2.2
Cordage	686	1932	.4	.6
Doors and windows	1642	317	1.0	.1
Basic industrial chemicals	81	1633	-	.5
Structural clay	327	2204	.2	.6
Subtotal	2781	56197	1.6	16.2
- 50 to 25				
Rice milling	34523	2559	20.0	.7
Corn milling	2643	1233	1.5	.4
Clothing	76193	19048	44.3	5.5
Embroidered products	569	1089	.3	.3
Leather products	523	468	.3	.1
Subtotal	114451	24397	66.4	7.0
Total	172309	347565	100.0	100.0

Sources: Effective rates of protection from Norma A. Tan, "The Structure of Protection and Resource Flows in the Philippines, 1974", Ph.D. dissertation University of the Philippines 1979. These figures were taken from "Industrial Development Strategy and Policies in the Philippines", October 1979. Report No.2513 since we do not have Tan's thesis. Also NCSO, Census of Establishments, 1972.

pottery and earthenware; mechanical, electrical and agricultural machinery; motor vehicle bodies; and others. All have low or negative ERPs, and in several instances are high growth sectors (see Tables 5.10 and 5.12). Equally, there would be a number of sectors in which profits and labor demand in small enterprises could be expected to decline; but in contrast to the proceeding, most of them could hardly be described as the bread and butter of Philippine manufacturing - e.g. motorcycles, toys, musical instruments, jewelry, chocolates, wines; and paper products, and tanning and leather finishing.

5.40 Similar contrasts can be made for large scale manufacturers. But the overall effects are clear, and have already received analysis in the papers cited. One question that remains is whether competition between large and small would be heightened if there were a major re-allocation of resources among sectors, and if this would lead to a rapid decline of small. The earlier analysis suggests that this is unlikely, with some exceptions (such as in metal working and machinery); as shown earlier, large and very small are generally non-competing, and tend to concentrate in sectors in which one or the other has the economic advantage - another indication of the ability of manufacturers to adapt efficiently to the existing incentives structure.

5.41 It is possible that, as rural infrastructure is improved, large scale will enter markets that are currently the stronghold of small-scale on account of the "natural" protection provided to small-scale by high transport costs in the agricultural provinces. Further, as the manufacturing sector becomes

large in relative terms, its expansion will have an increasing pull on the labor markets, acting to narrow the wage differential between large and small.^{1/} In these circumstances, employment in small scale activities may decline in both absolute and relative terms, as is apparently happening in Korea and Taiwan.^{2/} But this situation is not an imminent prospect in the Philippines, given the large share of the labor force still in agriculture. A reform of the incentives' structure, by accelerating the economic growth rate, is likely to bring the time nearer when manufacturing employment is predominantly in large scale, but it cannot bring this about immediately. Moreover, some of the large-scale activities that will by then exist are themselves likely to have evolved through the size structure.

5.42 Efficiency of Large and Small Manufacturing Establishments. Some recent estimates by Bautista and Tecson (1979) of the Domestic Resource Costs (DRC) in Philippine manufacturing can be used to show the distribution of large and small establishments in sectors ranked according to economy efficiency; their estimates are reproduced here in Annex Table 5.7 and cover 82 manufacturing sectors. According to the DRC criterion a sector is less efficient the more the value of the DRC exceeds, and more efficient the more it lies below, the shadow exchange rate.^{3/} The exchange rate in 1974 was about 6.8 pesos per dollar, but various estimates cited by Bautista and Tecson put the shadow exchange rate at about 9 pesos per dollar. Table 5.16 below shows how the manufacturing of employment in large and small establishments

^{1/} See Chapter 7 for a further discussion.

^{2/} Ho (1979).

^{3/} Let E be the shadow exchange rate, P the world price; D the domestic cost component (in shadow prices) and F the foreign exchange cost component of a manufactured good. Then the cost-benefit criterion is $F \times E + D \leq PE$ for an efficient sector. Or, $D/(P-F) \leq E$, where the term on the left hand side is defined to be the Domestic Resource Cost.

varies with the DRC. Approximately 80% of employment in small establishments lies in the efficient sectors, and 65% of employment in large establishments.

Table 5.16: EMPLOYMENT IN SMALL AND LARGE ESTABLISHMENTS
ACCORDING TO LEVEL OF DOMESTIC RESOURCE COSTS IN 1974

Domestic Resource Costs, Range % <u>/2</u>	No. of Sectors	Percent Employed in ^{/1}	
		Small	Large
< 20	8	.4	4.4
15 - 20	6	13.2	12.3
10 - 15	18	3.5	14.9
7 - 10	28	27.1	21.8
5 - 7	25	55.6	45.4
< 5	<u>7</u> ^{/3}	<u>.1</u>	<u>1.2</u>
	<u>92</u>	<u>100.0</u>	<u>100.0</u>
Actual No. Employed 000s	-	170	290

/1 Small Establishments have less than 10 workers, large 10 or more. Data are for 1972.

/2 When an estimate lies on the dividing line between two ranges, it has been put in the upper range.

/3 No. of sectors in the sample. Estimates not available for all sectors listed in Annex Table 7.

Most of the sectors now having low ERPs turn out to be economically efficient, ^{1/} and it must be concluded that a transition to a more efficient incentives' structure would benefit (by raising profits) a large number of manufacturing activities both large and small scale. Furthermore, these activities employ the majority of those now working in large and small establishments.

1/ See para 5.35 above on Bautista's correlations between ERPs and DRCs across industrial sector.

Conclusions

5.43 The basic trends in the size distribution of Philippine manufacturing activities are (a) a continual decline of self-employment in household activities, except in some high growth sectors and others in which it remains important as a secondary source of income; and (b) a comparatively rapid emergence and growth of wage employment in workshops and factories. These trends reflect structural changes in the nature of manufacturing employment, and the decline of household manufacturing should not be viewed negatively. They also help to explain the low aggregate elasticities of demand for labor in manufacturing, and which can be expected to remain low so long as household manufacturing employs a large share of the labor force.

5.44 A feature of the size distribution is the rapid emergence and growth of manufacturing establishments in the small and middle size ranges in response to market growth. Small industries concentrate on local and regional markets for the most part, and in activities in which localized production has an economic advantage; their relation to large is complementary and non-competing in most product groups, an exception being in the high growth engineering sectors. Infrastructure improvements and market growth in the provinces will probably introduce competition in an increasing number of products over the long haul, but the immediate effects, as will be discussed further in the next chapter, would be to stimulate production in both large and small scale manufacturing. Closure rates of small scale were found to be high, as expected. Finally it was found that the growth of employment in large scale is in good measure due to the expansion of a small minority of once small firms through the size distribution (the remainder being the branch expansion of large corporations). Most of the larger firms interviewed began with very small investments and levels of employment.

5.45 The industrial tariffs system, which has been the principal element in Philippine industrialization policy for nearly 20 years, worked against the majority of those employed in both small and large scale. About 80% of employment in very small establishments is in "underprotected" sectors; over 80% is also in efficient sectors (with low DRCs). The investment and export incentives introduced in 1967 and 1970 favored large more than small, mainly by subsidising capital costs, though their overall effect was comparatively minor.

5.46 Various proposals are now under review to make industrial tariffs lower and more uniform, and to make the industrial investment incentives more labor demanding. Several studies have shown that this would (a) increase growth overall by promoting the more efficient industrial sectors, (b) increase growth in the provinces yet further, principally through favorable effects on agriculture, and (c) increase the rate of labor absorption in large scale by making its investments more labor intensive. What would be the effects on small industries? Principally, to stimulate the product markets directly (via growth) and indirectly (via labors' incomes). As with large scale, some restructuring of manufacturing activity could also be expected towards the economically more efficient sectors - in which the majority of the labor force in small industries are in fact already employed.

VI. SMALL ENTERPRISE AND REGIONAL DEVELOPMENT

6.1 Approximately two thirds of manufacturing employment in the Philippines is in the agricultural provinces, of which 60% is in households. It is in the agricultural provinces, however, where the share in household employment is declining most rapidly, and there is a movement of labor into large and small manufacturing establishments in local urban centers. The movement - and with it, the growth of the regional urban base - is most rapid in those regions where agricultural development is most rapid and broadly-based, and can be explained by two factors: agriculture's influence on the regional product and labor markets, and the advantages of localized production for certain classes of manufactured goods. This chapter examines these various trends and changes, and concludes with a comment on the recent emphasis by the Government on agricultural development and its implications for the small enterprise programs. In the absence of sufficiently detailed information by region on agriculture and on the activities of the labor force, the points to be made are general, and necessarily brief.

Urban-Rural Population Data

6.2 Slightly over one third of the population currently live in urban areas, which in the Philippines are defined so as to include small villages and towns.^{1/} Castillo (1977) has described the extensive network of towns and villages in the countryside in which there are 40,111 barangays (the smallest unit of government at the village level), 522 municipalities,

^{1/} The NCSO definitions include: (1) All cities and municipalities having a population density of at least 1,000 persons per square Km; (2) Central districts of municipalities with a population density of at least 500 persons per square Km; (3) Central districts having a recognisable street pattern, at least six establishments engaged in manufacturing, commerce or service activities, and at least three of the following: (i) a town hall, church or chapel with religious services at least once a month, (ii) a public plaza, park or cemetery, (iii) a market place or building where trading activities are carried on once or more a week, or (iv) a public building like a school, health center or library. Also included are barangays having 1000 inhabitants or more in which condition (3) is met and where the occupation of the inhabitants is predominantly non-farming or fishing. All other areas are considered rural.

60 cities and 72 provinces; in 1970 there were over 400 provincial towns with populations of less than 20,000 inhabitants. The 1970 distribution of population among rural and the various sizes of urban areas is shown in Table 6.1. The percentage of people counted as living in rural areas is evidently quite sensitive to the definitions of urban and rural. UN definitions include villages and towns with 20,000 inhabitants or less in their estimates of the rural population on the grounds that such centers for the most part are servicing rural areas. Applying this definition to the Philippines in 1970 would raise the rural population estimates from 68% to 80% of the total population.

6.3 From the viewpoint of the present study three other demographic features should be noted:

- the still high rate of population absorption in rural areas; two-thirds of total population growth occurred in rural areas over the period 1960-75;
- the spread of urban growth across a large number of urban centers ranging in size from a few thousand inhabitants to over 4 million in Manila.
- the wide variations in urban growth rates in regions outside Manila.

Data on the first two features are shown in Table 6.2. Outside Manila, the aggregate values shown in the Table conceal growth rates varying from near-zero or negative values in some provincial towns and cities, to 4 to 6% and higher in others.^{1/}

^{1/} Annex Table 6.8.

Table 6.1: DISTRIBUTION OF POPULATION AND MANUFACTURING
EMPLOYMENT BY RURAL AND SIZE OF URBAN AREA, 1970

Location	No. Of Centers	Population Distribution		Distribution of Manufacturing Empl.	
		000s	%	000s	%
<u>Rural Areas</u>	-	24,987	68.3	706	52.1
<u>Urban Areas</u> By Size (Population in 000s)					
< 10	372 ^{/1}	3,359 ^{/2}	9.2	73	5.4
10-20	72	1,031	2.8	54	4.0
20-50	28	894	2.4	63	4.6
50-100	16	1,161	3.2	85	6.3
>100	6	1,166	3.2	85	6.3
Metro Manila ^{/3}	1	4,004	10.9	288	21.3

/1 Cities, Provincial Capitals and "urban agglomerations" of municipalities; their total population is 10.1 million. In addition there are 1.6 million inhabitants in very small urban centers (the number is not provided in the census).

/2 Includes 1.6 million inhabitants in the (very small) urban centers noted in f.n. 1.

/3 Includes Rizal.

Sources and basis of Estimates:

Compiled from 1970 Population Census, National Summary, Volume II, Tables I-5 and I-6. The distribution of manufacturing employment is estimated as follows. The Census provides the urban-rural breakdown. For urban centers of less than 10,000 about 2.2% of the population are employed in manufacturing; for those of 10-20 thousand, 5.2%; and for centers with over 20,000, 7.2%. The first two of these percentages were obtained from the provincial 1975 census volumes (we did not have access to the 1970 volumes) for Agusan del Sur, Aklan, Antique, Catanduanes, Bukidnon, Ifugao and Lanao del Norte, whose average urban populations were less than 10,000 in 1970; and Laguna, Misamis Oriental, Negros Occidental, Nueva Ecija and South Cotabato whose combined average urban population was about 15,000 in 1970. The 7.2% for centers with over 20,000 is calculated as a residual. These provinces were used as a data base (a) on account of the sizes of their towns and (b) to provide a broad geographical coverage.

Table 6.2: LEVEL AND GROWTH OF POPULATION IN
URBAN AND RURAL AREAS, 1960-75

Location	Population Millions		Change, 1960-75		Growth Rate, % 1960-75
	1960	1975	Millions	% Total	
Rural Areas:	18.9	28.8	9.9	66	2.8 ^{/1}
Urban Areas:					
- Small Urban Areas ^{/2}	2.8	4.6	1.8	12	3.3 ^{/1}
- 56 Provincial Cities ^{/3}	2.6	3.7	1.1	7	2.3 ^{/1}
- Metro Manila	<u>2.7</u>	<u>5.0</u>	<u>2.3</u>	<u>15</u>	<u>4.1</u>
Total	27.0	42.1	15.1	100	3.0

^{/1} There are some definitional changes introduced in 1970 regarding what comprised an urban area. These affected the urban areas outside Metro-Manila; they would be 5-10% larger had 1960 definitions been used consistently.

^{/2} Total Urban Population minus total population of 60 principal cities known as chartered cities in the Philippines).

^{/3} Population of 60 principal cities minus the population of the cities that form Metro-Manila.

Source: Population Censuses for 1960 and 1975 (see the f.n. to para 6.2 on definitions of urban and rural).

Manufacturing Employment in Urban and Rural Areas

6.4 The distribution of manufacturing employment is also shown in Table 6.1; approximately 52% was in rural areas in 1970, 27% in provincial towns and cities, and 21% in Metro-Manila. There are several reasons for thinking that the share in rural areas is declining, though it is not possible to detect this in the series shown in Table 6.3.

Table 6.3: EMPLOYMENT IN MANUFACTURING IN URBAN AND RURAL AREAS, 1965-76

Year	No. Employed, 000 ^{/1}		Percent Distribution	
	Rural	Urban	Rural	Urban
1965	653	568	53.5	46.5
1966	742	589	55.7	44.3
1967	767	623	55.2	44.8
1968	754	634	54.3	45.7
1969	697	594	54.0	46.0
1970	706	648	52.1	47.9
1971	852	620	52.9	47.1
1972	792	675	54.0	46.0
1973	723	695	51.0	49.0
1974	761	747	50.5	59.5
1975	868 ^{/2}	783 ^{/2}	52.6	47.4
1976	907 ^{/2}	773 ^{/2}	54.0	46.0

^{/1} May series, except those noted in f.n. 2.

^{/2} August series. For urban areas the August series are about the same as the May series. In rural areas, the May series show employment levels about 10% above those in the August series.

Sources: NCSO Survey of Households and 1970 Population Census. (Data here are taken from the compilations in the 1977 Labor Yearbook.)

6.5 The still high share of manufacturing employment in rural areas is surprising. It probably reflects the point that, for rural families, manufacturing is a secondary "off-farm" activity, undertaken mostly by women, and which for this reason has to be combined with farm-work and domestic duties.^{1/} Notwithstanding the network of towns in the country, access between farm and town is still time consuming in most regions, and it is not possible for women to "commute" to local towns in search of secondary earnings in commerce or manufacturing establishments.^{2/} Consequently the majority of rural manufacturing activities are undertaken within the household.

6.6 The lack of data and descriptive material^{3/} limits what can be said about manufacturing activities within rural households and their role in enhancing rural incomes. They are, however, declining in importance in favor of wage employment in establishment-based, non-farm activities in the provincial towns and cities. At a general level, they can be divided into two kinds: the production of articles for own use, which is declining rapidly according to the data in Annex Table 6.1; and the production of articles for sale, which is declining slowly.^{4/} Consider also changes in the types of employment undertaken by women, who provide two thirds of the labor force in manufacturing activities in rural areas

^{1/} Evenson, Popkin and King-Quizon (1979).

^{2/} The root mean distance between the 472 towns with less than 50,000 inhabitants (Table 6.1) is over 16 kilometers in cultivated areas. (Cultivated area is 12 million hectares.)

^{3/} Such as is provided on farmers in Mrs. Castillo's (1977) excellent study of provinces in the Philippines.

^{4/} In Manila, in contrast, household manufacturing of this kind is rising rapidly (Annex Table 6.1). See also para 6.12 below on the growth of the urban informal sector.

(c.f. one third in urban areas), ^{1/} Nine tenths of the women recorded as being in rural manufacturing are working in textiles and wearing apparel; ^{2/} household employment in both of these sectors has peaked according to the evidence discussed in Chapter 5 (Table 5.10) in favor of rising employment in large establishments in the case of textiles and small establishments in the case of wearing apparel. Furthermore, women are shifting increasingly out of manufacturing into commerce and services. Between 1956 and 1976, their participation rate in the labor force remained about constant, but their occupational distribution changed as follows: in manufacturing, a decline from 8.0 to 5.2%; in government services, a rise from 1.7 to 4.6%, in commerce, a rise from 6.1 to 7.1%; and in personal services a rise from 4.5 to 5.4%. There were on the other hand rising shares of the male labor force in manufacturing, ^{3/} mostly as wage-labor in small and large establishments.

6.7 To sum up, these various trends are suggestive of three basic changes in the allocation of labor both within and among families with changes in output and infrastructure in the agricultural provinces:

^{1/} Population Census, 1970.

^{2/} Population Census, 1970.

^{3/} See Chapter 7 for a further discussion of the movements into wage-labor.

- (i) A movement of women out of household manufacturing for subsistence (own use) purposes into wage and self-employment in tertiary sectors;^{1/}
- (ii) A maintenance or slow decline of some household manufacturing activities employing women, and which provide a secondary source of family income;
- (iii) The emergence of manufacturing in workshops and mostly - though by no means exclusively - small factories as a primary source of family income. Since this employs mostly male labor, it also solves the 'commuting' problem referred to above.

It is of course the manufacturing activities and changes noted under (ii) and (iii) that offer the better prospects for enhancing rural incomes.

6.8 The current emphasis on agricultural growth and infrastructure improvements in the provinces is likely to increase the growth of manufacturing and commerce in the local towns and cities, and to accelerate the movement of labor out of rural household manufacturing. Rising farm incomes permit a greater division of labor between farm and non-farm work, given the high income elasticities of demand for non-food goods, and stimulate the local markets for both locally and externally made manufactured goods; in the case of the demand for external goods, a rise

^{1/} The rising shares in tertiary activities were lamented in the ILO (1974) report as being a sign of too low a demand for labor in manufacturing and the primary sectors. While tertiary activities sometimes offer better earnings than the more marginal household manufacturing activities, it is generally believed that they are overcrowded.

of employment also happens in local retail and wholesale outlets, and in repair and installation services. Furthermore, the broader the base of agricultural development, the broader the effects on the labor and product markets.^{1/} A study of Gibb (1974) of four provincial towns in small farmer rice growing areas in Central Luzon showed a rapid expansion of small-scale manufacturing and commercial activities in the towns, in response to the farm incomes generated by the introduction of HYVs and supporting irrigation and infrastructural services. His findings are summarized in Annex Table 5.2, and are consistent with those of studies in other countries,^{2/} the more recent work of Alburo and associates (1979), and the regional data presented in the next section.

Regional Distribution and Growth of Manufacturing Employment

6.9 The demand for labor to work in manufacturing in the agricultural provinces is derived from three sources: (a) the demand for consumer goods, and which rise with incomes in agriculture; (b) external demands for local manufactures, principally garments and handicrafts; and (c) the demands for inputs and intermediate goods by agriculture, and also by local manufacturing itself, and which rise with agricultural output. (Crop processing is included in (c).) The result is a very broad spectrum of manufacturing activities in the consumer and intermediate goods industries, as indicated below by the employment data on manufacturing establishments:

1/ For a further discussion see World Bank (1978).

2/ One would like to see more case studies of this type, since they provide a more accurate assessment of the response of non-farm activities to agricultural growth and infrastructure improvements, and a clearer picture of the growth of the urban base in the provinces. For studies in other countries see Epstein's (1973) historical study of two villages in India, and Webb (1974) on Peru. Webb notes "New types of activities springing up in the countryside include small businesses and trading ... a vast network of small rural markets has formed ... small businesses are probably the most important occupations in the growing urbanization of the countryside." A study by Child and Kaneda (1975) of the tubewell pumpset manufacturers in rural towns in the Pakistan Punjab is also worth reading. For a discussion across countries, see also World Bank (1978).

	Metro-Manila	Provinces
Percent Employed in		
- Consumer goods	55	72
- Intermediate goods	30	24
- Capital goods	<u>15</u>	<u>4</u>
	100	100
Actual Employment, 1977 (000s)	401	377

Source: See Annex Table 6.10 for further details. The data are for establishment of all scales.

6.10 The level and growth of manufacturing employment in the regions, if they are to be classified by scale of activity, have to be examined at a more aggregative level on account of data limitations. Some data are provided in Table 6.4 for Manila and Rizal (Metro-Manila) and the Philippine's three major island groups: Luzon (excluding Metro-Manila), Visayas and Mindanao. Since the economic conditions vary considerably between the regions within each group,^{1/} the data are still too aggregative for comparative purposes. Luzon for instance has three of the poorest and most slowly growing agricultural regions in the country (Ilocos, Cagayan Valley and Bicol) and two of the most prosperous and rapidly growing (Central Luzon and Southern Tagalog). The regions within Visayas and Mindanao also require separate analysis on account of differences in their primary resourcebase:^{2/} forestry (accounting for over 40% of the country's total annual production) and coconut in Northern Mindanao; corn, coconut and forestry in South-Central Mindanao; low levels of per capita production in all major crops in Western Mindanao, Central Visayas and Eastern Visayas; and sugar (accounting for over 60% of the country's total annual production), rice and fisheries in Western Visayas. But it is

^{1/} Annex Table 4, summarizes the economic characteristics of the 12 main regions of the Philippines.

^{2/} See Annex Table 4.

difficult at present to construct a consistent time series on manufacturing employment by scale of activity for each region.^{1/} (A regional breakdown for small and large industries is shown in Annex Table 6.3 for 1970, the latest year for which consistent regional data are available; and a time series on the numbers of large and small manufacturing establishments is shown in Annex Table 6.6 though even here inconsistencies remain.)

6.11 Within these various limitations imposed by the data, four features stand out as regards changes in the size distribution of employment by region (Table 6.4):

- (i) The concentration in Manila of employment in large scale manufacturing, amounting to 53%^{2/} of total employment in large scale in 1975;
- (ii) The level and growth of household employment in Manila;
- (iii) The regional dispersion of employment in small-scale: 82% of employment in household manufacturing, and 78% in small establishments, was in the provinces in 1975;

^{1/} In 1975 the population census used a different definition of employment to the one used in the establishment census. It is possible to make adjustments for this (see Annex Table 6.5), but the assumptions do not hold up well at a disaggregative level. Even the aggregate data in Table 6.4 and Annex Table 6.5 have a number of caveats, as footnoted.

^{2/} Depending on the definitions adopted for small and large scale; 53% refers to establishments with 10 or more workers. For establishments with over 200 employees, the preliminary tabulations of the NCSO indicate that about 52% of the employment is in Metro Manila.

Table 6.4: REGIONAL DISTRIBUTION AND GROWTH OF MANUFACTURING EMPLOYMENT BY SCALE OF ACTIVITY, 1960-75

Region and Scale of Activity ¹	No. Employed, 000s			Distributions, 1975		Trend, % 1960-75
	1960	1970	1975	% Total	% Group Total	
<u>Manila & Rizal</u>						
Households	55 ⁴	81 ⁴	150 ⁴	9 ⁴	18 ⁴	6.9 ⁴
Establishments <10	27	39	63	4	22	4.4 ²
Establishments ≥10	159	244	288	17	53	3.8 ³
Total	241	364	501	30	30	5.0
<u>Luzon (excluding Manila and Rizal)</u>						
Households	298	396	361	22	43	1.3
Establishments <10	35	69	126	8	45	8.3 ²
Establishments ≥10	39	63	149	9	27	9.6 ³
Total	372	528	636	38	38	3.6
<u>Visayas</u>						
Households	264	275	214	13	26	-1.4
Establishments <10	19	30	40	2	14	6.0 ²
Establishments ≥10	32	43	60	4	11	4.3 ³
Total	315	348	314	19	19	0.0
<u>Mindanao</u>						
Households	78	70	108	7	13	2.2
Establishments <10	12	30	52	3	19	9.7 ²
Establishments ≥10	18	59	49	3	9	5.4 ³
Total	108	159	209	13	13	6.8
<u>Country Totals</u>						
Households	395	822	833	50	100	1.2
Establishments <10	93	168	281	17	13	7.7
Establishments ≥10	248	409	546	33	100	5.4
Total	1030	1399	1660	100	100	3.2

- ¹ The scales relate to numbers of workers employed. Household employment is estimated as a residual.
- ² Actual trends for 1961-72 shown in Annex Table 5.
- ³ Actual trends for 1961-75 shown in Annex Table 5.
- ⁴ Since the residual (household employment) is only a small percentage (20-30%) of total employment in Manila and Rizal, the estimates here are more uncertain than in the other regions: a small error in total employment is magnified 3 to 5 times in the residual; in other regions the errors are magnified by about 1.3 to 1.5 on average.

Sources and Basis of Estimates: Total employment by regions is given in Annex Table 5 (columns 1960b, 1970, 1975b). The establishment data are in Annex Table 6; since these are for the years 1961, 1967, 1972 and (for establishments of over 10 workers only) 1975, the estimates for 1960, 1970 and (for the less than 10's) 1975, are simple trend interpolations or extrapolations from the nearest years.

(iv) The high growth rates of establishment-based employment (in both small and large scale) in the provinces, in conjunction with a rapidly declining share of household employment.^{1/}

(i) is familiar, and can be discussed briefly. The concentration of large scale in the Manila region is partly a consequence of the market for consumer goods in the region itself, and in the adjacent and relatively prosperous agricultural regions in Southern Tagalog and Central Luzon. Aside from the historical concentration of wealth and income in Manila, investment there was also stimulated by the structure of industrial incentives. The high rates of effective protection on consumer goods industries, tax reliefs on capital inputs, low rates of effective protection on capital inputs and on agricultural and forestry products all acted to favor investment in industry over agriculture, as discussed in Chapter 5.^{2/} Simultaneously, the transactions costs of using the incentives, low tariffs on imported materials, and the costs of obtaining imported inputs to industry, both favored industrial investment near the Government and near the port of Manila.^{3/}

6.12 (ii) Household Manufacturing Employment in Manila. This encompasses a very broad range of activities and earnings levels, and for this reason it is hard to explain why it is growing so rapidly while declining elsewhere. In Manila (as elsewhere) families primarily dependent on household manufacturing often have earnings comparable to or in excess of those of skilled labor in the

^{1/} John Powers mentioned that this reverses a slow trend experienced in the 1950s, when capital was moving away from agriculture at a historically high rate under the influence of protection. This is documented in a paper by Moran (1979), to which we did not have access at the time of writing.

^{2/} See especially the ILO report on this subject.

^{3/} Powers and Sicat (1971), p. 106.

organized sector; ^{1/} others are amongst the poorest in the country. For some families - though a rapidly declining number ^{2/} - it is a subsistence activity. For others it provides a secondary source of employment and earnings, undertaken by women and (perhaps moreso than in the provinces) has been encouraged by the putting out system, in the garments industries in particular. ^{3/} It is also likely to include employment in a number of the high growth capital and durable goods industries referred to in Chapter 5. ^{4/}

6.13 Any explanation of the growth of household employment in Manila must therefore recognize the diversity of activities involved. The possibility of measurement errors cannot of course be discarded; yet the evidence is consistent with both cross-section and time series data on the size and growth of the 'urban informal sector' in other countries, ^{5/} and one might best draw on the models of this sector to find the elements of an explanation. The growth of labor supply due to

^{1/} This can be inferred from the data presented in Chapter 7 (table 7.6 and Annex Table 7.9). In 1971, 18.3% of the families primarily dependent on entrepreneurial activities in manufacturing were in the top quintile, and another 18.3% in the next-to-the top. The number of families in these groups (72 thousand) significantly exceeded the number of manufacturing establishments in that year. Since these data are for the country as a whole they do not show the point explicitly for Manila, though it is highly unlikely that Manila would have none of the better-off in these types of activities; in fact several such families were met during the course of field trips in the present study.

^{2/} Compare the figures on production of articles for 'own use' and 'for sale' in Annex Table 6.1.

^{3/} The 1975 Population Census gives 103 thousand women in Manila and Rizal as being in the weaving apparel industry, of which less than half can be accounted for by employment in establishments.

^{4/} Several of the interviews reported in that Chapter were with firms in the Manila area that had started out as household activities.

^{5/} Mazumdar (1976).

in-migration and the 'natural' population growth of the city^{1/} is obviously one element, combined with the low demand for labor from the corporate sector. Another is the growth of the urban product markets including the markets generated by the 'informal' sector activities themselves.^{2/} The fastest growth of household manufacturing in Manila also occurred during 1970-75 (Table 6.4), a period of inflation, declining real wages and a declining share for labor in value added; as will be discussed in Chapter 7, it thus became more remunerative for many workers to move into or remain in self-employment. Even before the inflation, however, the distribution of earnings from self-employment and from wage-employment in skilled occupations in the 'formal' sector overlapped, and is suggestive of a greater competition in the labor markets for the two kinds of employment than is commonly supposed. Finally, as in Japan in the earlier part of this century, there are economic and political advantages to large trading and industrial firms in the "putting-out" of certain types of work.^{3/}

6.14 (iii) Geographical Dispersion of Small-Scale. It is sometimes suggested that the geography of the Philippine islands enforces a dispersed pattern of manufacturing and commerce. This is possibly true in the mountain provinces, but the separation of provinces by sea in fact has comparatively little influence, except perhaps in the three main islands of Visayas, since 75% of the population live on the two

^{1/} Preston (1979) has pointed out an often overlooked point that the growth of large urban areas stems in a greater measure from their 'natural' population growth rate than from in-migration, though this is not to suggest that the latter is unimportant.

^{2/} Mazumdar, op. cit., p. 672.

^{3/} Shinohara in Hozelitz (1968).

large islands of Luzon and Mindanao, where small scale manufacturing is also dispersed. It will be argued below that (as in other developing countries) dispersion is a consequence of the still large share of the labor force in agriculture and living in rural areas, and which in practice leads to dispersed product markets and to fragment production into small scale units. The rural populations in regions outside Metro-Manila range from 70% of total population in Central Luzon, to 90% in Ilocos. Household manufacturing is mainly in the rural areas as discussed earlier, while manufacturing in small establishments is found mostly in local urban centers on account of better access to infrastructure and markets. For some products it is possible for large scale manufacturers to reach the provincial markets through the trading networks, as happens for instance with modern durables; but the transport, storage and marketing costs for others (furniture, construction materials, job-order-metalwork and bakery products, for instance) are prohibitive until infrastructure and transport services are sufficiently developed. Low wages and the demands for cheaper if often lower quality products in the provinces also presumably favor local small manufacturers. Although such relative cost and marketing advantages for small manufacturers decline with the growth of per capita rural incomes, and with infrastructure improvements, this appears to affect a limited number of sectors (Chapter 5, Tables 5.10 and 5.12). In others, it leads to the provincial manufacturers reaching out to the regional and national markets,^{1/} and to an overall expansion of establishment-based manufacturing activity.^{2/}

^{1/} Chapter 5, Table 5.9.

^{2/} See Table 6.4 and Annex Table 6.6.

6.15 (iv) Changes in Manufacturing Employment Over Time in the Provinces. In the Philippines, the above-mentioned expansion has been the most rapid in Southern Tagalog and Central Luzon, where agricultural growth is less narrowly-based than elsewhere, and also more rapid. In 1975 the two regions accounted for over 30% of total rice production (the country's principal crop); Southern Tagalog also had quite high shares in coconut, corn and timber production (Annex Table 5.4). High yielding rice varieties were being used in Central Luzon as early as 1966, but the main increases in rice production occurred in the 1970s, during a revival of a long-standing but defunct land reform program for rice and corn farmers, and an intensification of extension, credit, infrastructure and irrigation programs. Since time-series data on inputs and outputs by region are not readily available, it is necessary to consider national aggregates and keep in mind that provinces in Central Luzon and Southern Tagalog were among the principal beneficiaries of the programs. By 1977, HYVs were being planted on 86% of irrigated and 68% of rainfed rice areas in the country; but perhaps as important were the lasting improvements on rice farming practices and the supporting supply and marketing services.^{1/} The changes in rice production are apparent in Annex Table 6.9 and Figure 1, which show the general increase in yields and outputs that occurred in the 1970s.^{2/} (The decline in 1972 was due a rice crop virus, "tungro", and in 1973 to severe flooding in Luzon.)^{3/}

^{1/} "Philippines Sector Survey: Agricultural Support Services," June 14, 1979, IBRD.

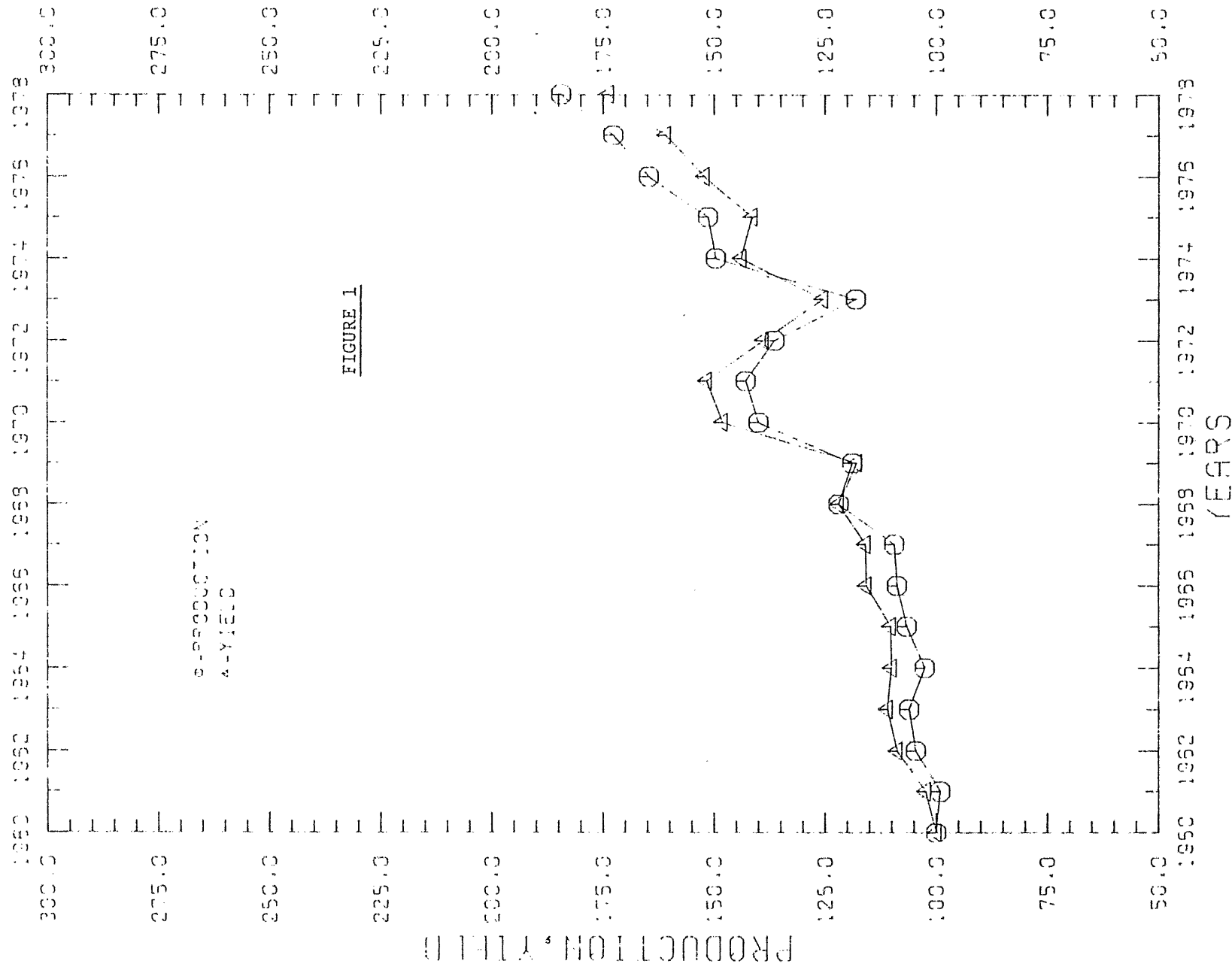
^{2/} Ibid. The report remarks that for the first time in its history the Philippines is becoming self-sufficient in rice production, even in the face of adverse weather conditions, and a net exporter of rice.

^{3/} Report on the Masagana 99 program by Jesus Alix (1979).

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INDICES OF RICE PRODUCTION AND RICE YIELDS

1960=100



6.16 The associated trends in establishment-based manufacturing employment were provided in Table 6.4 above. For Luzon as a whole (excluding Manila and Rizal) the employment trends since 1960 averaged 8.3% per year for small establishments and 9.6% per year for large establishments. (There is evidence of employment doubling since 1970, a growth rate of 15% per year, but the preliminary nature of the census data do not permit these figures to be taken too literally.) These figures probably understate the growth in Central Luzon and Southern Tagalog since they include three of the slowest developing regions in the country.^{1/} Other features to note are the decline in the share of household employment (from 80% to 57% over the 15 year period^{2/}) as the preceding analysis would predict; the net migration into the regions (Annex Table 6.4),^{3/} notwithstanding their closeness to Manila; and the high average growth rates of the principal cities (Annex Table 6.8).^{4/}

^{1/} Ilocos, Bicol and Cagayan Valley. Ilocos and Bicol show below average rates of establishment formation, Cagayan slightly above average; Cagayan has a relatively small number of establishments however. Annex Table 6.7.

^{2/} See Table 6.4.

^{3/} The in-migration rates can be inferred from the population growth rates in these regions, which were above the 'natural' population growth rate. (Annex Table 6.4 provides data on population growth, but not on migration.) An analysis of internal migration patterns in the country up to 1973 is provided in Mrs. Castillo's study (1977), Volume III, in which she notes that "the in-migration regions are Northern and Southern Mindanao and Central and Southern Luzon" (p.865). Quite detailed tabulations are presented in this volume.

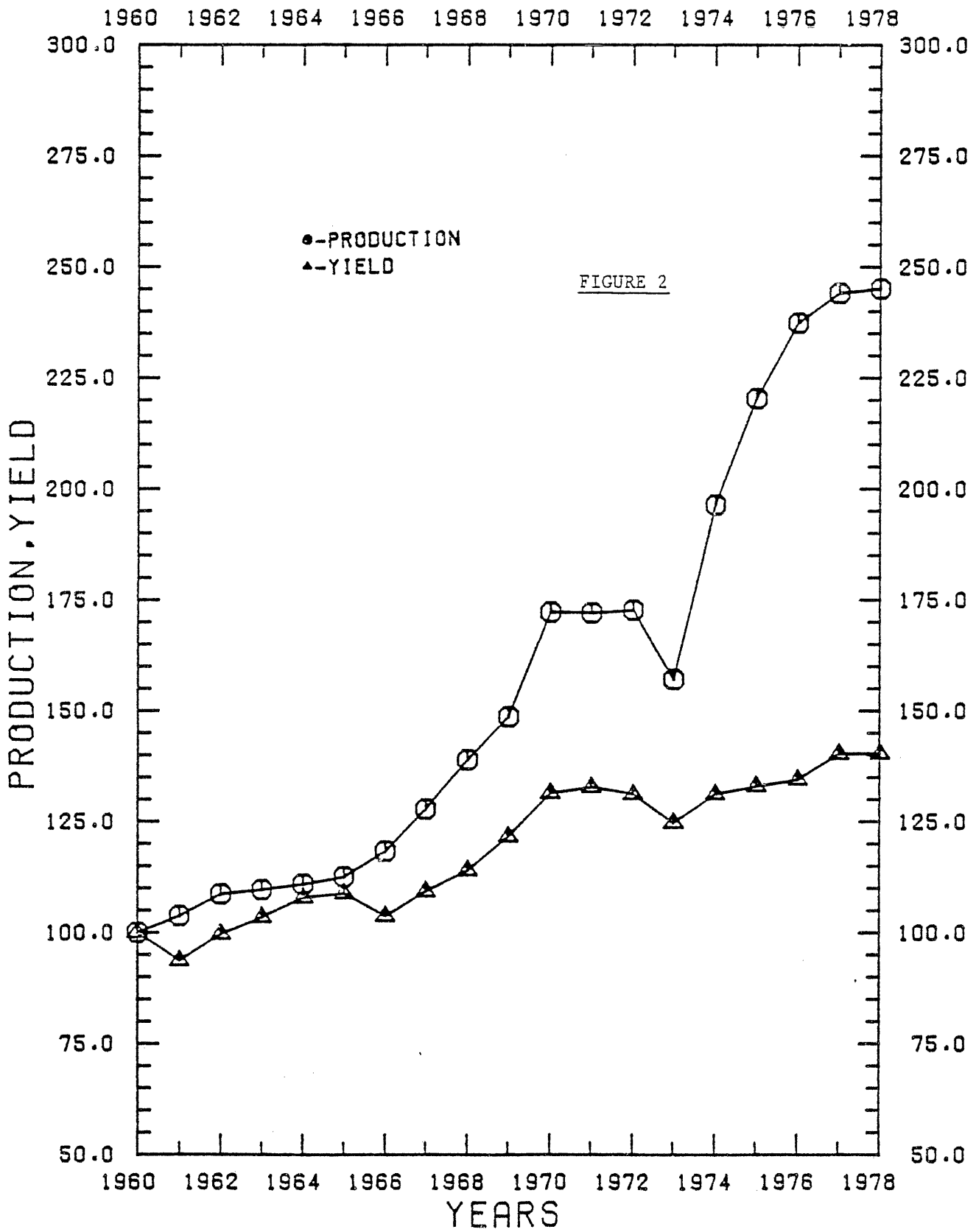
^{4/} The variance in the growth rates should be noted. Growth rates range from 2.2% per year in San Jose (Central Luzon, Population 53 thousand), to 8 to 9% in Olopango and Palagan (population 147 and 12 thousand respectively). The average in Central Luzon was 4.9%, and in Southern Tagalog 3.4% (c.f. 4.8% for Metro-Manila).

