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SMALL BUSINESS IN THE CANADIAN ECONOMY AND
THE IMPACT OF FEDERAL POLICY

Report prepared by the C. D. Howe Institute for
the Small Business Secretariat, Department of
Industry, Trade and Commerce, April, 1983

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Terms of Reference of the Report

In September, 1981, the Small Business Secretariat of the Department of Industry, Trade and Commerce invited the C. D. Howe Institute to submit a project proposal for a study of the impact of federal policy on small business. The Institute proposed a study the principal objective of which would be "to analyze and review the impact on small business of national economic policies. The policy implications of the findings depend on the importance of the contribution of small business to Canadian economic growth and prosperity. Therefore, a subsidiary but essential objective of the study is an evaluation of small business contribution to economic welfare." In May, 1982, the Secretariat contracted with the Institute for the latter to carry out a twelve-month study in accordance with its proposal.

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Project Steering Committee

The Institute gratefully acknowledges the valuable assistance provided by the Project Steering Committee. The Committee supplemented the Project Team's linkages with the small business world and facilitated its work in several ways. Committee members contributed to the Research Plan and to the choice of topics within that Plan. The generously provided contacts and information and acted as expert referees. Institute staff, however, take full responsibility for the Report's findings and conclusions.

The Committee, under the chairmanship of Ken G. Wilson, Vice President, Independent Business, Royal Bank of Canada, met four times between March 22, 1982 and March 9, 1983. The other members were:

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Assistance from Other Sources

A large number of small business people gave generously of their limited time to discuss the various questions addressed in this Report with members of the Project Team. The Institute also relied on the ready cooperation of many public servants, particularly in the Departments of Industry, Trade and Commerce and Regional Economic Expansion. Among the private sector and university economists who provided valuable comments, we would like to mention René Huot of l'Université du Québec à Montréal and Judith Maxwell of Currie, Coopers and Lybrand Limited. The Project Team greatly appreciates the assistance it received from all these sources.

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1. Introduction

Small business has become a major political lobby, a fashionable area of research and, in the recent budget, a focus of policy. This is a change from the situation in the 1950s and 1960s when the emphasis in most industrial countries was on maximizing efficiency by increasing the scale of production. Lip-service was always paid to the independent entrepreneur running a one-man show, but the influential economic actors were the senior managements of the large natural resource, manufacturing and financial corporations, labor leaders and government policy-makers. Economic prosperity and the realization of a country's growth potential were believed to depend almost exclusively on the decisions taken by this relatively small group of people. Agreement among them on growth and distribution objectives would ensure an environment, it was assumed, in which all other economic actors could carry out their business satisfactorily. In this context, interest focused on the relationship among big business, major labor unions and senior federal public servants. In addition, in Canada, the overwhelming importance attributed to the major corporations' strategic decisions led to a preoccupation with the potential effects of foreign ownership on such decisions, further moving attention away from domestic small businesses.

In the 1970s, however, changes in the economic environment reduced, at least temporarily, the effectiveness of established macro-economic policies in Canada, as in other industrialized countries. Policies and instruments which had previously worked well, have had reduced effectiveness in responding to the accelerating inflation and simultaneous recession -- stagflation -- that followed the 1973 energy crisis. Firms and households, responded to an environment of accelerating inflation, in ways that frustrated the established fine-tuning approach to stabilizing economic activity.

Other changes occurred as well. On the government side, it appeared that one of the flaws of macro-economic policy had been its failure to take account of micro-economic -- industry and firm level -- considerations. On the business side, both practitioners and critics asked why major North American corporations, earlier regarded as the model for future industrial organization, had failed to anticipate shifting patterns of relative prices and demand, and had had to petition for protection and subsidy to keep them from bankruptcy.

Canadians shared in this economic heart-searching but, in addition, many of them expressed increasing doubts as to their country's ability to retain its position in world markets and sell sufficient goods and services to improve or even to maintain its standard of living. With production costs higher than those in most other countries of the world, Canadians must in future either sell off natural resources or develop expertise in new specialty products. With a few exceptions they have proved unable to do the latter. Searching to understand the domestic causes of the country's deteriorating performance, many analysts pointed to declining productivity growth, insufficient innovation, and inertia and multiple rigidities at all levels of economic activity.

These various reappraisals have given rise to interrelated responses. Macro-economic policy-makers are giving more attention to the relationship between their policies and the existing industrial structure. Thinkers in the business community are reconsidering the large corporation's potential and its limits. In Canada and elsewhere, analysts are hunting for ways to encourage entrepreneurs to respond more rapidly and vigorously to changing economic opportunities. A common thread is the search for greater flexibility in the economy and a widespread belief that greater reliance on market forces is the best way to engender it.

In this context the current interest in small business is understandable. Small businesses seem to be nearer than contemporary medium and large ones to the model of the free enterprise society many commentators carry in their heads. In addition, they are the historic sources of entrepreneurship and are believed to be much more flexible than the hierarchical corporate giants which have failed to live up to their reputations.

The first objective of this Report is to discover whether this case for more policy attention to small business is a negative one, born of disillusionment with other panaceas and likely to fade away when the economic climate improves, or whether small business has a major contribution to make to Canada's economic growth and development in the 1980s and 1990s -- a contribution hitherto insufficiently recognized. The Report's second objective is to examine the impact of existing government, primarily federal government, policy on small business. Small business spokesmen believe their concerns have not been central to policy-makers and that, as a result, federal policies

have had unintended negative effects on the economic environment for small business. If it has a significant contribution to make but is hampered by economic policy which is non-neutral by firm size, we may fail to reap the full benefits of small business' activity. This would be a matter for concern at a time when Canada needs to mobilize all its economic growth potential.

In order to achieve the Report's two objectives we have had to link small business behavior to the management of the national economy. Studies of small business rarely attempt to do this. Analyses of policy management tools, on the other hand, usually ignore questions of industrial organization and differences in managerial motivation. The methodology adopted in this Report cannot be perfectly rigorous given the subject matter and the weakness of the data nor can it do full justice to the heterogeneity of the small business world. It differs, however, from the majority of descriptive or micro studies of small business in conducting the analysis in the context of a framework of objectives and instruments for managing the Canadian economy. Such a framework allows us both to understand the relevance of the various policies whose impact on firms we examine, and to evaluate small business' diverse contributions to the economy. This provides us with the necessary basis for judging the importance of any unintended negative policy impact on small business which we may discover.

There are three parts to this Report. The first -- Small Business in the Canadian Economy in Chapters 2 through 6 -- lays the groundwork for understanding what small business is, the various role it plays in the economy, and the way in which it operates. The second part -- Public Policy and Small Business in Chapters 7 through 11 -- reviews the policy environment in the 1970s and early 1980s from a small business perspective. Five major policy fields -- tax policy, monetary policy, manpower and training policy, workplace legislation, and industrial policy are investigated. The third part of the Report, in Chapters 12 and 13, provides an outlook for the 1980s, followed by the summary and conclusions.

I. SMALL BUSINESS IN THE CANADIAN ECONOMY

2. What is Small Business?

Ninety-seven percent of all businesses in Canada are small. They provide 41 percent of all the jobs in the private sector, 22 percent of its sales, and 24 percent of the private sector gross national product. The service sector has the highest proportion of small businesses -- 99 percent. From a regional standpoint, small business makes its most significant contribution to sales and employment in the Atlantic Provinces.^{1/}

Such information suggests that small business may be important but it does not tell us what it is. Indeed there is a wealth of literature dealing with small business, but very little of it defines its subject. There are laws and regulations which distinguish between businesses according to the level of their gross revenue, their taxable income, or the nature of their ownership, and there are statistical series compiled on the basis of the number of a firm's employees and the value of its annual sales. Yet small business remains notoriously difficult to define. Some observers give up the search for a definition and refer to any commercial enterprise that is not big as "small." Others draw up matrices of quantitative characteristics to try and manage the elusive phenomenon.

Each analyst looks for the definition which, in addition to corresponding accurately to the real world, is most useful in addressing the issues of concern to him. In this Report we are concerned with the specificity of small business as an economic agent. We need a definition to which we can refer in discussing small business' contribution to the economy, its particular problems and its characteristic ways of solving them. A good understanding of what small business is about is necessary in order to explain why we are interested in it. Is it its smallness, the way it operates in the market, its potential to become a medium-sized business, or some combination of these three?

In this chapter we identify our subject in four stages. First, we choose a general definition based on the nature of management -- a small business is one which is tightly or closed managed. Second, we suggest that a firm's size, as measured by any of the available indicators, is not

of major significance for economic policy analysis although it is obviously necessary for administrative purposes. Third, we classify small businesses into three groups according to their market strategies -- self-employment firms, stable high pay-off firms, and growth-oriented firms. Fourth, we describe the Canadian small business population on the basis of available data. In 1978 it was made up of 621,900 businesses -- 278,900 incorporated firms and 343,000 unincorporated businesses.

Definition

A small business can be distinguished from a large one in quantitative or in qualitative terms. When we look at the quantitative measures, the one that relates directly to the national economy -- value added -- is seldom collected by firm size. The two indicators most generally available by firm size in Canada and elsewhere are the value of annual sales and the number of employees.