6.17 The next highest growth regions in the country are in Mindanao, where the main products of the primary sector are timber, corn and coconut, in which local production amounted to 68% and 65% respectively of the country's total production in 1975 (Annex Table 6.4). While the overall growth rates in these sectors have been comparable to those for rice production, the origins of the growth have been quite different. The response to improved practices and HYVs for corn farming was low compared to rice (Castillo, 1977) and 70-80% of the growth in output in the 1970s has been due to an area expansion,^{1/} as can be seen from Figure 2; this of course implies a slower growth of earnings on fixed area small farms than would occur under conditions of rising yields. Coconut, in contrast to most other crops, is generally a secondary activity for farm families and, while overall output increased at about 3.5% per year (Annex Table 6.9), this has been accompanied by a systematic decline in yields over a 15 year period. Timber production, which expanded at over 5% per year in the 1960s, was first held constant and then reduced in the 1970s for reasons of forestry conservation, reforestation and ecology. Overall per capita output from the primary sector in the region has nevertheless risen over a long period.^{2/} Associated with this were a decline in the share of household manufacturing employment (from 72% to 52% over the period 1960-75); growth rates of 9.7% and 5.7% respectively of manufacturing employment in large and small establishments; and an average growth rate of 4.2% of Mindanao's

^{1/} The difference between the two plots in Figure 2 provides a measure of the increase in output due to the increase in area cultivated.

^{2/} Sicat (1972), Chapter 15 provides estimates of relative regional growth rates up to 1966. Since regional accounts were not available, he used surrogate measures based on tax data and expenditures of regional governments.

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INDICES OF CORN PRODUCTION AND CORN YIELDS
(1960=100)



14 principal cities (Annex Table 6.8).^{1/}

6.18 Regions experiencing the slowest (and also the most narrowly-based) growth in the primary sectors include Western Visayas (the main sugar growing region in the country), Eastern Visayas, Bicol and Ilocos. Each have the following in common: net out-migration, a slow rate of growth of the principal cities (2.3% in Western Visayas, 2.1% in Eastern Visayas, 1.8% in Bicol and 2.7% in Ilocos), and a slower rate of growth of employment in establishment - based manufacturing. Even in these regions, however, the share of employment in household manufacturing is declining, though it remains significantly higher than elsewhere (e.g. 68% in Visayas, as compared to around 55% on average in other provinces).

6.19 Crop yields in the Philippines are still low by East Asian standards (Table 6.9), which suggests that the potential for rural-led industrial growth in the provinces is still considerable:-

Table 6.9: NATIONAL AVERAGE CROP YIELDS: SELECTED ASIAN COUNTRIES, 1977 TONS/HA

	Philippines	Indonesia	Thailand	Malaysia	India	Japan
Rice (rough, dry paddy)	1.96	2.76	1.81	3.06 ^{1/}	1.87	6.17
Corn (maize)	0.88	1.19	1.46	7.00 ^{1/}	1.13	2.67
Sugar Cane	43.6	83.8	53.1	36.0	53.6	54.5

^{1/} Malay Peninsula.

Source: FAO Yearbook, Vol. 30, 1977.

^{1/} Again note the variability from 1.6% in Gingoog (population 67 thousand) to 6.1% for Cagayan de Oro (population 165 thousand).

The potential obviously varies greatly between provinces, and was examined at length during the preparation of the current Development Plan.^{1/} It is for instance much more limited in Ilocos (where fisheries, handicrafts and tourism have been stressed) and Central Visayas (where the development of the larger urban centers has been stressed); also, in some regions the urban-industrial base is itself now large enough to provide a lead. This is clearly not the place to review plans, however, and it is sufficient to note that it is intended to maintain the emphasis that has been placed on a broad based development of agriculture since the early 1970s. What can be said from the limited perspective of the present study is that, to the extent that these policies are successful in achieving a more broadly based growth of incomes in the rural areas and towns, they should stimulate the product markets of local manufacturing establishments, both large and small scale. The demands for the services and finance provided by the small enterprise programs are likely to be greatest in these regions.

6.20 To sum up, the evidence presented above underlines the importance of agriculture as the leading element in urban-industrial development in the provinces. This conclusion is not new. But the strength of the linkages between agriculture and local industry and commerce appear to be even stronger than might have been thought earlier; in the high growth agricultural districts, the emergence of small and large manufacturing establishments in the local urban centers has been very rapid in recent years; and the rapid growth of establishment based manufacturing in the provinces has apparently reversed the trends experienced in the early phases of industrialisation, when agriculture was given a very low priority.

^{1/} Five Year 1978-82 Philippine Development Plan, NEDA.

VII. SMALL ENTERPRISE PROGRAMS AND EMPLOYMENT POLICY:
A REASSESSMENT OF PURPOSES

Introduction

7.1 The small and medium industries program is seen primarily as a means for improving the employment and earnings opportunities for the labor force. At the time the program was introduced in 1974, the labor force had expanded at over 3% per year in the previous 20 years, from under 9 million in the mid' 1950s to over 14 million by the mid' 1970s; by 1979 it was over 17 million, with 600 thousand people entering the labor market each year. Between 1956 and 1974 agriculture provided about 51% of labor absorption, commerce 12.2%, government services 13.6%, and factory-based manufacturing activities, although accounting for about one fifth of gross fixed capital formation in the private sector, only 4.9% (Table 7.1). It was often noted^{1/} that low productivity tertiary activities absorbed more labor than industry, as for instance with 5.8% of the new entrants being employed in domestic services (mostly as domestics) over the period. A second purpose of the program stemmed from the growing concentration of industrial investment in Metropolitan Manila, which by 1974 accounted for about one half of all manufacturing investment in the country.^{2/} The new emphasis to be placed on agricultural development in the early 1970s, however, was expected to stimulate industrial employment opportunities in

1/ The ILO (1974) report provides an analysis of trends in labor absorption and labor productivities by sector.

2/ Estimate based on the relative capital labor ratios of 0.329, 0.764 and 1.0 for small, medium and large establishments respectively, and regional employment data provided in a report by the UP-Institute for Small Scale Industries (1977).

Table 7.1: EMPLOYMENT AND LABOR ABSORPTION BY ECONOMIC SECTOR 1956-74

Sector	1956	1974	Change 1956-74	% Share in Total Change, 1956-74
Agriculture	4,548	7,684	3,136	51.2
Construction	198	403	205	3.3
Manufacturing				
- factory based ^{/1}	151	454	303	4.9
- household & small ^{/2}	811	969	158	2.6
Commerce	803	1,549	746	12.2
Transport	228	491	263	4.3
Government Services	392	1,225	833	13.6
Domestic Services ^{/3}	332	685	353	5.8
Personal Services ^{/3}	135	225	90	1.5
Other	104	139	35	0.6
Total	7,702	13,824	6,122	100.0

^{/1} Establishments with 20 or more employees.

^{/2} Includes establishments with less than 20 employees.

^{/3} Other than domestic.

Sources: NCSO. Labor Force Surveys and Surveys of Manufacturing Establishments.

the provinces, particularly in small and medium industries. Hence by addressing the constraints on the supply of capital and services to these industries the program had the dual purposes of increasing industrial employment opportunities in the country and achieving also a degree of decentralization of urban-industrial development.^{1/}

7.2 From the standpoints of implementing and evaluating the program, however, it is necessary to define the employment objectives more precisely; in particular, to decide what is meant by improving employment opportunities. There is a tendency to see the desirability of the projects financed in terms of employment creation. This is reflected for instance in the early emphasis placed on establishing "new" enterprises, the more recent emphasis on "growth" enterprises, an almost exclusive preference for financing fixed assets over working capital, and a preference for financing only labor intensive small enterprise projects. But a closer look at the evidence on employment and incomes suggests that the preoccupation with employment creation at low cost places an unnecessary constraint on what the program might otherwise accomplish:

- (a) Un and underemployment rates have declined systematically during the past 20 years, notwithstanding the rapid growth of the labor force;
- (b) Real wages, on the other hand, have passed through periods of stagnation and other periods of decline; and
- (c) Family incomes in the lowest quintiles have varied in a more complex manner, but have remained low.

^{1/} For a fuller discussion of the background to the program, see the ILO (1974) report.

In these circumstances it is not the absence of employment, but the type of employment and the low incomes derived from it that becomes the main issue. This has several implications for the future directions of the program, the types of projects it finances, and also for the criterion as to what comprises an economically desirable project.

7.3 This chapter first briefly reviews the evidence on employment, wages and incomes, and then discusses the implications for the small enterprise programs. A comment on labor intensity in small and large enterprises is offered, together with some observations (drawing on other studies) for raising the demand for labor in general. A method for evaluating small enterprise projects and programs is also outlined (its technical aspects being covered in more detail in the next chapter).

Unemployment and Underemployment: Levels and Trends

7.4 Various series on employment over the period 1960-76 are shown in Table 7.2. The first column shows the NCSO's estimates of participation rates, which declined slightly over the period, from 54-57% in the early '60s to 50-52% in the mid '70s; a closer look at the data by age group shows that the declines were most marked among teenagers,^{1/} presumably on account of the rising shares attending school or college.

7.5 Unemployment rates for household heads, and for the urban and rural labor forces are also shown, from which the following points stand out: (i) the systematic declines in unemployment rates from about 6-7% in the early '60s to 3-5% by the mid '70s; (ii) the relatively low unemployment

^{1/} Labor Force Surveys. A further discussion of participation rates can be found in Lal (1979).

/1

Table 7.2: UNEMPLOYMENT AND UNDER EMPLOYMENT IN THE PHILIPPINES, 1960-76

Year /2	Labor Force Participation Rate, % (1)	Total Labor Force (Millions) (2)	Unemployment Rate % /3			Percent Working 40 or more /4 hours/weeks (6)	Percent Visibly under /5 Employed (7)	Unemployed and Visibly Under /6 Employed % (8)	Measure of Un and Under Employment % (9)	% Households With Family Heads Unemployed (10)
			Urban (3)	Rural (4)	Total (5)					
1960	53.8	9.1	-	-	6.3	-	-	-	-	-
1961	55.6	9.7	-	-	6.4	-	-	-	12.7	-
1962	57.1	10.3	-	-	6.5	-	-	-	13.0	-
1963	55.2	10.2	-	-	4.6	-	-	-	12.9	-
1964	59.9	11.3	-	-	6.4	-	-	-	10.8	-
1965	53.1	10.8	10.7	4.1	6.2	84.5	9.3	15.5	13.1	1.9
1966	55.1	11.8	10.0	5.7	7.0	84.9	8.1	15.1	11.6	1.6
1967	54.7	11.8	10.3	5.6	7.7	84.0	8.3	16.0	-	1.5
1968	49.6	11.4	9.0	7.4	7.9	81.6	10.5	18.4	14.4	2.2
1969	52.0	12.0	9.2	5.7	6.7	85.7	7.6	14.3	10.9	1.9
1970	-	-	-	-	-	-	-	-	-	-
1971	50.2	13.2	8.7	3.7	5.3	89.1	5.6	11.9	8.0	1.7
1972	48.4	13.3	9.8	3.3	5.4	89.4	5.2	10.6	9.1	1.8
1973	50.4	14.6	8.0	3.3	4.8	89.0	6.2	10.8	7.7	1.9
1974	49.7	14.3	5.7	2.0	3.2	91.8	5.0	8.2	6.6	1.3
1975	51.0	15.2	7.8	2.6	4.2	90.1	5.7	9.9	6.8	1.5
1976	51.8	16.2	8.0	3.6	5.0	89.9	5.1	10.1	7.3	1.2

/1 See text for definitions of terms. (A dash indicates that the data were not readily available or not available.)

/2 October rounds of the BCS Survey of Households except for 1964 and 1969, for which surveys were only available in May; for 1971-74 (November rounds), and 1975-76 (August rounds). The May rounds do not differ much from the August/October/November rounds for all variables except the visibly under-employed, where the differences may be as much as 3 percentage points (in absolute terms), the May figures being higher; for the other series the differences are generally within one percentage point. For the visibly underemployed in 1964 and 1969, a downwards adjustment was applied to the May Round.

/3 All those recorded as wanting work on a full time basis.

/4 Includes those with a job or business but not at work because of temporary illness, vacation, strike or other reasons.

/5 Working less than 40 hours per week and seeking additional work.

/6 Col. 5. plus Col. 7.

/7 Un-employed plus the full time equivalent of the visibly under-employed, defined in f.n. 5. Figures taken from Lal's (1979) report, Table 1, Col. 10.

Sources: BCS Surveys of Households for respective periods, except for Col. 9, which is indicated in f.n.7.

rates in rural areas in all periods (on average they have been about 60% lower than those in urban areas); and (iii) the relatively low levels of unemployment recorded among household heads (about 1.2 to 1.5% in the mid '70s). As in other countries, unemployment is more concentrated among the younger of the labor force, though again there is some evidence of a decline for all age groups over time (Table 7.3):-

Table 7.3: UNEMPLOYMENT RATES BY AGE GROUP, 1965 AND 1976. (PERCENTAGE OF LABOR FORCE UNEMPLOYED IN EACH GROUP.)

	Age Group			All Ages
	10-24	25-44	45-64	
1965 (October)	12.2%	4.1%	2.9%	6.2%
1976 (August)	9.5%	4.0%	2.4%	5.0%

Source: As for Table 7.2.

Finally, the NCSO series also show declining unemployment rates for males and females and for both agricultural and non-agricultural workers.^{1/}

7.6 A presentation of yet further statistics on unemployment rates would be monotonous. Perhaps the main question to be answered is whether the definitions or the sampling methods used have changed over the years so as to bias the estimates in some way. Neither appear to have changed significantly, however, over the period considered.^{2/} The unemployed are defined as all those "wanting and looking for work on a full-time basis (40 hours per week)" or wanting full-time work but not looking for it

^{1/} Yearbook of Labor Statistics, 1977.

^{2/} Ernie Pernia rightly pointed out to us that the definitions of unemployment in the population censuses of the NCSO have changed (see also para. 6.11 and the supporting annex tables); the labor force surveys have been more consistent, however.

"in the belief that it was not available, or because of temporary illness, bad weather or other valid reasons." This definition has been followed consistently in the labor force surveys since 1956.

7.7 The NCSO's surveys also provide estimates of what are defined as the "visibly under-employed", who are people with part-time jobs (i.e., working less than 40 hours a week) and wanting additional work.^{1/} The series are also shown in Table 7.2 (col. 8) for the period 1956-76; again the noticeable feature is that the rates declined, from about 8-9% in the mid '1960s to 5-6% in the mid '1970s. Working hours were also long and increased (col. 6); in 1965, 85% of the labor force claimed to be working more than 40 hours per week and in 1976, 90%. In column (9) of the table a composite measure of unemployment is provided,^{2/} based on the full-time equivalent of the visibly under employed plus the unemployed, and indicates that about 7.3% of man-days of work were lost due to un or under employment in 1976, as compared to 13.1% in 1965.

7.8 Hence the available data show that the economy has been able to absorb its labor force during the past 20 years, notwithstanding the capital intensive path of industrial investment discussed in Chapter 5, and the under-investment in agriculture. This has not happened, however, without its cost in terms of the quality of employment provided and its effects on the real wages and incomes of the labor force.

Changes in Real Wages Over Time^{3/}

7.9 Published data on wages are not comprehensive, and are available in some sources only for Metro-Manila, and in others for particular

^{1/} There are of course several others definitions of under-employment based on disparities between wages and marginal productivities of the employed. The relevant data are not available to use these definitions here; even if they were, however, they would not affect the following analysis for the same reasons as are laid out by Stewart (1977, Chapter 2) in her book on Technology and Underdevelopment.

^{2/} Taken from Lal (1979).

^{3/} This section draws heavily on Lal's (1979) report and is kept brief. The following includes a discussion of agriculture, agricultural wages and earnings in self employment (which are not discussed in his report).

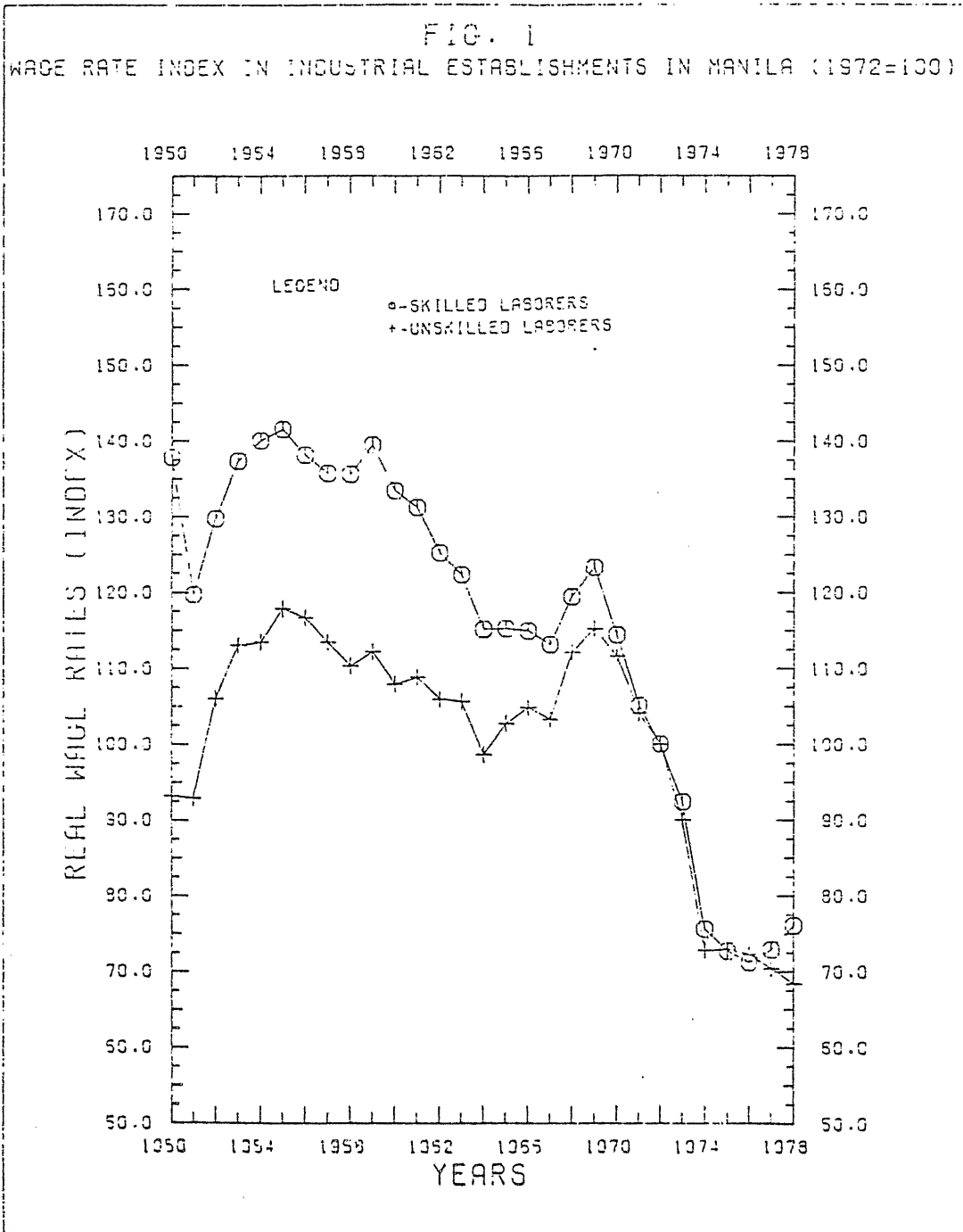
industries or time periods. Selected series are shown in Figures 1, 2 and 3 tabulated in Annex Tables 1 to 4.^{1/} The first plots movements in real wages for skilled and unskilled labor in large establishments in Manila since 1950; the second, real wages in agriculture and in selected industrial occupations (again in Manila) over the same period; and the third real weekly earnings of wage and salaried workers for several sectors (but over a much shorter period on account of data limitations). These figures show that, with certain exceptions to be noted below, real wages have been more or less constant in some periods, and have declined rapidly in others; the period of most rapid decline was 1969-74, when real wages fell in some sectors and occupations by over 40%.

7.10 What caused these changes? An allowance must of course be made for measurement errors. It was pointed out to us^{2/} that the introduction of wage supplements and bonuses in the 1970s may have given an exaggerated picture of the downward trends shown in same series. While the various series treat these factors differently,^{3/} however, and sometimes ignore them, they give results that differ more in magnitude than in direction, as can

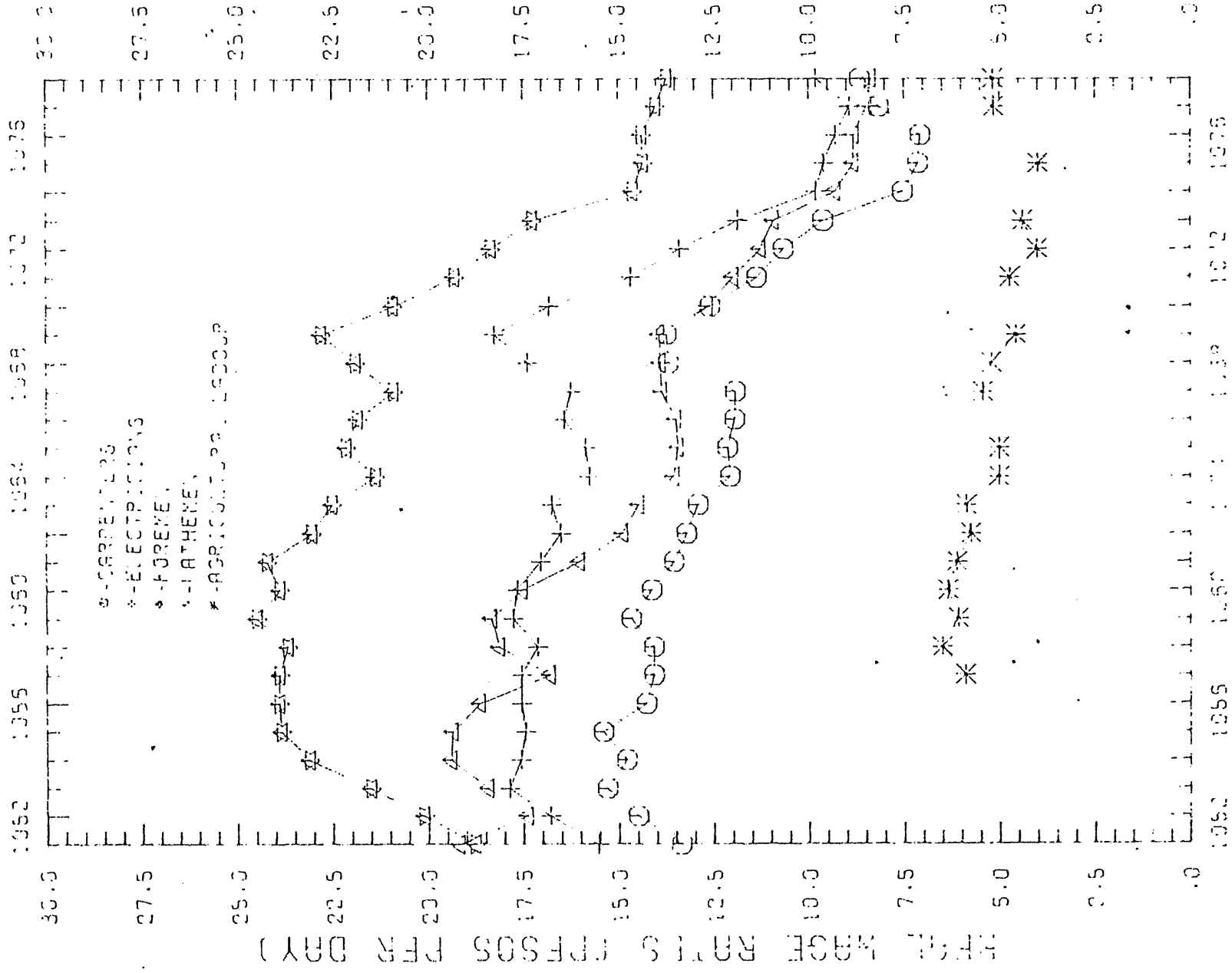
1/ The data have the advantage of coming from several independent sources, which serve to provide some cross-checks. The series draw on the Central Bank's surveys of large establishments in Metro-Manila; Beacon, for agricultural wages; the BCS (later NCSO) surveys of households; the NCSO surveys of establishments; and unpublished Wage and Salary Surveys in the Philippine office of Compensation and Position. The Wage Commission also make independent analyses of the wage series from these sources in connection with minimum wage legislation, and presumably check the series further.

2/ By John Powers.

3/ The NCSO's series count weekly earnings and the Central Bank's monthly earnings, so both ignore cash bonuses such as the "13th month bonus." The NCSO's establishment data, however, are based as annual earnings, presumably include cash bonuses, and also show a precipitous decline in labor's share in value added in the 1970s.



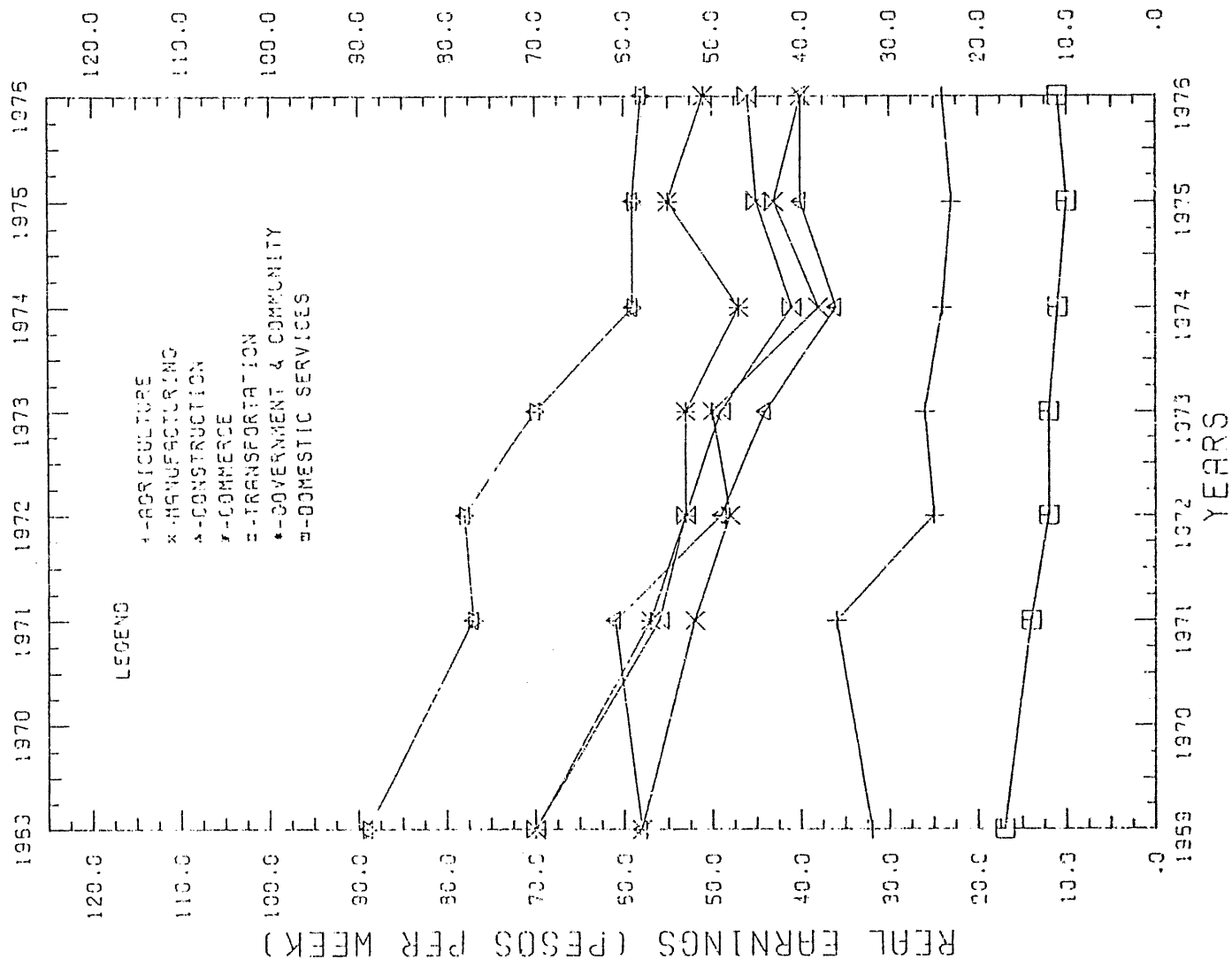
AVERAGE REAL WAGE RATES (PFSSOS PER DRY TON) 1952-1978



1952 1955 1960 1965 1970 1975 1978

FIG. 3

PHILIPPINES: AVERAGE REAL WEEKLY EARNINGS OF EMPLOYED WORKERS BY SECTORS



be seen from Figures 1, 2 and 3. Furthermore, detailed analysis of the series^{1/} show a remarkable association between changes in the real wage levels and contemporaneous economic events. In particular, the changes in any period can be traced to one or more of three factors:

- product prices, which have at various times acted to draw investment towards the more capital intensive manufacturing sectors of the economy, and away from the more labor intensive sectors, both agricultural and non-agricultural;
- investment incentives which raised the capital intensity of industrial investment yet further; and
- until recently, comparatively low investment in infrastructure and support for agriculture.

Superimposed on this were the effects of the continual rise in labor supply.

In each instance, however, a rise in labor supply or a fall in labor demand resulted in a downward pressure on wages rather than increased unemployment, and also (as will be seen later) in some shifts between wage and self-employment.

7.11 A formal analysis of wage movements is outside the scope of this study, but in view of their implications for the small enterprise program (which was largely seen as a way of raising the demand for labor in industry) a short digression to summarize the main economic events and their associations with wage movements might be useful. These events can be grouped very roughly into five periods.

7.12 (1) 1950-58. This was a period of high prices of manufactured consumer goods under the protection provided by exchange controls.^{2/} There was in consequence a large shift of investment away from the more labor intensive

^{1/} See Lal's report.

^{2/} See Powers and Sicat (1971) and Baldwin (1975).

agricultural activities towards large scale manufacturing, and which acted to keep wages and productivity in agriculture at low levels. Manufacturing output grew at over 12% per year in this period,^{1/} when import substitution was proceeding rapidly, and probably accounts for the rise in real wages, to historically high levels, in large manufacturing establishments in the Manila area (Figure 1). The concentration of investment in Manila, and the smallness of the large establishments' share in manufacturing employment (about 16%) and total employment (less than 3%) in the '50s necessarily confined any favorable impact on real wages to a very small share of the labor force.

7.13 (2) 1958-63. By the late '50s the possibilities for further import substitution were becoming increasingly limited. Industrial growth rates declined quickly to one half and then (by the early '60s) to one third of the levels in the early '50s, averaging about 4.9% in the period 1958-64 (Annex Table 6); in addition, the capital intensity in large-scale manufacturing rose steadily, in part because of a range of exemptions on import duties on machinery and equipment to industry.^{2/} Both lowered the demand for industrial labor and, while this may have resulted in a slight reduction in the growth rate of industrial employment (Annex Table 6), its main consequence was a sharp fall in real wages (Figures 1 and 2).

7.14 (3) 1963-69. Beginning in 1960, the exchange controls and a multiple exchange rate system were gradually phased out, the process being

^{1/} See Annex Table 6. In the early 1950s, the growth rate was around 15% p.a.

^{2/} See Powers and Sicat, op.cit., for a further discussion.

completed by 1963. Protection was maintained under tariffs. This might have reduced the relative price of manufactured goods slightly since, though the tariff system was instituted in the 1950s, prices up to 1963 were above c.i.f. prices plus tariffs.^{1/} The period 1963-69 was one of relative price stability, while the industrial growth rate also bottomed out at 4-5% per year. Real wages in large industries remained more or less constant in this period (Figures 1 and 2) while real wages in agriculture fell slightly (Figure 2).

7.15 (4) 1969-74. In this period several events seem to have had an influence on the observed decline of real wages all round - in modern establishments in Manila (Figures 1 and 2), in agriculture (Figure 2) and in non-industrial sectors (Figure 3).^{2/} To promote backward linkages in industry, the Investment Incentives Act offered tax reliefs and subsidies for the capital goods manufacturing sectors, as discussed in Chapter V, again shifting resources away from the more labor intensive (non tradeables) sectors. But the main factors reducing real wages, at least in industry, appear to have been the management of aggregate demand and trade deficits in 1969, and in 1972-74 a rise in the relative prices of locally manufactured goods induced by rising world prices and the maintenance of a fixed exchange rate.^{3/} In each instance it was argued that the effect was to raise the relative prices

^{1/} "So long as exchange controls were in effect the tariff system served (merely) to permit the Government to share in the rising scarcity premia on imported goods." Powers and Sicat, op. cit. p. 93.

^{2/} The declines also occurred in most regions of the country, according to Annex Table 5. While this Table is for the period 1973-76, note that there were also large declines in real wages between 1973 and 1974 (Figures 1, 2 and 3).

^{3/} Lal, op. cit., p. 114 et. seq. It should be added that "this was a period of great instability in the economic environment. A substantial surplus in the trade balance (followed).... the upsurge of international prices of primary commodities (in 1973).... (and which was then) completely negated by the sharp increase in the import bill for crude oil .." Bautista and Powers (1979) op. cit. p. 22.

of - and cause a permanent shift of resources towards - the more capital intensive traded goods sectors.^{1/} Finally, although agriculture was by then receiving higher priority, the programs had yet to have a major effect, and were in addition set back by crop diseases and floods in 1972 and 1973.^{2/}

7.16 (5) 1974-78. Since 1974 the declines in real wages appear to have bottomed out in the non-agricultural sectors (Figures 1, 2 and 3), but to have risen significantly in agriculture for the first time in over 20 years (Figure 2);^{3/} there was also an increase in agricultural wages relative to those for industrial labor in Manila (Figure 4).^{4/} In the '70s, and particularly since 1974, output in foodgrains has also rise at historically high rates, following the introduction of the agricultural development programs mentioned in chapter 6.^{5/} Given the importance of this crop in the country, it is possible that this has had a significant effect on raising the demand for - and thus the wages of - both farm and non-farm labor in the

^{1/} In 1972-74 the effect of holding the exchange rate constant was an unambiguous rise in the relative prices of traded goods. In 1969 the events were more complicated. According to Lal (p. 111 et. seq.) excessive Government spending caused a rise in domestic expenditures on non-traded and traded goods; a rise in the relative prices of non-traded goods; and a balance of payments deficit. Rather than restore the trade balance and relative prices through a period of deflation and mild devaluation, the Government devalued by over 40%, actually resulting in a larger share of investable resources being allocated to the (more capital intensive) traded goods sectors than previously. Inflation followed, real wages declined as did labors' share in value added in manufacturing (which was 23% in 1969, and 15% in 1974, according to the establishment surveys). The redistribution of income that took place intensive sectors) presumably further reinforced the shifts in production through a redistribution of consumption patterns.

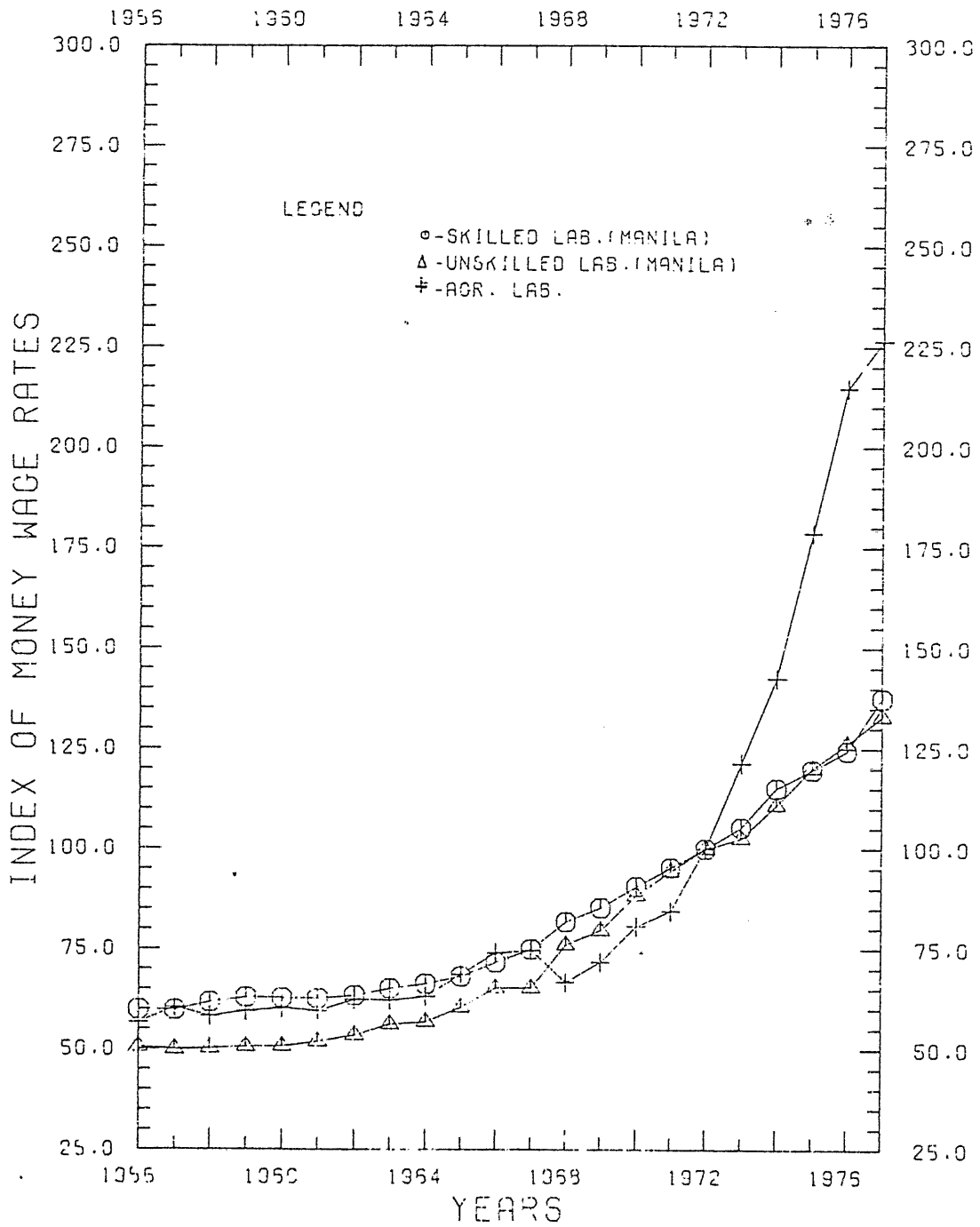
^{2/} See Chapter VI, Figures 1 and 2.

^{3/} There were some slight rises in 1959, 1961, 1969, 1970 and 1973.

^{4/} John Powers pointed out again that the comparisons may be distorted depending on how wage supplements were treated in the series.

^{5/} See Figures 1 and 2 of that Chapter and the accompanying discussion.

FIG. 4
MONEY WAGES IN INDUSTRY & AGRICULTURE (1972=100)



provinces. Finally, although the structure of protection did not change significantly in this period (though changes towards a less-protective policy are now being considered), large scale manufacturing was relatively a larger source of employment than previously,^{1/} and its continued expansion was probably having a greater influence on the labor markets.