Both these measures are unsatisfactory. Neither provides a sound basis for interindustry comparisons since the typical firm's sales and number of employees vary significantly from one industry to another. In addition, the value of sales quickly becomes misleading unless frequently corrected for inflation. Number of employees is a more stable, but less widely reported, indicator. We thus have to recognize, at the start of this Report, the general inadequacy of data relating to small business. To illustrate this, suppose that we take the value of annual sales and correct it for inflation, we are still faced with frequent reporting on an establishment rather than on a firm basis which can introduce considerable distortions.

A quantitative cut-off point is always a problem. The most widely used statistical ceilings on small business in Canada are \$2 million worth of annual sales or 100 employees in manufacturing and 50 in other activities.^{2/} Does a small business become a medium one when it has 51 or 101 employees? When the statistical base is reliable, the advantages of using it outweigh the disadvantages of an arbitrary cut-off. But this is not necessarily true in the case of Canada's small business population. A graph of the number of businesses by value of sales or by number of employees shows the same skewed shape at any reasonable cut-off point, which suggests that a small-to-medium

business continuum may be a more realistic way of viewing the universe from a quantitative standpoint. Thus, although administrators need quantitative criteria to implement programs, and although we will have to rely on statistics compiled according to them, we should not place too much faith in such criteria.

Qualitatively, small business has been distinguished from medium-to-large in terms of its market position, its ownership, and the nature of its management. Market position has been used as a criterion in both the United States and the United Kingdom. Small businesses are not dominant in their field of activity nor can they spread their risks across different industrial sectors. A small business would therefore be one which has no market power in either the purchasing of its input or the sale of its output. While true in the long run, this definition is often false in the short run. In fact, small businesses can at times wield relatively more market power than large ones. One only has to think of a non-unionized rural employer or the only neighborhood drugstore open on Sunday. On the other hand, many large producers of standardized goods are price-takers. Although most small businesses lack permanent market power this does not suffice to distinguish them from medium and large ones.

The second criterion often referred to is domestic, private sector ownership. Government- or foreign-owned firms are usually excluded from the small business population (although in practice many data bases do not exclude them). Such firms can usually rely on assistance whether in management, information, marketing or funding from the public sector or from their home offices. One can conceive of a transnational firm whose entire workforce totalled less than 100 people or whose annual sales were below \$2 million, yet such a firm would almost certainly have at least two profit centers. While less often mentioned, the identification of a small business with a single profit center-firm is usually implicitly understood.

Several countries have adopted a definition of small business which refers to independent ownership. Private sector groups have also adopted this epithet, notably the Canadian and United States small business associations: the Canadian Federation of Independent Business (CFIB) and the National Federation of Independent Business (NFIB). Yet the meaning of independence is not always obvious. Small businesses may play a role vis-à-vis

larger businesses which ranges from open competition to satellization, as we observe in Chapter 5. The growth of franchising has helped to refine the concept of independence. Although franchisees are often excluded from the class of independent businesses, there seems no reason to exclude them if they bear the full responsibility for management decisions in terms of both gains and losses.

This brings us to the third qualitative feature distinguishing small from other businesses -- management. Two very different kinds of management co-exist in the contemporary business world -- professional management and personal or 'tight' management. All large, and virtually all medium-sized firms, employ professional managers and most divide management responsibilities into staff and line functions. Strategic decisions are distinguished from operating decisions and different people or groups of people specialize in the various management tasks -- finance, production, purchasing, marketing, personnel and so on. In some cases profit-sharing may be part of the compensation package but it is not the whole package, and bad judgment leads to dismissal, not personal bankruptcy.

Tight management, on the other hand, does not distinguish staff from line functions. Operating divisions, if they exist, are coordinated from the top. The same person or group of people takes both operating and strategic decisions and the dedication of any one of them to a specialized management task is likely to be partial and temporary. Most important of all, ownership and control belong to the same person or group of people. They bear all the consequences of their business decisions whether successful or unsuccessful. Management of this kind is often characterized as personal or entrepreneurial. The first epithet is frequently taken in a pejorative sense as unprofessional or arbitrary, while the second is traditionally laudative but unanalyzed. We prefer the more neutral expression -- tight management.^{3/}

Not every tightly managed firm is small in terms of its sales and the number of employees. Some small firms may be professionally managed. But from what we have observed in Canada, there is sufficient coincidence between the salient characteristics of a tightly managed firm and the small business population to use tight management as our basic criterion. To this

we add the accessory characteristics -- domestic, private sector, independent ownership, absence of lasting market power, value of annual sales below a certain inflation-adjusted limit, and an employment ceiling depending on the sector of activity.

Firm Size

Our choice of a qualitative criterion -- the nature of management -- as the key element in distinguishing small from other business is supported by a review of the understanding of firm size in economic and management literature. From the point of view both of the individual firm and of the economy as a whole, the size of a business does not appear to be a very useful analytical concept.

The importance of the efficiency gains associated with increasing return to scale in many manufacturing activities has been deeply rooted in most peoples' minds as one of the principal sources of industrial prosperity. With the more recent development of scientific marketing strategies and information management, large corporations seemed inevitably the most efficient. "By all but the pathologically romantic, it is now recognized that this is not the age of the small man."^{4/}

In the last fifteen years, Galbraith's statement has become less self-evident for several reasons. First, the concept of economies of scale has been considerably refined even as applied to manufacturing. Second, the contribution of manufacturing to gross national product has declined in many industrialized economies while that of business and professional services has risen. The importance of scale in such activities is uncertain. Third, economies of scale have proved difficult to maintain in the sphere of management.^{5/} While no one could deny the need for very large businesses in the extraction and processing industries or in many other sectors of the economy including some services, the accepted wisdom that there is an a priori optimal size for a firm in any given sector has been severely shaken.

A second widely held, although seldom discussed, notion is that there is an optimal distribution of firms by size within an industrial economy. This intuitively plausible idea has sometimes been applied to the Canadian economy in the course of the many attempts to explain the country's relative industrial weakness in comparison with other economies

of similar size. Canada's problems might stem from a less than optimal size distribution of firms, for example an underrepresentation of medium firms. If this is the case, the small firm population would be particularly valuable as a nursery for future medium ones.

This hypothesis is not verified when expressed in these terms. While the size distribution of firms in the U.S., Canadian, and British economies tends to remain fairly constant, there is no theoretical reason why any particular distribution should be preferable to another. Turning to Canada, if one compares the distribution of establishments by employment size with that of the United States, the Canadian curve for 1979 has a similar shape to the U.S. 1978 curve. As Figure 1 shows, it differs at the two extremities, showing a proportionately larger number of small units and a smaller number of large ones in Canada.^{6/}

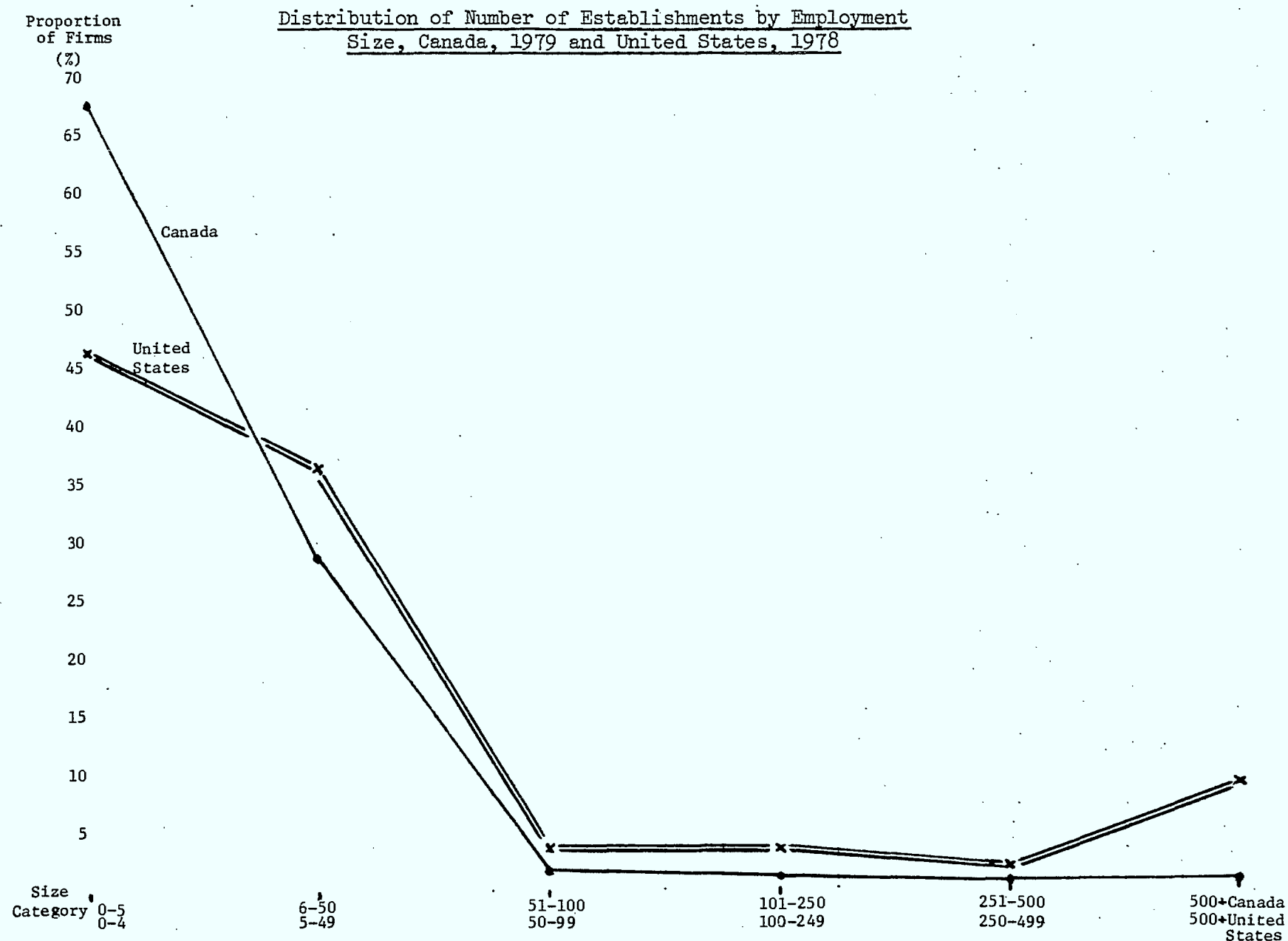
While there are no arguments in favor of any a priori size distribution of firms, evidence shows a continual movement of individual firms between the different size groups in most industrialized economies. The majority of movements tend to cancel each other out so that the size distribution remains the same over time. Assuring easy flows between different size categories appears to be more important than attempting to ensure adequate representation within any particular category.