7.17 The above explanation of wage movements obviously rests on the assumption of a competitive labor market, in which any differences between labor demand and supply are eliminated by changes in the wage levels; this assumption applies both to individual sectors (wage relativities) and to the sectors in aggregate (wage levels). These assumptions have been investigated elsewhere^{2/} and hold up to scrutiny. There is, for instance, no evidence of institutional, technological or geographic constraints on the labor market which seriously affect occupational mobility. Minimum wage legislation has probably only a slight effect on the labor market (and then only on a small number of large firms); minimum wages have generally followed rather than led actual wages in the past 30 years,^{3/} and small firms registered with NACIDA are exempted from paying minimum wages under the Labor Laws.

Earnings in Self Employment

7.18 The general declines in real wages over the period since the mid '1950s do not provide a wholly satisfactory picture of what happened

1/ In 1976 it accounted for over 35% of employment in manufacturing.

2/ See Lal's review and also Castillo (1976).

3/ See Annex Table 7, and also the ILO (1974) report for a further discussion.

to the earnings of the labor force since the majority (approximately 60% in 1976) are self-employed or family workers.^{1/} Table 7.4 provides some statistics. Approximately 85% of the labor force in agriculture were self-employed in 1976, 33% in manufacturing and 60% in commerce. Three categories of self-employed workers will be considered below: owners of very small manufacturing establishments with less than 10 workers, small farmers, and people in household manufacturing.

7.19 Owner's earnings in very small manufacturing establishments were more stable than real wages and might even have increased in the '70s when the latter were falling. Table 7.5 compares some estimates of owners' earnings per day with wages in different occupations:

Table 7.5: AVERAGE DAILY EARNINGS OF OWNERS OF VERY SMALL MANUFACTURING ESTABLISHMENTS AND WAGES IN SELECTED OCCUPATIONS, 1961-75
(Pesos/Day, 1972 Prices)

	1961	1967	1972	1975
<u>Manufacturing Establishments</u> <u>with less than 10 workers</u> (whole country)				
Owners' Share of Daily Value Added	18.4	19.2	15.3	17.2
Ditto - Per Family Worker (incl. Owner)	12.2	11.9	8.8	12.5
Average Wage of Hired Labor	5.9	5.1	5.3	4.1
<u>Selected Occupations in Manila</u> (large industrial establishments)				
Industrial Labor	11.3	10.8	10.4	7.6
Mechanics	11.4	15.3	14.0	10.6
Foremen	24.2	20.9	18.3	14.3
<u>Agricultural Labor</u>	6.1	5.4	4.0	4.0

Sources and Basis of Estimates: See Annex Table 8 for Manufacturing Establishments, and Annex Tables 2 and 3 for other occupations.

^{1/} For brevity, family workers will also be referred to as being self-employed.

Table 7.4: EMPLOYMENT OF SELF-EMPLOYED AND WAGE
AND SALARIED WORKERS, 1965-76

Type of Work	No. Employed, 000s		Change, 1965-76		Percent Distribution	
	1965	1976	000s	% Total	1965	1976
<u>Wage and Salary work in:</u>						
Agriculture	906	1,287	381	7	9	8
Manufacturing	593	1,106	513	10	6	7
Commerce	287	553	266	5	3	4
All Other	<u>1,896</u>	<u>3,429</u>	<u>1,533</u>	<u>29</u>	<u>19</u>	<u>22</u>
	3,682	6,375	2,693	51	36	41
<u>Self-Employed and Family Workers in:</u>						
Agriculture	4,818	6,822	2,004	38	48	44
Manufacturing	507	572	65	1	5	4
Commerce	827	1,304	477	9	8	8
All Other	<u>267</u>	<u>354</u>	<u>87</u>	<u>2</u>	<u>3</u>	<u>2</u>
	6,419	9,052	2,633	49	64	59
Total	10,101	15,427	5,326	100	100	100

Source: NCSO Surveys of Households (October 1965 and August 1976).

One can see that the earnings rates in self employment have risen significantly above those even for the higher paid forms of industrial labor (such as industrial foremen) in Manila. This profit incentive helps to explain the rapid emergence of small establishments throughout the country since the mid '1960s (see chapters 5 and 6) and why some people have moved out of wage employment to set up their own firms (see interview data in Chapter 5).

7.20 Turning to small farmers the only time series data available are those of the Family Income and Expenditure Surveys (FIES) of the NCSO, which since 1956 have been conducted about every five years. These data, which are reproduced in their raw state in Annex Tables 9 and 10, have quite wide (if quantitatively unknown) confidence intervals because of changes in sampling and questioning procedures between surveys; measurement errors were also large, and family incomes were under-reported more in some years than ^{1/} in others. But from the perspective of the present study, one relatively non-controversial conclusion can be drawn. This is that the capital intensive development path of the economy did not act to increase unemployment rates among the self employed in agriculture, but as with wage labor, to depress earnings. The majority of families in the lowest quintiles in 1971 were self-employed in agriculture: 61.7% in the lowest quintile, 50.2% in the second lowest and 42.1% in the middle quintile (Table 7.6). Up to 1970 it is difficult to tell whether incomes rose or fell for these groups, but in either event, they remained at very low levels. ^{2/} In the 1970s the NCSOs surveys (FIES) suggest a marked increase in income of about 30-50% for the lowest two quintiles (Annex Table 10); this could either be a measurement

1/ See Berry (1979), Mangahas and Barros (1979) and IBRD's (1980) draft on "Poverty, Basic Needs and Employment."

2/ Berry (1979) and IBRD (1980). Recalling that the majority in these groups are small farmers, roughly constant real incomes in this period would also be consistent with roughly constant (or slight increases) in labor productivities (Annex Table 6). In the 1950s value added in agriculture kept pace with the growth of the labor force through land expansion and in the 1960s through increases in yields. ILO (1974, pp. 442 et. seq.)

Table 7.6: MAIN SOURCE OF FAMILY INCOME BY FAMILY INCOME GROUP AND TYPE OF EMPLOYMENT, 1971

Family Income Group	Type of Employment of Main Source of Income						Total ^{/2}
	Wages & Salaries		Entrepreneurial Activity in				
	Agri-cultural	Non Agri-cultural	Trading & Transport	Manufac-turing	Agric-culture	Other Sources ^{/1}	
..... No. of Families, 000s							
Lowest 20%	138	133	79	44	784	90	1,270
Second 20%	158	263	99	40	637	72	1,270
Third 20%	194	333	101	41	535	66	1,270
Fourth 20%	136	595	129	36	326	47	1,270
Top 20%	54	725	176	36	174	106	1,270
Total	680	2,050	584	197	2,456	381	6,350
..... Percent Distribution.....							
Lowest 20%	20.3	6.5	13.5	22.3	31.9	23.6	20.0
Second 20%	23.2	12.8	17.0	20.3	25.9	18.9	20.0
Third 20%	28.5	16.2	17.3	20.8	21.8	17.3	20.0
Fourth 20%	20.0	20.0	22.1	18.3	13.3	12.3	20.0
Top 20%	7.9	35.0	30.1	18.3	7.1	27.8	20.0
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
..... Horizontal Percentages.....							
Lowest 20%	10.9	10.5	6.2	3.5	61.7	7.1	100.0
Second 20%	12.4	20.7	7.8	3.1	50.2	5.7	100.0
Third 20%	15.3	26.2	8.0	3.2	42.1	5.2	100.0
Fourth 20%	10.7	46.9	10.2	2.8	25.7	3.7	100.0
Top 20%	4.3	57.1	13.9	2.8	13.7	8.3	100.0
Total	10.7	32.3	9.2	3.1	38.7	6.0	100.0

^{/1} Includes incomes from ownership of land or capital, and from gifts and income transfers.

^{/2} Rounded

Source: NCSO, Family Income and Expenditure Survey. See Annex Table 9 for an urban-rural breakdown.

error or the first positive signs of a favorable impact on rural incomes of the new emphasis on agricultural development, but is probably a combination of the two.^{1/} The increases in the rate of growth of output and yields in food grains support the last view; there is also some circumstantial evidence for it (see Chapter 6) in that the emergence of establishment-based manufacturing in the provinces, the corresponding decline of household manufacturing, and the growth of commerce in the rural towns in the late 60s and 70s could not have occurred without some lead from agriculture.

^{1/} Although there is no shortage of criticism in the studies cited of the unreliability of the FIES income data (and in particular of the 1975 surveys) the data in fact square quite well with the wage series discussed earlier. The following list converts the 1975 income data for each quintile into a daily earnings rate by dividing by 300 working days per year, and then provides some examples of types of wage-earners whose families (if they were the family head) would fall into these groups:

<u>Quintile</u>	<u>Mean 1975 income (1972 prices)</u>	<u>Corresponds to (Examples)</u>
Lowest 20%	P 1,141 = P 3.8/day	Agricultural Labor (Annex Table 3).
Second 20%	P 1,951 = P 6.5/day	Unskilled industrial Labor (Annex Table 2)
Third 20%	P 2,707 = P 9.0/day	Various categories of skilled industrial labor in Manila (Annex Table 2).
Fourth 20%	P 4,000 = P 13.3/day	Industrial formen (Annex Table 2); lower end of earnings from self-employment in manufacturing (Table 7.5).
Top 20%	P 11,240 = P 37.5/day*	White Collar and property owners.

(*Mangahas and Barros (1979) rightly point out that, as in previous surveys incomes in the top quintile have been particularly susceptible to under-reporting.) Similar cross-checks on wages and the 1970 FIES income data are provided in Annex Table 15 (source note (b), third paragraph), again with no marked anomalies between the two sources being apparent.

7.21 The effects of the economic events described above on families primarily dependent on self-employment in household manufacturing are more mixed, since these families are found in all income groups, low, medium and high.^{1/} To make a general point again, however, it was incomes (rather than unemployment levels) in these activities that were most effected by the pattern of investment in the country. A large proportion of household manufacturing activities are rural (Annex Table 9) where the incomes are dependent on the markets generated by agriculture; others are tied to low income markets in the urban informal sector, and indeed are part of it; while a not insignificant number later emerge as establishment-based manufacturing units (Chapter 5 and 6) in the high growth markets.

Incomes and Occupational Mobility

7.22 Changes in the incomes of the labor force can be considered in two parts: changes in wages and earnings within given occupations, and which were discussed above; and others arising from the movement of labor, during periods of marked structural change,^{2/} towards better paying occupations. The latter are discussed briefly below, and serve to highlight the kinds of activities that should or should not be considered for finance under the small enterprise program if it is to effect an improvement in earnings opportunities. It

^{1/} See Table 7.6 which shows that in 1971 there were 36 thousand families in the top quintile primarily dependent on entrepreneurial activity in manufacturing, and another 36 thousand in the second-top quintile. There were, at that time, less than 60 thousand manufacturing establishments in the country, implying that at least 12 thousand families primarily dependent on household manufacturing were in these quintiles.

^{2/} The movement helps to explain the paradox of incomes not necessarily declining, and possibly increasing in recent years, in the presence of the significant declines in real wages - though changes in the earnings in self-employment must provide most of the explanation. See also Berry (1979) for a discussion of wages and incomes up to 1970.

is convenient to consider the movements themselves in two parts:^{1/}
i.e., movements (i) of the self-employed into better paid forms of wage employment or self-employment elsewhere; and (ii) of wage labor into better paid forms of wage employment.

7.23 The extent of the former is indicated in Annex Table 11 (bottom three rows) for the period 1965-76. Over this period the share of the labor force in wage and salary work rose by 6.2% in absolute terms (from 40.6 to 46.8%) and in self-employment in the tertiary sectors by 1.4%. In self employment in manufacturing there was a slight decline of 1.2%, mostly on account of people leaving household manufacturing, and in self-employment in agriculture a decline of 6.4%. As one might expect, a comparison of these shifts with the income distribution data shown in Table 7.6 reveals that they were greater the greater the likelihood of an income increase:

Type of Occupation	Absolute Change in Share of Labor Force	Income Distribution of Occupational Group (Table 7.6)
Wage or Salaried Work	+ 6.2	Strong upwards skew
Self-Employed		
- Trading and Transport	+ 1.4	Skewed upwards
- Manufacturing	- 1.2	Fairly Flat
- Agriculture	- 6.4	Strong downwards skew
	0.0	

7.24 It is possible to project these changes on the income distribution data shown in Table 7.6 to estimate, holding other things constant, their effects on incomes. Briefly, the distribution of incomes for the whole labor force is a weighted average of the distributions for its occupational groups, in

^{1/} A third part is the movement of wage-earners back into self-employment, and which was briefly discussed above.

the present case wage and salary earners and three categories of self-employed workers (in agriculture, manufacturing and commerce); the weights are then changed to reflect the occupational shifts, holding the component distributions constant.^{1/} The calculation is provided in Annex Table 11, and shows that the approximate effects of these shifts (other things constant) would be to have raised the average income of all families in the bottom two quintiles by about 9% over the period, and the average incomes of those families who actually moved by about 56%.^{2/}

7.25 A comparable calculation for the effects of occupational shifts of wage labor is only possible for the period 1960-70 (at least until the 1975 establishment census becomes available). Annex Table 12 shows the changing shares of employment for the various categories of skilled and unskilled labor. The share of wage labor in agriculture declined by one third, from 32 to 21%; in household manufacturing (where one in four workers are hired) by one sixth; and remained stationary or declined very slightly in domestic services. These are all among the lowest paid forms of wage labor. In the higher wage occupation the shares increased: in large and small production establishments, sales work, land transport and in the hotel, restaurant, service and other trades.^{3/} The same table shows wages in the higher paying occupations to vary between two to four times above those in lower paying ones. The effects on average wages can then be divided into a change due to the decline in real wages, and a change due to the increase in the

^{1/} If the shares of the four occupational groups are S_1, \dots, S_4 , ($\sum S_i = 1$) and the distribution vectors are $(D_1), \dots, (D_4)$, then the aggregate distribution vector is $(D) = S_1(D_1) + S_2(D_2) + S_3(D_3) + S_4(D_4)$. The values of S_1, \dots, S_4 are then changed to get the new (D) .

^{2/} See supplementary calculations (2) and (3) in the Table.

^{3/} Professional administrative and clerical workers are excluded from the analysis since the intention is to examine income changes in the lower quintiles.

shares in higher wage occupations.^{1/} The calculations are made in Annex Table 13, which suggests that the latter offset about 80% of the declines in real wages in the 1960s.^{2/} Had of course the labor demand conditions been such as to raise real wage levels, the occupational shifts (which in those circumstances could well have been greater) would have acted to increase incomes yet further, as opposed to simply having a mitigating effect on the adverse consequences of declining real wages.

7.26 To sum up the discussion so far, the economy has been able to absorb its rapidly growing labor force, but the labor demand conditions resulting from a capital intensive development path have exerted a downward pressure both on real wages and on earnings in self-employment. But analysis of occupational structure shows a continual movement of labor out of ill-paying to better paying forms of wage and self-employment. This movement has been shown to have a significant effect on both the level and the distribution of incomes, though the effect cannot be quantified precisely over the period 1960-76.

Implications for the Small Enterprise Programs

7.27 It follows that the program should be seen as an agent of structural change, by encouraging activities that offer prospects of a real increase in incomes and by drawing people out of ill-paying ones that do not,

^{1/} If W_i is the wage in occupation i and S_i the share of the total labor force employed in wage labor, then the change in average wages in the presence of a change in wages ΔW_i and a change in shares ΔS_i is approximately $\Sigma(\Delta W_i \cdot S_i + W_i \cdot \Delta S_i)$. This is the calculation made in Annex Table 12.

^{2/} 80% = 0.7/0.9, referring to columns (4) and (5) of the table. In the 1970s, the more rapid declines in real wages were probably not offset to the same extent by occupational shifts.

This is different to seeing its purpose as being one of creating labor intensive employment, which is essentially neutral as to income effects. The pace of structural change, and the wages and incomes of those employed or seeking employment in small enterprises, are obviously determined more by leading sector policies than by investments made directly through the program. But this does not imply that the program is in any way a second best measure (in the economists' sense of the term) since as noted earlier it is intended to serve a complementary purpose by addressing constraints in the supply of capital and institutional services to small enterprises. These constraints are likely to exist whatever the leading sector policies, and also under a more efficient incentives system in the financial sector. What is implied is that the more efficient the leading sector policies, the greater the benefits of the program are likely to be in terms of its capacity to raise incomes. A more efficient system of industrial incentives is likely to encourage the growth of the more labor demanding industrial sectors and favor a greater investment in agriculture. Both can be expected to bring about a more rapid emergence and growth of small and large enterprises in the Philippines at the present time on account of their influence on the domestic product markets. Additional financial, institutional and infrastructural support for a broad based growth of agriculture can be expected to have the same effect, particularly in the provinces; there is indeed some evidence that this is happening already.

7.28 What is a suitable criterion for financing or otherwise supporting small enterprise projects? An obvious one is to accept only those projects with a demonstrated potential to generate income sufficient to pay labor after all other costs have been met. That is:

$$\frac{\text{Present worth of sales} - \text{less material and capital costs}}{\text{Present worth of labors' earnings}} \geq 1$$

This is of course exactly equivalent to using the rate of return on capital as a criterion, or more simply to saying that the project should be profitable: ^{1/} ^{2/}

$$\text{Present worth of sales less material, capital and labor costs} \geq 0$$

So at least from the viewpoint of the extensionists and the financial institutions they are doing the right thing in financing only profitable projects.

7.29 From the viewpoint of the Government agencies, however, it is natural to inquire if following a purely financial criterion - profits - does not lead to some conflict with the economic aims of the program. Should weight be given to certain types of projects, for instance, over and above financial considerations? The short answer is that there are now standard ways of adjusting the above criterion by using shadow prices and shadow wages instead of actual prices and wages when making the calculations. These are discussed further in the next chapter in the context of the Philippines' small enterprise programs. Shadow wages are probably not very different from actual

^{1/} If S represents annual sales, and M, (WL) and K respectively represent materials, labor and capital costs (W=wages, L=employment), then if A(r) is the annuity rate this criterion is

$$S - M - (WL) - A(r) K \geq 0$$

assuming for simplicity a constant time stream for each variable. If this is set as an equality, the rate of return is derived from:

$$A(\hat{r}) = (S - M - (WL))/K$$

where \hat{r} is the rate of return. The first criterion mentioned above is

$$(S - M - A(r)K)/(WL) \geq 1.$$

^{2/} Where no incremental employment is involved, either this or the rate of return criterion would have to be used.

wages, on account of the lack of constraints in the labor market; but the shadow prices of products, materials and capital inputs may differ substantially from actual prices on account of the present structure of industrial incentives.

7.30 To elaborate on the point about shadow wages, if people are to move into wage employment in (say) a project financed by the program, the actual wages offered should

- (a) be better than wages or earnings in alternative occupations, and
- (b) include a sufficient financial incentive to cover the transport, resettling and any other extra personal costs anticipated by the employee.

The sum of these two terms gives the social opportunity cost of labor (or the shadow wage rate), and equals actual wages unless there are any marked inefficiencies in the labor market. Where inefficiencies do exist it is necessary to estimate (a) and (b) from survey data or other sources ^{1/} to determine whether a project is likely to improve earnings opportunities or not. At the present time in the Philippines wages probably do reflect (a) and (b), at least to a good approximation, and the employment issue in the country arises not from inefficiencies in the labor market, but from an insufficient number of employment opportunities in the better income occupations. It is the provision of such opportunities that should form the central task of employment policy, of which the small enterprise program is a part. The merit of the profitability criterion stated above is that it provides a strict test of whether the project in question

^{1/} E.g. on the lines recommended by Little and Mirlees.

is in practice capable of raising incomes.

7.31 It would obviously be impractical to apply shadow prices to each project financed by the program, and also unnecessary. There are too many judgements and interpretations required for shadow prices to be applied reliably by extensionists and bank appraisers; in addition, the financial profitability of the projects is unavoidably the over-riding consideration of the enterprises and the financial institutions. But shadow prices could be applied to samples of projects by the research or evaluation groups of the agencies involved: e.g. to provide guidance on which kinds of activities might be supported, establish sector priorities, decide whether and in which ways the program might be expanded or contracted, or (a more general point) provide an empirical base for industry studies. If such studies are done, they are perhaps better done ex post than ex ante since, first, the data used would be more reliable and objective, and, second, they would provide feedback on the progress of the program and problems encountered. Ex post evaluation (like monitoring surveys) is now a common feature of many types of development programs on account of the uncertainties about the design of the programs and the lack of information about the intended beneficiaries - both of which are also apparent in small enterprise programs.

7.32 What kinds of projects are likely to meet the above criterion? Most frequently, they would be in types of activities in which the demand for labor is rising, as with sectors having a large number of expanding enterprises. Second, projects offering prospects for acquiring new or upgrading existing skills in various ways since these are exhibiting rising

shares in industrial employment and succeed in attracting labor on account of the higher wage levels. Conversely, the more marginal of the household and very small scale manufacturing activities would not meet the criterion.^{1/} Finally, projects that do not necessarily lead to a direct increase of employment in the enterprise would also meet the criterion, provided a net income gain is involved; working capital loans are often a good example here (though sometimes these are associated with an employment increase),^{2/} but certain types of investment projects to enhance the efficiency of a business in various ways could meet it also. Indeed, projects with infinite incremental capital-labor ratios are not ruled out by the criterion.

Labor Intensity in Small Enterprises

7.33 Since investment in small enterprises was seen as a way of raising the average labor intensity in industry, it might be useful to examine the implications of this last point further; namely, why projects with large or infinite incremental capital-labor ratios are often desirable and why others with very low ratios often are not. This will serve to make the general point that what is required at the present time is an increase of labor intensity across the board in industry, in both capital and labor intensive sectors, to levels commensurate with the relative opportunity costs of capital and labor.

^{1/} Given the large number and heterogeneity of household and very small scale manufacturing activities, a heavy reliance must be placed on the screening procedures of the institutions to determine in any given case whether a proposal offers prospects for an earnings increase.

^{2/} See Chapter 4, para 4.24.

7.34 To begin with, the overall labor intensity of small industry in the Philippines, as in other countries, is greater than it is in large industry (Table 7.7):

Table 7.7: CAPITAL LABOR RATIOS IN PHILIPPINE
MANUFACTURING BY SIZE OF ESTABLISHMENT, 1974

Size of Establishment	Capital Labor Ratio, P 000s/Worker	Relative Capital-Labor Ratio (Largest = 100)
Household Manufacturing	1.4	5
5 - 19 Workers	4.7	18
20 - 49	8.7	34
50 - 99	15.2	59
100 - 199	19.7	76
200 or over	25.8	100

Source: NCSO Establishment Surveys and NACIDA (1977) for households (the NACIDA figures are those shown in Table 5.11 in Chapter 5, and converted to 1974 prices).

The data shown are for book values of fixed assets and are subject to the usual problems of definition and measurement. Even allowing for these uncertainties, however, it is clear that in aggregate the smaller the scale of industrial activity the less its capital intensity. Hence the small enterprise program is likely to be associated with a more labor intensive class of industrial enterprises; and, insofar as it facilitates a greater level of investment in them than otherwise would occur, it is likely to raise the average labor intensity of industry. Beyond this general point, however, there are several doubts about using labor intensity as an investment criterion and further, even within the range of services provided by the program, several other actions are merited to raise labor intensity in industry. Five doubts will be raised below though the list could be longer.

(1) The evidence is not conclusive that small industries are more labor intensive across sectors than large industries. Some data on this point are presented in Annex Table 16. They are at the two digit level, indicate average book values of fixed assets, and are not available for establishments with less than 20 workers. Such shortcomings naturally limit what can be said, but the conclusions to be drawn are strikingly similar to those derived from better data for other countries.^{1/} In aggregate the capital labor ratio follows the familiar pattern just noted of rising with scale. But for individual sectors it is different, and almost always varies erratically; in some sectors it rises (e.g. foods, paper, chemicals, basic metals, transport equipment) and in others it is more or less constant or falls (e.g. textiles, clothing, wood, furniture, rubber, electrical machinery). Thus to encourage investment in small industries in some sectors may well raise the average capital intensity of industry. For reasons to be discussed below this is not necessarily objectionable from an economic point of view, but it does cast doubt on the assumption that by increasing investment in small scale one is necessarily raising labor intensity. One reason for the higher aggregate capital intensity of large scale is that large scale manufacturing is frequently in sectors with intrinsically high capital intensities (e.g. petroleum and coal products, basic metals, non metallic minerals and pulp and paper). If one excludes these from the aggregate data on the grounds that there is little choice between large and small scale production (and thus a comparison of K-L ratios is not helpful) the average ratio for industry rises only slightly with scale (Annex Table 16).

^{1/} Sam, P. S. Ho, "Small Scale Industries in Two Rapidly Growing Less Developed Countries: Korea and Taiwan - A Study of Their Characteristics, Competitive Bases, and Productivity," Employment & Rural Development Division Paper No.53, December 1978. A. Berry and A. Pinell-Siles, "Small-Scale Enterprises (SSEs) in Colombia: A Case Study", Employment & Rural Development Division Paper No.56, July 1979.

(2) The ratio varies greatly between sectors, and a different criterion would be needed in principle for every sector. In Annex Table 16 no two sectors have the same ratio and the most capital intensive sector has 80 times the capital intensity of the least. The variance is greater if sectors are examined in more detail since the data in the table are two-digit group averages.

(3) The ratio can be expected to vary over time and by region with changes in real wages. If the purpose of development policy is to achieve a rise in labor productivities and incomes, this will require an increase of machinery and equipment at the workers' disposal and, unless prices of capital goods fall commensurately, an increase of capital intensity. More generally there is an optimum ("appropriate") ratio for each enterprise corresponding to local wages at the time of investment, and to the current cost of capital; it is functionally related to (wages)/(costs of capital) and rises as real wages rise.^{1/} One would therefore need to undertake industry studies regularly to determine what might be the appropriate ratio at a particular point in time and for each region.

^{1/} If there is a continuous range of techniques available for a particular industry, then the optimum ratio is $(K/L) = a(w/r)^b$, where a is a constant, b the elasticity of substitution between capital and labor, w wages and r the cost of capital services. If $b = 0$ (i.e. no substitution is possible), $(K/L) = a$ and is independent of the relative costs of labor or capital. But most industries have a range of alternatives, particularly when one considers the extent to which second hand equipment embodying older technologies is available (c.f. the interview results presented in Chapter 5). In some cases only discrete alternatives are available, while in others they may be increased in number by invention or adaptation. The optimising criterion then becomes more complicated, as it does with a multi-period optimising model with inherited capital stock. But the point that the optimum, or "appropriate," ratio varies with wages remains.

(4) Some of the most labor intensive projects are also the most impoverished and offer no prospects for raising incomes. Examples are the more marginal household manufacturing activities; to channel resources to them is likely to perpetuate an already low income activity and waste the investment. The capital-labor ratio, in providing no information about earnings, may thus lead to socially and economically undesirable projects being financed. The merit of the financial and economic criteria discussed above is that they favor only those projects that offer prospects of a real income gain.

(5) Finally, it is often desirable to finance projects with large or even infinite incremental capital-labor ratios. Examples are trade credits which may expand earnings without necessarily increasing employment directly. Investments to upgrade working facilities or machinery and equipment may have this feature too.

The Demand for Labor in General

7.35 While labor intensity (or its inverse, the capital-labor ratio) is not very reliable as an investment criterion there are both distributional and efficiency grounds for raising the overall labor intensity of industrial investment in the Philippines at the present time. First consider distribution.

7.36 A greater demand for labor would act to raise real wages and labor's share in value added. The distributional benefits of this may often merit the finance of "excessively" labor intensive projects; i.e. projects employing more labor than a strict analysis of the opportunity costs of labor and capital might suggest. To allow for such alternatives in a consistent manner, various studies have proposed that

the income streams of projects should be weighted according to the income groups affected.^{1/} (Under this procedure the optimal capital-labor ratio is no longer a function of wages divided by capital costs, but of wages weighted according to income group divided by capital costs.) Thus the methods proposed turn out to be a modification of the profitability criterion stated above.

7.36 The weighting of incomes according to these methods remains controversial on account of the difficulties in choosing weights. It is also an unsatisfactory substitute for direct incentives to raise the labor intensity of industry directly, most of which can also be justified on efficiency as well as distributional grounds. The various incentives available are familiar and have been examined in several studies.^{2/} They include: (i) a restructuring of tariffs and of the investment and export incentives, and which could be expected to favor a greater share of investment in the more labor intensive sectors of the economy, both industrial and non-industrial; (ii) cost reflecting interest rates for industrial loans and; (iii) subsidies or tax exemptions on labor costs. Of these, only the third item has not received the attention it merits in the Philippines. It is evidently a redistributive device that could be used to offset losses that might follow a removal of current subsidies and tax exemptions on capital costs. Subsidies on tax exemptions on incremental rather than total employment are often regarded as a stronger incentive, and could be applied to new investments financed during the year. Administrative difficulties would necessarily limit the device to medium and large industries, but it has great appeal nevertheless.

^{1/} Little-Mirrlees (1975) and Squire van der Tak (1977).

^{2/} Cited and discussed in Chapters V and VI above and in the discussion on wage trends and relativities in this Chapter. Note that the increased emphasis on broad-based agricultural growth discussed in Chapter VI is also likely to raise industrial labor intensity indirectly by changing aggregate consumption patterns towards the products of the more labor-intensive manufacturing and tertiary sectors.

7.37 There are also institutional measures that can be used to encourage more labor intensive investment.^{1/} These include the use of the extension services, the vocational training programs and the specialized trading and industrial associations to inform manufacturers about the more labor intensive investment alternatives that are available. Finally, there is the role of the research associations in identifying or modifying existing technologies in ways more suited to the current costs of labor and capital.^{2/}

Conclusions

7.38 Relative price movements in the Philippines brought about by a combination of industrial incentives and macro-economic management policies have consistently drawn investment into the capital intensive sectors of the economy and lowered the overall demand for labor in the country. But the consequence was to depress real wages and also real earnings in certain types of self employment (principally in agriculture); un and under employment rates actually fell to modest levels. Occupational shifts of the labor force out of ill-paid employment have been extensive, and to some extent have offset adverse effects of these trends on incomes. More recently, the increased growth rate of yields in food grains appear to have had a favorable effect on incomes from farm and non-farm employment in the provinces.

1/ A recent empirical study entitled "Choice of Technology in Low Wage countries: A non-Neoclassical Approach", by Lecraw also emphasizes the importance of non-price as well as price measures. QJE November 1979 Vol. 373.

2/ The qualification here is that the aim should be to identify technologies to minimize capital plus materials plus labor costs, not the ratio K/L.

7.39 The implication of these various trends and changes is that the program should continue to address itself to projects that offer prospects of an income gain over other forms of employment that are available. This translates quite simply into the conclusion that only financially and socially profitable projects should be financed. Yet, however platitudinous this may seem, it does suggest some points of departure for the future of the program, and which were discussed in Chapters 2, 3 and 4. For instance, projects having large incremental capital-labor ratios would be desirable if they raised incomes, as with working capital finance (though in practice this is often associated with a direct employment effect) and investments intended to improve the efficiency of or the labor productivity in an enterprise.

7.40 Labor intensity as an investment or appraisal criterion was rejected on these and other grounds: it is essentially neutral with respect to incomes, and is too often associated with the most impoverished activities offering no prospects of an income gain. In addition, there is the practical complication it varies greatly between sectors, and between regions and over time as real wages change. But raising the current labor intensity of investments in the Philippines, to levels commensurate with the relative social opportunity costs of labor and capital, remains enormously important for the welfare of the labor force. The conclusion in this report is that labor intensity needs to be raised all round: in small and large scale, in most industries and in all regions. The measures available have been examined in several studies and are now familiar:

a restructuring of industrial incentives, tax exemptions or subsidies on labor costs in industry, and a continued—perhaps greater—emphasis on rural-led growth. On the institutional side, the Government's extension and training programs, and the specialized industrial and trading associations, could be effective channels for identifying and disseminating information about labor intensive investment alternatives. The 'appropriate' investments, however, are those that minimize costs, not the capital-labor ratio.

VIII. UNCERTAINTIES IN THE CAPITAL MARKETS, INTEREST RATES
AND INVESTMENT CRITERIA

- A technical supplement to Chapters 2, 3, 4 and 7

Introduction

8.1 This chapter discusses interest rate policies and project selection criteria in relation to small enterprise programs. On interest rates the now standard argument is that administrative ceilings (in the Philippines as in most other countries) prevent the rates from rising to risk and cost-reflecting levels; lending is thus unprofitable and does not take place. While it is difficult to disagree with this, analysis of uncertainties in capital markets shows that removal of the ceilings is not a sufficient condition for lending to take place, even to large numbers of would-be borrowers with efficient and financially sound projects, and with every intention of repaying the loans. The initial magnitude of the risks in developing lending programs to small enterprises are extra-ordinarily high, while the long-run returns may be in dispute; high cost and risk reflecting rates, assuming they were politically acceptable, raise project risks yet further and may extinguish any institutional interest in the market or prevent it from becoming established. Further, the risks are high because potentially "good" borrowers are indistinguishable from "bad" borrowers. Since both must be charged the same rate, the former are frequently driven out of the market by the latter, or must substantially reduce their investment, with a loss of economic efficiency.^{1/}

1/ Or as Rotschild and Stiglitz (1976) note: "high risk individuals cause an externality: the low-risk individuals are worse off than they would be in the absence of high risk individuals" (p.629).

8.2 These arguments are familiar from the literature on uncertainty in capital markets, most notably in the market for "lemons" paper by Akerlof (1970), the readings edited by Diamond and Rothschild (1978) and the recent work of Stiglitz and Weiss (1979 and 1980) and others that will be cited.^{1/} Most of these papers are concerned with the behavior of capital markets under uncertainty rather than with reaching normative conclusions on interest rates, government financing and risk-guarantee schemes, which is the purpose of the discussion below. The evidence in Chapters 2 and 3 showed that both risks and administrative costs decline over time at a rate depending on an institution's response to risk and also on the accumulation of information and experience within the institution. That is, there is "learning by doing" of the kind discussed by Arrow (1965), and economies of scale, each requiring a forward looking view of interest rate policies. Optimal interest rates are derived below first from a financial and then from an economic perspective, taking into account the various constraints faced by the institutions; both converge to the same result, with the "best" policy suggesting interest rate levels sufficient to make lending profitable over the long-haul, but supporting the idea of risk-sharing and direct financing to absorb the more-immediate losses, (This is also the conclusion reached in Chapters 2 and 3.) Given the importance of learning and economies of scale, it is not surprising that the expected volume of business is a crucial factor in determining long-run profitability, and thus the economic desirability of the programs.

^{1/} We are grateful to Noburu Kawai for bringing this literature to our attention in his "Comment on the SSE Research Project," October 22, 1979. (Mimeo). There are also some striking parallels between the analysis below and the analysis of risk in agricultural credit policies; see e.g. the paper by Lipton (1979), which I. J. Singh drew to our attention.

8.3 A discussion of these matters takes up the first half of this chapter, which begins with an analysis of changing nature of risks. The second half turns to project appraisal criteria, and has the following aims: to show that (i) the benefits of providing institutional finance ought to be measured against those of its alternatives - own savings, retained earnings, informal capital markets, trade credits or simply of cutting back on investment; (ii) the net benefits can be estimated from the rates of return to capital of the investments made possible by the programs; and (iii) the rate of return is a rigorous criterion for steering finance towards economically efficient projects offering more gainful employment opportunities for the labor force. In connection with (iii) there is a discussion on the correspondence between actual wages in the labor markets faced by small enterprises in the Philippines, and the opportunity costs of labor.

Uncertainties in the Capital Markets

8.4 Although risks and administrative costs change over time, it is their initial magnitude - and of risks in particular - that inhibits lending as much as any other factor. This is partly because ceilings on interest rates contribute towards institutions planning for the short-run; but given the even greater uncertainties about the demand for loans in the long-run (at least with respect to the demand from small enterprises) it is possible that short-run considerations would still predominate, and it is useful to consider this case first before examining the forward-looking case.

8.5 Initial Magnitude of the Risks. To begin with a simple aggregative statement, let p be the probability of the principal and interest due on the loans not being repaid, and $(1+r)$ the actual principal plus interest outstanding per unit of principal. The fraction of principal and interest

likely to be recovered is $(1-p)(1+r)$. Similarly let $(1+i)$ be the principal and interest on raising resources, and 'a' the administrative costs of handling the loans, each again being expressed per unit of principal. Then for lending to be profitable it is necessary that:^{1/}

$$(1-p)(1+r) > (1+i) + a$$

$$\text{or} \quad r > (i+a+p)/(1-p) \quad (1)$$

Note that p appears in both the numerator and the denominator on the RHS of (1) since the interest payments from the "good" accounts must cover the lost principal in addition to the lost interest from the "bad" accounts. The former are thus penalized twice. Putting some numbers into this expression, i was about 16% for short term resources in December 1979 (see Chapter 3) and of course would be higher for long-term resources; 'a' would be about 4% but could be more or less depending on the size and maturity of the loan and the familiarity of the bank with the borrower. Hence the annuitised cost would be in excess of $A(20\%) = 33\%$ for borrowings of 5 year maturity. If one takes the percentage of principal and interest outstanding that is in arrears by more than 6 months^{2/} to be a measure of p , then the initial value of p would be in the range 0.3 to 0.5 or higher.^{3/} Hence for term-lending^{4/} to

^{1/} Expressed on an annual basis, the above criterion is the same as $A(r) > A(i+a)/(1-p)$, where $A(r)$ and $A(i+a)$ denotes the annuity rate, and can be estimated from standard financial tables. (Here of course, r and $(i+a)$ are interest rates.)

^{2/} Several banks reported that once a loan had been in arrears for more than two quarters, it was extremely difficult to retrieve. It is important to spot arrears problems very early.

^{3/} One private commercial bank reported bad debts on two thirds of its portfolio in a private small loans program introduced in the mid' 1970s, and had consequently closed it down. This was, moreover, for short-term loans.

^{4/} Taking loans of 5 year maturity.

be profitable in the early years, risk-reflecting annuity rates would have to be in the range $33/(0.3 \text{ to } 0.5) = 66 \text{ to } 100\%$, implying interest rates of 60 to 97% or higher ^{1/} - roughly three to five times the levels required for loans to large borrowers.

8.6 In practice, interest rates in the Philippines (as in most other countries) are prevented from rising to such levels by administrative ceilings. Even without the ceilings, however, it is unlikely that the banks and non-bank financial intermediaries would be prepared to charge very high rates for small borrowers alone. Apart from fears of political attack, there are grounds for believing that their willingness-to-lend would decline as interest rates rose to high levels, and that the supply curve may be backward sloping. ^{2/} First, the margins for contingency on the borrowers' projects as planned would be greatly reduced, raising doubts in the institutions about the capacity of small borrowers to service debts. Second, related to this, is the argument of Stiglitz and Weiss (1979) that higher interest rates may attract the riskier and deter the more conservative borrowers, and induce others to undertake yet riskier projects in the expectation of higher returns. That is, while revenues per loan repaid rise with interest rates, the probability of repayment decreases, and Stiglitz and Weiss argue that there is an optimum interest rate which under plausible conditions can be below the market clearing rate. Hence we are still left with credit rationing and a system in which potentially "good" borrowers are driven out of the market by the "lemons". Finally, the banks and non-bank financial

^{1/} Note that this range is comparable to that often noted for loans in the informal sector.

^{2/} See also Jaffee and Russell (1976), who however argue that the existence of credit rationing does not depend on the particular shape of the supply curve.

intermediaries have to maintain a reputation for financial soundness, and would not wish to report high risk elements in their portfolios even if, on account of high interest rates, those elements were not leading to a financial loss.

8.7 Hence a policy of simply letting interest rates float in and of itself is unlikely to induce banks to lend to small businessmen out of their own resources, except to a small and slowly growing minority of good standing.^{1/} This is the theoretical case for the risk-guarantee schemes and direct financing by government banks discussed in Chapters 2 and 3; it is essentially to absorb the initial risks of financing small enterprises until information and screening procedures have been developed within the institutions, on the assumption that the programs will be profitable over the long-run. Hence from a strictly economic point of view, such schemes are merited only if

- (i) the risks are in fact reducible over time; and
- (ii) the net present value of the expected returns, once the reductions have been achieved, exceed the net PV of losses during the adjustment period.

The latter presupposes a continuing volume of business from small enterprises after the adjustment period. Consider these points further.

8.8 Changes in Risks and Administrative Costs Over Time. It is convenient to consider the probability of loans not being repaid in two parts:

^{1/} The growth of savings deposits throughout the country is probably establishing the credit standing of an increasing number of firms. The interviews in Chapter 5 revealed that several firms had established savings deposits precisely for this purpose.

p' = The probability of loans not being repaid from known creditworthy borrowers; it would include for instance losses due to uninsured personal misfortunes (illness or injury, economic slumps etc) plus an allowance for 'human errors' on the part of branch staff and/or the borrowers on the viability of the project being appraised.

p'' = The probability of loans not being repaid from borrowers whose credit-worthiness is unknown or is more difficult to ascertain.