The preceding considerations of firm size suggest that it is not of major significance. The size of a firm, by itself, tells us little about its likelihood of success nor do we need any particular size distribution of firms in Canada.

Classifying Small Business

Any definition of small business, whether quantitative or qualitative, covers a very large and heterogeneous population. Adopting tight management as the principal distinguishing feature of a small business, we are faced with a multitude of incorporated and unincorporated commercial activities, performing service, retailing, wholesaling, financial and manufacturing activities and ranging from the one-man barber shop to the embryonic supplier of parts for space shuttles.

FIGURE 1



Source: Dun and Bradstreet are used for both countries; for Canada: Department of Regional Economic Expansion, Small Business in Canada: A Statistical Profile, August, 1980; for the United States: The State of Small Business: A Report of the President, transmitted to the Congress, March, 1982.

The value of this population's annual sales, its workforce, its taxes and so on, can be estimated annually and the totals compared with those of other businesses. But if we want to get beyond these aggregates and examine small business' role in the economy and the impact of economic policy on it, we find that there is little that can be said about the population as a whole. We rely, for example, on small business to not only provide personal services in a neighborhood and to contribute toward its social stability but also to innovate. We expect it to provide reliable services to large firms but also to threaten them by introducing new products or ways of doing things. When it comes to policy, small businesses have different needs. Limiting the value of wage-competing transfers is a priority for some while the priority for others is guaranteed purchasing for high technology products.

Analysts try to respond to the need to subdivide the small business population by using legal, sectoral, or quantitative categories. Legal status -- whether or not a business is incorporated -- is significant for statistical aggregates. In 1978, the approximately 343,500 unincorporated businesses (out of a Canadian total of 1,236,100 businesses) contributed to less than 5 percent of the total value of private sector sales in Canada. The marginal nature of this contribution, together with the extreme difficulty of obtaining data, has led many authors to exclude the unincorporated sector from the small business population. This exclusion may be justified in certain cases, when venture capital or exports, for example, are being discussed. But in addition to the employment they provide for their numerous owners, unincorporated businesses are an important source of entrepreneurial talent and of future incorporated firms. In many cases a successful business will be incorporated as soon as it is fiscally advantageous to the owner, and the flow in and out of corporate status is sensitive to changes in fiscal measures favoring one form or the other. The legal status of a business is thus not a useful criterion for a general classification of small business.

A more promising classification would be by sector. The usual sectoral classifications are trade (wholesale and retail), services (personal and business), finance, construction (general and special trade contractors), and manufacturing (standard and high technology). Firms in

a given sector may have common problems, operating characteristics and objectives. However, a sectoral breakdown often obscures the specificity of small business. Except in those few subsectors, such as special trade contractors and machine shops, in which small firms are dominant, the performance and the concerns of the minority of large firms in the sector will overshadow the contribution and needs of the small ones.

More important, sectoral classifications tell us nothing about small business' behavior or market strategy. Although we can foresee that a large majority of retail and personal service stores will remain small, operate in a traditional manner and contribute to social stability, a few mavericks may break with tradition and create new ways of doing things in their particular line of business or even transform the line of business itself. Well-known recent examples of this in Canada include Delisle dairy products, Steinberg grocery stores, and Bombardier -- manufacturers of transportation equipment. The last, Bombardier, came not only from a traditional sector, transporting farm vehicles on runners, but one which had become obsolete with the extension of snow-clearing to country roads in the 1940s. Such innovative small businesses ultimately play a different role in the economy than do those which continue to operate within the established framework of their respective sectors.