In other words p'' represents the probability of financing "lemons" on account of their not being distinguishable, when the programs begin, from "good" borrowers whose real risks to the institution, were they not otherwise confused with the former, would be closer to p' .

8.9 No institution of course expects to be free from the risks represented by p' ; but through a range of devices (collateral, diversification of portfolios) and arrangements to check on credit-worthiness, they are kept to low levels. To gauge from the percentages of bad debts and loans in arrears on their portfolios, private sector institutions typically operate with a p' of around 2% (often less) for short-term loans, and 3-4% for long term loans. The second category of risks are normally avoided simply by not lending; in instances when it has been attempted, as discussed in Chapter 2, they have been found to be alarmingly high (10 or more times the level of p') even when the loans were fully collateralized; the reaction, at least among private sector institutions,

was to pull-out quickly. The questions to be discussed below are thus: (i) is p'' in fact reducible, and if so how is this accomplished and over what length of time? and (ii) under what conditions is it economically desirable to incur the losses when p'' is high in the expectation of longer run benefits once it is low?

8.10 Similarly, the administrative costs can be divided into two parts: a' , to represent the administrative costs of dealing with borrowers with established credit ratings, and who are both familiar with and to the institution concerned; and a'' the extra costs of dealing with new and unfamiliar borrowers. The latter, like p'' , is expected to decline over time as the volume of lending increases. The criterion (1) above is then (ignoring the cross-product $p'p''$ in the numerator):

$$r > \frac{i+a'+a''+p'+p''}{(1-p')(1-p'')} \quad (2)$$

if lending is to be profitable at any point in time. (The multi-period criterion will be considered shortly.)

8.11 Those who do not repay loans, except under the circumstances discussed under p' , vary greatly in competence and motivation. There has been a tendency in the literature to classify them simply as "dishonest" borrowers, though during interviews with borrowers themselves, or with the branch staff of the banks who have made loans to them, it is apparent that the degree of dishonesty varies greatly; furthermore, dishonesty is not the most common cause of failure to repay. It is worth discussing this point further since it helps to explain how institutions respond to the risks faced. In particular, it is possible to classify those who do not repay into four groups. First, of course, there are some borrowers, though fortunately a small minority, who have no intention of repaying the loans from the outset, and are correctly described as being dishonest. They

obtain the loans anticipating that foreclosure or making them repay will be too troublesome or costly for the institution, or that repayments will not be expected for reasons of collusion. This source of risk is reduced by the development of internal control and credit checking procedures, and the accumulation of knowledge among the staff in the branch networks of the more trustworthy business people in the local communities. A second and much more numerous type are those who are prepared to repay provided the incentives to do so are sufficiently strong (the "honest if" types). In the SMI program in the Philippines, there was a tendency initially among many borrowers (of fully collateralized loans) not to take repayment seriously, particularly when a large number of others were known not to be doing so (the greater the number not repaying, the greater the tendency for others not to repay). The reaction of some institutions to this situation, as one manager put it, was to "flex muscles", by threatening foreclosure, publicising cases under litigation, mounting loan collection drives, and simply by visiting the borrowers more frequently as part of supervision to instill an awareness among them that they were being watched. Although effects of these measures took some time, they were probably responsible for halving the arrears levels over the first five years of the program. They also show that p" is not independent of a" (nor is p' of a'), though it is not a simple matter to decide how much administrative effort is required.^{1/}

8.12 A commonly discussed incentive to be honest is the prospect of subsequent loans, and is often thought to be an advantage of loans for working capital over those for fixed capital. Stiglitz and Weiss

^{1/} Obtaining and training qualified staff, in particular, can be a problem. See e.g. the figures of DBP's staffing, discussed in Chapter 2.

(1980) consider this non-price incentive, noting that "banks can exploit the desire of firms to obtain loans by conditioning future loans on the repayment of past debts" and adding that subsequent loans are generally less risky than the first. (The significance of this incentive was also apparent in the interviews discussed in Chapter 5 above.) Elsewhere, Bottomley (1975) has argued that subsidized interest rates provide an incentive to repay if subsequent loans are permitted, since the borrowers have an obvious reason for remaining on good terms with the institutions that offer them; this does not, of course, argue for subsidized interest rate policies, but it does help to explain the low arrears and default rates in administered credit schemes in some countries.

8.13 A third type not repaying the loans are perhaps best described under the heading of "honest mistakes." Instances of these in the Philippines were discussed in Chapter 4. In the early years of the program there was a tendency to be too optimistic about the sales prospects of businesses to be expanded under the loans, with costs and overheads being higher, and sales lower and later, than anticipated. The reduction of risks of this type proved to be a matter of experience: specifically, a knowledge of what happened to previous projects after finance proved to be a valuable lesson for the loan appraisers, who became stricter with subsequent loan requests, and better counselors to the borrowers.^{1/} A further source of risk under this heading, and which is common in many countries besides the Philippines, is the over-emphasis of fixed capital finance, and the under-emphasis (and sometimes neglect) of working capital finance. Apart from a shortage of the latter placing a financial stress on business expanded under the former, working capital finance is inherently

^{1/} Risks are also a function of size, type and maturity of loan and newness of the business (see Chapter 4). Statistical analysis of risks often helps institutions to develop better ground rules for lending.

less risky to supply and would be consistent with the theory behind the risk-guarantee and direct financing schemes (i.e. to reduce p" so that long-run profitability is achieved).

8.14 Fourth and last, there are those who, however honest, prove not to be successful or competent in their business (the honest "but" types). As in other instances discussed above, a growing knowledge of local enterprises within the branch networks helped to reduce this source of risk in the Philippines. Given the higher turnover rates of small and very small firms, it was also found to be important to finance businesses with proven records, ^{1/} and most institutions interviewed now have stricter criteria for this.

8.15 Similar observations about the changing nature of risks, and how they may be reduced by various measures, or sometimes simply through knowledge and experience, are also noted by Akerlof, ^{2/} who also stresses the importance of knowledge of the local communities. He quotes several cases that are still worth reading, including one regarding seasonal credits offered by cotton ginning companies in Iran, in which "in the first years of operation large losses (were to be) expected from unpaid debts - due to poor knowledge of the local scene." It is nevertheless clear that the period required to reduce p" (and also a") to comparatively low levels can be quite long, particularly if the emphasis (which is excessive in our opinion) is placed on term loans. In the first five years of the SMI program in the Philippines, for instance, the probability of loans not being repaid has been reduced to less than one fourth of the

^{1/} C.f. Chapter 4, in which it was found that financing new business was about twice as risky as financing those already existing.

^{2/} Op. cit., pp. 246-249.

levels originally experienced,^{1/} but it is still significantly higher than private banks would consider to be acceptable.

8.16 A Forward-Looking Financial Criterion. The decision to initiate a program is profitable if the present worth of the annual returns exceeds the present worth of the losses represented by p'' and a'' during the adjustment period. If the volume of lending in any year t is Q_t and c is the opportunity cost of resources to the institution, expressed as a yield or an interest rate,^{2/} this criterion is:-

$$\sum_t \frac{(1+r)(1-p')(1-p'')}{(1+c)^t} \cdot Q_t > \sum_t \frac{(1+i)a'+a''}{(1+c)^t} \cdot Q_t \quad (3)$$

Rearranging (3), and neglecting the cross-product $p'p''$,^{3/} lending to small enterprises is likely to be profitable over the long haul if the interest rates on loans are allowed to rise such that

$$r > \frac{(i+a'+p') + [\Sigma(a''+p'')Q_t/(1+c)^t] + [\Sigma Q_t/(1+c)^t]}{(1-p') - [\Sigma p''Q_t/(1+c)^t] + [\Sigma Q_t/(1+c)^t]} \quad (4)$$

8.17 The second terms in the numerator and denominator represent the losses during the adjustment period. Both are present worthed and weighted by the volume of business; both are also divided by the present worth of the volume of business. The terms involving p'' and a'' are summed over the period over which these quantities are significant. As discussed above, this is not necessarily a short period; it is, however, shorter

^{1/} This happened in two ways. One through the reduction of arrears within DBP, and the other through IGLF lending becoming more concentrated in institutions prepared to develop the procedures and expertise. See Chapter 2.

^{2/} In practice c and i are probably quite close.

^{3/} Including it does not affect the substance of the argument.

than the period over which the denominators should be summed. If Q_t expands rapidly, the second terms are likely to be small, and conversely if Q_t does not. Hence the likelihood of establishing a profitable lending program turns in an obvious manner on one's assessment of the role of small enterprises in the economy and on the growth of their demand for institutional credit.

8.18 The limiting case of (4) occurs at high rates of growth of demand and/or when a'' and p'' decline to low levels over a comparatively short period. It then approaches:

$$r > \frac{1 + a' + p'}{1 - p'} \quad (5)$$

(Note that the static case, given by (2) above, yields the same result if a'' and p'' are written as declining functions of Q .) It also approaches this level the more the losses due to a'' and p'' are cushioned by the risk-guarantees and the spreads on government backed financing schemes such as were reviewed in Chapters 2 and 3.

8.19 In those Chapters it was revealed that there remains little long-run interest on the part of the private sector institutions in the Philippines to develop lending programs to small enterprises, even though the losses from a'' and p'' are being cushioned as described. The basic reason for this is that, under the current administered interest rate policies, even the less stringent criterion, (5) above, is not being met.

8.20 Interest Rates and Government-Backed Financing Schemes. Supposing there was a high volume of demand for credit. Interest rates corresponding to (4) or (5) would not need to rise to the extreme levels previously estimated (from (1)), sufficient to depress the demand and extinguish

any institutional interest in meeting the demand. In this case the arguments for the schemes are no longer strictly economic or financial in nature:

- (i) Even small differentials in interest rates between small and large borrowers may be resisted politically, except perhaps those that can be accommodated under reductions, within an otherwise uniform structure, for prime borrowers. As noted earlier, the private financial institutions may face this constraint in the absence of any ceilings set by the government. In this case the schemes become a device for narrowing differentials, and are a "second best" measure from an economic viewpoint.
- (ii) Perceptions differ between the public and private sector as to the extent and growth of small enterprises and the growth of demand for credit over the long-run.^{1/} In this case the schemes are a device for promoting investments in regions and activities in which the public sector expects a satisfactory return to the economy but in which the private financial sector has doubts.

^{1/} Given the limited information and understanding on the extent and changes in the size and regional distributions of industrial development, these differences of perception can be huge. E.g. infrastructure improvements and agricultural growth have been shown in this report to increase small business activity in the present stage of development in the Philippines. But an entirely opposite view is still quite prevalent, and until recently had some theoretical support (see Anderson and Leiserson (1980) for a discussion): this is that such developments lead to an increasing demand for externally manufactured goods and a rapid decline of local small scale industries all round.

(iii) While the private sector bases its projects on expected returns adjusted for risks, these adjustments may be larger than is economically efficient in the absence of institutions or mechanisms to insure against risks. ^{1/ 2/} There is then a function for the public sector to step in with guarantees or other forms of subsidy of its own. ^{3/}

Other and perhaps more familiar reasons put forward are (iv) the schemes are necessary to offset institutional biases in favor of lending to large scale arising from the structure of ownership and control of industry and finance; ^{4/} (v) small enterprises have special advantages over large scale; and (vi) the schemes have a redistributive aim by raising the demand for labor in low income regions.

Externalities, Economies of Scale and Interest Rates

8.21 The criteria (2) and (4) above were both financial, leading to an interest rate capable of covering the average costs of providing loans (or a present worth weighted average of costs in the multi-period case). Two factors that modify these criteria from an economic standpoint are:

^{1/} Arrow and Lind (1970), who further argue that the public sector's decisions should be neutral to risk, given its size. For a less conclusive view, however, see the comments of Foldes and Rees (1977) on Arrow and Lind's paper.

^{2/} One mechanism often conspicuous by its absence is a means for sharing records between institutions on borrowers, so as to provide additional checks on creditworthiness. In several instances in the Philippines we encountered borrowers who were in default with one institution but who were still able to obtain credit from another.

^{3/} Mayshar (1977).

^{4/} Although the advantages of SSEs are the most touted reasons for intervention, interventions would arguably not be needed to secure an efficient flow of capital to SSEs were it not for (i) to (iv) and the transactions costs (discussed in Chapter 4) faced by most owners.

- (a) the probability of financing a "good" borrower rises the greater the volume of borrowing that is undertaken, though the rise is less marked the closer $(1-p)$ approaches unity;
- (b) the marginal administrative costs of financing loans are below average costs, the latter declining with the volume of lending; i.e. there are economies of scale. As in (i), however, the gains from scale diminish at higher volumes of lending.

Both suggest a modification of (2) and (4) and lead to results which converge more rapidly towards (5) as demand rises.

8.22 Simple Static Case. Let B represent the benefits of financing "good" borrowers, excluding any losses due to the "natural" risks denoted above by p' . B would thus be the area under the demand curve up to Q, and $\partial B/\partial Q = (1+r)$. The actual benefits would then be B times the probability of losses due to natural risks $(1-p')$ and the probability of finding a "good" borrower $(1-p)$. The net benefits are then:

$$(1-p)B - (1+i+a)Q$$

But both p and 'a' change with lending experience, that is with Q, and the marginal conditions are:

$$(1-p)(1+r) - B\partial p/\partial Q - (1+i+a) - Q\partial a/\partial Q = 0$$

from which

$$r = \frac{i+a+p}{(1-p)} + \left\{ B \cdot \frac{\partial p}{\partial Q} + Q \cdot \frac{\partial a}{\partial Q} \right\} \frac{1}{(1-p)} \quad (6)$$

the first term (which is negative) in the bracketed expression represents the marginal benefits of finding a good borrower the greater the volume of

business undertaken, and the second (also negative) the benefits of scale. The former appears to correspond to the external benefits identified by Arrow (1965) in a growth model that examined the economic implications of "learning by doing." Here learning was associated with the cumulative production of capital goods, from which he concluded:^{1/}

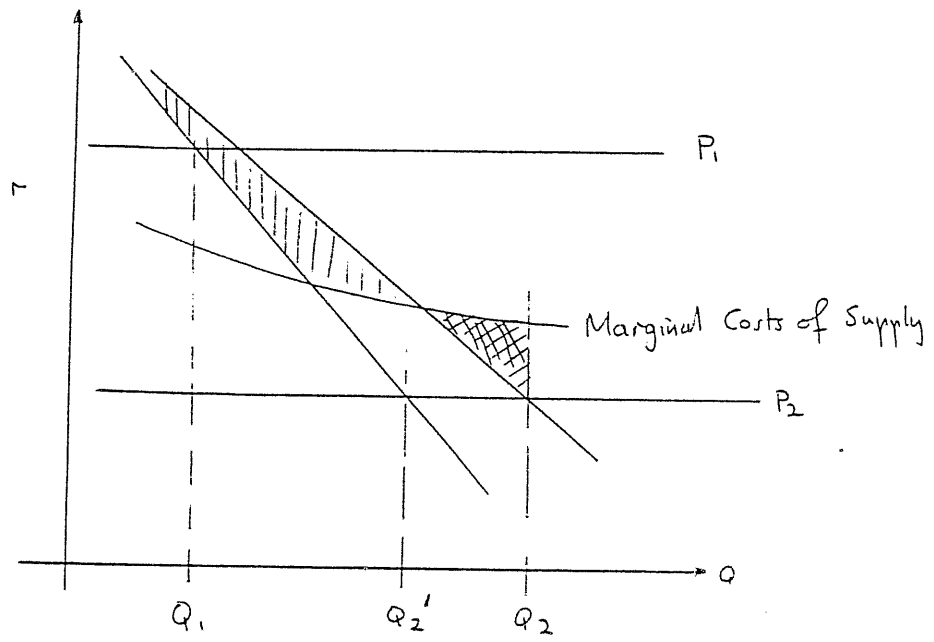
"the presence of learning means that an act of investment benefits future investors, but this benefit is not paid for by the market. Hence, it is to be expected that the aggregate amount of investment under the competitive modelwill fall short of the socially optimum level."

The term is given intuitive meaning in figure 1, in which the lower demand curve corresponds to a lower probability of finding a good borrower than the higher demand curve. If the initial price is P_1 and demand Q_1 , the demand would rise to Q_2' say, if the price were dropped to P_2 on the assumption that meeting the increase of demand, $Q_2' - Q_1$, made no difference to the institution's ability to finance good borrowers. If, however, the extra experience gained with extra lending eventually makes a difference, the actual demand met would rise, say to Q_2 . Even if P_2 fell below the current marginal cost of making the loan, the extra benefits generated, (shown by the vertically shaded area) may be sufficient to offset the losses (shown by the cross shaded area). It is apparent that the case for setting prices below marginal costs diminishes the less $(1-p)$ increases with an increase in demand.

8.23 One possibility that arises is where the extra "good" borrowers that are found as $(1-p)$ rises are always marginal, i.e. that the vertically shaded area in Figure 1 is always small. At high levels of Q is this likely, but not at low levels, corresponding to the cases considered by Akerlof, when potentially "good" borrowers are indistinguishable from the "lemons".

^{1/} Op.cit, p. 168.

FIGURE 1



8.24 The first term on the RHS of (6) is the same as (2)^{1/}, so the economic criterion suggests lower interest rates than the financial criterion so long as there are significant benefits to be obtained from learning and from economies of scale. The limiting cases of both (2) and (6) are the same,^{2/} however: p tends to p' , a to a' , $\partial p/\partial Q$ to 0 and $\partial a/\partial Q$ to 0 as Q rises, so that r tends to $(i + a' + p')/(1-p')$. For instance take the case where learning and economies of scale both show diminishing returns. One pattern might be:^{3/}

$$p'' = p_0'' e^{-\lambda Q}$$

$$a'' = a_0'' e^{-\lambda Q}$$

where p_0'' and a_0'' are initial values. Taking B as being proportional to Q ($= bQ$, say) and substituting in (6) gives the result:

$$r = \frac{i + a' + p' + a_0'' e^{-\lambda Q} (1 - \lambda Q) + p_0'' e^{-\lambda Q} (1 - bQ\lambda)}{1 - p' - p_0'' e^{-\lambda Q}}$$

which tends to $(i + a' + p')/(1-p')$ at high Q .

8.25 The Dynamic Case. All quantities that vary with time are given the subscript t , including r , i , p and a . The present worth of benefits, if x is the discount rate, is then:

$$\sum_t (1-p_t) B_t / (1+x)^t - \sum_t (1+i_t + a_t) Q_t / (1+x)^t$$

where $\partial B_t / \partial Q_t = (1+r_t)$ and both p_t and a_t are each a function of the cumulative experience - assumed here to be correlated with the cumulative volume of lending - up to time t ; that is

^{1/} The "static" financial case.

^{2/} Also the same as the forward looking financial case

^{3/} Arrow considers a case $\phi(Q) = \phi_0 Q^{-n}$ with $n > 0$. But whether this or the exponential form is assumed, the results are similar.

$$p_t = \phi \left(\sum_1^t Q_t \right)$$

and

$$i_t = \phi \left(\sum_1^t Q_t \right)$$

Taking the marginal conditions of the above objectives function and rearranging gives the result:^{1/}

$$r_t = \frac{i_t + a_t + p_t}{1 - p_t} + \frac{1}{1 - p_t} \sum_{s=t}^{\infty} \left\{ \frac{B_s}{(1+x)^s} \frac{\partial p_s}{\partial Q_t} + \frac{Q_s}{(1+x)^s} \frac{\partial a_s}{\partial Q_t} \right\} \quad (7)$$

The first term in the bracketed expression is the present worth of the marginal benefits of finding "good" borrowers in the future on account of the extra experience gained in the present period; the second term reflects the gains from economics of scale. As in the static case, there is a downwards adjustment to the marginal costs of providing the loans in the present period.

8.26 The limiting case is again the same as that for the financial criterion (4). Both a_t and p_t tend to a' and p' as the cumulative volume of lending rises, with $\partial p_s / \partial Q_t$ and $\partial a_s / \partial Q_t$ tending to zero, so that

$$r_t \rightarrow \frac{i_t + a' + p'}{(1 - p')} \quad (8)$$

^{1/} The differential of the first term in the objective function gives the series:

$$\frac{(1 - p_t)(1 + r_t)}{(1+x)^t} + \frac{B_t}{(1+x)^t} \frac{\partial p_t}{\partial Q_t} + \frac{B_{t+1}}{(1+x)^{t+1}} \frac{\partial p_{t+1}}{\partial Q_t} \dots$$

The second term gives a similar series.

The contrast between (4) and (7) is illustrated in Figure 2. The economic criterion implies lower interest rates than the forward looking financial criterion during the adjustment period.

8.27 The above results raise the question, is there an economic case for subsidy, in addition to points (i) to (vi) raised in paragraph 8.20, when a'' and p'' are large? If there is, it is probably not a strong case, since economies of scale are evident (and possibly greater) in many other sectors, while Arrow suggests that learning by doing is widespread. There may be a case for subsidising investment in general, or for selected subsidies in sectors where the economies of scale and learning by doing are most marked; these may or may not include small business credit programs. The most appropriate answer, perhaps, is that economic analysis does not argue against subsidy during the adjustment period.

Appraising Small Enterprise Programs

8.28 It is possible to determine whether small enterprise projects are desirable or not, from an economic point of view, by using cost-benefit analysis.^{1/} As with other projects, it is necessary to compare the investments in question with their alternatives, allowing (using shadow prices) for possible inefficiencies in the levels of prices and wages.

8.29 Alternatives to Institutional Finance. These include a greater reliance on:

- (a) internal sources of finance (family savings, retained earnings); and
- (b) other external sources (trade credits and the informal sector capital markets).

^{1/} The following draws on the principles discussed in Mishan (1971), Little and Mirrlees (1975) and Squire and van der Tak (1975).

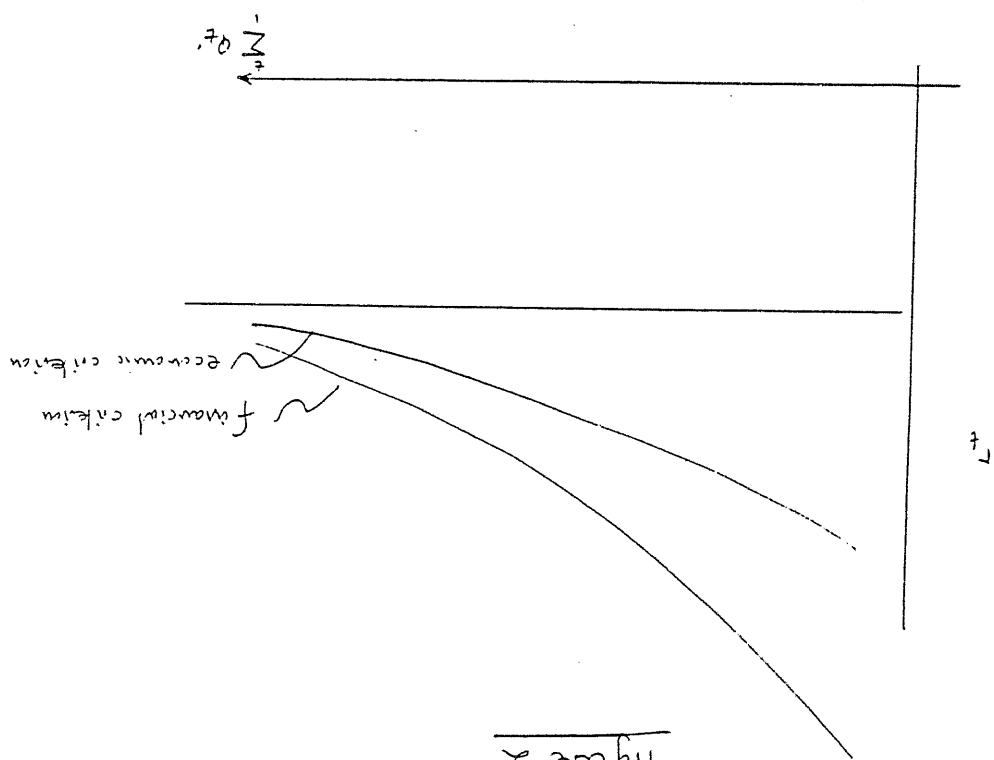


Figure 2

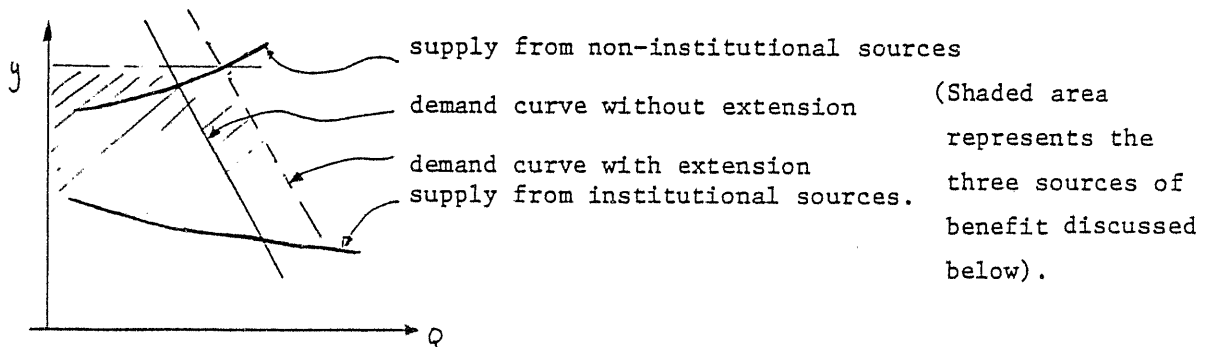
Where the imputed cost of (a) or the actual cost of (b) are greater than the costs of institutional finance, a reduction of investment and output is implied if the latter is not available, except in the unlikely event of the derived demand being inelastic.^{1/} The provision of institutional finance then:

- makes additional investments possible that would otherwise be unprofitable if financed out of other (higher priced) external sources, or which would not have been worthwhile to the owner if the imputed cost of internal sources were too high; and
- for those projects that would still be undertaken without institutional finance, provides a cost savings to the enterprise.

Industrial extension aims to have the further effect of:

- raising the demand curve for institutional credit by reducing the transactions costs faced by the borrowers (as discussed in Chapter 4, these are also expected to decline over time through "learning by doing").

^{1/} The alternatives can be summed up in a familiar way by the supply and derived demand curves for finance: the derived demand curves representing the rates of return to capital of individual projects, one supply curve (generally higher) representing non-institutional sources and another institutional sources of finance.



The relevant question is then whether these three sources of benefit, after allowing for losses due to "lemons", outweigh the costs of the program. All three are part of the consumers' surplus, and it would not be necessary to estimate them if payments on principal and interest fully covered the costs of the programs. But since this condition is generally not met in practice, it might be useful to examine how they can be estimated. This can be done without precise information on the demand curves.

8.30 Each project financed is used to increase the capacity and output and/or improve the efficiency and profits of an enterprise in various ways. Each project is thus expected to be associated with:

- a change, ΔS , in the annual sales of the enterprise,
- a change, ΔM , in its material and running costs, and
- a change, ΔL , in employment.

If the amount of investment made possible by the loan is K , and the average wages are ω , then the expected annual incremental benefits, ΔB , to the enterprise are

$$\Delta B = \Delta S - \Delta M - \omega \Delta L - A(r)K \quad (9)$$

where $A(r)$ is the annuity rate and r now denotes the interest rate on the loan. The expected rate of return to the investment, denoted by y , is then given by

$$A(y) = (\Delta S - \Delta M - \omega \Delta L) / K \quad (10)$$

8.31 In principle therefore it is possible to estimate the rates of return to the programs by considering a sample of the projects financed,

estimating the various quantities in (9), ^{1/} and grossing up over the whole sample. Fixed overheads, administrative or other costs of the program need to be deducted from the estimate of $\Sigma \Delta B$. The sales and variable cost figures are all expected quantities, to be derived from the projections for each project and multiplied by the probability of the projects' being successful. This may be greater than the probability of principal and interest being repaid since there is no guarantee that the owners of successful enterprises will repay the loans. On the other hand, since their not doing so is damaging both to the institutions and ultimately to other borrowers, it would not seem good practice to count these cases as being successful. The quantities p' and p'' as defined above are probably the right ones to use. ^{2/}

8.32 The above procedure is likely to over-estimate the rates of return to the programs unless it is accompanied by an analysis of, and an allowance for, the costs of alternative sources of external finance (trade credits, informal capital markets), which in some circumstances may prove to be the more efficient alternative. If these sources are available at a cost of, say, \hat{y} , then businesses with higher rates of return to capital than this can, and presumably do, turn to them in the absence of institutional credit. It is therefore only appropriate to include the whole of the returns to capital (as estimated in (10)) in cases where $y < \hat{y}$; in others, the quantities to estimate are the cost

^{1/} This calculation is actually made by the extension workers and the financial institutions when appraising the larger term-loans. The forecasts frequently turn out to be highly optimistic, however.

^{2/} In failed projects the whole of the investment is of course not lost, but presumably can be salvaged for use elsewhere or by new owners. To allow for this $(1-p')$ and $(1-p'')$ should include recoveries from foreclosures and exclude costs of litigation.

savings, which are given by \dot{y} minus the opportunity cost of supplying institutional finance.

8.33 When are the Alternatives Preferable? The above analysis is a simplification of what is in practice a complex pattern of demand and supply of finance for small enterprises. It raises the basic questions: what is the expected demand for institutional credit (for either short-or long term loans)? and, are the projects financed expected to have satisfactory returns, sufficient to justify the costs and the losses in developing a lending program? As shown, an assessment of alternatives is crucial in arriving at answers to these questions.

8.34 It does not follow, however, that if institutional credit is in demand for some purposes that the alternatives will be displaced or unneeded for others - or even for the same purposes. In fact, the interviews reported in Chapter 5 (see Annex table 5.3 in particular) show more evidence of complementarities than of competition between alternative sources of finance (e.g. the demand for trade credits rising with fixed asset finance). The complementarities stem from variations in the capital structure of small firms, and in the nature of the product and supplier markets; what is a suitable financial arrangement for one firm is often not for another. An obvious contrast is between the garments and engineering industries. The former have low overheads and rely more on trade credits to finance materials supplies and work in progress; even the smallest scale activities often obtain the credits indirectly through the "putting out" system. The engineering industries, having larger overheads, a larger share of work in progress, and often being expected not to receive,

but to offer credit in the form of delayed receipts from customers, appear to rely more on the banking system to organize working capital finance, or, in the absence of this, to rely exclusively on retained earnings. It is hard to generalize, however, since engineering firms working under subcontract, for instance, may have different financial arrangements.

8.35 We also suggested in Chapter 4 that own savings, retained earnings and such informal sector finance as is available, were the best sources of finance for new businesses. The probability of a bank's financing a "lemon" is much less for a business that has proved itself and established its markets and sources of supply. A bank's finance is generally advantageous when a significant increase of output and or assets is contemplated, since informal sector loans appear to be very short-term and in small amounts. Another suggestion in Chapters 3 and 4 was to use traders as conduits for working capital finance, rather than always working directly with small manufacturers. Finally, most institutions regard it as good practice (a) to require a significant injection of a businesses' own savings or retained earnings into a project, either for fixed or working capital; and (b) to be satisfied that, if one type of finance is to be provided (e.g. term-finance), finance will still be available from other sources (whether internal or external) to meet the other requirements of the firm.

8.36 Hence a mixed solution is suggested rather than an exclusive reliance on one source or another. The task of the small enterprise programs is to develop the capacity and know-how of the financial institutions, and address the problems posed by uncertainty, where there is a latent demand for their particular services. The above criteria

are intended to provide a check on the efficiency of the projects, and determine when this effort is worthwhile.

8.37 Summing up, the economic returns to small enterprise programs can be estimated from an analysis of the rates of return to capital invested in the enterprises, allowing for the probability of unsuccessful projects and deducting any costs of the programs not included in the project costs. Allowances for alternative sources of finance may be necessary in some cases, though institutional sources are often used to augment and complement rather than compete with the alternatives.

8.38 Shadow Prices. It is obviously impractical to estimate the shadow prices for the inputs and outputs of each of the projects financed or otherwise supported by small enterprise programs, and also unnecessary. But seen as part of the research and ex post evaluation work of the institutions involved in the programs, their role is constructive. They are perhaps best used in evaluations of samples of projects to determine the relative efficiencies of investments in different sectors, and thus for determining the sector priorities of the programs. A comparison of economic returns, using SPs, with the financial returns of the projects should also provide current evidence on the incidence of industrial tariffs and investment incentives on small scale activities.^{1/}

^{1/} Now that the tariffs and investment incentives are being revised in the Philippines, this exercise becomes more relevant. What were once relatively low-profit activities in the under-protected sectors should stand to gain considerably from a change to more uniform tariffs. The converse is true of currently profitable activities in the over-protected sectors. In other words, the profitability - and economic efficiency - of the projects that make up the loan portfolios of the financial institutions is likely to change with the tariffs, along with a change in the composition of the portfolios.

The theory and practice of the estimation and use of shadow prices for these and other purposes is fully documented in the references cited.

8.39 Shadow Wages and the Employment Issue.^{1/} Given the importance of projects that offer improved earnings opportunities for the labor force, there are at first sight grounds for using a shadow wage (SWR) below actual wages (w) when appraising the projects, so as to give a premium to those projects that actually do raise earnings levels. Thus the social benefits of a project, as estimated in (9) above, would be increased by $\Delta L(w-SWR)$. Since this may entail the selection of some projects that would make a financial loss, the preceding argument is sometimes used to justify subsidized credit programs for small enterprises. Apart from the difficulties that such subsidies cause for the raising and administering of loanable resources, there is another objection to this argument in that, at least with respect to small enterprises in the Philippines, shadow wages and actual wages probably do not differ significantly. The following discussion explores this point further, and aims to show why the current practice of appraising projects based on actual wages should lead to a selection of projects that are consistent with the aim of improving earnings opportunities.

8.40 First note that the rate of return or net benefit criterion can be rewritten as:

$$\frac{\Delta S - \Delta M - A(r)K}{w\Delta L} \geq 1 \quad (11)$$

^{1/} A paper by Medalla (1980) in Bautista and Powers presents an estimate of the SWR for unskilled labor in the Philippines. It is a country-wide estimate however, and does not allow for variations according to region, occupation, skill levels and the experience, qualities and job preferences of individuals.

That is, a project is desirable if it is capable of providing for labor's income after all other costs have been met. The rate of return is thus a rigorous criterion for screening for projects offering more gainful employment provided the wages reflect the opportunity costs of labor (or the shadow wage rates). To see why the latter condition is met in the Philippines, at least to a good approximation, it is instructive to consider the recommended practices for estimating SWRs.

8.41 In Chapter 7, it was shown that the wage labor in manufacturing was being drawn from several sources: (a) wage labor in agriculture, (b) self-employed labor in agriculture, (c) wage and self-employed labor in low-income, mostly rural and non-agricultural activities, (d) the unemployed, and (e) new entrants to the labor force who would otherwise be in one or the other of (a), (b), (c) or (d). Even if a worker happens to be drawn directly from another lesser paid job in manufacturing, it will generally create a vacancy to be filled by workers from one of the above. This pattern of movement appears to be quite general in developing countries, and for this reason the starting point for estimating an SWR is usually taken to be a weighted average of the daily earnings in (a), (b), (c) and (d).^{1/}, ^{2/} There are, in addition, further adjustments recommended in the literature to allow for the following:^{3/}

^{1/} See Little-Mirrlees, op. cit., p.257-262. The calculation appears to be extra-ordinarily intricate to do properly, particularly if (as with SSE programs) it is necessary to allow for regional disparities in wages and marginal productivities of labor.

^{2/} Since (d) is relatively low in the Philippines, the SWR would mostly be made up of (a), (b) and (c).

^{3/} See Squire van der Tak and Little-Mirrlees,

- (i) the transport and resettling costs of moving to a new phase of work;
- (ii) the costs of labor being temporarily unemployed or working in part-time or lowly-paid work before finding the better-paid job in the project;^{1/}
- (iii) the possible social costs of the workers using the wages for consumption when the money, if invested, might yield higher consumption benefits in the future;^{2/} and
- (iv) the added incentive required to make the new job sufficiently attractive relative to the old one;^{3/}
e.g. the higher wage rates that are needed in urban areas to provide for the higher costs of dwellings, food and transport.

The first two adjustments act to raise the SWR over the weighted average of earnings in previous work. The third is generally thought to reduce it, though it is very likely small in the Philippines on account of the

^{1/} Mazumdar (1976).

^{2/} This is the term $(1-1/S)(w-MP)$ in the references cited. Here $(w-MP)$ is the net increase in earnings (MP =marginal product of labor). S is the ratio of the value of uncommitted government income to the value of consumption. It is generally taken to be greater than unity on the grounds that workers do not save and invest sufficiently but consume excessively. The whole term is a measure of the net loss assumed to occur on account of the income being consumed by workers instead of being invested (in the interests of future consumption) by the government.

^{3/} Harberger (1971).

opportunities for workers to save and invest.^{1/}

The fourth term is probably quite large for workers moving to Manila, where wages for given occupations are significantly higher than elsewhere, but not so large for those moving to workshop and factory production in the provinces; it helps to explain why the opportunity costs of labor (like wages) are likely to vary greatly among regions.

8.41 For people moving into skilled occupations, further adjustments are needed to allow for (v) the costs of training labor and (vi) the workers' preference for skilled over unskilled work. Finally, there are questions regarding the quality and the experience of the workers and which must also bear, in principle, on the estimation of the SWRs.

8.42 Given the obvious practical difficulties of estimating SWRs on the above principles, the question arises whether it is necessary. The above list of adjustments is a useful way of indicating the factors determining the opportunity cost of labor; but the same factors must also determine actual wages if labor is to be drawn into the enterprise or project in question. It is only when there are institutional influences

^{1/} These opportunities are now quite widespread with the growth of the branch networks of the organized financial sector: 900 rural banks, 1200 branches of the commercial banks, plus the branches of the savings and loan associations, the private development banks and the Development Bank of the Philippines. Indeed, the branches of the commercial banks have spread rapidly largely to increase the resource base from deposits, which accounted for 75-77% of incremental resources in 1976-77 (see Chapter 2). A national savings campaign was also initiated by the Government in the mid'70s. Apart from these channels for mobilizing savings, secondary activities have been promoted such as piggeries, garment crafts and other "cottage" industries. It is also very likely that private investment in education and dwellings by the families of wage earners are commensurate with their incomes.

or other constraints in the labor market that actual wages begin to depart from the opportunity costs above. In Chapter 7 it was suggested that such influences, if they exist at all, are not very strong in the labor markets in which SSEs operate. To a good approximation the supply price of labor appears to meet the condition of ^{1/} "being the wage that must be paid to induce the worker into a particular employment and reflects the workers' private valuation of all its aspects, pleasant and unpleasant." Thus the SWRs and the actual wage rates can probably be taken not to depart significantly. This conclusion is not dissimilar to that reached by Harberger (1971) in his analysis of the labor market in India:

"Why have the differentials between urban unprotected sector wages and rural wages been so persistent over time rather than being eliminated as a consequence of more rapid migration flows? My answer is that the differential in question is very largely a self-equalising one. In rural areas of India most of the houses (or huts) of rural labourers are built by themselves (with help from family and friends), using local materials; they are very inexpensive, if not virtually free. By contrast, even the most rudimentary urban quarters have rents amounting to a third or more of the unprotected urban wage. Food in the cities is also considerably more expensive than in the villages, where largely local produce is consumed. Transportation to and from work also typically claims a considerable portion of the urban labourer's budget, while in the villages the trip to the nearby fields is usually made on foot...I conclude, then, that the social opportunity cost of labour to be used on a project in a rural area is the going wage in that area, while that of labour to be used in an urban project is the prevailing wage in the unprotected sector of the labour market in that area."

^{1/} Squire and van der Tak (1975), p.80. For a more skeptical note on relying too much on supply prices (even in the absence of distortions) see Vaughn (1980); uncertainties and disequilibria in the labor markets are her main concern.

8.42 Using actual wages paid in small enterprises as a measure of the opportunity costs of labor both favors investments in the provinces, where wages are lower, and simplifies analysis. Estimates of shadow wage rates are generally available only on a country-wide basis for one or perhaps two categories of labor. Yet small enterprises have to pay wages that vary with the skills, qualities and experience of the workers, as well as with location and local labor market conditions. The information on wages are also readily available to the appraisers of projects, who generally estimate the wage bill when assessing the profitability of an enterprise and the project before deciding whether or not to finance it. In using actual wages in this way when estimating the returns to the investment, they are essentially screening for projects that are consistent with the employment aims of the program.