A review of the extensive literature on small business reveals that virtually all analysts are using an explicit or an implicit typology to classify small businesses according to their market strategies. The simplest typologies are dichotomies which divide the small business population into two groups, such as traditional and innovative, mature and entrepreneurial, static and dynamic. Some observers distinguish between businesses creating demand for additional products, such as manufacturers which are starting up or penetrating new markets, and others, whose growth depends on the growth of their environment. Other authors have built complex matrices using different types of venture, of entrepreneur and of stages of development to classify their small business populations.

The main problem with all such typologies is that although they may be conceptually satisfying, and even necessary for policy analysis, they can only be applied retrospectively. They have no predictive value. It is only with hindsight that we can observe that particular subsectors

or previously mature industries were centers of innovation and that certain small firms broke away successfully from the normal behaviour pattern in their industry. Targeting policies to high technology and software firms, for example, offers no guarantee of support for entrepreneurial initiative.

Yet, although we cannot predict which sectors or firms are mature and which entrepreneurial, it is obvious that small businesses do adopt differing market strategies. There are, on the one hand, the so-called "mom and pop" operations, in which two people plan to provide themselves and members of their family with jobs and a minimum income and, on the other hand, the two person partnership which aims at foreign markets for a sophisticated, differentiated product even while still carrying round an early prototype in the family car. In between these two extremes, lie a wide range of objectives and great diversity regarding readiness to assume risks and to experiment with new products, processes, and markets.

In the wide spectrum between the "mom and pop" store and the "high tech entrepreneur" are the so-called "stand pat" businesses. These are often referred to as firms which have reached a comfort zone. They deliberately refrain from further entrepreneurial activities, such as attempting to reach new markets or to increase their share of their existing market. While not all are able to do so, many, possibly a majority, of small business people would like to reach such a comfort zone while maintaining their independence.

Although all typologies are a posteriori as well as being subjective to the writer using them, we believe that any policy analysis of small business will implicitly use a typology. We are therefore stating our conceptual classification of small businesses into three groups according to their respective market strategies -- self-employment firms, stable, high pay-off firms and growth-oriented firms. This classification cuts across sectors, corporate status, size, and degree of independence, however measured, although there is clearly a strong representation of firms with certain market strategies in certain sectors and size groups.

It must be understood that this classification cannot be applied rigorously, that at any given time a large number of small businesses will be failing to attain their strategic objectives, and, moreover, that in the majority of cases these objectives may never be spelled out. We, nonetheless,

believe that this classification is a useful, and indeed necessary, prerequisite to the analysis which follows.

A second distinction within the small business world, which can be superimposed on the first, is that between new and established firms. The vast majority of new firms start small, and new small businesses have a very high probability of failure within the first three years. If they weather this period their chances of long-term survival improve dramatically. New businesses face special problems in getting money and market information. At the same time, they make, in the aggregate, the greatest contribution to employment since their total work force represents job creation. We will be returning to these matters in subsequent chapters. At this stage of identifying small business we merely note that there is a difference between new and other small firms.

The Canadian Small Business Population

We have explained, in earlier sections, our choice of tight management to distinguish small from other business and our scepticism regarding the use of quantitative measures to describe the small business population. We have further divided our target population into three groups according to their respective strategies and into new and established businesses. It is now the time to look at the existing small business population in Canada.

Identifying the Small Business Population

Since businesses are not automatically classified into size categories, analysts have to identify the small business population on the basis of data collected for other purposes. Identification by a process of elimination has proved the most practical method.

In 1978, according to the tax files, there were about 1,236,100 unincorporated and incorporated businesses in Canada. This figure excludes nearly a quarter of a million unincorporated businesses reporting annual sales of less than \$10,000 on the grounds that the business reported was not the principal activity of those filing returns. From this base population of 1,236,100, some 512,500 unincorporated, self-employed farmers and fishermen, professionals and commissioned sales people are further excluded.

From the remaining 723,600 incorporated and unincorporated businesses, we can also exclude 78,400 incorporated firms with less than \$10,000 in annual

sales. These firms may be inactive or going out of business. The resulting 645,200 represents all incorporated and unincorporated businesses with sales of more than \$10,000. This population is made up of 302,200 incorporated firms and 343,000 unincorporated businesses. While these two subgroups are roughly equivalent in numbers, the incorporated sector makes a much more substantial contribution to output (in the order of 95 percent of sales and 90 percent of pre-tax profits of the private sector in 1978).