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SMALL ENTERPRISES AND DEVELOPMENT
POLICY IN THE PHILIPPINES: A CASE STUDY

VOLUME II

Statistical Annexes

NOTE ON THE USE OF TERMS

The use of terms differs between agencies in the Philippines. The Ministry of Industry and the financial institutions classify industries into cottage (or home), ^{1/} small, medium and large industries according to assets as follows:

<u>Asset Range (P million)</u>	<u>Classification</u>
Less than 0.1	Cottage (or home) industries
0.1 to 1.0	Small industries
1.0 to 4.0	Medium industries
Over 4.0	Large industries

When referring to the Government's Small and Medium Industries Program these terms are used to avoid confusion. Elsewhere the term "small enterprise" is used in a broad sense, and includes enterprises in the tertiary sector.

Most of these terms are arbitrary, and could be changed without seriously affecting the analysis. An exception, however, is the term cottage (or home) industries which confuses two quite different levels of activity. In 1975 there were about 900 thousand people who were working in manufacturing activities within their homes (see Table 1.3 above) or at least not working in identifiable establishment and workshops; for nearly two decades there has been no discernable growth in the level of such employment in the country. In contrast, the same period saw a rapid increase in the number of non-household manufacturing establishments and workshops, and which would come under the above definitions of cottage industries. For purposes of analyzing size structure and other aspects of small industry development it is necessary to distinguish more

^{1/} The term 'home' industries is used by DBP.

precisely between household and establishment-based manufacturing, as far as the data permit. The following table shows how MOI definitions compare with the size distribution categories in the establishment censuses; household employment is normally estimated as a residual between the establishment censuses and population censuses (or the labor force surveys non-census years):

Type and Scale of Activity (NCSO Classification)	Employment in 000's	Approximate MOI Definition ^{/1}
Household employment	882	Cottage
Establishments:		
Less than 10 workers	207	Cottage
10 - 19 workers	37	Cottage
20 - 99	95	Small
100 - 199	56	Medium
200 and over	374	Large
Total	1,651	

^{/1} The average assets per worker in 1974 for industries with 5-19 workers was P4,700 say P5,000 in 1975, so that enterprises with 20 workers would have assets of P100,000 on average.

Source: Censuses of Establishments and Population Census.

Except when the discussions specifically relate to the financing and extension programs, the terms followed will relate to the left-hand side of the above table.

While the intention of the analysis is to examine the full size structure of industry, the NCSO's census and survey data on establishments are often only grouped into 'small' and 'large', the former being establishments with less than 10 employees in census years, and less than 20 in survey years; the tables and comments in the text make it clear which of these two sources are being used.

Table 2.1:

PHILIPPINESFINANCING OF SMALL SCALE ENTERPRISESLoans and Investments Outstanding by Institution, 1950-77
(Amount in million pesos)

Type of institution	1950		1960		1970		1974		March 1977	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
<u>Banks</u>										
Commercial banks	627	70.2	1,850	63.2	10,968	62.3	31,056	66.0	46,300	66.0
Rural banks	0	0.0	69	2.4	548	3.1	1,790	4.0	2,629	3.8
Development banks	253	28.4	566	19.4	2,935	16.7	5,330	12.0	11,181	15.9
Savings banks	1	0.1	57	1.9	564	3.2	965	2.2	1,923	2.7
Subtotal	<u>881</u>	<u>98.7</u>	<u>2,542</u>	<u>86.9</u>	<u>15,015</u>	<u>85.3</u>	<u>39,141</u>	<u>88.4</u>	<u>62,033</u>	<u>88.4</u>
<u>Nonbank Financial Institutions</u>										
Private	4	0.4	11	0.4	228	1.3	814	1.8	1,126	1.6
Government	8	0.9	373	12.7	2,360	13.4	4,311	9.8	7,019	10.0
Subtotal	<u>12</u>	<u>11.3</u>	<u>384</u>	<u>13.1</u>	<u>2,588</u>	<u>14.7</u>	<u>5,125</u>	<u>11.6</u>	<u>8,145</u>	<u>11.6</u>
Total	<u>893</u>	<u>100.0</u>	<u>2,926</u>	<u>100.0</u>	<u>17,603</u>	<u>100.0</u>	<u>44,266</u>	<u>100.0</u>	<u>70,178</u>	<u>100.0</u>

Source: NEDA.

Table 2.2:
PHILIPPINES

FINANCING OF SMALL-SCALE ENTERPRISES

Loans Granted by Financial Institutions in 1977
(Amount in million pesos)

Sector	Rural bank		Private development banks		Specialized banks /a		Non-bank financial institutions			
	Amount	%	Amount	%	Amount	%	Private		Government /b	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Agriculture	1,799.1	87.1	101.6	45.4	571.3	19.8	27.5	2.0	40.1	1.0
Commerce	180.7	8.7	-	-	10.3	0.3	46.2	3.3	-	-
Industry	55.5	2.7	70.2	31.4	2,080.5	72.1	305.3	21.6	40.1	1.0
Others	30.4	1.5	51.9	23.2	224.5	7.8	1,030.6	73.1	3,852.6	98.0
<u>Total</u>	<u>2,065.7</u>	<u>100.0</u>	<u>223.7</u>	<u>100.0</u>	<u>2,886.6</u>	<u>100.0</u>	<u>1,409.6</u>	<u>100.0</u>	<u>3,932.8</u>	<u>100.0</u>

/a Comprising DBP, Land Bank of the Philippines and Philippine Amanah Bank.

/b Comprising GSIS, SSS, ACA and NIDC.

Source: Central Bank Annual Report 1977.

Table 2.3:
PHILIPPINES

FINANCING OF SMALL SCALE ENTERPRISES

Summarized Consolidated Balance Sheet of Commercial Banks, Private
Development Banks and Rural Banks

	<u>Commercial banks</u>		<u>Private development banks</u>		<u>Rural banks</u>	
	<u>(December 31, 1977)</u>		<u>June 30, 1978)</u>		<u>(December 31, 1978)</u>	
	Amount	%	Amount	%	Amount	%
<u>Assets</u>						
Cash and due from from banks	9,109	12.9	80.5	12.1	341.9	8.5
Loans	43,361	61.6	481.0	72.2	3,348.0	82.9
Investments	11,304	16.0	41.5	6.2	96.4	2.4
Other assets	6,673	9.5	63.4	9.5	250.9	6.2
<u>Total assets</u>	<u>70,447</u>	<u>100.0</u>	<u>666.4</u>	<u>100.0</u>	<u>4,037.2</u>	<u>100.0</u>
<u>Liabilities and Net Worth</u>						
Deposits	35,317	50.1	383.4	57.5	1,356.8	33.6
Demand	(7,477)	(10.6)	-	-	(18.8)	(0.5)
Savings	(12,442)	(17.6)	(236.4)	(35.4)	(955.7)	(23.7)
Time	(9,730)	(13.8)	(147.0)	(22.1)	(317.8)	(7.8)
Other	(5,668)/a	(8.1)	-	-	(64.5)	(1.6)
Bank borrowings/ notes payable	20,540	29.2	150.2	22.6	1,928.0	47.8
Other liabilities	8,053	11.5	-	-	123.8	3.0
<u>Net Worth</u>	<u>6,537</u>	<u>9.2</u>	<u>132.8</u>	<u>19.9</u>	<u>628.6</u>	<u>15.6</u>
<u>Total liabilities and net worth</u>	<u>70,447</u>	<u>100.0</u>	<u>666.4</u>	<u>100.0</u>	<u>4,037.2</u>	<u>100.0</u>

/a Deposits of the Government and other banks.

Source: SGV: A Study of Commercial Banks in the Philippines, December 31, 1977.
IBRD: Follow-up Report on the Private Development Banks (February 1, 1979).
Rural Banking System in the Philippines, 1978.

Table 2.4:
PHILIPPINES

FINANCING OF SMALL-SCALE ENTERPRISES

Commercial Banks: Total Loans Outstanding by Different Categories

Classification	Pesos, billions		% distribution /e	
	6/30/74	12/31/77/a	6/30/74	12/31/77
<u>Economic Sector</u>				
Industry and agriculture /b	11.2	19.7	53	49 /b
Trade	7.0	12.0	33	30
Contract construction	0.5	0.9	2	2
Consumption	-	1.3	-	3
Others	2.4	6.3	11	16
<u>Total</u>	<u>21.1</u>	<u>40.2</u>	<u>100</u>	<u>100</u>
<u>Type of Borrower</u>				
Industrial	5.0	7.3	24	18
Single proprietorship	-	1.0	-	3
Partnership	0.7	1.0	3	2
Cooperative	0.3	-	1	-
Corporation	14.3	30.3	68	75
Government	0.8	0.6	4	1
<u>Total</u>	<u>21.0</u>	<u>40.2</u>	<u>100</u>	<u>100</u>
<u>Size of Firm /c, /d</u>				
Cottage industries	n.a.	0.7	n.a.	2
Small-scale industries	n.a.	3.1	n.a.	11
Medium-scale industries	n.a.	3.1	n.a.	11
Large-scale industries	n.a.	15.5	n.a.	56
Others	n.a.	5.1	n.a.	19
<u>Total</u>	<u>n.a.</u>	<u>27.4</u>	<u>n.a.</u>	<u>100</u>
<u>Region /c</u>				
Metro Manila	n.a.	23.8	n.a.	87
Provinces	n.a.	3.6	n.a.	13
<u>Total</u>	<u>n.a.</u>	<u>27.4</u>	<u>n.a.</u>	<u>100</u>
<u>Maturity</u>				
Demand	n.a.	7.5	n.a.	19
Short-term	n.a.	26.8	n.a.	67
Intermediate-term	n.a.	4.2	n.a.	10
Long term	n.a.	1.7	n.a.	4
<u>Total</u>	<u>n.a.</u>	<u>40.2</u>	<u>n.a.</u>	<u>100</u>

/a The total credits outstanding are about 8% lower than those indicated in Table 3.1. This table excludes past due items, items on litigation domestic bills-clean and foreign bills-clean.

/b From Table 2.2. It will be noted that 35% went to manufacturing.

/c Excluding PNB.

/d Loans to agriculture and commerce appear to have been included in these definitions, which follow those noted in the text.

/e Totals may not add up to 100 due to rounding.

Source: Central Bank records.

Table 2.5:
PHILIPPINES

FINANCING OF SMALL SCALE ENTERPRISES

DBP: Lending to Home, Small and Medium Industries /a
Fiscal Years 1974-78
(amount in million Pesos)

Classification	1974 /b		1975 /b		1976		1977 /c		1978 /c	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
<u>Regional distribution</u>										
Metro Manila	125	20	247	43	349	63	270	84	216	68
Provinces	417	28	501	67	1,406	109	868	76	924	90
<u>Total</u>	<u>542</u>	<u>48</u>	<u>748</u>	<u>110</u>	<u>1,755</u>	<u>172</u>	<u>1,138</u>	<u>160</u>	<u>1,140</u>	<u>158</u>
<u>Size distribution</u>										
Home industries	432	6	494	7	1,466	27	759	18	756	13
Small industries	98	27	212	45	235	59	331	55	328	52
Medium industries	12	15	42	58	54	86	48	87	56	93
<u>Total</u>	<u>542</u>	<u>48</u>	<u>748</u>	<u>110</u>	<u>1,755</u>	<u>172</u>	<u>1,138</u>	<u>160</u>	<u>1,140</u>	<u>158</u>

/a Definitions of home, small and medium industry loans are respectively loans of less than P 50 thousand, P 50-800 thousand, and P 800 to 300 thousand.

/b In 1974 and 1975, 620 loans each under P 50,000 and amounting to P 8.3 million were approved by branch managers. Since the allocation of these loans between the two years is not available they have been equally divided between the years.

/c Includes loans approved under discretionary authority of branch managers (P 150,000 and below) as confirmed by the Board of Governors.

/d The value was unusually high for this year since it included high volume of tricycle loans.

Source: DBP.

ANNEX I TO CHAPTER II

Table 2.6:
PHILIPPINES

FINANCING OF SMALL SCALE ENTERPRISES

DBP: Arrears as a Percentage of Value of Loans Outstanding at the
Head Office and Branch Levels, 1974 to 1978 /d

	Fiscal Year (ending June 30)						
	1974	1975	1976	1977	1978	1979 /e	1980
<u>Branch Lending /b</u>							
Home industries	35.6	19.0	11.8	.. /a	..	..	..
Small industries	35.1 /c	13.5	11.3	..	.. )	23.0 /f	..
Medium Industries	n.a.	2.5	5.6	..	.. )		..
<u>Head Office Lending</u>							
Home industries	63.3	41.5	40.2	..	..	..	..
Small industries	44.2	33.0	38.2	..	.. )	12.2 /f)	11.2 /f
Medium industries	40.0	41.4	28.6	..	.. )
<u>Total: Head Office and Branch Lending /b</u>							
Home industries	49.2	28.9	20.9	18.9	28.6	..	..
Small industries	43.1 /c	27.7	29.1	23.8	23.1	..	..
Medium industries	39.3	24.7	23.9	16.4	18.1	..	..
Average	41.5	27.2	27.0	20.5	20.9	16.4	..
Large Scale Industries			7.5	4.0	4.7	..	..

/a .. = not obtained or available.

/b In each year data were not available for some of the branches. In 1974 three branches are excluded, in 1975 two, in 1976 three, in 1977 none, and in 1978 thirteen.

/c Includes loans to corn and rice mills, which were classified as agricultural loans in subsequent years.

/d Aging of Arrears. Most of the arrears are by more than three months. As of June 30, 1977, loans in arrears by more than three months, as a percentage of all loans in arrears, were 85.9% for home industry loans (14.1% being in arrears by less than three months), 88.3% for small industry loans, and 81.8% for medium industry loans.

/e December 31, 1979.

/f Averages for small and medium industries.

Source: DBP.

Table 2.7:
PHILIPPINES

FINANCING OF SMALL-SCALE ENTERPRISES

DBP: Present and Projected Staffing Position

	Actual 1976 (September)	Projected 1978 (August)
<u>Professional Staff</u>		
Head office support	411	588
Head office operations	532	1,050
of which:		
SMI program /a	(61)	(149) /c
Large scale industries	(79)	(102) /c
Department of rural and private development banks	()	()
All branches	965	1,133
<u>Total</u>	<u>1,908</u>	<u>2,771</u>
<u>Non-Professional Staff</u>		
Head office support	332	488
Head office operations	162	335
of which:		
SMI program /a	(17)	(28)
Large scale industries	(16)	(23)
Department		
All branches	722	878
<u>Total</u>	<u>1,216</u>	<u>1,701</u>
<u>Total Staff</u>	<u>3,124</u>	<u>4,472 /d</u>

/a Including the home industries program.

/b This is the department handling the equity and rediscounting operations mentioned above.

/c As of September 1977 the number of professional head office staff working on the SMI program (including home industries) had risen to 101, while the professional staff on the large industries program had risen to about 90.

/d In August 1978, DBP staff had risen to 4,398. A staff complement of 5,192 is projected for August 1979.

Source: IBRD Appraisal Report, 1972-PH, April 1978, Annex 4, T-2.

Table 2.8:

PHILIPPINES

FINANCING OF SMALL SCALE ENTERPRISES

PDCP: Loan Approvals Classified by
Asset Size of Recipient Enterprise
(P Million)

	<u>1963-1972</u>		<u>1973</u>		<u>1974</u>		<u>1975</u>		<u>1976</u>		<u>1977</u>		<u>Cumulative Total</u>	
	<u>No.</u>	<u>Amount</u>	<u>No.</u>	<u>Amount</u>	<u>No.</u>	<u>Amount</u>	<u>No.</u>	<u>Amount</u>	<u>No.</u>	<u>Amount</u>	<u>No.</u>	<u>Amount</u>	<u>No.</u>	<u>Amount</u>
Large Enterprise	113	439	23	90	32	185	19	79	14	97	15	119	216	1,009
Medium Enterprise	58	54	12	14	5	6	7	7	5	3	10	10	97	94
Small Enterprise	23	11	7	1	14	3	20	3	28	6	82	20	174	44
<u>Total</u>	<u>194</u>	<u>504</u>	<u>42</u>	<u>105</u>	<u>51</u>	<u>194</u>	<u>46</u>	<u>89</u>	<u>47</u>	<u>106</u>	<u>107</u>	<u>149</u>	<u>487</u>	<u>1,147</u>

Source: PDCP

Table 2.9:
PHILIPPINES

FINANCING OF SMALL SCALE ENTERPRISES

PDCP: Arrears in Relation to Principal Outstanding
for Large and Small Loans, 1975-78

	1975	1976	1977	June 30 1978
<u>SMALL LOANS PROGRAM</u>				
No. of Firms	36	49	89	119
In arrears by 3 months or more:				
- No.	7	16	33	15
- Percent	19	33	37	13
<u>Principal Outstanding</u> (billions of pesos):-				
(A) - in grace period	1.6	2.1	4.1	13.2
(B) - in repayment period	<u>3.7</u>	<u>5.4</u>	<u>12.8</u>	<u>12.8</u>
(C) - subtotal	5.3	7.5	16.9	30.0
<u>Arrearages of 3 months or more</u> (million pesos):-				
(D) - Principal and interest	0.3	0.9	1.0	1.4
(E) - Principal only	0.2	0.6	0.7	1.0
<u>Ratios:</u>				
(F) = (D) ÷ (C), %	5.6	12.4	6.2	6.4
(G) = (D) ÷ (B), %	8.1	17.1	8.2	11.1
(H) = (E) ÷ (C), %	3.7	8.2	4.3	3.9
<u>REGULAR LOANS TO LARGE AND MEDIUM ENTERPRISES</u>				
No. of Firms	140	147	136	141
In arrears by 3 months or more:				
- No.	36	26	36	31
(of which, No. in litigation)	(1)	(2)	(4)	(4)
- Percent	26	18	26	22
<u>Principal Outstanding</u> (billions of pesos):-				
(A') - in grace period	302	190	97	179
(B') - in repayment period	<u>392</u>	<u>502</u>	<u>630</u>	<u>542</u>
(C') - subtotal	694	692	727	721
<u>Arrearages of 3 months or more</u> (million pesos):-				
(D') - Principal and interest	30	33	39	38
(E') - Principal only	14	18	24	22
<u>Ratios:</u>				
(F') = (D') ÷ (C'), %	4.3	4.8	5.4	5.3
(G') = (D') ÷ (B'), %	7.6	6.5	6.2	7.0
(H') = (E') ÷ (C'), %	2.0	2.5	3.4	3.1

Source: Provided by PDCP for IBRD supervision report of November 15, 1978
(see Annex Table 24 of latter report).

Table 2.10:
PHILIPPINES

FINANCING OF SMALL SCALE ENTERPRISES

Identified Sources of Finance for Home Industry and SSE Loans, 1974-1978
(P '000)

	1974			1975			1976			1977			1978		
	No.	Amount	%	No.	Amount	%	No.	Amount	%	No.	Amount	%	No.	Amount	%
Development Bank of the Philippines/ <u>b</u>	220/ <u>c</u>	28,836/ <u>d</u>	77.6	396/ <u>c</u>	48,543/ <u>c</u>	45.5	1,701/ <u>d</u>	86,321	71.1	1,090	73,032	66.7	1,084	64,800	48.0
Industrial Guarantee and Loan Fund	31/ <u>e</u>	5,645/ <u>e</u>	15.2	349/ <u>e</u>	54,671/ <u>e</u>	51.2	130	29,220	24.1	71	20,332	18.6	140	46,989	34.8
Private Development Corporation of the Philippines/ <u>f</u>	14	2,648	7.2	21	3,559	3.3	26	5,823	41.8	64	16,131	14.7	69/ <u>g</u>	23,350/ <u>g</u>	17.2
Total	265	37,129	100.0	766	106,773	100.0	1,857	121,364	100.0	1,225	109,495	100.0	1,293	135,139	100.0

/a Based on approvals.

/b Figures are for fiscal years (July 1 to June 30).

/c Excludes home industry loans approved by branches within their discretionary authority and amounting to P 8.3 million.

/d Includes a large number of tri-cycle loans.

/e For FY75 (July 1 to June 30) subsequent data is for calendar years.

/f Net of IGLF funds lent by PDCP.

/g Estimated.

/h Total excludes lending by PDBs.

Source: DBP, IGLF and PDCP.

PHILIPPINES

FINANCING OF SMALL SCALE ENTERPRISES

Financial Institutions in the Philippines

Banking Institutions

1. Commercial Banks. At the end of 1978, there were 26 private banks, 2 government owned banks and 4 foreign banks.^{1/} Commercial banks are by far the largest source of institutional credit in the country, accounting for 55% of the total assets of the financial system. Over 70% of commercial bank lending is to manufacturing and commerce, the share having increased steadily from 55% in 1960. Most commercial bank lending is short-term and serves to provide trade credits and working capital to industry and commerce; for the period January-August 1977, 60% of total credit granted was for a year, 10% was for 1-5 years and 0.6% was for over 5 years.^{2/} The comparable figures for 1976 were 68.6%, 0.6% and 1.02%. The above figures, however, do not reflect the element of rollover credit for long-term finance which, though unquantifiable, appears to be significant.

2. Development Finance Institutions. The government-owned Development Bank of the Philippines (DBP), the privately-owned Private Development Corporation of the Philippines (PDCP) and, to a lesser extent, the Philippine Investment Systems Organization (PISO) are the major providers of long-term finance. As of December 31, 1978, the total assets of DBP, PDCP and PISO were ₱ 18.1 billion, ₱ 1 billion and ₱ 189.3 million respectively.

^{1/} As of December 1977 the percentage distribution of assets were as follows: Private domestic banks 59%, foreign banks 11%, and government-owned banks 30%.

^{2/} The remaining 38.4% was in the form of short-term demand loans.

3. DBP was established by the Government in 1958 with a mandate to supply long-term credit to agriculture and industry. DBP plays a vital role in the economy as it is by far the largest supplier of both long-term local currency and foreign exchange resources. As of December 31, 1978 DBP had loans outstanding of about ₱ 11 billion.

4. Although PDCP is defined as an investment bank its main business is the provision of long-term loans which accounted for 76% of its total assets as of December 31, 1978, equity investments occupying a relatively minor (3.5%) position. PDCP lends primarily for manufacturing and transportation.

5. PISO, incorporated in 1974, is privately owned and operates as an investment banking institution. Until recently PISO operated primarily in the money market but is increasingly going in for term lending. As of December 31, 1978 its money market operations and long-term loans accounted for 74% and 4.1% respectively of its total assets. PISO lends principally to manufacturing and service industries and for transportation equipment.

6. Private Development Banks (PDB). The 35 PDBs have been promoted by DBP/Central Bank of the Philippines in various regions to mobilize local savings and make resources available to both agriculture and industry. As of June 30, 1978, the total resources of PDBs amounted to ₱ 666 million with a deposit base of ₱ 383 million. As of the same date, the total outstanding long-term portfolio outstanding of PDBs amounted to ₱ 399.2 million. In terms of sectoral distribution, 53% went to agriculture, 38% to industry and 9% for miscellaneous activities such as low cost housing, vocational schools and commercial loans.

7. Rural Banks. Rural banks are unit banks which are municipality specific and provide short-term loans primarily to agriculture. The rural banking system comprises around 906 privately-owned banks. At the end of 1978 their total assets amounted to ₱ 4.0 billion while deposits amounted to ₱ 1.5 billion.

Non-bank Financial Institutions

8. Investment Houses. The 12 ^{1/} investment houses are the only entities which can engage in the underwriting of securities on a firm basis. The volume of underwriting business undertaken by the investment houses was minimal during the period 1970-76. During this time, money market operations were extremely profitable and the investment houses tended to concentrate on these. It is estimated that in 1976 approximately 80% of their resources accrued from such operations. The reduction in the profitability of money market operations has resulted in investment houses going in for more underwriting and syndication. However, relatively little long-term lending is done by investment houses.^{2/}

9. Finance Companies. The Securities and Exchange Commission has 260 finance companies registered with it. Of these, the 42 largest account for 80% of the turnover. At the end of 1978, the finance companies had total resources of ₱ 7.3 billion while loans outstanding amounted to about ₱ 4.8 billion. Most of the finance companies are subsidiaries of major commercial banks and are engaged in financing the purchase of consumer dur-

^{1/} As of September 30, 1978.

^{2/} The most notable exception is the Private Development Corporation of the Philippines which is classified as an investment house but operates as a long-term lending institution.

ANNEX II TO CHAPTER II (Continued)

ables, and providing short- and medium-term credit to local manufacturers and traders to finance inventory, receivables and transport equipment. Until 1978 finance companies were not covered by CB interest rate ceilings and, consequently, could charge up to 24% a year on discounting of receivables. Under a recent Presidential Decree, finance companies are to be directly regulated by CB with respect to the interest rate charged on assignment of credit, purchase of installment papers and accounts receivable.

Table 4.1
SUMMARY OF STATUS OF MASICAP PROJECT STUDIES, 1973 TO JUNE 1979

	No. of Projects	%
<u>A. Projects on which MASICAP Committed to Provide Assistance</u>		
	<u>/1</u>	
Completed and Submitted for Licencing or Financing	5,468	84
Discontinued During Feasibility Study	763	12
Shelved or Still in Process	263	4
Total	<u>6,494</u>	<u>100</u>
<u>B. Assistance Rrendered (completed Projects)</u>		
Submitted for Financing	4,895	90
Submitted for Licencing	424	8
Other <u>/2</u>	149	2
Total	<u>5,468</u>	<u>100</u>
<u>C. Status of Projects Completed (All Projects)</u>		
	<u>/3</u>	
Approved After Appraisal <u>/4</u>	2,499	46
Withdrawn Without Full Appraisal	1,164	21
Disapproved After Appraisal	280	5
Still Awaiting Decision	1,525	28
Total	<u>5,468</u>	<u>100</u>
<u>D. Status of Projects Submitted for Financing</u>		
Approved After Appraisal	2,499	51
Withdrawn Without Full Appraisal	1,163	24
Disapproved After Appraisal	280	6
Still Awaiting Deicision	957	20
Total	<u>4,899</u>	<u>100</u>
<u>E. Projects Approved for Financing by Year</u>		
1973-74	49	2
1975	563	23
1976	864	35
1977	544	22
1978-79 (first two quarters)	479	19
Total	<u>2,499</u>	<u>100</u>

/1 Mostly rice-mill projects submitted to the National Grains Authority, which requires all mills not to have wastage rates of below 80%.

/2 Mostly projects for finance by owners.

/3 89 (or 3%) of the projects were dropped for various reasons by the owners after they were approved by the financial or licencing institution.

/4 That is after preliminary screening by the financial institution. The most common reason for withdrawing projects is failure to satisfy the institution's collateral requirements.

Source: MASICAP Quarterly Report, Second Quarter, CY1979, Ministry of Industry.

Table 4.2:
 SIZE DISTRIBUTION AND PURPOSES OF LOANS REQUESTED IN
 MASICAP ASSISTED PROJECTS, 1973 TO END JUNE 1979

Loan Size (P '000)	<u>/1</u> / <u>2</u>	Number of Projects	<u>/3</u>	% Distribution
0 - 50		1906		44.3
51 - 100		664		15.4
101 - 150		616		14.3
151 - 200		172		4.0
201 - 300		232		5.4
301 - 400		151		3.5
401 - 500		202		4.7
501 - 1000		222		5.2
1001 - 2000		86		2.0
2000 - above		53		1.2
Total		<u>4304</u>		<u>100%</u>

/1 The loan requests are often different to the amounts granted, the main tendency being for the banks to reduce the working capital component. This is for example evident in comparing MASICAP requests with the actual loans granted by DBP or through IGLF. The sample cases reported on by Mrs. Fajardo (1979) give the following:

Purpose	Percent Distribution		
	MASICAP Requests	DBP Projects	IGLF Projects
Permanent Working Capital	41	16	26
Land	5	2	4
Buildings	19	33	28
Machinery & Equipment	<u>35</u>	<u>49</u>	<u>42</u>
	100	100	100

Note: The three distributions are taken from different samples, but one can see that DBP's finance provides on average for much lower levels of working capital than MASICAP's recommendations.

/2 Mean Loan Size: ₱201,000.

/3 Prepared and Submitted for Approval.

Sources: (Other than f.n.1): MASICAP Quarterly Status Report, Second Quarter, 1979.

ANNEX TO CHAPTER IV

Table 4.3:
 SECTORAL COMPOSITION OF A SAMPLE OF MASICAP - ASSISTED PROJECTS,
 AND A SAMPLE OF PROJECTS OF DBP, PDCP AND IGLF (COMBINED)

Code	Industry Group	MASICAP Projects	DBP, PDCP and IGLF Projects
<u>MANUFACTURING</u>			
311	Food Manufacturing	14	14
312	Animal Feed, Grain & Poultry Products	6	8
313	Beverages	1	-
314	Tobacco	-	-
321	Textiles	2	8
322	Wearing Apparel	9	24
323	Leathergoods, & Leather Substitutes	-	4
324	Footwear (Exce. Plastic & Rubber)	2	3
331	Wood and Cork	7	15
332	Furniture & Fixtures	13	7
341	Paper & Paper Products	1	1
342	Printing Publishing & Allied	-	7
351	Mfr. of Industrial Chemical	-	3
352	Other Chemical Products	1	3
353	Petroleum Refineries	-	-
354	Misc. Products of Petroleum and Coal	-	-
355	Rubber Products	-	2
356	Plastic Products n.e.c.	-	10
361	Pottery, China & Earthenware	1	3
362	Glass & Glass Products	-	1
363	Manufacture of Cement	-	-
369	Other Non Metallic Mineral Products	5	8
371	Iron & Steel Basic Industries	-	1
372	Non Ferrous Metal Basic Indus.	-	3
381	Fabricated Metal Products	2	19
382	Machinery ex. electrical	11	7
383	Electrical Machinery Apparatus, Appliance & Supplies	-	8
384	Transport Equipment	-	8
385	Professional, Scientific, Measuring & Controlling Equipment	1	4
386	Furniture/Fixtures of Metal	-	-
390	Other Manufacturing Industries	3	12
<u>NON MANUFACTURING</u>			
	Agriculture	12	3
	Tourism	-	17
	Services	2	17
	Sample Totals	93	205

Source: Samples taken from files of MASICAP (95 cases), DBP (100 cases), PDCP (47 cases) and IGLF (56 cases).

Table 4.4:
OPERATING AND LOAN REPAYMENT STATUSES OF
MASICAP ASSISTED PROJECTS

	% Distributions	
	1977	1979
<hr/>		
Enterprise:		/1
<hr/>		
<u>Enterprise:</u>		
Still Operating	86.7	66.5
Closed Down	4.0	25.2
Transferred Ownership or Location		1.0
Diverted Funds	9.3	2.9
Other ^{/1}	<u>100</u>	<u>4.4</u>
		100
 <u>Loan Repayment Status</u>		
Up-to-Date	51.8	51.5
In arrears by:		
- up to 3 months	7.9)	16.2
- 3 to 6 months	12.9)	
- over 6 months	<u>27.4</u>	<u>32.3</u>
	100	100

/1 Based on number of projects in samples.

Source: Ministry of Industry's Monitoring Surveys (MASICAP Monitoring Reports) for respective years.

ANNEX TO CHAPTER IV

Table 4.5: /1
 CHARACTERISTICS OF ENTERPRISES "IN ARREARS"
 AND OF ENTERPRISES "UP-TO-DATE" IN LOAN REPAYMENT UNDER
 THE SMI PROGRAM

Category of Loan Recipients	Percentage of Loans: /1	
	Up to Date	In Arrears
1. Enterprise New or Existing at Time of Loan		
New	14	26
Existing	86	74
	<u>100</u>	<u>100</u>
2. Type of Ownership		
Single Proprietorship	51	60
Partnership	5	13
Corporation	44	37
	<u>100</u>	<u>100</u>
3. Product Market Group of Enterprises		
Agricultural	8	6
Industrial	27	25
Construction	4	3
Service	11	12
Wage Goods:		
-High Income	13	12
-Middle Income	26	25
-Low Income	12	17
	<u>100</u>	<u>100</u>
4. Location of Product Markets		
Local	54	52
Regional	20	23
National	3	9
Exports	16	16
	<u>100</u>	<u>100</u>
5. Size of Loan		
₱50,000 and Below	15	15
₱101,000 - ₱100,000	11	11
₱101,000 - ₱150,000	9	5
₱151,000 - ₱200,000	9	7
₱201,000 - ₱300,000	10	7
₱301,000 - ₱400,000	8	1
₱401,000 - ₱500,000	10	8
Above ₱500,000	28	45
	<u>100</u>	<u>100</u>
6. Loan Size+Business Assets at Before Loan		
Less than 1.0	45	40
1.0 - 1.99	25	20
2.0 - 2.99	6	11
3.0 - 3.99	9	4
4.0 and above	15	24
	<u>100</u>	<u>100</u>

/1 In arrears by more than one quarter.

Source: File data of MASICAP, DBP, PDCP and IGLF, tabulated on Mrs Fajardo's report. A random sample (stratified between projects in arrears, and projects up-to-date) of 300 projects was taken; of these 170 projects were taken from the "projects up-to-date" files. Hence the relevant comparisons are relativities between the two columns, not the absolute figures.

Table 4.6:
LOAN PROCESSING TIMES FOR DBP, IGLF
AND OTHER FINANCIAL INSTITUTIONS

Loan Processing Time (Days)	DBP Final		IGLF	
	No.	%	No.	%
1 - 30	164	9.4%	33	12.8%
31 - 60	256	14.6	37	14.4
61 - 90	254	14.5	34	13.2
91 - 120	220	12.5	34	13.2
121- 180	346	19.8	48	18.7
181- 360	365	20.9	58	22.6
361 over	145	8.3	13	5.1
TOTAL	<u>1750</u>	<u>100%</u>	<u>257</u>	<u>100%</u>

/1 Direct lending by public and private banks out of other government lending facilities and own resources.

Source: MASICAP Quarterly Status Report, Second Quarter, 1979.

Table 4.7:
 STATISTICS ON THE ACTIVITIES^{/1} OF
 THE SMALL BUSINESS ADVISORY CENTERS, 1974 TO JUNE 1979

	No. of Clients	Percent Total
<u>Source of Clients</u>		
-Generated in the course of extension	56	5.3
-Walk-ins	281	26.4
-Referrals - from MASICAP program	218	20.5
- from other businesses	41	3.8
- other organizations	120	11.3
-Other Sources or not Recorded	349	32.7
	<u>1065</u>	<u>100</u>
<u>Standing of Business</u>		
-Pre-business "Entrepreneurial Counseling"	234	22.0
-New Businesses (less than 1 year old)	82	7.7
-Established Businesses with "Serious" Problems	216	20.2
-Established Businesses with no serious Problems	384	36.0
-Other Established Businesses	50	4.7
-Failed Businesses	15	1.4
-Other	84	7.9
	<u>1065</u>	<u>100</u>
<u>No. of Workers in Business</u> ^{/2}		
Under 20	715	67.1
20 - 99	170	16.0
100-190	16	1.5
200-499	5	0.5
Not Recorded	157	14.7
	<u>1065</u>	<u>100</u>

^{/1} These are activities which included written reports. A further 2000 were visited in the course of extension or visited the SBAC offices seeking information or consultations not requiring reports.

^{/2} Pre-business counselling is included in the first group.

Source: SBAC Quarterly Report, MOI, Second Quarter, June 1979.

ANNEX TO CHAPTER V

Table 5.1:
EMPLOYMENT AND OUTPUT BY ECONOMIC SECTOR, 1956-75

	Percentage Employed			No. Employed, 000s			Increase, 1956-75		Annual Growth Rates, %	
	1956	1966	1975	1956	1966	1975	No. 000s	% Total	1956-66	1966-75
Agriculture, etc.	59.0	57.5	53.5	4,548	6,290	7,768	3,220	47.2	3.3	2.4
Manufacturing, ¹										
- Small-Scale ²	10.5	3.7	7.9	811	954	1,126	315	4.6	1.6	1.9
- Large-Scale ²	2.0	2.5	3.6	151	275	925	374	5.5	6.2	7.4
Commerce	10.4	10.3	11.2	803	1,126	1,623	820	12.0	3.4	4.1
Construction	2.6	2.6	3.1	198	283	456	258	3.3	3.6	5.4
Services:										
- Personnel	1.3	2.2	1.9	135	242	272	137	2.0	6.0	1.3
- Domestic	4.3	4.6	5.4	332	502	782	450	6.5	4.2	5.0
- Government	5.1	7.2	9.2	392	788	1,335	943	13.3	7.2	6.0
Transport, etc.	3.0	3.5	3.4	228	384	492	264	3.9	5.4	2.3
All Other	1.3	0.9	0.9	104	119	138	34	0.5	1.4	1.7
Total	100.0	100.0	100.0	7,702	10,963	14,517	6,815	100.0	3.9	3.2
				Contribution to NDP						
				M. Pesos, 1972 Prices						
				1956	1966	1975	Increase, 1956-75		Annual Growth Rates, %	
							RM	% Total	1955-66	1966-75
Agriculture, etc.	35.7	34.2	30.5	8,206	12,157	16,791	8,765	27.4	4.0	3.7
Manufacturing ³	16.1	17.7	19.7	3,716	6,289	10,842	7,126	22.3	5.4	6.2
Commerce	23.7	23.6	22.3	5,457	8,404	12,295	6,838	21.4	4.4	4.3
Construction	5.1	4.8	5.9	1,178	1,709	3,252	2,074	6.5	3.8	7.4
Services	14.0	14.4	15.2	3,225	5,116	8,361	5,136	16.1	4.7	5.6
Transport, etc.	3.4	3.6	3.9	777	1,272	2,140	1,363	4.3	5.1	6.0
All Other	2.0	1.7	2.5	454	549	1,382	928	2.4	3.6	8.8
NDP	100.0	100.0	100.0	23,013	35,596	55,063	31,960	100.0	4.5	5.0
National Income				22,445	35,276	55,232				
GND				25,577	41,240	68,291				

/1 Households and establishments with less than 20 workers (calculated as residual).

/2 20 or more workers.

/3 The National Accounts data for value added in small-scale and household manufacturing are not reliable (see Chapter 6, paras 6.29 et seq.), and so are not shown separately here.

Source: Taken from 1978 Philippine Statistical Yearbook, 1978 NEDA. Organized sources are the National Accounts and the Labor Force Surveys.

Table 5.2:
SUMMARY OF FIRMS INTERVIEWED, INDUSTRY, LOCATION, YEAR OF ORGANIZATION,
ASSETS, EMPLOYMENT AND SALES

Interview No.	Industry	Region	Year of Start-up	Organizational Status ^{1/}	Total Assets P'000	No. Employees				Sales ^{2/} P'000/Year
						Total	Skilled Regular	Unskilled Regular	Casual	
1	Poultry & Swine feed mill	XI	1972	Inc.	4,000	34	10	24	-	n.a.
2	Crank Shaft Machining	XI	1969	S	500	41	35	5	-	1,400
3	Bakery, processed fruits, pickles	IV	1973	S	200	54	5	-	30	800
4	Pumps and farm equip. acces.	III	1973	S	n.a.	100	33	5	62	3,100
5	Lamps and shades	IV	1970	S	below 100	10	10	-	-	100
6	Hand Tractors, Rice Trashers	XI	1963	S	below 100	11	8	3	-	700
7	Nut products & candy mats	V	1972	S	below 10	10	3	3	4	106
8	Mushroom farming & canning	I	1974	S	n.a.	3	3	-	-	900
9	Chocolate candy	III	1976	S	n.a.	90	3	57	30	600
10	Puffed rice & popcorn candy	V	1972	S	150	60	10	50	-	300
11	Noodles (rice)	V	1976	S	120	6	3	3	-	72
12	Embroidered clothes & sheets	n.a.	1977	S	n.a.	11	-	4	-	300
13	Food & vegetable preserves	IV	1974	S	n.a.	35	n.a.	n.a.	n.a.	1,500
14	Strawberry jam and wine	I	1968	Inc.	over 1,500	62	12 reg.	-	50	50
15	Jeepney manufacturer	IV-A	1953	Inc.	500 - 1,000	-	-	-	-	n.a.
16	Heavy fabrics-furnishings	IV-A	1970	Inc.	4,000	130	122	3	-	n.a.
17	Moulded rubber pro. for ind.	IV-A	1969	S	500	23	20	3	-	1,100
18	Tin can manufacturing	IV-A	1962	S	n.a.	140	n.a.	n.a.	140	1,300
19	Wood & metal doors, windows	IV-A	1957	Inc.	200	100	n.a.	n.a.	n.a.	n.a.
20	Used oil refining	III	1974	S	150	3	1	2	-	500
21	Slippers (domestic markets)	IV-A	1973	Inc.	5,000	100	n.a.	n.a.	n.a.	1,800
22	Children's clothing	IV	1972	Inc.	1,500	140	140	-	-	15,000 ^{3/}
23	Blouses, gowns & dresses	n.a.	1972	S	1,000	20	20	-	-	50,000
24	Jewelry making	IV-A	1906	S	over 1,000	48	4	4	-	over 1,000
25	Lingerie, dresses	IV	1958	S	50	20	20	-	-	750
26	Processed fruits	IV	1961	S	over 3,000	170	20	-	150	3,700
27	Noodles Factory	I	1970	S	over 500	n.a.	n.a.	-	-	n.a.
28	Custom built furniture	IV	1960	S	over 1,00	55	25	-	30	n.a.
29	Automotive batteries	IV	1963	S	n.a.	48	8	-	-	135
30	Electrical supplies & equip.	IV	1971	Inc.	1,350	36	n.a.	n.a.	n.a.	3,570
31	Slippers	IV-A	1968	S	-	8	-	-	-	46
32	Lingerie	IV	1971	S	1,900	330	180	-	150	6,600
33	Fishpond	IV-A	1971	S	2,500	15	n.a.	n.a.	n.a.	2,200
34	Engine rebuilding & machine shop	IV	1973	S	100	15	n.a.	n.a.	n.a.	720
35	Machine Tools & Dies	IV	1974	Inc.	395	38	17	-	-	335 ^{4/}
36	Rice Milling	XII	1964	S	n.a.	41	-	5	35	1,000 ^{4/}
37	Tire Retreading	III	1977	S	795	40	n.a.	n.a.	n.a.	n.a.
38	Garments	IV	1978	Inc.	80	11	9	2	-	16,710 ^{5/}
39	Gas-fired oven	IV	1968	S	1,000+	18	n.a.	n.a.	n.a.	100 ^{5/}
40	Machine Shop Service & Fabrication	IV	1975	S	n.a.	12	10	2	-	1,300
41	Caleza accessories, belts, bicycle assembly	IV-A	1963	S	430	22	n.a.	n.a.	n.a.	n.a.
42	Garments	IV	1951	S	5,000	50	40	-	10	2,300
43	Machine Shop Service & Fabrication	IV	1969	S	-	25	25	-	-	n.a.
44	Metal moulds for plastic & glass industry	IV-A	1974	Inc.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
45	Brine cured ginseng	XI	1973	Inc.	5,000	125	n.a.	n.a.	n.a.	3,250
46	Handbags & accessories	IV	1968	S	1,000	100	n.a.	n.a.	n.a.	n.a.
47	Garments	IV	1975	S	n.a.	5	5	n.a.	n.a.	n.a.
48	Machine Works	IV	1952	Inc.	300	100	100	-	-	n.a.
49	Electric Appliances (Refrigerators, TVs, etc.)	IV	1963	Inc.	31,000	2,250	n.a.	n.a.	n.a.	191,000
50	Steel Cabinets	IV	1977	S	1,123	44	n.a.	n.a.	n.a.	3,233
51	Textile Silk Screen Printing	P	1976	S	131	48	30	n.a.	18	172
52	Food Processing	IV	1965	Inc.	n.a.	24	5	19	-	n.a.
53	Paper Converting	IV	1977	S	n.a.	10	10	-	-	4,000
54	Salted Fish Paste	IV	1966	S	3,000	92	n.a.	n.a.	n.a.	10,800
55	Refining of Used Oil	IV	1973	S	100	5	2	3	-	300
56	Cargo Shipping	X	1973	Inc.	3,500	100	n.a.	n.a.	n.a.	3,200 ^{6/}
57	Bakery	X	1977	S	100	5	1	5	-	300 ^{6/}
58	Machine Shop	X	1978	S	10	3	2	2	1	3 ^{6/}
59	Wood Products	X	1975	S	200	10	n.a.	n.a.	n.a.	100 ^{6/}
60	Food Processing	X	1968	S	150	10	-	10	-	n.a.
61	Machine Shop	X	1975	Inc.	1,000	18	12	2	4	750
62	Ceramic Vases	IV-A	1975 (Purchased)	Inc.	500	8	n.a.	n.a.	n.a.	1,500
63	Furniture	IV	1972	Inc.	2,000	72	n.a.	n.a.	n.a.	1,407
64	Jeeps, Truck, Body Building	III	1974	S	110	6	n.a.	n.a.	n.a.	110
65	Industrial & Agricultural Machinery	III	1977	S	125	58	58	-	-	367
66	Leather Products (Handcrafted)	IV	1974	S	307	50	n.a.	n.a.	n.a.	325
67	Wooden Toy Manufacturing	IV	1960	S	n.a.	4	2	2	-	250
68	Stuffed dolls	IV	1965	S	10	4	1	3	-	260
69	Nursery Furniture	IV	1960	S	3	4	2	2	-	250
70	Toys Out of Tinplates	IV	1962	S	10	18	12	6	-	1100
71	Shellcraft (buttons, jewelry)	IX	1957	S	1,500	80	30	20	30	2800
72	Documents copy service	IX	1974	S	n.a.	7	7	-	-	1150

1/ Single proprietorship or corporation.

2/ Most sales figures relate to 1977 or are over the past 12 months at time of interview; The figures are approximations, and unless otherwise footnoted, sales figures refer to thousand pesos per year.

3/ Refers to pieces per week.

4/ Refers to kilos per day.

5/ Refers to pesos per month.

6/ Refers to units produced.

7/ Refers to metric tons.

8/ Refers to pesos per month.

9/ Refers to pesos per month.

Table 5.3:
SUMMARY OF FIRMS INTERVIEWED; SOURCES OF FINANCE

Interview Number:	Subsequent Operations			Comments on Owner Management, Other
	Startup of Business	Working Capital	Investment Capital	
1	Business purchased. Purchase price not given. PNB (IGLF loan of P 500,000 assumed by new owners. Original owners held equity of P 150,000.	Firm gives trade credit of 60-90 days on sales. Receives suppliers credits of 15-30 days on materials. (Terms included in price agreements.)	Equity finance by SPDA of P 1.0 million in 1972. Loan by SPDA of P 2.3 million in 1978 at 6%.	Large and growing local market; region imports products
2	Own sources provided P 30,000.	Through Commercial Bank loans. (Family also has agricultural businesses and has good credit standing.)	One year loan of P 100,000 from Equitable Bank. Bank of America loan of P 80,000. Business profits also major source.	Son took over and expanded business in 1974.
3	Own sources provided P 50,000	Obtained from commercial banks. (Details not disclosed).	Business profits.	Makes cake, rolls for large ice-cream industry.
4		n.a.	n.a.	Business adapts and designs its own products.
5	Own Sources	n.a.	IGLF Loan (Amount not disclosed)	-
6	Own savings plus very small loan from friend.	Business resources.	Business profits. Remarks: "Given up hope of getting a bank loan" - no collateral.	-
7	Own saving and borrowing from relatives.	IGLF loan of P 12,000 for permanent working capital.	SBAC assisted, and "amazed at ease of getting loan").	Woman gave up teaching to go in business.
8	Inherited land and money.	Business resources.	Borrowed from IGLF through rural banks. (Amount not disclosed).	Owner an agronomist; has trained employees.
9	Own savings and borrowed from relatives. Uses family homes for production.	Business resources.	Borrowed for delivery truck from DBP. (Amount not disclosed). Business profits, and reluctant to borrow.	Devised own preservative.
10	Own sources provided P15,000	Business resources.	DBP loan of P 122,000 for delivery trucks.	Does own marketing.
11	Borrowed P35,000 to finance buildings; source not disclosed. Owner owns a grocery store which probably provided some funds.	IGLF loan of P72,000 to pay overheads on buildings until business recovers.	No investment since starting.	-
12	Not disclosed.	Local letters of credit from commercial banks.	Not disclosed.	-
13	Funds from retirement pay.	Not disclosed	PDCP (IGLF) loan; amount not disclosed.	Owner is Food Technologist, retired from government, has contact with exporter.
14	Own sources, started with less than P 20,000.	Probably part of DBP loan used for permanent working capital. Other sources (if any) not determined.	Used P 32,000 from retirement fund in 1972. Large DBP loan in '75 raised assets from P 200,000 to P 1,500,000.	Initially a household industry; Owners "home economics" graduate.
15	Started in 1953 with P 700 from own sources. Commercial banks (date not given).	Most of expansion came out of profits; but once had loan of P 150,000 from Commercial Banks. (Date not given).		Started on small repairshop. Now largest producer in country.
16	Four friends put in P3,000 each for buying and selling chemicals.	Not disclosed.	Profits from expanded capital base (P100,000 in one year). Reinvested in 10 second-hand handlooms for heavy fabrics. Business profits financed further expansion to 100 handlooms.	Major supplier to hotels during construction boom.
17	Own savings of P200,000 from 5 years of working in Canada.	Not disclosed.	Assets expanded from P100,000 in 1969 to P400,000 in 1973 and P750,000 in 1977; Sources: Equity of P250,000 by brother or friend, remainder from profits.	No previous experience; advice from friends.
18	Own savings of P5,000 invested in business.	Has borrowed at various times from major commercial banks; and remarked that he was "highly conscious of credit standing".	Loan of P20,000 from DBP in 1963; increased to P38,500 in same year. Further loan of P127,000 in 1965 for purchase of land and factory building.	Previously worked in tool and die manufacturing.
19	Own savings of P1,500 (in 1957) invested in business.	Obtains suppliers credits and loans from commercial banks.	Borrowed from DBP and commercial banks on several occasions to expand business.	Was a carpenter, now has professional staff and salesmen.
20.	Sold old gasoline station business and purchased second-hand used-oil refinery. Purchased supported by loan, but source of amount not disclosed.	Profit margin on processing high; offers suppliers credits to purchasers.	-	Obtains used oil from gas stations; planning to process individual oil.

Table 5.3: (Continued)

Interview Number	Startup of Business	Subsequent Operations		Comment on Owner Management, Other
		Working Capital	Investment Capital	
21	Organized corporation with other colleagues with paid up capital of P50,000. Began by chartering and arranging other companies' vessels.	Details not obtained, but apparently now has regular access to organized capital resources.	Initial profits financed first vessel. Loans of P750,000 from commercial bank and subsequent one of P3 million (PDCP) enabled further expansion. Debt: Equity ratios varying from 35/65 and 70/30 over past four years.	Substantial experience in shipping before starting; some products include rice, flour, corn, cement, steel, logs, fertilizers.
22	Inherited business from mother in 1954. Garments hand sewn therefore initial capital (in 1932) was low.	No information.	No information.	Big local demand, plus market outlet in Hongkong.
23	Not disclosed.	Short term liabilities with banks of P80,000	70% of profit reinvested into business. Long term liabilities with banks of P80,000.	Growing market and high profit margins.
24	Founded by father with own savings; approximately P5,000 invested P25,000 by 1938.	Generated from business operations.	Short-term borrowings from commercial banks of P150,000 but very timid about borrowing; his other business where working capital can be drawn from.	
25	Started with five sewing machines from a previous partnership; funds from own savings.	Generated from business operations.	Borrowed from Social Security System for house construction. Portion of which allocated for the factory operations.	Subcontractors to large exporters, supply machinery.
26	Started with P10,000 in 1961 from savings and inherited piece of land.	Generated from business operations.	No borrowings.	Family managed.
27	P5,000 capital from savings and borrowings from uncle.	From business operations	-	Wife and husband own industry. Worked in noodle factory for 10 years.
28	Started with P100 as furniture repairer.	From business operations and supplier's credit.	Does not borrow from banks.	Owner is an architect and has worked in the furniture industry, in sales and in production.
29	Started with savings of P8,000; used own lot for business.	From business operations.	Does not believe in owing anything, has not borrowed.	Owner used to work with Bureau of Public Highways, this has led to some government purchases.
30	Gratuity pay of P20,000 from former employer and savings of P5,000.	From business operations.	Additional equipment from company earnings and borrowings from DBP P100,000.	Owner is an electrical/mechanical engineer. Worked in one of the large equipment and machinery suppliers in Manila.
31	Savings of P450 and borrowing from relative of P1,500.	From business operations.	Additional machines from business operations.	Owner is high school graduate with 2 years experience in trucking.
32	Own funds of P20,000.	From Commercial Banks.	Borrowings from DBP for expansion of building and machinery.	Owner has past business experience in trucking.
33	Savings of P40,000 and borrowings from DBP of P200,000.	From DBP loans.	Rolls borrowings from DBP at P300,000 in 1973, P450,000 in 1975, P650,000 in 1977.	Owner failed in first of two business set-ups.
34	Savings of P5,000 and PNB borrowings of P10,000.	Borrowings from relatives.	P100,000 from SSS.	Family business with sons, having professional experience.
35	Started with own funds.	Through commercial bank loan and from officers and stockholders as advances. Customer's deposits 30% to 50% of cost.	Commercial short term bank loans for purchase of machinery & equipment of P60,000 in 1975. Another short term loan of P50,000 in 1978 for site relocation expenses. No long term loans.	Owner-manager has had 15 years experience in metal industry. Ventured into own business in 1974 as single proprietorship and converted to corporation by 1975.
36	Inherited from parents.	Generated from business.	DBP loan in 1967 for purchase of large mill, construction of warehouse and purchase of dryer. Loan is 40% of total capital.	Owner worked from childhood in parents mill which he inherited in 1964.
37	Personal savings of P450,000.	From initial capitalization.	Personal savings augmented by borrowings from an investment house at 10% interest.	Owner manager is a newly graduated mechanical engineer. First year operations at a loss.
38	From mother company.	From mother company capital.	From mother company.	Formerly a division of a security agency to supply guard uniforms. Converted a subsidiary corporation for other markets.
39	Own savings.	Suppliers credit and capital generated from business.	P10,000 from own savings. Owner does not believe in borrowing money.	Business started from owner's designs and invention. Owner is a trade school graduate.
40	Started with P200 and a loaned lathe machine which was payable when business started operations.	Generated from business.	Machinery supplier's credit. Short term bank borrowings.	Owner is a former intelligence officer in the military. Present shop site does not allow for needed expansion.
41	Started with P400 in savings.	Generated from business.	Borrowed from sister P200,000 with no collateral, payable in 10 years.	Started from manufacture of calasa accessories. Business has diversified into hardware trading, manufacture of belts, and assembly of bicycles. Owner shares from bank borrowings. Owner pattern for business growth is diversification instead of expansion in one line.

Table 3.1 (Continued)

Interview Number	Subsequent Operations		Comment on Owner Management, Other	
	Startup of Business	Working Capital		
42	Initial investment of P40,000.	Generated from Business.	Borrowed P750,000 from bank in 1973 which was converted eventually into equity.	Business strength is in quality of products.
43	From savings of P15,000.	From business operations.	From business operations.	Owner is a mechanical engineering graduate (1962) has worked in established machine shops.
44	Financing of P3,400,000 by DBP.	Part of financing proceeds.	DBP financing.	In 1969 started his own business. MASICAP project of the Development Academy of the Philippines to locate outside the Metropolitan Area but market in the Metro Area.
45	From savings of P50,000.	Generated from business	Generated from business.	Although business is integrated backward with a plantation, the processing plant has generated other farming operations to supply market demand. Owner/manager is a marine engineer by education, 43 years old and former market representative of an oil company.
46	Savings of P75.	Generated from business.	DBP borrowings of P500,000 in 1976 for expansion. Used for building and machinery.	After being laborers in shoe factory, husband and wife own their business; both elementary school graduates. Up to 80% of buckles production absorbed by handbag making.
47	Gift by father of P8,000	From father and business.	Given by father at the start and generated by business in subsequent years.	Operates business part-time together with attending school. Comes from family owned hence not bothered by profit or loss.
48	From stockholders funds	n.a.	n.a.	Family corporation; suffered a set back in profit in 1967, situation was reversed by a change in management strategy.
49	Own savings of P400,000 & bank loans.	Generated from business and bank lines.	Bank borrowings.	When he left to start own business in 1963 owner/manager was top manufacturing man in a defunct large enterprise in same business. The Company is now one of the biggest appliance manufacturers in the country carrying well known brands such as White Westinghouse, G.E., etc.
50	n.a.	Generated from business and suppliers credit.	PNB borrowings	Business was bought from a brother who became ill and could no longer run the business. Owner/Manager used to be a trader in steel cabinets. Main market is the government.
51	Started with P95,000 as partnership from savings.	Suppliers credit and advances from friends.	No borrowings.	Owner/Manager assisted by wife in running the business.
52	From savings.	Generated from business.	Borrowed from relatives and commercial bank for expansion after 2 years of operation.	Business started by making sa'tches for public transportation drivers by housewife to augment husband's income.
53	From savings of P60,000 of partners.	Suppliers credit and commercial banks.	Paper converting plant obtained from lease arrangement.	Started in business as a trader and went into paper converting after 1 year of operations. In good credit standing with commercial banks with credit lines of about P10 million.
54	Started with P4,000 in owner's savings.	Generated from business bank borrowings on short term and suppliers credits.	No long term borrowings for capital investment.	Person was employed manager of the factory. Original owner was a former salesman of grocery items.
55	Earnings from gasoline station.	From business operations.	No borrowings.	Owner/Manager used to be in the gasoline service station business.
56	P50,000 pooled with friends.	Generated from business	Borrowed from commercial and development banks	Business provides transport service for commercial and industrial products. Considers small firms better clients than large ones in terms of pricing and collection.
57	From P5,000 in earnings from tailor shop.	From other businesses such as retail store and farm.	Borrowed P95,000 from DBP a few months after start up.	Husband and wife starting with a tailoring business and ran this for 10 years before shifting to bakery.
58	Initial investment of P10,000 from savings.	Customer deposit and from the business.	No borrowings.	Owner is retired military man.
59	Started with P5,000 from savings.	Generated from business.	Loan from DBP of P6,500 in 1976.	Operating on father-in-law's land without rental. Has no lache and contracts outside service for shaping of wood.
60	Started with P5,000.	Generated from business.	Borrowed P105,000 from DBP in 1975. Also borrowed previously from Philippine National Bank and a private commercial bank which were paid back.	Production cannot cope with demand but owner/manager refused offer of P1 million loan from private services.

Table 5.3: (Continued)

Interview Number	Subsequent Operations			Comment on Owner Management, Other
	Startup of Business	Working Capital	Investment Capital	
61	Family savings of P160,000 and credit on purchase of second hand machinery on 6 months to 1 year terms.	Generated from the business and short term loans from commercial banks, all fully paid for.	Intends to borrow additional capital from PDCP. (P145,000).	Business is part of the operations of the family corporation. Industrialization in vicinity provides bright prospects for the business.
62	Bought with savings plus borrowings of P482,000.	From business operations.	n.a.	Business bought by present owner, formerly plant manager.
63	Stockholders investments; Owners have other businesses.	Generated from business operations and suppliers credit.	Borrowed from financing institutions (SSS Supervised Credit Program) and IGLF.	Managed by major stockholder, who left the business at the time of interview. Aggressive marketing program locally and abroad in Japan and the U.S.
64	n.a.	n.a.	n.a.	Owner/Manager has been in the same field for 10 years as an artisan in various shops.
65	Initially capitalized at P162,300 from own savings and located on brother's property.	After 11 months in operation felt need for additional working capital and work space.	Plans to borrow from IGLF.	Owner/Manager is a mechanical engineer assisted by 4 other mechanical engineers.
66	Own funds as savings.	From business operations.	IGLF borrowings for fixed and working capital.	Main bulk of the market is the U.S. tourist market and institutional customers in the domestic market. Aggressive market stance through international trade fairs.
67	From P7,500 in personal savings.	Generated from business.	No borrowings.	Proprietor did not know how much the business was currently worth. He went into business to "escape" scoldings of former employer in a furniture shop. Choice of wooden toys made through "feeling", artistic talent and wood craftsmanship. He has not had much schooling and is practically illiterate.
68	Personal savings of P5,000.	Generated from business.	No borrowings.	Proprietor finds it easy to market hat dolls and has little competition for the products. Uses fabrics scraps from apparel manufacturers for raw materials.
69	Personal savings of P3,000.	Generated from business.	No borrowings.	Gets design ideas from magazines. Former government employee, felt that the salary was not adequate to support his family.
70	Personal savings of P5,000 and borrowings from relatives.	Generated from business.	No bank borrowings.	Aggressive marketing by owner. Feels that her large competitors have financial advantage. Strength of business perceived by owner to hinge on good distribution outlets and high quality
71	Personal savings of P1,500 and advance payment from foreign buyer of P500.	Generated from business	Borrowed from commercial bank for expansion of business in 1975. Abandoned attempt to borrow from development bank due to long processing time.	Owner very enterprising, seizes any opportunities encountered. Believes in foresight and hardwork for success.
72	No capital at start. Equipment leased revenues were collected.	Generated from operations and credit extension of equipment company.	Business finds no need for additional investment. Equipment company provides financing.	Owner has other businesses and claims that his experience in large corporations (steel and shipyard industry) helped him in all his undertakings.

Table 5.4:
SUMMARY OF FIRMS INTERVIEWED: MARKETS

Interview No.	Agriculture	Intermediate	Household Income Group			Market Location						
			Low	Medium		Local	Other Regions		National	Export		
				High	Low		High					
1	X					X						
2		X				X			X			
3						X			X			
4	X											X
5						X			X			
6	X											
7						X			X			
8		X				X			X			
9				X		X			X			
10				X		X			X			
11						X			X			
12						X			X			
13						X			X			X
14						X			X			
15		X							X		X	
16		X							X		X	
17		X							X		X	
18		X							X		X	
19		X							X		X	
20		X							X		X	
21		X							X		X	
22						X			X		X	
23						X			X		X	
24		X							X		X	
25		X				X			X		X	
26		X				X			X		X	
27		X				X			X		X	
28						X			X		X	
29						X			X		X	
30						X			X		X	
31		X							X		X	
32				X		X			X		X	
33				X		X			X		X	
34		X				X			X		X	
35		X				X			X		X	
36		X				X			X		X	
37		X				X			X		X	
38		X				X			X		X	
39		X				X			X		X	
40		X				X			X		X	
41		X				X			X		X	
42		X				X			X		X	
43		X				X			X		X	
44		X				X			X		X	
45		X				X			X		X	
46		X				X			X		X	
47		X				X			X		X	
48		X				X			X		X	
49		X				X			X		X	
50		X				X			X		X	
51		X				X			X		X	
52				X		X			X		X	
53				X		X			X		X	
54		X				X			X		X	
55		X				X			X		X	
56						X			X		X	
57				X		X			X		X	
58	X	X				X			X		X	
59				X		X			X		X	
60				X		X			X		X	
61				X		X			X		X	
62				X		X			X		X	
63				X		X			X		X	
64		X				X			X		X	
65	X	X				X			X		X	
66						X			X		X	
67				X		X			X		X	
68				X		X			X		X	
69				X		X			X		X	
70				X		X			X		X	
71				X		X			X		X	
72				X		X			X		X	
Total	6	34	15	38	30	52	24	15	13			

Table 3.3.
GROWTH OF SALES AND EMPLOYMENT

Enterprise No.	Number Employed Per Year					Sales Per Year (Thousand of Pesos at Current Prices)						
	First Year	1970	1972	1974	1976	1978	First Year	1970	1972	1974	1976	1978
1			-5		34	34		120		240	¹	
2	9	18	18	28	34	41		46	120	720	1440	300
3	4					54			150			300
4					100	100				2100	3100	
5				9	10	10			86	76	100	100
6				8	11	11			300		700	700
7					9	10					85	106
8					7	8					750	900
9	65				65	90	200			200	950	
10					35	60				200	300	300
11					21	6					440	72
12	11					11	120			1100	1500	320
13	5				30	35	600			600	750	1500
14			22	25	48	52		3	22	360	600	750 ^{1,2}
15	4		(100 in 1962)				1		(Backlog of 600 Units)			9 ^{1,2}
16			10			130						
17	4			17		23	200			700		1100
18	3					140						1100
19						100						
20	3			3	3	3						400
21	4					100						
22	6 (1932)					140					200	25000 ^{1,3}
23				14	20	20						350
24	8					43	30					1000
25	7	12				20						75000
26						170			1461	2128		1670
27	4											
28	5					30						100
29	6						12	135				2100
30	5					16	79					3670
31	2					10						46
32						130						6760
33					15	30			300			2500
34	3			10		15			72	160		720
35						18				200	414	530
36						41						
37												
38	11					11	16					16 ^{1,4}
39	1					18	3				100	100 ^{1,5}
40	1					12						1500
41		3	13	19	22	22						
42	3					50				1500		2300
43	3					25						
44												
45	8			20		125	500			500		3000 ^{1,6}
46	2					100					60 &	216 ^{1,7}
47	3				5	6						
48						100					2000	
49	13				1977	2250	2617	24784	43988	100763	121780	191126
50	^{1,11}				44	44	1287					3233
51	^{1,11}				25	48	106			106	172	
52	5					24	6000	20500	25000	33500	40000	50000
53						10	2300				4000	
54						92					7500	10000
55	5			5	5	5					300	300
56	4					100	500				3200 ^{1,7}	
57							3				300	
58	2					6	100				100	
59	2					10						
60	4					10	100					180 ^{1,8}
61						18					750	
62	30					8	218				1500	
63	20		20	45	60	72			300	1000		1400 ^{1,9}
64				6	6	6			50			145 ^{1,9}
65	54					54	370					370
66				10	40	50						325
67	1	1	2	3	3	4	4	6	10	25	30	50
68	1	2	2	3	4	4	15	20	30	35	50	60
69	1	1	2	3	3	4	5	10	15	25	35	50
70	2	3	8	12	15	18	6	10	20	45	60	90
71	2	28	35	35	50	80	150	185	285	480	1000	1800
72	1				3	5	50				100	150

¹ Refers to sales per month.

² Units Sold (jeeps).¹

³ Pieces per week.

⁴ Pesos per month.

⁵ Units per year.

⁶ Thousand of bag units and buckles.

⁷ Metric tons of hawking.

⁸ In Percentages.

⁹ Units per year.

¹⁰ See Annex Table 3.2 for actual year of startup or acquisition. This column includes enterprises starting up in 1970 and later, and so may repeat the figures in the columns shown to the right (except in odd years).

¹¹ Firm purchased in 1976. Earlier history not known.

Table 5.5.
SUMMARY OF FIBRE INVESTMENTS: CAPACITY, UTILIZATION AND EQUIPMENT

Factory Number	Main Types of Equipment	Capacity Utilization	% VALUE OF EQUIPMENT IN USE			
			AGGREGATION Value, P1000	New	Second Hand	Still made or removed
1	2 Hammermills; 2 Mixers; Conveyers; Baggers	100% own shift	2,100	100%	2%	2%
2	1 Sharp; 3 Lathes; Grinders; Drills; Veneers	90% two shifts	315	100%	100%	-
3	1 Manual Sailer; 2 Pressure Coolers; One Electric Comer	Intermittent	30	100%	100%	-
4	7 Lathes; Various other machines	50-70%	n.a.	100%	100%	-
5	Pressure; Drill Press; Compressor; Band Saw	75%	n.a.	100%	100%	-
6	4 Lathes; 3 Drills; Valdar 3 Scarer	100%	Below 10	100%	100%	-
7	3000s and Cooling Presses	40%	Below 10	100%	100%	-
8	One 2000s; One 3000s; Scalars; Washroom beds	100% (6 days/wk)	Below 10	100%	100%	-
9	Cooling Presses; Saws; Aluminium Pan	100%	Below 10	100%	100%	-
10	Cabinet Press; Vaci; Topping Vessels; Kawasari; Packaging Equipment	Low	Below 10	100%	100%	-
11	Scissors; Knives; Cutters; Slower and scales	100%	40	100%	-	-
12	Various sewing machines (4)	n.a.	n.a.	100%	-	-
13	Not determined	n.a.	n.a.	100%	-	-
14	Cooling vessels; Fermentation vats; Bottling equipment	100%	n.a.	100%	-	-
15	Major large scale manufacturing, but not highly mechanized	100% Own shift	Not Determined	100%	-	-
16	100 Bandlooms for upholstery and draperies	High	n.a.	100%	100%	-
17	Ball mill and 10 moulding presses	n.a.	200	100%	100%	-
18	Scraping press, lathes	n.a.	n.a.	100%	100%	-
19	Conveyer; Soreva; Planers; Lathes; Drills and other	n.a.	n.a.	100%	100%	-
20	Over-all miller	n.a.	n.a.	100%	100%	-
21	2 Veneers; 110, 300, 550, and 900 ton capacity	High	4,500	100%	100%	-
22	30 Industrial sewing machines; 2 button bolters; 2 delivery trucks	High (own shifts)	Orginally hand	100%	100%	-
23	50 Sewing machines; 1 paracopy; 11 pollbavers; 1 casting machine;	n.a.	n.a.	-	-	3 added in 1960
24	1 planing machine; 1 lathes	100%	n.a.	-	-	-
25	15 Industrial sewing machines	100%	n.a.	5%	100%	-
26	Locally fabricated & designed silcers, cutters; Crushers & cooling lathes	100%	1,500	100%	-	-
27	Locally fabricated equipment; 2nd hand rice mill	n.a.	n.a.	-	-	-
28	Manual tools and equipment	n.a.	n.a.	-	-	-
29	Casting machines, hot plate dryer	100%	n.a.	100%	-	-
30	Bandwidth machines, measuring instruments, hand tool, press binder, cutter, press beds, shearing machine, drill press	100%	100	100%	100%	-
31	Sewing machines, rubber fridmers, cutters	100%	40	100%	100%	-
32	Sewing machines, cutter	100%	1,400	100%	100%	-
33	Olda forgers and Soreva	n.a.	150,000	2%	5%	-
34	10 Drills; 1 Grinding; 1 Grinding; 4 Lathes; 1 Veneer Press, 2 Power Presses,	50%	192	100%	100%	-
35	1 Turner, Soreva, Milling Machine, Valdar	n.a.	n.a.	100%	100%	-
36	1 Side mill with 37 HP engine, 1 small mill with 24 HP engine, Dryer	n.a.	38	100%	100%	-
37	Not determined	60%	n.a.	100%	-	-
38	3 High speed sewing machines, & ordinary sewing machines	35%	n.a.	100%	-	-
39	Not determined	n.a.	n.a.	95%	-	-
40	3 Lathes; Veneers, Hydraulic Press, Vertical Drilling Machine, Boring Machine, Soreva, Milling Machine, Surface Grinder	n.a.	n.a.	100%	-	-
41	Not determined	60%	n.a.	100%	-	-
42	2 Sewing machines, automatic latencing	100%	n.a.	100%	95%	-
43	2 oxy-acetylene welders, 2 electric welders, 10 Lathes machines, 2	100%	n.a.	100%	95%	-
44	1 Milling machines, 2 Sorevas	Very low	n.a.	100%	-	-
45	Parulas, casting moulds	100%	n.a.	100%	-	-
46	3000 cab, Siva Classifier, Sagger	100%	1,100	100%	-	-
47	10 Sewing machines, metal puncher	n.a.	n.a.	100%	-	-
48	Sewing machines	n.a.	n.a.	100%	-	-
49	Not determined	n.a.	n.a.	100%	-	-
50	3 Shearing machines, 3 Sanders, 6 Power Presses, 2 Spira Presses, 1 Arm	10%	200,000	n.a.	n.a.	n.a.
51	Curting oven	100%	45,000	100%	-	-
52	Kitchenwares, cooking utensils, gas stoves	n.a.	n.a.	100%	-	-
53	Paper cutters, binders	n.a.	n.a.	100%	-	-
54	Farchan jers, work cables	100%	n.a.	100%	-	-
55	1 Oil Saffar	n.a.	100	100%	-	10%
56	3 Cargo vessels (500 MT, 650 MT, 950 MT, 110 MT)	100%	4,000	100%	-	-
57	Ovens	n.a.	30	100%	-	-
58	2 Electric welding machines, 1 grinder, 1 oxy-acetylene welder,	80%	5,5	80%	100%	-
59	Handtools, electric generator	n.a.	7	100%	100%	-
60	Presses, Soreva, Cooling Veneers, grinder, silcer, scales	100%	110	100%	-	-
61	3 Sorevas, 2 Sorevas, 2 Air compressors, 5 Steelalases	n.a.	13	100%	-	-
62	2 Electric Mills & Automatic drawers	n.a.	n.a.	100%	-	-
63	1 Kiln dryer, Hood Lathes, Planer, Polisher	n.a.	600	100%	-	-
64	1 Kiln dryer, Hood Lathes, Planer, Polisher	70%	200	100%	-	-
65	50 Units made up of a power press, Hydraulic press, electric drills,	80%	125	100%	-	-
66	holding equipment, miscellaneous tools for metal cutting,	80%	2,000	100%	-	-
67	gear sawblades, welders, gear machines, welders, lathes, sheeters	80%	2,000	100%	-	-
68	Carpetry hand tools, Planing equipment (manual)	100%	5,000	100%	-	-
69	Threadle sewing machines, Selaors, Electric Iron	100%	3,000	100%	-	-
70	Carpetry tools, Manual cutters for metal	85%	1,000	100%	-	-
71	Scissors, Polishes, Soreva, Wood Lathes Planers	100%	500,000	100%	-	-
72	Leased copying machine	100%	n.a.	100%	-	-

Table 5.1:
EFFECTIVE RATES OF PROTECTION AND DOMESTIC RESOURCE COSTS FOR
LARGE AND SMALL SCALE MANUFACTURING ESTABLISHMENTS, 1972/74

Sector (1)	Nominal Rate of Protection (Tariffs & Indirect Taxes) % (2)	Effective Rate of Protection % (3)	Domestic Resource Costs (4)	% Employment		Actual Employment (7)
				Establishments with Less than 10 Workers (5)	Establishment with 10 or more workers (6)	
<u>Food</u>						
Slaughtering; Poultry Dressing	25	128	8.00	100.0	-	84
Meat products, canned	25	5	8.26	1.2	98.8	1361
Meat products, uncanned	39	68	9.43	75.8	24.2	553
Evaporated; condensed milk	16	5	1.67	-	-	1210
Butter, cheese other	33	52	18.13	2.0	98.0	913
Canned fruits; vegetables	19	80	10.33	-	99.5	8287
Other preserved fruits & vegetables	13	19	9.94	-	-	-
Fish canning	11	- 24	6.33	16.0	84.0	279
Other fish products	55	76	9.36	19.7	80.3	3289
Rice Milling	0	- 49	9.86	93.1	5.9	37082
Corn Milling	0	- 46	7.45	68.2	31.8	3876
Flour Milling & Cereal Flour	41	1148	26.02	2.6	97.4	2634
Bakery Products	110	3371	15.68	67.8	32.2	31114
Sugar Milling & Refining	- 6	- 12	6.40	-	100.0	31266
Candy and Chewing Gum Products	86	519	15.18	29.9	70.1	4622
Cocoa & Chocolate products	51	1750	10.38	-	100.0	740
Processed Coffee	46	36	9.97	4.9	95.5	2441
Dessicated Coconut	- 4	- 10	4.69	-	100.0	9422
Starch and Byproducts	44	650	10.55	-	100.0	1549
Macaroni, Spaghetti & Noodles	63	78	9.44	20.4	71.6	1801
Vegetable Lard and Margarine	82	/b	n.a.	-	100.0	1527
Prepared Foods for Animals	33	34	8.06	2.2	97.8	2648
Flavoring Extracts	9	7	n.a.	-	100.0	181
Miscellaneous Foods	59	156	23.97	-	-	-
<u>Beverages</u>						
Distilled, rectified, blended liquor	209	394	15.16	1.0	99.0	2228
Wines	57	113	n.a.	80.3	19.7	781
Brewery and Malt Products	72	69	n.a.	-	-	-
<u>Tobacco</u>						
Cigarettes	182	18758	18.13	-	100.0	15865
Cigars, chewing & Smoking tobacco	0	- 12	6.15	-	100.0	1482
Leaf Tobacco Processing	115	/b	26.26	.7	99.3	2193
<u>Textiles</u>						
Textile Mills' Products	57	78	12.15	-	100.0	41683
Knitting Mills' Products	23	- 4	6.92	-	100.0	7707
Cordage, Twine and Net	0	- 2	10.18	26.2	73.8	2618
Carpets, Rugs	28	43	n.a.	27.6	72.4	916
Other Textile Products	48	36	8.16	-	-	-
<u>Footwear</u>						
Footwear	19	18	6.47	68.7	31.3	8167
<u>Clothing</u>						
Ready made clothing	0	- 26	5.13	80.0	20.0	95,241
Embroidered products	0	- 41	5.74	34.3	65.7	1658
Other made-up goods	19	1	6.45	-	-	-
<u>Wood</u>						
Lumber	- 4	16	6.14	6.1	93.9	6382
Plywood and Veneer	- 4	5	6.48	-	100.0	24579
Doors & Windows	0	- 2	11.53	82.9	17.1	1981
Other wood	0	0	10.18	-	-	-
<u>Furniture</u>						
Furniture	1	0	5.77	53.0	47.0	17108
<u>Paper</u>						
Pulp, paper and paperboard	46	38	9.14	-	100.0	12487
Paper products	109	195	11.10	.5	99.5	1107
Paper and paperboard containers	128	181	11.47	11.1	88.8	3479
Miscellaneous paper	72	478	10.22	20.9	79.1	487
<u>Printing</u>						
Books & Pamphlets	25	19	8.17	32.0	68.0	3612
<u>Leather</u>						
Tanning & leather finishing	68	145	9.55	12.0	88.0	885
Leather products	0	- 27	6.25	52.8	47.2	991
<u>Rubber</u>						
Rubber footwear	108	454	20.36	4.5	95.5	4648
Tires and inner tubes	103	323	9.85	3.3	96.7	3760
Other rubber	27	21	28.41	7.6	92.4	2537
						411461

Table 5.7: (Continued)

Sector (1)	Nominal Rate of Protection (Tariffs & Indirect Taxes)% (2)	Effective Rate of Protection % (3)	Domestic Resource Costs (4)	% Employment		Actual Employment (7)
				Establishments with less than 10 Workers (5)	Establishments with 10 or more Workers (6)	
Chemicals						
Compressed liquified gas	2	17	6.35	-	100.0	1518
Basic Industrial Chemicals	17	- 7	10.06	4.7	95.3	1714
Fertilizer and Lime	31	41	6.98	-	100.0	1371
Other oils and fats	24	- 28	7.34	-	100.0	536
Paints, varnishes	95	221	15.36	2.0	98.0	1359
Plastic materials	45	56	7.51	2.0	96.0	1983
Medicinal & Pharmaceutical	23	9	6.33	1.5	98.5	8258
Cosmetics & toilet preparations	249	75	139.08	2.4	97.6	1306
Soap and other compounds	1	175	10.39	1.7	99.3	4734
Insecticides	19	17	4.03	1.5	98.5	597
Other chemical products	42	35	n.a.	-	-	-
Oil and Coal Products						
Petroleum refineries	21	21	8.96	-	100.0	1014
Other products of Oil	25	16	6.12	22.7	77.3	128
Non Metallic Minerals						
Structural Clay Products	5	- 11	7.94	12.9	87.1	2531
Structural Concrete	57	110	9.79	-	100.0	2731
Glass	56	45	11.09	1.3	98.3	6799
Pottery, China and Earthenware	47	31	8.68	62.5	37.5	2292
Hydraulic Cement	4	- 36	7.09	-	100.0	5127
Other Non-Metallic Minerals	28	26	n.a.	-	-	n.a.
Basic Metals						
Basic Ferrous	35	27	13.06	-	100.0	9061
Basic Non Ferrous	10	0	5.05	-	100.0	486
Metal Products						
Metal Cans, Boxes & Containers	57	110	4.78	14.7	85.3	3995
Cutlery, Hand Tools	39	34	13.74	85.8	14.2	3318
Structural Metal Products	65	95	9.89	24.0	76	5920
Stamped, Coated and Engraved Products	37	38	7.26	5.2	94.8	3693
Fabricated Wire	28	14	6.47	2.1	97.9	681
Heating Apparatus	59	85	9.76	14.8	85.2	365
Other Fabricated Metal	62	79	25.52	-	-	-
Machinery						
Agricultural Machinery	29	14	5.87	27.4	72.6	2204
Other Special Industry	13	4	4.75	7.6	92.4	1135
General Industry Equipment	18	7	5.98	17.0	88.0	3691
Electrical Machinery						
Office Computing & Accounting	29	27	n.a.	-	-	-
Electrical Distribution & Control	25	18	5.40	4.4	95.6	631
Other Elec. Industry Machines	33	30	n.a.	3.0	97.0	757
Communication Equipment	31	31	14.55	-	100.0	246
Batteries	56	73	5.45	7.4	92.6	2044
Electrical Lamps and Fixtures	38	27	8.35	1.1	98.9	1286
Electrical Wires and Wiring	40	51	n.a.	-	100.0	1210
Household Radio, TV sets	164	204	n.a.	1.3	98.7	3963
Refrigeration and Air Cond. Equipment	142	195	14.91	1.5	98.5	3099
Other Appliances	95	103	12.37	-	-	-
Transport Equipment						
Slipwelding & Repairing	17	26	6.45	6.5	93.5	5743
Motor Vehicles Manuf. & Assembled	93	127	n.a.	4	99.6	5445
Motor Vehicles Engines, Bodies, Parts	29	23	9.82	29.0	71.0	6846
Motorcycles, Cycles	50	52	7.23	29.0	71.0	1239
Other Transport Equipment	6	9	n.a.	-	-	n.a.
Miscellaneous						
Jewelry, Silverware	91	133	n.a.	54.1	45.9	580
Musical Instruments	60	61	n.a.	50.4	49.6	697
Fabricated Plastic Products	92	194	23.24	-	-	-
Scientific Equipment	15	12	4.21	12.8	87.2	792
Medical Supplies	14	9	4.39	-	-	-
Photographic and Optical	37	30	n.a.	-	-	-
Sport Equipment	91	93	n.a.	5.6	94.4	946
Office Supplies	65	0	n.a.	2.7	97.3	375
Toys, Dolls	74	72	n.a.	76.5	23.5	170
Miscellaneous	61	41	6.75	-	-	-
Total						531077

/a Using the UNIDO method, the shadow exchange rate for 1974 has been estimated at 9.21 (IPPP, 1978).