We now have to find the small business share of the 645,200 businesses with annual sales of more than \$10,000. To apply our qualitative criteria we would have to investigate this population with regard to its management, ownership and market position. Before such an investigation could be completed, the population would have changed several times. We therefore have to fall back on an unsatisfactory quantitative measure -- the value of annual sales -- which is the only available indicator common to all these businesses. If we exclude firms with annual sales of above \$2 million in 1978, we are left with 621,900 small businesses.^{7/}

Sectoral Distribution

When we look at the four sectors of commercial activity in which we would expect to find small businesses -- manufacturing, construction, trade and services -- we find that, in 1978, they accounted for 96 percent of all the firms active in these sectors. Not surprisingly, they are best represented in the service sector, with 99 percent of all firms, and least well represented in manufacturing where 87 percent of all firms are small according to our quantitative classification. Table 1 shows that although small business dominates in terms of the number of firms (Section B) and makes a major contribution in terms of employment (Section C), its contribution declines when sales are considered (Section D) and becomes relatively minor in terms of GNP (Section F). Small business' contribution to value added by manufacturing industry is shown in Table 2 and its presence in the service sector in Table 3.

A more detailed picture of small business' role in particular industries can be found in Tables 4 and 5. These two tables, taken from the Small Business Financing Review (SBFR) refer to two different groups of businesses. The "Independents" in Table 4 are private sector, Canadian-owned, non-affiliated firms with annual sales value of between \$100,000 and

TABLE 1
Overview of Small Business,^{a/} Position
in Four Sectors, 1978
(percentages)

	<u>Manufacturing</u>	<u>Construction</u>	<u>Trade</u>	<u>Services</u>
A. Distribution of all business in the four sectors	9	22	39	30
B. Number of small businesses as percent of total number of businesses	87	97	95	99
C. Share of small business in employment of sector	16	72	43	72
D. Share of small business in value of total sales of sector	6	52	28	56
E. Sector's share in the four sector's contribution to GNP	48	12	25	15
F. Small business' contribution to sector's GNP	5	7	9	9

a/ Businesses with annual sales of less than \$2 million.

Source: Compiled from "An Analysis of the Overall Contribution to Small Business to Economic Activity," Small Business Secretariat, November 15, 1982.

TABLE 2

Contribution to Value Added in Manufacturing,
by Size of Establishment and Industry, 1980
(percentage share)

<u>Industry</u>	<u>Small</u> ^{a/}	<u>Medium</u> ^{b/}	<u>Large</u> ^{c/}
Food and beverages	15.24	30.52	54.25
Rubber and plastics	17.78	26.67	55.56
Leather	16.46	43.04	40.51
Textiles	10.48	23.38	66.14
Knitting mills	15.93	43.44	40.63
Clothing	25.97	44.29	29.74
Wood industries	19.85	38.45	41.69
Furniture	31.71	44.84	23.45
Paper and allied	3.14	13.86	83.00
Printing and publishing	28.76	28.07	43.17
Primary metals	2.94	10.19	86.87
Metal fabricating	27.78	37.04	35.18
Machinery	13.62	28.77	57.61
Transportation equipment	4.52	9.52	85.96
Electrical products	8.42	10.07	73.51
Non-metallic minerals	22.16	37.72	40.11
Chemicals	12.73	29.09	59.18
Miscellaneous manufacturing	26.93	30.51	42.56
Total	14.17	25.71	60.12

a/ Establishments with between 1 and 49 employees.

b/ Establishments with between 50 and 199 employees.

c/ Establishments with 200 or more employees.

Source: "An Analysis of the Overall Contribution of Small Business to Economic Activity," Small Business Secretariat, November, 1982 (Ottawa, 1982), Table 5.3.1.

TABLE 3

Distribution of Establishments by Size and
Industry in Tertiary Activities, 1979

<u>Industry/Industrial Group</u>	<u>Number of Establishments in 1979</u>		
	<u>Small^{a/}</u>	<u>Medium^{b/}</u>	<u>Large^{c/}</u>
General contractors	20,071	1,350	77
Special trade contractors	27,266	948	26
Transportation	14,388	795	90
Storage	494	35	5
Communication	704	118	23
Electric, gas and water utilities	637	44	34
Wholesale trade	35,793	5,580	580
Retail trade	63,059	4,506	273
Finance industries	42,251	665	143
Insurance and real estate	60,470	905	67
Education and related services	760	11	1
Health and welfare services	4,055	87	3
Amusement and recreation	6,239	112	16
Business services	32,638	543	34
Personal services	5,241	58	2
Accommodation and food services	19,163	397	27
Miscellaneous	13,353	331	15

a/ Establishments with between 1 and 49 employees.

b/ Establishments with between 50 and 199 employees.

c/ Establishments with 200 or more employees.

Source: "An Analysis of Overall Contribution of Small Business to Economic Activity," Small Business Secretariat, November, 1982 (Ottawa, 1982), Table 6.1.1, Preliminary Data.