/b EPR cannot be calculated for the sector because of its negative-derived international value added.

Original Source: Nominal and effective rates of protection are from Norma A. Tan, "The Structure of Protection and Resource Flows in the Philippines, 1974", PhD dissertation, University of the Philippines, 1979. The domestic resource cost estimates were taken from Romeo M. Bautista and Guendolyn R. Tecson, "Domestic Resource Costs in Philippine Manufacturing: 1969 and 1974", IPPP Working Paper No.13, University of the Philippines, September 1978. (Note: The above figures were taken from IBRD report since we did not have Tan's thesis).

Table 5.8:
 SELECTED ASPECTS OF SMALL FIRMS
 BANKRUPT AND OF OTHERS STILL OPERATING, 1972-79

Aspects of Business	Percentage Distribution of Firms:	
	Bankrupt	Still Operating
<u>Educational Attainment of Owner:</u>		
No Formal Education	-	2
Grade School - attended	5	3
Grade School - completed	10	10
High School - attended	10	12
High School - completed	21	15
College - attended	19	26
College - completed	29	28
Vocational Schools	5	2
	<u>100</u>	<u>100</u>
<u>Region of Business:</u>		
High Income Regions	40	40
Middle Income Regions	56	49
Low Income Regions	4	10
	<u>100</u>	<u>100</u>
<u>Management Practice:</u>	<u>Percentage Following the Practice:</u>	
Keeps books	76	80
Segregates business and personal funds	57	75
Records receipts immediately	66	75
Retains CPA for audit	40	67
Records all costs incurred	43	60
Continues to develop the product	62	80
Diversifies products	24	22
Avoids dependence on one customer	74	80
Hires relatives or employees	71	64

Source: Itao (1980). Based on sample of 260 firms in 1975 establishment listings.

ANNEX TO CHAPTER VI

Table 6.1:
PERCENT OF FAMILIES HAVING INCOME FROM SPECIFIED SOURCES: URBAN AND RURAL 1961, 1965 AND 1971

	Rural			Other Urban Areas			Metro Manila			Total Urban			All Families		
	1961	1965	1971	1961	1965	1971	1961	1965	1971	1961	1965	1971	1961	1965	1971
No. of Families	2921	3606	4434	1144	1062	1388	361	458	525	1505	1520	1913	4426	5126	6347
	<u>P E R C E N T</u>														
<u>Wage and Salaries</u>															
Agricultural	30.9	36.4	28.9	25.0	14.7	7.5	0.6	1.3	0.6	17.6	10.7	5.6	26.4	28.8	21.9
Non-Agricultural	18.5	22.2	25.5	57.2	59.2	64.7	82.1	82.4	84.3	63.1	66.2	70.1	33.7	35.2	39.0
<u>Entrepreneurial Activities</u>															
Trading	12.0	13.5	13.6	21.5	21.9	24.4	14.5	16.5	16.3	19.8	20.2	22.2	14.7	15.3	16.2
Manufacturing	13.3	11.4	11.0	10.1	11.0	9.9	3.8	5.7	7.9	8.6	9.4	9.4	11.7	10.8	10.5
Transport	2.1	2.9	2.5	3.6	4.0	2.7	2.6	0.9	1.8	3.3	3.1	2.4	2.5	3.0	2.5
Other Enterprises (including practice of profession or trade)	1.7	1.5	1.4	6.6	5.4	5.1	5.4	4.8	3.1	6.4	5.2	4.6	3.3	2.6	2.4
		0.8	0.9		2.8	2.3		2.0	1.7		2.5	2.7		1.3	1.4
Farming (including poultry and livestock)	89.0	81.3	74.1	57.7	38.1	26.1	5.8	5.3	0.9	45.2	28.2	19.2	74.1	65.6	57.5
Fishing, Forestry and Hunting	83.3	75.2	69.0	50.0	37.4	25.8	2.0	6.5	1.2	38.5	28.1	19.0	68.0	61.2	54.0
Production of Articles for own use	64.2	50.3	37.2	41.8	24.6	15.0	15.2	18.6	5.4	35.4	22.8	12.3	54.4	42.2	29.7
<u>Other Sources</u>															
Landowner's share of crops, livestock and poultry raised	10.3	13.3	9.8	14.1	11.0	7.6	1.4	0.6	0.8	11.1	7.8	5.8	10.6	11.6	8.6
Rent received from non-agricultural lands, for bldgs., rooms and other properties	1.7	4.3	4.0	5.9	7.3	8.9	11.2	9.9	7.3	7.2	8.1	8.5	3.5	5.4	5.4
Rental value of owner-occupied house ^{1/2}	97.6	97.7	96.2	93.1	90.1	80.8	52.3	48.5	35.6	83.3	77.6	68.4	92.8	91.7	87.8
Interests and Dividends	0.6	0.7	1.6	1.9	3.2	4.6	2.1	9.5	9.4	2.0	5.1	5.9	1.1	2.0	2.9
Profits from Stocks and Bonds	0.2	0.1	0.0	0.2	0.2	0.2	0.9	0.5	0.1	0.4	0.3	0.2	0.3	0.2	0.1
Pension or Retirement Benefits	1.1	0.4	1.0	1.0	2.8	2.7	3.1	3.8	4.7	3.0	3.1	3.3	1.8	1.2	1.7
Backpay and proceeds from Insurance	0.3	-	0.2	2.0	0.3	0.8	1.2	0.6	0.4	1.8	0.4	0.7	0.8	0.1	0.3
Gifts, support, assistance & relief	22.7	14.5	24.7	22.9	17.2	33.9	14.5	67.2	39.7	20.9	32.3	35.5	22.1	19.8	28.0
Net winnings from gambling, Sweepstakes or lotteries	6.8	4.3	4.9	6.5	4.5	4.9	1.4	3.4	3.0	5.3	4.2	4.4	9.3	4.3	4.7
Inheritance in cash or converted cash	1.3	0.7	1.0	1.6	0.7	1.1	0.4	0.1	-	1.3	0.5	0.8	1.3	0.7	0.9
Others	1.0	0.1	0.8	0.9	0.2	0.4	0.8	0.3	0.6	0.9	0.2	0.5	1.0	0.2	0.7
<u>Index of diversity of income sources^{1/2}</u>															
Total	409.2	373.0	353.9	343.4	282.7	257.2	138.6	204.7	141.7	294.4	259.1	225.6	370.3	339.4	315.3

^{1/1} Probably refers to imputed values (FIES definitions are not clear).

^{1/2} If each family has only one source of income, the total would be 100 percent.

Original Source of Data: Philippine Statistical Survey of Households, Family Income and Expenditures, 1961, 1965 and 1971, BCS. This Table was taken from Castillo (1977), p.105.

Table 6.2:
EMPLOYMENT IN ESTABLISHMENT
IN FOUR TOWNS IN THE GAPAN AREA (IN CENTRAL LUZON) 1961-71

Sector (Formal Sector Only)	/3 No. Employed 1961	/1 /2 1971		Percent Distribution		Annual Growth Rate, 1961-71 /9
				1961	1971	
<u>Retail Trade</u>						
- Groceries, Clothes, Other	308	611		9.2		
- Modern Durables /4	14	89		1.3		
	<u>322</u>	<u>700</u>		<u>10.5</u>		<u>8.1</u>
<u>Personal Services</u>						
- Restaurants, Refreshments	47	117		1.8		
- Parlours, Bakers	51	120		1.8		
- Billards, Bowling, Movies	23	60		0.9		
- Other Services	<u>32</u>	<u>49</u>		<u>0.7</u>		
	<u>153</u>	<u>406</u>		<u>6.1</u>		<u>10.3</u>
<u>Light Transport Services</u>						
- Jeepneys	71	164		2.5		
- Transport Shops	24	79		1.2		
- Tricycles /5	0	900		13.5		
- Pedicabs and Colesas /6	<u>350</u>	<u>10</u>		<u>0.2</u>		
	<u>445</u>	<u>1,153</u>		<u>17.4</u>		<u>10.0</u>
<u>Trades and Crafts</u>						
- Tailoring & Dressmaking	71	208		3.1		
- Bakeries	37	101		1.5		
- Sash Works	8	51		0.8		
- Iron Works	6	20		0.3		
- Wood & Furniture	27	51		0.8		
- Construction/Contractors	48	196		3.0		
- Cement Products	0	84		1.3		
- Gravel, sand supply	57	70		1.1		
- Construction Suppliers	<u>30</u>	<u>57</u>		<u>0.9</u>		
	<u>284</u>	<u>842</u>		<u>12.7</u>		<u>11.5</u>
<u>Speciality Industries</u>						
- Sandals and Shoes	80	346		5.2		
- Rattan Furniture	38	123		1.9		
- Needlework Contractors	43	125		1.9		
- Others /7	<u>195</u>	<u>196</u>		<u>3.0</u>		
	<u>356</u>	<u>790</u>		<u>11.9</u>		<u>8.3</u>

Table 6.2 (Continued)

Sector (Formal Sector Only) ^{/3}	<u>/1 /2</u> No. Employed		Percent Distribution		Annual Growth Rate 1961-71
	1961	1971	1961	1971	
<u>Public Services</u>					
- Government	278	457		6.9	
- Teachers (Primary)	468	727		10.9	
- Teachers (Secondary)	59	165		2.5	
- Medical	53	124		1.9	
- Utilities and Other	56	87		1.3	
	914	1,560		23.5	5.5
<u>Agro-Industries</u>					
- Agricultural Supplies	16	45		0.7	
- Rice, Milling & Trucking ^{/8}	268	730		11.0	
- Repair and Service	58	134		2.0	
- Transport Shops (Heavy)	35	56		0.8	
- Vehicle Body Builders	21	33		0.5	
- Assembly (Light)	1	30		0.5	
- Other	45	80		1.2	
	460	1,192		17.9	10.0
Total	2,934	6,643		100	8.5

/1 Regular as opposed to seasonal or casual labor only, except where otherwise noted.

/2 Estimates for an intermediate year (1967) are also provided in Gibb's report along with a breakdown between the town of Gapan and the three rural towns; the latter together accounted for about 50% of employment in 1971 and expanded at roughly the same rate over the 10 year period.

/3 Informal sector employment was estimated at 2,400 in 1971, of which half were in retail trade (sari-sari stores mainly).

/4 Electrical appliances, gas stoves, vehicle parts, etc.

/5 Motor powered, typically an adaptation of a 120 cc. motorcycle. "A family with three or four children is readily accommodated (or) several pigs, 500 pounds of rice or fertilizer....."

/6 Horse drawn carriages.

/7 Mainly traditional crafts: pottery, coffin makers.

/8 Seasonal workers.

/9 The 1961 figures are underestimates since Gibb was unable to count businesses that had failed in the period. The growth rates are thus over estimates.

Source; Gibb (1974) "Agricultural Modernization, Non-Farm Employment and Low-Level Urbanization."

Table 6.3:
REGIONAL DISTRIBUTION OF
MANUFACTURING EMPLOYMENT FOR 1970 BY SMALL AND LARGE SCALE INDUSTRIES^{/1}

Region	Total, 000s	Manufacturing Employment		Region Distribution (in %)		
		Percent of Which in Small	Large	of Employment ^{/2} in Small	Large ^{/2}	Total
<u>Metro Manila</u>	301	22.9	77.1	6.9	57.5	21.6
<u>Luzon (Other than Metro-Manila)</u>						
Southern Tagalog ^{/3}	174	89.4	10.6	15.7	4.6	12.4
Central Luzon	178	83.1	16.9	12.6	8.0	12.9
Cagayan	30	82.0	18.0	2.5	1.3	1.2
Ilocos	110	94.2	5.8	8.8	1.6	7.9
Bicol	97	96.9	3.4	9.4	0.9	6.9
Sub-Total	589	89.1	10.9	46.5	16.4	41.3
<u>Visayas</u>						
Western	136	80.3	19.7	11.0	6.7	9.8
Central	122	86.8	13.2	10.7	4.0	8.7
Eastern	61	95.9	4.1	5.9	0.6	4.3
Sub-Total	319	85.9	14.1	27.6	11.3	22.8
<u>Mindanao</u>						
Western	35	80.9	19.1	2.8	1.7	2.5
Northern	89	68.5	31.5	6.1	6.8	6.3
Southern	63	60.5	39.5	3.8	6.2	4.5
Sub-Total	187	68.1	31.9	12.7	14.7	13.3
Total	1398	71.1	28.9	100.0	100.0	100.0

^{/1} Small industries here include household employment plus employment in establishments with less than 10 workers.

^{/2} 1972 figure (see source notes).

^{/3} Includes islands of Palawan and Mindoro, which account for less than 1% of manufacturing employment.

Source Notes: The regional distribution of total manufacturing employment can be obtained from the regional volumes of the 1970 Population Census; the data are summarized in the 1970 NEDA Situation Report from which the above were taken. Regional data on employment in establishments are available in the 1972 Census of Establishments, but no data are available for 1970. The percent distribution among regions obtaining in 1972 were applied to the 1970 estimate of total employment in large establishments; the latter was obtained by straight-line interpolation between the 1967 and 1972 establishment census figures and is about 8% lower than for 1972. Employment in small scale establishments and households was calculated as a residual.

Table 6.4
SELECTED ECONOMIC CHARACTERISTICS OF REGIONS

Region	Relative Family Income 1971, ¹	Population		2. Region's Population Urban, 1975	Main Urban Areas Growth Rate, ¹¹ , 1960-75	3. Labor Force in Agriculture 1975	Region's Share in Output of Main Crops and Timber, 1975					Region's Share in Economic Output, 1977 ¹²			Fisheries Share in Total Catch (1974) ¹³
		4. Total 1975	5. Growth Rate 1960-75				Rice ¹⁴	Corn ¹⁵	Coconut ¹⁶	Sugar ¹⁷	Timber ¹⁸	Industry	Agriculture	Tertiary	
Metru Manila	211	12.4	4.8	96	4.4	1	-	-	-	-	-	42	-	52	47
Luzon (excluding Metro-Manila)															
- Ilocos	89	7.8	2.8	19	2.7 ¹¹	66	7	1	1	1	1	4	5	4	0
- Cagayan Valley	65	4.6	3.0	11	71	71	13	11	-	-	11	1	6	1	0
- Central Luzon	111	10.4	3.3	32	4.9	45	18	1	-	9	1	9	13	4	0
- Southern Tagalog	116	11.4	3.5	27	3.4	43	13	8	18	12	11	14	13	8	3
- Bicol	76	7.6	2.0	17	1.8	55	10	4	6	1	2	2	7	3	3
Visayas															
- Western Visayas	86-95 ¹⁰	9.9	2.0	26	2.3	64-59 ¹⁰	12	5	5	63	2	9	14	7	32
- Central Visayas		8.0	1.9	28	3.0(3.2) ¹²		2	9	7	8	1	7	6	6	4
- Eastern Visayas		6.2	1.6	19	2.1		4	4	13	5	4	2	6	1	2
Mindanao															
- Western		4.9	2.8	15	4.2 ¹¹		5	5	4	-	7	1	5	3	4
- Northern	86-97 ¹²	5.5	3.9	19	3.8	73-69 ¹²	7	8	40	-	40	2	8	3	2
- Southern		6.4	4.5	25	4.6 ¹³		10 ¹³	45 ¹³	21 ¹³	2 ¹³	21 ¹³	4	11	7	3
- Central		4.9	3.0	15	4.8							2	6	1	0
Philippines, Total	100	100	2.8	32	3.0	54	100	100	100	100	100	100	100	100	100
Actual Land Area Allocated to Crops or Licensed Timber Production, 1975; million hectares							3.5	3.1	2.3	0.5	9.6	-	-	-	-

¹¹ Based on the growth rates of the country's 61 principal (chartered) cities. The city data are tabulated in Annex Table 8.

¹² Share of tons of paddy (rough rice) production.

¹³ Share of tons of shelled corn production.

¹⁴ Share of coconuts gathered.

¹⁵ Share of tons of sugarcane harvested.

¹⁶ Share of annual allowable cut (in cubic meters) in areas licensed for forestry.

¹⁷ Actual Gross Value Added in 1977 (in 1972 prices) were ₱ 23 billion in agriculture, ₱ 23 billion in industry, and ₱ 23 billion in the tertiary sector.

¹⁸ Cagayan Valley does not have a chartered city.

¹⁹ The figure in parentheses includes, and the figure not in parentheses excludes, Cebu, (pop. 400 thousand).

¹⁰ For Western and Eastern Visayas respectively under the 1971 regional classifications.

¹¹ Excludes Manila (which was declared no longer a chartered city by the time of the 1975 census).

¹² For South-Western and North-Eastern Mindanao respectively under the 1971 regional classifications.

¹³ The 1975 data on agriculture and forestry are not given separately for Southern and Central Mindanao.

¹⁴ Excludes inland fisheries (fish-ponds) which amount to about 20% of total production.

¹⁵ Based on the lower estimate in Annex Table 8.

Source: Population Census; Relative Family Income Data are taken from the 1971 Family Income and Expenditure Surveys; the Region's Share in Economic Output are taken from the National Plan for 1978-82, NPDA; all the rest were taken from the MCSI-NEDA Philippine Yearbook, 1977, which lists the primary sources.

Table 6.5:
REGIONAL DISTRIBUTION OF
MANUFACTURING EMPLOYMENT BY SCALE OF ACTIVITY 1960-75

Region and Scale of Activity ^{/1}	Employment, 000s ^{/2}					Growth Rate %, 1960b-75b	
	1960a	1960b	1970	1975a	1975b		
<u>Manila and Rizal</u>							
Household and < 20	Small	111	157	156	216	4.5	
> 20		<u>130</u>	<u>130</u>	<u>207</u>	<u>285</u>	<u>5.4</u>	
Sub-Total		122	241	364	441	5.0	
<u>Luzon (Excluding Metro-Manila and Rizal)</u>							
Household and < 20		306	343	481	407	563	3.4
> 20		<u>29</u>	<u>29</u>	<u>47</u>	<u>73</u>	<u>73</u>	<u>6.3</u>
Sub-Total		335	372	528	480	636	3.6
<u>Visayas</u>							
Household and < 20		258	289	309	190	263	- 0.6
> 20		<u>26</u>	<u>26</u>	<u>39</u>	<u>51</u>	<u>51</u>	<u>4.6</u>
Sub-Total		284	315	348	241	314	0.0
<u>Mindanao</u>							
Household and < 20		83	94	119	118	163	3.7
> 20		<u>14</u>	<u>14</u>	<u>40</u>	<u>46</u>	<u>46</u>	<u>8.3</u>
Sub-Total		97	108	159	164	209	4.5
<u>Whole Country</u>							
Household and < 20		639	837	1065	871	1205	2.5
> 20		<u>199</u>	<u>199</u>	<u>333</u>	<u>455</u>	<u>455</u>	<u>5.7</u>
Sub-Total		838	1036	1398	1326	1660	3.2

/1 The < 20 and ≥ 20 ranges refer to establishment size by No. of Workers.

/2 Differences in definitions of employment between the four sources quoted above make it difficult to compare the estimates. Briefly, the following principles were followed:

(i) The establishment censuses, establishment surveys and the labor force surveys each estimate current employment, and (as far as one can see) are comparable.

(ii) The 1970 population census also consistent with (i).

Table 6.5: (continued)

- (iii) The 1975 population census used a more stringent definition of employment (a person had to have worked in the activity for more than 10 hours per week and for not less than 10 weeks per year). It was therefore adjusted to make it comparable to the data for earlier years and with the 1975 establishment census and labor force survey.
- (iv) The 1960 population census definitions were also consistent with (i), but there appear to have been problems in classifying women's labor as between manufacturing activities NEC, classified manufacturing activities. The data were also adjusted.

The basis of the adjustments were as follows:-

1960a: The manufacturing employment in each region are the "raw" census data. The estimates for Manila and Rizal were clearly underestimated by the census since they imply no employment in establishments of less than 20 workers, and no employment in households - i.e., no "informal" manufacturing sector. They also imply that only 6.6% of the population of over ten years old in Manila and Rizal were in manufacturing in 1960, as compared with approximately 12% in 1970 and 14% in 1975. There are reasons for thinking that the share of employment in manufacturing (in Manila and Rizal) were higher in 1960 than in 1970 since import substitution had led to a high growth rate of manufacturing output in the 1950s, but a slow growth rate in the 1960s (see Chapter 5). One problem appears to be the ways in which services and women's labor were counted in 1960, since the census shows high percentages in these categories, compared with those of the labor force surveys. Further the "miscellaneous" category for manufacturing was quite high in the census, indicating a possible problem of classification. Taking 12% of working age population in Manila and Rizal to be in manufacturing in 1960, gives an estimate of 217 thousand total manufacturing employment in the area, and 933 thousand for the whole country. The labor force survey gives a total employment of 1036; the difference is probably due to seasonality and sampling errors, since the 1960 census used the same definition of employment as was used in the labor force surveys to obtain consistency with the 1970 and 1975 data, the total employment in each region is scaled up by the ratio 1036/933. This gives the estimates shown for 1960b.

Table 6.5: (Continued)

1970: The 1970 census used the same definitions of employed workers as do the labor force surveys. Hence they are consistent with the latter, and in fact the 1970 census estimate of total manufacturing employment is close to the estimate that would be obtained from interpolating the annual labor force surveys in neighboring years (no labor force survey was conducted in 1970). In 1975 a different and more stringent definition of employment was used which leads to lower estimates than those obtained in the labor force surveys.

1975a: Employment totals in each region are the raw census data, reclassified as far as the maps available to us would permit, according to the boundaries used for the 1960 and 1970 data tabulated above.

1975b: The differences in definitions of employment between the establishment censuses and the labor force surveys are likely to have affected mainly the census' estimates of those employed in households, since those employed in establishments of over 20 workers are mostly regular, and would meet the definition noted in (iii) above. Hence we need to adjust the residuals in 1975a. The following procedure was used. Let x_i represent the adjusted and y_i the unadjusted residual for each region (that is, the y_i 's are 156, 407, 190, 118 and total 871, as shown under 1975a). Then

$$455 + \sum y_i = 1326 \text{ from column 1975a,}$$

$$\text{and } 455 + \sum x_i = 1660 \text{ from the total in 1975b.}$$

Let $x_i/y_i = k$, the adjustment factor; k is then 1.383 from these two expressions; this is the figure used to get the x_i 's shown in column 1975b.

/3 The 6.6% figure is for the period 1970-75 (using the estimate under 1975b).

Table 6.6:
MANUFACTURING EMPLOYMENT BY REGION
1961-1975

Region	Year				Increase 1961-1975/72 ^{/1}		Yearly Growth Rate %
	1961	1967	1972	1975	No.	% Total	
<u>Number Employed in Establishments with More Than 10 Workers, 000s</u>							
Metro Manila	165.5	239.5	248.0	288.2	82.5	49.7	3.8
Luzon	41.2	56.0	68.8	148.7	27.6	16.6	9.6
Visayas	33.2	42.2	49.0	60.1	75.8	9.5	4.3
Mindanao	<u>23.2</u>	<u>55.9</u>	<u>63.4</u>	<u>48.5</u>	<u>40.2</u>	<u>24.2</u>	<u>5.4</u>
Total	263.1	393.6	429.2	545.5	226.1	100.0	5.3
<u>Number Employed in Establishments with less than 10 workers, 000s</u>							
Metro-Manila	27.1	26.6	43.5	n.a.	16.4	15.1	4.4
Luzon	36.4	47.8	87.5	n.a.	51.1	47.2	8.3
Visayas	18.7	28.8	35.5	n.a.	16.8	15.5	6.0
Mindanao	<u>13.5</u>	<u>22.0</u>	<u>37.5</u>	<u>n.a.</u>	<u>24.0</u>	<u>22.2</u>	<u>9.7</u>
Total	95.7	125.2	204.0	207.0	108.3	100.0	7.1

^{/1} The estimates for establishments with less than 10 workers are for the period 1961-72, and for more than 10 workers, 1961-75.

Sources: NCSO, Surveys of Establishments and Labor Force Surveys. The 1975 establishment data are from preliminary tabulations.

Table 6.7:
NUMBER OF ESTABLISHMENTS BY SCALE AND BY REGION

Region	Establishment Size Range	1961	1967	1972	1975	Growth Rate 1961-75/72 ^{/1}
Metro Manila ^{/2}	< 20	11,379	8,872	12,407	n.a.	6.9 ^{/3}
	20 - 99	897	961	1,015	1,455	5.3 ^{/4}
	≥ 100	474	400	452	540	3.8 ^{/4}
Southern Tagalog ^{/5}	< 20	4,028	4,842	7,694	n.a. ^{/6}	9.7 ^{/3}
	20 - 99	73	58	68	n.a. ^{/6}	2.0 ^{/3}
	≥ 100	17	26	32	n.a. ^{/6}	2.6 ^{/3}
Ilocos	< 20	3,432	4,041	7,071	n.a.	6.8
	20 - 99	60	32	38	40	- 2.9
	≥ 100	17	10	16	21	1.5
Cagayan Valley	< 20	1,225	1,438	2,961	n.a.	8.4
	20 - 99	18	23	34	36	5.1
	≥ 100	6	9	8	14	6.2
Central Luzon	< 20	3,217	4,463	6,981	n.a.	7.3
	20 - 99	102	133	160	153	2.9
	≥ 100	27	53	60	51	4.6
Bicol	< 20	2,147	2,456	4,206	n.a.	6.3
	20 - 99	38	41	41	52	2.3
	≥ 100	6	10	5	12	5.1
Western Visayas	< 20	3,018	4,886	6,564	n.a.	7.3
	20 - 99	78	67	59	73	- 0.5
	≥ 100	33	27	35	32	- 0.0
Central and Eastern Visayas	< 20	4,079	4,884	5,349	n.a.	2.5
	20 - 99	125	128	126	213	3.9
	≥ 100	32	46	47	60	4.6
South Western Mindanao	< 20	3,167	4,640	7,583	n.a.	8.3
	20 - 99	77	81	84	24	- 8.0
	≥ 100	35	47	45	7	-
North Eastern Mindanao	< 20	1,765	2,243	4,091	n.a.	7.9
	20 - 99	46	46	40	46	0.0
	≥ 100	16	36	38	31	4.8

^{/1} The 1967 period is taken wherever the 1975 data are not available. (See f.n. 4 for other exceptions.)

^{/2} Including Rizal.

^{/3} For the period 1967-72.

^{/4} For the period 1967-75.

^{/5} Excluding Rizal.

^{/6} The preliminary tabulations give the number of establishments in these size ranges for Southern Tagalog, but appear to be unreliable (the counts are very low compared with all previous years).

Sources: NCSO, Census of Establishments (1975 data are preliminary tabulation).

Table 6.8:
GROWTH RATES OF PRINCIPAL CITIES IN PROVINCES

Region and City	Population 000s		Growth Rate % per Year
	1960	1975	
I. Ilocos - Baguio	50	97	4.54
- San Carlos	64	91	2.39
- Dagupan	63	90	2.42
- Laoag	<u>50</u>	<u>63</u>	<u>1.56</u>
	227	341	2.72
II. Cagayan Valley (No Chartered City)	-	-	-
III. Central Luzon - Angeles	76	151	4.71
- Olopango	45	147	8.25
- Cabanatuan	70	115	3.38
- San Jose	38	53	2.25
- Palayan	<u>3</u>	<u>12</u>	<u>9.33</u>
	232	477	4.92
IVA. Metro Manila	2,462	4,970	4.79
IVB. Southern Tagalog			
- Batangas	83	125	2.78
- San Pablo	71	117	3.40
- Lipa	64	106	3.44
- Lucena	49	92	4.31
- Cavite	55	82	2.71
- Puerto Princesa	22	46	-
- Tagaytay	7	13	4.23
- Trece Martires	<u>4</u>	<u>7</u>	<u>3.34</u>
	355	588	3.42
V. Bicol - Legaspi	61	88	2.49
- Naga	56	88	3.07
- Iriga	<u>75</u>	<u>76</u>	<u>0.09</u>
	192	252	1.83
VI. Western Visayas			
- Iloilo	151	255	3.55
- Cadiz	88	128	2.54
- Silay	60	105	3.82
- San Carlos	125	100	1.48
- Bago	<u>59</u>	<u>89</u>	<u>2.79</u>
	483	677	2.28

Table 6.8: (continued)

Region and City	Population 000s		Growth Rate % Per Year
	1960	1975	
VII. Central Visayas			
- Cebu	251	413	3.36
- Bacolod	119	223	4.30
- Lapu Lapu	48	79	3.39
- Toledo	64	76	1.16
- Mandaue	29	76	6.67
- Dumagete	35	53	2.82
- Bais	27	46	3.63
- La Carlota	57	41	- 2.18
- Tagbilaran	20	37	4.21
- Calaon	23	29	1.57
Total, excl. Cebu	422	660	3.03
Total, incl. Cebu	673	1,073	3.16
VIII. Eastern Visayas			
- Calbayog	78	103	1.88
- Ormoc	63	90	2.42
	141	193	2.11
IX. Western Mindanao ^{/1}			
- Zamboanga	132	265	4.78
- Pagadian	41	66	3.24
- Dipolog	32	50	3.04
- Dapitan	28	48	3.68
	232	429	4.18
X. Northern Mindanao			
- Cagayan de Oro	68	165	6.12
- Cadiz	88	133	2.81
- Ozamis	44	72	3.35
- Gingoog	53	67	1.58
- Surigao	37	66	3.95
- Tangub	21	40	4.41
	311	543	3.78
XI. Southern Mindanao			
- Davao	102	215 - 484 ^{/2}	5.09 - 10.94 ^{/2}
- General Santos	53	91	3.71
	155	306 - 575 ^{/2}	4.64 - 9.13
XII. Eastern Mindanao			
- Iligan	58	119	4.93
- Cotobato	38	67	3.87
- Marawi	27	63	5.84
	123	249	4.81

^{/1} Excludes Basilan (no longer a chartered city).

^{/2} The estimate in the 1975 census is the second and higher figure; it seems unusually high, since the population was only 177 in 1970. There may have been some boundary changes. The first figure is the one given in the 1977 Philippine Statistical Yearbook, which appears to have used consistent boundaries.

Source: Population Censuses for 1960 and 1975. NCSO.

Table 6.9:
ANNUAL OUTPUT AND YIELD IN THE MAJOR CROPS IN LOG PRODUCTION 1960-76

Quantity	Year	Annual Output					Annual Yields			
		Palay (Rough Rice)	Corn (Shelled)	Coconut	Sugar Cane	Logs	Palay (Rough Rice)	Corn (Shelled)	Coconut	Sugar Cane
Output/Yield	1960	3740	1165	1117	1810	6315	1.131	0.631	1.055	7.472
Unit (in 000s)		tons	tons		tons	Cu.M.	ton/h	tons/ha	tons/ha	tons/ha
<u>Levels of Output/Yield Relative to 1960 (percent)</u>										
	1960	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	1961	99.1	103.8	101.2	94.4	104.5	102.4	93.7	89.3	98.5
	1962	104.6	108.7	127.0	105.1	107.2	108.8	99.5	104.7	100.0
	1963	106.1	109.2	139.2	112.2	121.4	111.0	103.5	105.9	105.0
	1964	102.6/106.7	110.9	138.7	117.8	103.5	110.1	107.9	99.1	105.7
	1965	106.7	112.6	137.3	112.4	97.8	110.3	108.2	90.6	77.7
	1966	108.9	118.4	139.4	101.0	127.4	115.8	103.8	91.7	77.6
	1967	109.5	127.9	149.0	112.0	124.2	116.0	109.4	86.6	87.9
	1968	122.0	139.0	143.0	119.4	176.0	122.0	114.1	84.2	80.9
	1969	118.9	148.7	140.1	119.7	183.4	117.9	121.7	80.4	84.5
	1970	140.0	172.3	154.5	143.4	174.3	148.1	131.5	86.8	94.8
	1971	142.9	172.1	150.3	164.7	169.4	151.7	132.8	77.7	90.3
	1972	136.4	172.7	162.3	141.1	133.3	138.9	131.2	80.9	77.5
	1973	118.1	157.1	160.9	176.3	165.4	125.5	124.7	79.8	93.8
	1974	149.6	196.4	161.1	190.6	161.4	143.9	131.2	77.3	94.1
	1975	151.4	220.4	243.7	/1/ 181.7	n.a.	141.4	133.0	113.21/	82.1
	1976	164.7	237.4	305.7	/1/ 197.6	136.9	152.2	134.5	128.31/	89.8
	1977	172.7	244.1	n.a.	n.a.	n.a.	160.9	140.3	n.a.	n.a.
	1978	184.4	245.1	422.5	181.1	n.a.	173.7	140.4	n.a.	n.a.

/1 Data for 1975 onward, are not comparable to those for earlier years, since they include more by-products in the output figures than previously.

Source: Original source is Department of Agriculture and Commerce. Figures here are taken from the summaries provided in the 1978 Philippine Statistical Yearbook, NEDA, 1978.

ANNEX TO CHAPTER VI

Table 6.10
REGIONAL DISTRIBUTION OF MANUFACTURING
EMPLOYMENT BY INDUSTRIAL SECTOR, 1977

Region	Consumer ^{/1} Goods	Intermediate ^{/2} Goods	Durable ^{/3} Goods
Metro Manila	45.0	56.8	79.5
Luzon	30.5	16.7	10.6
Ilocos	5.1	3.0	.5
Cagayan Valley	1.7	2.2	.2
Central Luzon	9.3	4.3	4.2
Southern Tagalog	11.3	6.6	5.4
Bicol	3.1	.6	.3
Visayas	15.4	6.6	7.5
Western	8.3	1.8	1.0
Central	5.2	4.3	6.3
Eastern	1.9	.5	.2
Mindanao	10.3	15.1	2.4
Western	1.3	1.7	.6
Northern	3.1	7.0	.6
Southern	4.1	2.4	.9
Central	1.8	4.0	.3
Total ^{/4}	100.0	100.0	100.0
Total Number	494,225	207,387	76,519

/1 Food, beverages, tobacco, textiles, apparel, furniture, printing, leather, miscellaneous.

/2 Wood, paper, rubber, chemicals, petroleum and coal, non-metallic mineral products, basic metals, metal products.

/3 Machinery, electrical machinery, transport equipment.

/4 Totals do not add up due to suppression by data in original, unpublished source.

Source: NCSO. ASM, 1977 Unpublished tabulations.

ANNEX TO CHAPTER VII

Table 7.1:
WAGE RATE INDEX OF LABORERS IN INDUSTRIAL
ESTABLISHMENTS IN MANILA AND SUBURBS, 1948-78 (1972=100)

Year	Money Wage Rates		Real Wage Rates	
	Skilled Laborers	Unskilled Laborers	Skilled Laborers	Unskilled Laborers
1949	61.0	47.0	142.2	109.6
1950	60.9	41.2	137.8	93.2
1951	57.2	44.4	119.7	92.9
1952	58.1	47.5	129.7	106.0
1953	59.3	48.8	137.3	113.0
1954	59.7	48.3	140.1	113.4
1955	59.7	49.7	141.5	117.8
1956	59.8	50.5	138.1	116.6
1957	59.7	49.9	135.7	113.4
1958	61.7	50.2	135.6	110.3
1959	62.9	50.6	139.5	112.2
1960	62.7	50.7	133.4	107.9
1961	62.6	51.9	131.2	108.8
1962	63.4	53.5	125.5	105.9
1963	65.2	56.3	122.3	105.6
1964	66.4	56.9	115.1	98.6
1965	68.2	60.8	115.2	102.7
1966	71.7	65.4	114.9	104.8
1967	75.0	68.4	113.1	103.2
1968	81.1	76.1	119.4	112.1
1969	85.3	79.7	123.3	115.2
1970	90.6	88.4	114.4	111.6
1971	95.3	94.4	105.1	104.1
1972	100.0	100.0	100.0	100.0
1973	105.3	102.6	92.4	90.0
1974	115.1	110.8	75.6	72.8
1975	119.7	120.1	72.7	72.9
1976	124.4	126.2	71.2	72.3
1977	137.5	132.9	72.9	70.4
1978	154.4	138.4	76.1	68.4

Source: Central Bank of the Philippines, Statistical Bulletin, Vol.XXX, 1978.

Basis of Estimates. Sample survey of Large Establishments in the Metro-Manila Area, conducted monthly. Money Wage Rates are deflated by the consumer price index for Manila. (For 1972 and afterwards, the sample covered 777 firms.)

Table 7.2:
MONEY AND REAL WAGE RATES FOR SELECTED KINDS OF LABOR IN INDUSTRIAL ESTABLISHMENTS IN MANILA AND SUBURBS, 1951-78 (PESOS PER DAY)

Year	Blacksmiths	Carpenters	Drivers	Electricians	Lathemen	Masons	Mechanics	Painters	Plumbers	Common Laborers	Foremen
Real Wage Rates (in 1972 Prices)											
1951	11.84	13.35	12.26	15.54	16.19	12.49	15.56	12.66	14.71	9.69	18.77
1952	12.90	14.49	13.04	16.79	17.39	12.59	16.79	13.33	16.38	11.05	20.11
1953	14.61	15.30	13.61	17.87	18.43	13.40	17.62	14.28	17.04	11.78	21.50
1954	15.68	14.79	14.27	17.56	19.39	13.00	18.12	15.12	17.18	11.81	23.10
1955	15.05	15.40	14.55	17.44	19.36	13.01	18.36	15.05	17.31	12.27	23.84
1956	14.78	14.27	14.69	17.55	18.64	12.26	18.54	14.71	16.84	12.15	23.90
1957	14.50	14.07	15.36	17.55	16.80	12.34	18.52	14.57	16.75	11.28	23.89
1958	13.96	14.07	15.25	17.12	18.13	12.35	17.89	14.37	17.87	11.49	23.67
1959	13.88	14.66	15.50	17.78	18.34	12.64	18.09	14.19	18.69	11.69	24.48
1960	13.64	14.13	15.15	17.66	17.53	12.09	17.21	13.77	17.43	11.23	23.89
1961	13.71	13.54	14.74	17.04	16.02	12.10	16.90	13.54	16.83	11.34	24.21
1962	13.23	13.21	13.62	16.51	14.89	11.17	16.44	13.01	16.20	11.03	23.05
1963	12.95	12.91	13.11	16.77	14.47	10.92	16.55	12.85	16.79	11.01	22.51
1964	12.29	12.06	12.43	15.75	13.54	10.24	15.29	12.06	15.86	10.28	21.37
1965	12.31	12.13	12.31	15.86	13.43	10.22	15.27	12.15	15.10	10.71	22.13
1966	12.10	11.94	12.05	16.41	13.49	9.86	15.34	12.29	14.65	10.91	21.84
1967	12.04	11.32	12.04	16.24	13.86	9.91	15.35	12.62	13.88	10.75	20.90
1968	12.14	13.68	12.27	17.38	13.89	13.53	16.13	13.86	13.86	11.68	21.89
1969	12.47	13.73	12.34	18.25	13.92	14.71	16.71	14.86	15.19	11.99	22.79
1970	11.88	12.59	12.39	16.81	12.55	13.16	15.64	13.88	14.66	11.63	20.91
1971	10.90	11.36	12.22	14.67	11.98	11.61	14.81	13.31	12.78	10.85	19.29
1972	11.26	10.66	11.51	13.39	11.26	10.71	14.00	12.34	11.71	10.42	18.34
1973	10.83	9.62	11.04	11.86	10.92	9.39	12.67	11.88	10.66	9.38	17.25
1974	9.68	7.53	8.86	9.80	9.29	7.06	10.72	10.01	8.68	7.58	14.61
1975	9.42	7.13	8.59	9.60	8.82	6.78	10.59	9.63	8.08	7.60	14.34
1976	9.17	7.07	8.31	9.29	8.81	6.77	10.43	9.53	7.70	7.53	14.38
1977	9.80	8.15	9.01	8.92	8.47	7.83	10.87	9.11	8.44	7.34	14.01
1978	10.46	8.65	9.29	9.84	8.36	8.27	11.78	9.68	8.33	7.12	13.72
Money Wage Rates											
1951	5.66	6.38	5.86	7.43	7.74	5.97	7.44	6.05	7.03	4.63	8.97
1952	5.79	6.49	5.84	7.52	7.79	5.64	7.52	5.97	7.34	5.49	9.01
1953	6.51	6.61	5.88	7.72	7.96	5.79	7.61	6.17	7.36	5.09	9.29
1954	6.68	6.70	6.08	7.48	8.26	5.54	7.72	6.44	7.32	5.03	9.84
1955	6.35	6.30	6.14	7.36	8.17	5.49	7.75	6.35	7.39	5.18	10.06
1956	6.40	6.18	6.36	7.60	8.07	5.31	8.03	6.37	7.29	5.26	10.35
1957	6.38	6.19	6.76	7.72	7.39	5.43	8.15	6.41	7.37	5.20	10.51
1958	6.35	6.40	6.94	7.79	8.25	5.62	8.14	6.54	8.13	5.23	10.77
1959	6.26	6.61	6.99	8.01	8.27	5.70	8.16	6.40	8.43	5.27	11.04
1960	6.41	6.64	7.12	8.30	8.24	5.68	8.09	6.47	8.19	5.28	11.23
1961	6.54	6.46	7.03	8.13	7.64	5.77	8.06	6.46	8.03	5.41	11.55
1962	6.68	6.87	8.88	8.34	7.52	5.64	8.30	6.57	8.18	5.57	11.64
1963	6.90	6.88	6.99	8.93	7.71	5.82	8.82	6.85	8.95	5.87	12.00
1964	7.09	6.96	7.17	9.09	7.81	5.91	8.82	6.96	9.15	5.93	12.33
1965	7.29	7.18	7.29	9.39	7.95	6.05	9.04	7.19	8.94	6.34	13.10
1966	7.55	7.45	7.52	10.24	8.42	6.15	9.57	7.67	9.14	6.81	13.61
1967	7.98	7.90	7.98	10.77	9.19	6.57	10.18	8.37	9.20	7.13	13.86
1968	8.24	9.29	8.33	11.80	9.43	9.19	10.95	9.41	9.41	7.93	14.86
1969	8.63	9.50	8.54	12.63	9.63	10.18	11.56	10.28	10.51	8.30	15.77
1970	9.41	9.97	9.81	13.31	10.02	10.42	12.39	10.99	11.61	9.21	16.56
1971	8.99	10.30	11.08	13.31	10.87	10.53	13.43	12.07	11.59	9.84	17.50
1972	11.26	10.66	11.51	13.39	11.26	10.71	14.00	12.34	11.71	10.42	18.34
1973	12.35	10.97	12.58	13.52	12.45	10.70	14.44	13.54	11.71	10.69	19.66
1974	14.73	11.46	13.48	14.92	14.14	10.75	16.32	15.24	12.76	11.54	22.24
1975	15.51	11.74	14.14	15.80	14.51	11.16	17.44	15.86	13.31	12.51	23.62
1976	16.03	12.35	14.51	16.23	15.38	11.83	18.23	16.66	13.45	13.16	25.13
1977	18.49	15.37	17.00	16.82	15.97	14.76	20.51	17.20	15.92	13.84	26.43
1978	21.24	17.55	18.83	19.98	16.94	16.77	23.90	19.64	17.90	14.42	27.84

Source: As for Annex Table 1.

Table 7.3: ^{/1}
 AVERAGE DAILY WAGE RATES FOR AGRICULTURAL
 LABOR, 1956-78 (PESOS)

Crop Year	Average Wage Rate	Consumer Price Index Outside Manila, 1972 = 100	Real Wage Rate, 1972 Prices
1956-57	2.49	42.2	5.90
1957-58	2.66	40.9	6.50
1958-59	2.56	42.1	6.08
1959-60	2.62	41.2	6.36
1960-61	2.65	43.3	6.12
1961-62	2.62	45.6	5.75
1962-63	2.75	46.8	5.88
1963-64	2.74	50.9	5.38
1964-65	2.78	55.5	5.01
1965-66	n.a.	57.3	n.a.
1966-67	3.26	59.9	5.44
1967-68	3.29	63.2	5.21
1968-69	2.94	64.4	4.57
1969-70	n.a.	65.3	n.a.
1970-71	3.55	75.0	4.73
1971-72	3.72	92.8	4.01
1972-73	4.40	100.0	4.40
1973-74	n.a.	117.0	n.a.
1974-75	6.27	157.0	3.99
1975-76	n.a.	167.3	n.a.
1976-77	9.45	183.5	5.15
1977-78	9.97	192.7	5.17

^{/1} These are wage rates 'without meal' (i.e. payment in kind). A separate series is provided by Baecon on wage rates with meals, which are about 30% lower.

Source: The wage rates are provided by the Bureau of Agricultural Economics' (Baecon) quarterly Surveys on Farm Wages. The figures quoted here for wages up to 1974-75 are taken from the summaries provided in the 1977 Yearbook of Labor Statistics. The consumer price indices are provided by NEDA.

ANNEX TO CHAPTER VII

Table 7.4:
 AVERAGE WEEKLY EARNINGS OF EMPLOYED AND SALARY WORKERS IN
 PRIVATE AND GOVERNMENT EMPLOY FOR SELECTED INDUSTRY GROUPS, 1977-76

Industry Group	1969	1970	1971	1972	1973	1974	1975	1976
<u>Money Earnings, pesos per week:</u>								
All Industries	37	-	49	47	51	57	67	78
Agriculture	21	-	33	25	30	37	37	45
Manufacturing	38	-	48	48	57	57	70	75
Construction	38	-	56	49	50	54	66	75
Utilities	59	-	72	76	85	87	115	123
Commerce	46	-	53	53	60	71	90	97
Transport, etc.	46	-	52	53	56	63	73	86
Government & Community	59	-	71	78	80	90	97	110
Domestic Services	11	-	13	12	14	16	17	20
Other Personal Services	32	-	43	39	40	45	52	65
<u>Price Index for the Philippines (1972=100):</u>								
	66.0	75.8	92.4	100.0	114.0	152.2	164.6	188.6
<u>Real Earnings, 1972 pesos per week:</u>								
All Industries	56	-	53	47	45	38	41	41
Agriculture	32	-	36	25	26	24	33	24
Manufacturing	58	-	52	48	50	38	43	40
Construction	58	-	61	49	44	36	40	40
Utilities	89	-	78	76	75	57	70	65
Commerce	70	-	57	53	53	47	55	51
Transport, etc.	70	-	56	53	49	41	45	46
Government & Community	89	-	77	78	70	59	59	58
Domestic Services	17	-	14	12	12	11	10	11
Other Personal Services	48	-	47	39	35	30	32	34

Source: NCSO Surveys of Households, May series except for 1975-76, which are for April.

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Table 7.5:
AVERAGE WEEKLY EARNINGS OF SELECTED OCCUPATIONS
IN SELECTED CITIES, 1973 AND 1976. (PESOS PER 40 HOUR WEEK.)

	Nominal		Real ^{/1} 1976=100	% Change In Real
	1973	1976		
<u>Clerks</u>				
Philippines	93	118	76	- 18
Metro Manila	101	126	82	- 19
Iligau (Northern Luzon)	73	86	55	- 25
Naga (Bicol)	44	77	48	+ 9
Cebu (Central Visayas)	72	93	64	- 11
Iloilo (Western Visayas)	62	99	62	0
Cagayan de Oro (N. Mindanao)	35	118	72	- 15
Davao (S. Mindanao)	73	86	59	- 19
<u>Laborers</u>				
Philippines	63	83	53	- 16
Metro Manila	59	84	55	- 7
Iligau	50	68	43	- 14
Naga	39	69	43	+ 10
Cebu	67	82	57	- 15
Iloilo	84	78	49	- 42
Cagayan de Oro	78	76	46	- 41
Davao	66	65	44	- 33
<u>Drivers</u>				
Philippines	83	110	71	- 14
Metro Manila	85	116	76	- 11
Iligau	54	83	53	- 2
Naga	43	72	45	+ 5
Cebu	78	99	68	- 13
Iloilo	103	97	61	- 41
Cagayan de Oro	89	62	38	- 57
Davao	83	84	57	- 31
<u>Carpenter</u>				
Philippines	99	100	64	- 35
Metro Manila	58	102	66	+ 14
Iligau	56	82	52	- 7
Naga	44	78	49	+ 11
Cebu	69	91	67	- 9
Iloilo	76	72	45	- 41
Cagayan de Oro	95	81	50	- 47
Davao	77	71	48	- 38
<u>Field Electrician</u>				
Philippines	96	115	74	- 23
Metro Manila	88	123	80	- 9
Iligau	70	98	63	- 10
Naga	42	77	48	+ 14
Cebu	70	97	67	- 13
Iloilo	75	96	60	- 20
Cagayan de Oro	82	100	61	- 26
Davao	92	84	57	- 38

/1 1973 Pesos. Price indices for the regions were as follows (1972=100). For 1973: 117, 114, 115, 116, 128, 120, 115 and 127 respectively for the Philippines, Metro-Manila, Northern Luzon, Bicol, Central Visayas, Western Visayas, Northern and Southern Mindanao; and for 1976, 182, 175, 180, 186, 185, 191, 188 and 186 respectively. Source: 1978 NEDA Yearbook.

Source: Wage and Salary Survey in the Philippines, Office of Compensation and Position; reproduced here from the 1977 Yearbook of Labor Statistics.

Table 7.6:
OUTPUT PER WORKER IN MANUFACTURING AND AGRICULTURE, 1956-1977 (IN 1972 PRICES)

Year	Manufacturing										Agriculture		
	Output P M		Manufacturing Employment, 000s		Output/Worker P000's		Capital Worker ^{/1}		Output P M	Employment 000s	Output/Worker P 000s		
	Total	Large Scale ^{/3}	Total	Large Scale ^{/3}	Total	Large Scale	Large Scale P000's	Index ^{/2}					
1950	1,852	-	-	-	-	-	-	-	5,752	-	-		
1951	2,172	-	-	-	-	-	-	-	6,229	-	-		
1952	2,287	-	-	-	-	-	-	-	6,472	-	-		
1953	2,587	-	-	-	-	-	-	-	7,126	-	-		
1954	2,908	-	-	-	-	-	-	-	1,903	-	-		
1955	3,277	-	-	-	-	-	-	-	8,085	-	-		
1956	3,716	2,427	962	151	3.9	16.1	13.3	-	8,206	4,548	1.8		
1957	3,931	2,691	1,005	173	4.0	15.6	13.0	-	8,419	4,997	1.7		
1958	4,261	3,014	927	178	4.6	16.9	14.5	-	8,865	5,276	1.7		
1959	4,645	3,381	992	186	4.7	18.2	14.2	-	9,432	5,298	1.8		
1960	4,743	3,579	1,036	199	4.6	18.0	13.7	-	9,338	5,224	1.8		
1961	4,904	-	1,026	-	4.8	17.8	-	-	9,886	5,514	1.8		
1962	5,154	4,046	1,052	230	4.5	17.6	13.6	-	10,309	5,893	1.7		
1963	5,505	4,611	1,139	251	4.8	18.4	14.7	-	10,969	5,779	1.9		
1964	5,665	4,778	-	266	-	18.0	15.8	-	10,954	-	-		
1965	5,914	4,657	1,101	273	5.4	17.1	17.1	-	11,786	5,725	2.1		
1966	6,298	4,952	1,229	276	5.1	17.9	19.1	-	12,157	6,290	1.9		
1967	6,684	-	1,223	-	-	-	-	-	12,521	6,330	2.0		
1968	7,346	6,600	1,224	325	6.0	20.3	19.2	-	13,413	5,631	2.4		
1969	7,620	6,283	-	332	-	18.9	19.7	-	13,765	-	-		
1970	7,954	7,316	-	333	-	22.0	19.3	-	14,013	-	-		
1971	8,311	7,124	1,439	353	5.8	20.2	20.9	-	14,416	6,321	2.3		
1972	8,838	-	1,323	-	-	-	-	-	14,967	6,863	2.2		
1973	10,144	9,495	1,396	455	7.3	20.9	18.6	-	15,745	7,766	2.0		
1974	10,532	10,900	1,423	454	7.4	24.0	17.8	-	15,876	7,684	2.1		
1975	10,662	-	1,651	-	6.5	-	-	-	16,943	7,768	2.2		
1976	11,368	11,051	1,680	549	6.8	20.1	-	-	18,283	8,126	2.2		
1977	12,210	13,782	1,596	568	7.7	24.3	-	-	-	-	-		
Growth Rates (%)													
1950-56	12.3	-	-	-	-	-	-	-	6.1	-	-		
1956-60	6.3	10.2	1.9	7.1	4.2	2.8	.7	-	3.3	3.5	-		
1960-65	4.5	5.4	1.2 ^{/4}	6.5	3.3	1.0	4.5	-	4.8	1.9	3.1		
1965-70	6.1	9.4	4.6 ^{/4}	4.1	1.2	5.2	2.5	-	3.5	1.7	1.5		
1970-77	6.2	9.3	1.7 ^{/5}	7.8	4.8 ^{/5}	1.8	2.0	-	4.8 ^{/6}	5.1 ^{/6}	-0.9 ^{/6}		

^{/1} Actual values deflated by price index for gross fixed capital formation; NEDA Yearbook, 1978, Table 4.8.

^{/2} 1956=100.

^{/3} 20 or more workers.

^{/4} 1965-71.

^{/5} 1971-77.

^{/6} 1971-76.

Sources: NEDA, NEDA Yearbook, 1978. NCSO, Annual Survey of Establishments.

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Table 7.7:
 WAGES OF COMMON LABORERS AND MINIMUM WAGES IN MANILA
 MONEY AND REAL, 1951-1978. PESOS/DAY (REAL IN 1972 PRICES) ^{/1}

Year	Money Wages		Real Wages	
	Common Laborers	Minimum Wage	Common Laborers	Minimum Wage
1951	4.6	4.0	9.7	8.4
1952	5.5	4.0	11.1	8.9
1953	5.1	4.0	11.8	9.3
1954	5.0	4.0	11.8	9.4
1955	5.2	4.0	12.3	9.5
1956	5.3	4.0	12.2	9.2
1957	5.2	4.0	11.3	9.1
1958	5.2	4.0	11.5	8.8
1959	5.3	4.0	11.7	8.9
1960	5.3	4.0	11.2	8.5
1961	5.4	4.0	11.3	8.4
1962	5.6	4.0	11.0	7.9
1963	5.9	4.0	11.0	7.5
1964	5.9	4.0	10.3	6.9
1965	6.3	6.0	10.7	10.1
1966	6.8	6.0	10.9	9.6
1967	7.1	6.0	10.8	9.0
1968	7.9	6.0	11.7	8.2
1969	8.3	6.0	12.0	8.0
1970	9.2	6.0	11.6	7.6
1971	9.8	6.0	10.9	6.6
1972	10.4	6.0	10.4	6.0
1973	10.7	6.0	9.4	5.3
1974	17.5	6.0	7.6	3.9
1975	12.5	6.0	7.6	3.6
1976	13.2	10.0	7.5	5.7
1977	13.8	10.0	7.3	5.3
1978	14.4	11.0	7.1	5.4

^{/1} Deflated by the Consumer Price Index for Manila.

Sources: Central Bank, Statistical Bulletin 1978; Unpublished data from wages commission.

Table 7.8:
AVERAGE EARNINGS RATE IN VERY SMALL MANUFACTURING ESTABLISHMENTS
1961-1975

	Unit	10 or Less Workers			
		1961	1967	1972	1975 ^{1/}
Number of Enterprises	000s	33	41	63	71
Total Number of Workers	000s	95	125	204	207
Paid Workers	000s	43	59	94	109
Family Workers and Owners	000s	52	66	110	98
		----- Current Prices -----			
Value Added	Pm	129	206	438	834
Wage Bill	Pm	36	57	149	221
Owners Share of Value Added	Pm	93	149	289	613
Paid Workers' Wages - Annual	P	884	966	1,585	2,027
- Per Day	P	2.9	3.2	5.3	6.8
Owners' Share of Value Added + No. of Family Workers (including Owners):					
- Annual	P	1,788	2,258	2,627	6,255
- Per Day	P	6.0	7.5	8.8	20.9
Enterprise Earnings - Annual	P	2,818	3,634	4,587	8,634
- Per Day	P	9.4	12.1	15.3	28.8
<u>Daily Rates, Constant 1972 Prices</u>					
GDP Deflator	P	0.49	0.67	1.00	1.67
Wage Rates for Hired Labor	P	5.9	5.1	5.3	4.1
Averages Family Earnings:					
- Per Enterprise	P	18.4	19.2	15.3	17.2
- Per Family Worker	P	12.2	11.9	8.8	12.5

^{1/} Preliminary estimates from unpublished data from the 1975 Census of Establishments.

Sources: NCSO, Census of Establishments; NEDA, National Income Accounts.

Notes: Daily rates are estimated from annual rates assuming 300 working days per worker per year. The owners' share in net value added (after expenditures on fixed assets) is taken to equal their net earnings, on the assumption that tax payments and loan repayments are negligible for small enterprises; small manufacturing establishments in the Philippines are eligible for tax exemptions for six years after registering with NACIDA.

Table 7.9:
SOURCE OF FAMILY INCOME BY QUINTILE, URBAN AND RURAL, 1971

	Wages & Salaries		Entrepreneurial Activity in				Other Sources	Total
	Agriculture	Non Agriculture	Trading, Transport, Other	Manufacturing	Agriculture			
URBAN								
	Number of Families							
Lowest 20%	21	164	70	22	64	42	383	
Second 20%	11	256	52	19	18	27	383	
Third 20%	11	268	54	15	19	15	383	
Fourth 20%	8	269	55	14	9	28	383	
Top 20%	6	247	66	12	11	42	383	
Totals	56	1204	297	82	121	154	1915	
	Percent Distribution (Vertical)							
Lowest 20%	37.5	13.6	23.6	26.8	52.9	27.3	20.0	
Second 20%	19.6	21.2	17.5	23.2	14.9	17.5	20.0	
Third 20%	19.6	22.3	18.2	18.3	15.7	9.7	20.0	
Fourth 20%	14.3	22.3	18.5	17.0	7.4	18.2	20.0	
Top 20%	8.9	20.5	22.2	14.6	9.1	27.3	20.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Percent Distribution (Horizontal)							
Lowest 20%	5.5	42.8	18.3	5.7	16.7	11.0	100.0	
Second 20%	2.9	66.8	13.6	5.0	4.7	7.1	100.0	
Third 20%	2.9	70.0	14.1	3.9	5.0	3.9	100.0	
Fourth 20%	2.1	70.2	14.4	3.7	2.3	7.3	100.0	
Top 20%	1.3	64.5	17.2	3.1	2.9	11.0	100.0	
Total	2.9	62.9	15.5	4.3	6.3	8.8	100.0	
RURAL								
	Number of Families							
Lowest 20%	99	44	44	25	613	61	887	
Second 20%	130	77	49	25	563	43	887	
Third 20%	151	131	49	25	490	41	887	
Fourth 20%	153	228	68	19	388	31	887	
Top 20%	92	362	78	21	278	56	887	
Total	625	842	288	115	2332	232	4434	
	Percent Distribution (Vertical)							
Lowest 20%	15.8	5.2	15.3	21.7	26.3	26.3	20.0	
Second 20%	20.8	9.1	17.0	21.7	24.1	18.5	20.0	
Third 20%	24.2	15.6	17.0	21.7	21.0	17.7	20.0	
Fourth 20%	24.5	27.1	23.6	16.5	16.6	13.4	20.0	
Top 20%	14.7	43.0	27.1	18.3	11.9	24.1	20.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Percent Distribution (Horizontal)							
Lowest 20%	11.2	5.0	5.0	2.8	69.1	6.9	100.0	
Second 20%	14.7	8.7	5.5	2.8	63.5	4.8	100.0	
Third 20%	17.0	14.8	5.5	2.8	55.2	4.6	100.0	
Fourth 20%	17.2	25.7	7.7	2.1	43.7	3.5	100.0	
Top 20%	10.4	40.8	8.8	2.4	31.3	6.3	100.0	
Total	14.1	19.0	6.5	12.6	52.6	5.2	100.0	

Source

NCSO, Family Income and Expenditure Survey, 1972.

Table 7.10:
DISTRIBUTION OF FAMILY INCOMES IN THE PHILIPPINES, 1956 TO 1975

Family Income Group (Ranked From Lowest to Highest)	1956-57	1961	1965	1971	1975	
<u>Percentage Share of Total Family Income</u>						
Lowest 20%	4.5	4.2	3.5	3.6	5.5	
Second 20%	8.1	7.9	8.1	8.1	9.2	
Third 20%	12.4	12.1	12.8	13.3	12.9	
Fourth 20%	19.8	19.3	20.1	21.0	19.1	
Top 20%	<u>55.1</u>	<u>56.5</u>	<u>55.5</u>	<u>54.0</u>	<u>53.3</u>	
Total	100	100	100	100	100	
Top 10%	39.4	41.0	40.1	37.1	37.2 ^{/1}	
Top 5%	27.7	29.0	28.7	24.8	n.a.	
<u>Average Family Income Within Group (Constant 1972 Prices)^{/2}</u>						
						<u>% Change 1956-75</u>
Lowest 20%	807	808	755	744	1,141	+ 41
Second 20%	1,459	1,502	1,723	1,648	1,951	+ 34
Third 20%	2,217	2,300	2,755	2,673	2,707	+ 22
Fourth 20%	3,644	3,667	4,328	4,247	4,000	+ 10
Top 20%	<u>9,815</u>	<u>10,747</u>	<u>11,899</u>	<u>10,908</u>	<u>11,240</u>	+ 15
Average	3,588	3,806	4,292	4,043	4,197	+ 17
Top 10%	14,146	15,605	17,193	14,989	12,382 ^{/1}	
Top 5%	19,859	22,068	24,637	20,041	n.a.	

^{/1} Top 10.8%; the upper income group range in the 1975 Survey was ₱ 10,000 and over, which covered 10.8% of the families.

^{/2} The price deflator for personal consumption expenditure was used (see NEDA Yearbook for 1978, Table 4.8 row 1) which was 42% for 1956-57, 47.4% for 1961, 59.2% for 1965, 92.4% for 1971 and 165.0% for 1975.

Source: The primary sources are the NCSO surveys of households on family incomes and expenditures. The NEDA Yearbook for 1978 has the data summarized for the years up to 1971. The 1975 data were taken from a Special Release No.191 of the NCSO's preliminary tabulations of the Surveys, dated April 21, 1977.

Table 7.11:
EFFECTS OF CHANGES IN THE TYPE OF EMPLOYMENT
ON FAMILY INCOMES AND INCOME DISTRIBUTION,
1956, 1976

Income Group by Family Income, Pesos/Year 2/	Percent Distribution of Main Income Earners 1/3/				Estimated Number			Estimated Distributions of Column (5), (6) & (7)		
	Wage and Salary/ Earners (1)	Entrepreneurial Activities			Families (000s) 4/			1965 (8)	1971 (9)	1976 (10)
		Trading & Transport (2)	Manufacturing (3)	Agriculture (4)	1965 (5)	1971 (6)	1976 (7)			
Under P500	1.9	3.1	5.6	8.9	260	300	360	5.4	5.0	4.9
P500 - P999	5.3	7.7	14.2	20.3	619	716	863	12.8	12.0	11.7
P1000 - P1499	7.6	9.2	12.2	18.1	618	729	886	12.8	12.2	12.1
P1500 - P1999	9.6	10.1	13.7	14.7	589	709	863	12.2	11.9	11.7
P2000 - P2499	9.4	8.2	10.7	10.2	470	575	707	9.7	9.6	9.6
P2500 - P2999	9.7	8.6	6.1	6.6	389	489	606	8.0	8.2	8.2
P3000 - P3999	16.6	13.5	11.7	8.7	604	768	955	12.5	12.9	13.0
P4000 - P4999	10.2	8.4	6.6	4.7	356	455	568	7.3	7.6	7.7
P5000 - P5999	6.9	6.2	5.6	2.6	233	299	374	4.8	5.0	5.1
P6000 - P7999	9.6	7.9	5.6	2.4	289	377	474	6.0	6.3	6.5
P8000 - P9999	4.9	5.3	2.0	1.4	156	205	255	3.2	3.4	3.5
P10000 and over	8.3	11.8	6.1	1.5	262	344	435	5.4	5.3	5.9
Total	100.0	100.0	100.0	100.0	4843	5966	7346	100.0	100.0	100.0

Distribution of Families in 1965, 1971, and 1976 (Columns (1) to (4) as above)	Total				
	(1)	(2)	(3)	(4)	
1965 (No. in 000s)	1966	456	192	2229	4843
1971 (No. in 000s)	2729	584	197	2456	5966
1976 (No. in 000s)	3436	797	204	2909	7346
1965 (%)	40.6	9.4	4.0	46.0	100.0
1971 (%)	45.7	9.7	3.3	41.2	100.0
1976 (%)	46.3	10.8	2.8	39.6	100.0

1/ These correspond to the 1971 distribution as calculated by the FIES.

2/ The income distributions shown in columns (1) to (4) are for 1971; it follows that all calculations and income ranges are in 1971 prices.

3/ Excludes families whose incomes are from ownership of property and capital, or from gifts.

4/ Estimated using the percentages obtaining in columns (1) to (4). With the exception of 1971, there are not actual distributions (see source notes).

Sources and Basis of Estimates.

The main source is the Family Income and Expenditure Survey (FIES), BCS Survey of Households Bulletin, Series 34, 1971 Table 60. The Distribution of Families in 1965 and 1971 are also taken from this source. For 1976, the estimates were made as follows. The 1977 Labor Yearbook, Department of Labor, gives the numbers of industrial workers for 1965 thru 1976. (see Annex Table 14). The percent changes in the number of families primarily dependent on entrepreneurial activity were then assumed to be the same as the percent changes in self-employed workers (but not of unpaid family workers) in the same sector. The percentage increase (between 1971 and 1976) in the number of families dependent on wage and salary work was estimated in the same way.

To estimate the distributions, percentages and numbers of families for the three years, the 1971 percentage distributions shown in columns (1) through (4) were applied to the total number of families classified according to source of income for the respective years. Thus column (5), row (1) for 1965 equals $(1.9 \times 1966 + 3.1 \times 456 + 5.6 \times 192 + 8.9 \times 2229)/100 = 260$; etc. Using the procedure, the figures in columns (6) and (9) are actual data, while those in (3), (7), (8), and (10) are estimated effects of the changes in occupational structure, holding the distribution of incomes constant within each occupational category.

Supplementary Calculations

(1) Estimates of the income range of the bottom two quintiles for 1971. From column (9), the percentage of families with incomes of up to P1500 is $(5.0 + 12.0 + 12.2) = 29.2\%$ and with incomes of up to P2000 is $(29.2 + 11.9) = 41.1\%$. Those with incomes in the range P1500 to 2000 are then divided into families above, and families below the bottom 40% limit on a straight line basis. The dividing line for the bottom 40% is then $1500 + 500(40 - 29.2)/(41.1 - 29.2) = 1958$ pesos.

(2) Estimate of the effects of changes in employment structure (holding the income distribution curves within each occupational category constant) on the average real incomes of the bottom 40%. Using the linear method given in note (1) above, the income range of the bottom 40% is estimated to be P1869 or below in 1965, and P1964 or below in 1976. Using these figures, the data in columns (8) and (10), and taking mid-points on each block of the histogram, gives the following average real incomes for 1965 and 1976 respectively.

$$0.054 \times 250 + .128 \times 750 + .128 \times 1250 + 0.09(1500 + 1869)/2 = P600$$

$$0.049 \times 250 + .117 \times 750 + .121 \times 1250 + .113(1500 + 1964)/2 = P436$$

The increase average real income is then 9%. There is a downward bias in both of the average income estimates for the bottom 40% on account of the linear approximations involved.

(3) The change for those families who moved would be $9.0\% \times (\text{No. in two quintiles}) + (\text{No. who changed})$. This equals $9.0 \times 40/(46.0 - 39.6) = 562$.

Table 7.12:
OCCUPATIONAL STRUCTURE AND ESTIMATED WAGES OF
WAGE LABOR, 1960 TO 1970

Occupation ^{/1}	Percentage Share of Wage Labor			Wages/Day (1972 Pesos)		
	1960 (1)	1970 (2)	Change (3)	1960 (4)	1970 (5)	Change (6)
Farm Labor	32.2	20.8	- 11.4	5.8	3.8	- 2.0
Production Workers in Manufacturing and Trades ^{/2}						
- Large Establishments ^{/3}	10.1	14.4	4.3	13.8	13.9	+ 0.1
- Small Establishments ^{/3}	3.6	6.6	3.0	5.7	5.7	0.0
- Households ^{/4}	6.5	5.4	- 1.1	5.8	3.8	- 2.0
Sales Workers ^{/4}	11.2	12.0	0.8	12.7	10.5	- 2.2
Stevedores and freight	8.3	6.3	- 2.0	10.0	9.5	- 0.5
Land Transport	6.1	11.7	5.6	10.0	9.5	- 0.5
Service:						
- Housekeepers	14.8	14.7	- 0.1	7.5	7.1	- 0.4
- Other ^{/5}	7.2	8.1	0.9	8.3	9.5	1.2
Total Weighted Average	100.0	100.0	0.0	8.7	8.2	- 0.5
No. of Workers, 000s	2,222	3,835	1,613			

^{/1} Excluded are wage labor in mining, quarrying, fishing, logging, hunting and occupations NEC, as data were not readily available. Also excluded are professional, administrative and clerical, as these are mostly salaried and higher paying occupations.

^{/2} Such as building, masonry and the repair and installation services (plumbers, carpenters and electricians) outside manufacturing. These add about 17% to what would be the totals if production workers in manufacturing alone were considered.

^{/3} Establishments with 10 or more workers are here described as large following the terminology of the NCSO in the 1961 and 1972 Censuses, and those with less than 10 workers as small.

^{/4} Working proprietors and family workers not included; also professional, administrative and clerical workers in production and sales are excluded (see f.n. 1).

^{/5} The services here are mostly in restaurants and hotels, recreation, entertainment, barber shops etc., repair and installation services, and other wage labor.

Source: See Annex Table 14 for data sources and basis of estimates.

Table 7.13:
EFFECTS OF CHANGING WAGES AND OCCUPATIONS ON
AVERAGE WAGE LEVELS FOR WAGE-LABOR, 1960-70

Occupation	Contribution to Average Wage (P/day '72 prices)			Effects ^{/1} on Average Wage Changes in:	
	1960 ^{/2} (1)	1970 ^{/3} (2)	Change (3)	Occupation ^{/4} (4)	Wages ^{/5} (5)
Farm Labor	1.9	0.8	- 1.1	- 0.7	- 0.6
Production Workers in					
- Large Establishments	1.4	2.0	+ 0.6	+ 0.6	0.0
- Small Establishments	0.2	0.4	+ 0.2	+ 0.2	0.0
- Households	0.4	0.2	- 0.2	- 0.1	- 0.1
Sales Workers	1.4	1.3	- 0.1	+ 0.1	- 0.2
Stevedores, etc.	0.8	0.6	- 0.2	- 0.1	- 0.0
Land Transport	0.6	1.1	+ 0.5	+ 0.6	- 0.0
Service:					
- Housekeepers	1.1	1.0	- 0.1	- 0.0	- 0.1
- Other	<u>0.6</u>	<u>0.8</u>	+ <u>0.2</u>	+ <u>0.1</u>	+ <u>0.1</u>
Weighted Average	8.4	8.2	- 0.2	+ 0.7	- 0.9

/1 These two items do not always add up to the change shown in the third column because second order terms are ignored (i.e. the change in wages times the change in occupations).

/2 Col. (1) of Annex Table 12 times Column (4).

/3 Col. (2) of Annex Table 12 times Column (5).

/4 Col. (3) of Annex Table 12 times Column (4). (Approx. see f.n. 1).

/5 Col. (6) Annex Table 12 times Co. (1). (Approx. see f.n. 1).

/6 See also footnotes 2 and 3 of Annex Table 12.

Source: Calculated from Annex Table 12,

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Table 7.14:
DISTRIBUTION OF WAGE AND SALARIED,
SELF EMPLOYED AND FAMILY WORKERS BY SECTOR, 1965-1976

Industrial Sector and Year /1	No. Employed 000s	Percentage Distribution of Workers			
		Wage & Salary	Self Employed	Family Workers	Total
<u>Agriculture:</u>					
1965	5,725	15.8	50.8	33.4	100 ^{/2}
1976	8,126	15.7	46.7	37.3	100 ^{/2}
<u>Manufacturing:</u>					
1965	1,101	53.9	37.4	8.6	100 ^{/2}
1976	1,680	65.8	26.0	8.1	100 ^{/2}
<u>Commerce:</u>					
1965	1,114	25.7	57.6	16.7	100 ^{/2}
1976	1,864	29.6	54.5	15.5	100 ^{/2}
<u>Personal Services, (Other than Government, Community and Domestic)</u>					
1965	227	51.6	41.4	7.0	100
1976	276	n.a.	n.a.	n.a.	100
<u>Transport Etc.:</u>					
1965	339	83.5	14.7	1.8	100
1976	550	81.6	17.0	1.3	100
<u>All Other:</u> ^{/3}					
1965	1,549	96.3	3.5	0.2	100
1976	2,886	97.1	2.7	0.2	100
<u>Total:</u>					
1965	10,101	36.5	41.2	21.9	100 ^{/3}
1976	15,427	41.2	35.8	22.6	100 ^{/3}

/1 October Series for 1965 and August Series for 1976.

/2 The totals do not add up to 100 in these cases because a small percentage of the sample, varying between 0.1% and 0.4% were classified as "not reported."

/3 Mining, Quarrying, Construction, Domestic Services (over 99.5% of which are classified as wage labor in the Censuses), and Government Community, Business and Recreational Services.

Source: 1977 Labor Yearbook Table 3.9.

Table 7.15:
OCCUPATIONAL STRUCTURE AND SOME WAGE AND
SALARY DATA FOR THE PHILIPPINES LABOR FORCE,
1960-1970

Occupation	No. Employed 000s		% Total Employment		Wage (Pesos/ Day '72 Prices) 1/	
	1960	1970	1960	1970	1960	1970
Professional	233	248	2.9	5.7		
Administration	49	137	0.6	1.2		
Clerical	79	269	2.3	3.2		
Sales:						
Wholesalers & Retailers (Proprietors)	219	252	2.8	2.5		
Sales Workers	247	450	3.1	4.0	12.7	10.5
Other	20	43	0.3	0.4		
Agriculture:						
Self Employed	2411	2833	30.3	24.9		
Family Workers	1608	1991	20.2	17.5		
Farm Labor	709	785	8.9	6.9	5.8	3.8
Forestry, Fishing, etc.	486	413	6.1	3.6		
Production Workers:						
Establishments \geq 10 Workers	223	354	2.8	4.8	13.8	13.9
Establishments < 10 Workers	82	252	1.0	2.2	5.7	5.7
Households: Family Labor	424	632	5.3	5.6		
Households: Hired Labor	141	210	1.3	1.8	5.8	3.8
Stevedores, Freight Handlers, etc.	182	243	2.3	2.1	10.0	9.5
Transport: Land	132	438	1.7	3.9	10.0	9.5
Transport: Other	65	62	0.8	0.3		
Services:						
Housekeepers	325	556	4.1	4.9	7.5	7.1
Others 2/	161	304	2.0	2.7	5.3	9.5
All Other	49	162	0.6	1.4		
Total	7946 2/	11358	100.	100.		

1/ Wherever the source material gave average annual earnings per worker, it has been converted to daily wage rates by dividing by 300 days per year.

2/ Includes repair services, hotels and restaurants, sanitary services, barbers, etc.

3/ This figure is low. Employment in 1960 was 8.5 million.

Sources and Basis of Estimates

(a) Employment Data. 1960 and 1970 Censuses of Population and Housing. The distributions of production workers between establishments with 10 or more workers were calculated using the percentage distributions obtained from the 1961 and 1972 Censuses of Establishments, with household employment being calculated as a residual between these Censuses and the total manufacturing employment estimates provided in the Annual Surveys of Households; the hired labor in household manufacturing is based on the results of a survey by SACIDA in Ilocos, 1977 (see Chapter 5, above). The percentage distributions for 1961 and 1972 were then applied to 1960 and 1970 respectively. This procedure involved a small error since about 17% of the "Production Workers" are in non-manufacturing activities, such as building and masonry. The distribution of workers in agriculture were taken from the 1977 Yearbook, Department of Labor, for 1970; for 1960, the distribution were calculated using the percentage distribution that obtained in 1965 (the error in this is probably quite small, since the hired labor force in agriculture as a percentage of the total agricultural labor force appeared to be quite stable at $14 \pm 1\%$ in that period).

(b) Wage Data. For agricultural labor the primary source is the Bureau of Agricultural Economics, Quarterly Surveys; the data also appear in the 1977 Labor Yearbook, Department of Labor, from which the above were taken and inflated to 1972 prices using the consumer price index (which is 0.456 for 1960 and 0.814 for 1970). For production workers, the basic sources are the 1961 and 1972 Censuses of Large and Small Establishments; the average money wages were tended back to 1960 and 1970 respectively and inflated to 1972 prices. For hired production workers in households, the wages were assumed to be the same as those for farm labor, since most household manufacturing is in the rural areas and towns. (A survey by SACIDA in Ilocos gives the average annual earnings for hired workers to be about 700 per year in 1977; this would be lower than the annual earnings rate in agriculture and probably reflects the point that household manufacturing is often a secondary activity).

For sales and other service workers, the basic data were obtained from the 1961 and 1972 Censuses of Large and Small Establishments (c.f. Table 6.4 above), weighted averaged and extrapolated back to 1960 and 1970 respectively. For housekeepers, land transport workers and stevedores the wage relativities that obtained in 1977 were available in an internal report of Wage Commission; the same relativities were taken to apply in 1970, using the wages of unskilled workers in Manila as the basis.

Some checks on the wage data are provided as follows. First, the 1977 wage data were compared with our own discussions during the enterprise interviews and in visits to project areas. Second, the Family Income and Expenditure surveys provide information on the family income of people in various occupations. Barry reviews some of this material in "Income and Consumption Distribution Trends in the Philippines, 1950-70," op.cit; see his Tables 9 and 13. As a rough check, multiply the above data by 300 days per year and assume 2.2 working members per family (an average number for low income families in the Philippines). For farm labor this gives P 3,308 (c.f. P 2,268 in Barry, or P 2,500 converting Barry's data to 1972 prices); for transport workers P 2,850 for the head, plus, say, another P 1,800 for the other 1.2 workers (who would be earning less than the head, say P 5 to 6 per day), giving P 4,650 (c.f. P 4,300 in Barry or P 5,000 in '72 prices); for sales workers P 3,150 plus P 1,800 for the other 1.2 members, giving P 4,950 (c.f. P 4,900 in Barry, or P 5,800 in '72 prices). Third, a recent survey of incomes in an urban poverty area (Tondo foreshore) has calculated an average family income of P 871 per month in 1978 which is equivalent to a daily average for the family head of about P 8-10 per day, in 1972 prices; Mita Reformas "A Study of Income and Expenditure Patterns of Households in the Tondo Foreshore," National Housing Authority internal report, October 1978.

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Table 7.16:
MANUFACTURING: FIXED ASSETS PER WORKER AT 1972 PRICES, 1971 ^{/1 /2}

Sector	20 - 49	50 - 99	100 - 199	200 - 499	500+	Total
Food	13.2	11.8	19.0	24.7	25.3	23.5
Beverages	11.6	29.0	11.6	8.3	17.7	12.9
Tobacco	2.8	-	-	2.6	5.1	7.0
Textiles	10.6	15.0	13.2	13.7	13.6	13.6
Clothing and Footwear	5.2	3.3	6.7	5.0	2.1	3.8
Wood	10.1	10.0	7.6	8.4	11.4	10.5
Furniture	3.4	15.3	7.4	3.4	-	6.9
Paper	14.1	11.0	26.8	72.0	24.3	35.0
Printing	8.2	7.1	7.5	-	-	8.2
Leather	4.3	4.9	15.5	-	-	9.7
Rubber	7.9	18.3	8.9	10.4	11.8	10.7
Chemicals	26.7	22.2	18.6	24.8	35.9	26.5
Petrol and Coal	8.7	-	-	-	-	299.8
Non-Metallic Minerals	44.4	7.8	13.1	119.8	39.7	62.1
Basic Metals	6.6	16.6	11.4	38.8	131.4	73.2
Metal Products	8.1	14.4	16.2	-	-	10.0
Machinery	11.1	11.4	-	-	-	16.0
Electrical Machinery	12.1	6.6	12.0	11.9	7.7	9.8
Transport	9.5	4.3	4.2	18.5	20.1	14.8
Miscellaneous	14.1	8.8	10.0	-	-	10.3
Total	12.0	12.1	14.9	31.7	20.6	20.8
Total ^{/3}	9.9	12.2	11.3	12.0	15.1	17.1

^{/1} Original data deflated through the fixed capital formation index for GNP.

^{/2} A dash indicates data suppressed in original source.

^{/3} Total excludes paper, petroleum and coal, non-metallic minerals and basic metals.

Sources: NCSO, Annual survey of Establishments 1971 (founded in "Appraisal of a small and medium industries development project", 1975) and, statistical yearbook, 1978, Table 4.8.