TABLE 4

Industries in which "Independents"^{a/} Account
for a Major Proportion of Total Sales, 1978

<u>Rank</u>	<u>Industry</u>	<u>"Independents'" Sales as Percentage of Industry Sales</u>	<u>Number of "Independent" Firms</u>
1	Tire, battery and accessories stores	91.9	2,233
2	Motor vehicles repair	91.7	7,981
3	Machine shops	88.4	1,032
4	Motor vehicle dealers	86.9	4,841
5	Clothing industry	85.9	1,382
6	Gasoline service stations	85.5	10,420
7	Special trade contractors	84.2	33,078
8	Drug stores	81.2	3,077
9	Hosiery and knitting mills	80.9	230
10	Building construction	80.7	10,662
11	Retail stores, not elsewhere specified	79.5	8,890
12	Miscellaneous personal services	79.3	1,165
13	Blacksmithing and welding shops	78.1	865
14	Photographic services, not elsewhere specified	76.6	912
15	Miscellaneous repair shops	76.5	631
16	Household furniture and appliance stores	75.9	7,756
17	Wholesalers of scrap and waste materials	75.6	639
18	Signs and displays industry	75.3	280
19	Advertising services	73.9	1,062
20	Radio, television, and electrical appliances repair stores	73.2	555
21	Florists' shops	73.2	749
22	Men's clothing stores and custom tailor shops	72.8	1,522
23	Household furniture manufacturers	72.0	874
24	Women's clothing stores	71.9	2,106

^{a/} See text p. 16, for definition.

Source: Small Business Financing Review, Department of Industry, Trade and
Commerce, March, 1982, p. 27.

\$30 million in 1978. This group may thus include a number of firms which would be excluded by our definition. A glance at the table suggests, however, that it includes few large corporations. It is included here because of the valuable additional perspective it provides on smaller business' industrial concentration in Canada.

Table 5, also taken from the SBFR, refers to "self-employment" firms defined as incorporated and unincorporated businesses with annual sales below \$100,000 in 1978. Again, this table may not correspond to our definition by including firms sales of less than \$10,000 but this is not likely to be significant.

These five tables give us an overview of small business' place in the Canadian industrial structure. They show that it is numerically dominant, important to employment, and strongly represented in personal and mechanical services, construction, and trade.

Regional Representation

We see from Table 6 that small business is most important in the Atlantic region despite the fact that farmers and fishermen are excluded from the small business classification. Since manufacturing is relatively weak in the area and is dominated by large firms, small business' contribution is less outstanding in this sector than in others. Trade and services, on the other hand, are major activities in the region. The proportion of the Atlantic economy accounted for by services is the highest in Canada in terms of employment -- 20 percent -- although its sales performance is only 5.7 percent. Small businesses dominate every service industry group in the region, contributing 83 percent of sales and 76 percent of the service employment. More than half the service activity is generated in the accommodation and food services industry.

In Quebec, small business' contribution to sales is above the national average but its contribution to employment is below it. Small businesses are numerically less well represented in Quebec manufacturing than they are in manufacturing in eight other provinces but it should be remembered that manufacturing is less important in those provinces. Small businesses are slightly more important numerically in Quebec than in Ontario but considerably more important in terms of sales and employment.

TABLE 5

Industries in which "Self-Employment Firms"^{a/}
are Concentrated, 1978

<u>Rank</u>	<u>Industry</u>	<u>Number of Firms</u>	<u>Percent of Unincorporated</u>	<u>Cumulative Percent of Total</u>
1	Special trade contractors	42,384	91	14.4
2	Truck transport	30,049	91	24.5
3	Hotels, motels, restaurants	23,959	78	32.7
4	Wholesalers, not elsewhere specified	16,382	60	38.2
5	Retail stores, not elsewhere specified	14,140	74	43.0
6	Miscellaneous services to business	11,388	35	46.9
7	Food stores	10,582	90	50.4
8	Barber and beauty shops	9,246	96	53.6
9	Miscellaneous services, not elsewhere specified	8,469	58	56.4
10	Building construction	8,039	38	59.2
11	Taxicab	7,989	97	61.9
12	Amusement and recreation services	7,779	65	64.5
13	Other construction	6,359	94	66.7
14	Logging	6,228	87	68.8
15	Motor vehicle repair	5,275	91	70.6
16	Service to buildings	4,504	90	72.1
	Subtotal	212,772		
	All remaining "Self-Employment Firms"	<u>82,396</u>		
	Total "Self-Employment Firms"	<u>295,168</u>		

^{a/} See text p. 21, for definition.

Source: Small Business Financing Review, Department of Industry, Trade and
Commerce, March, 1982, p. 28.

TABLE 6

Small Business Presence in All Sectors and in Selected
Sectors in the Five Canadian Regions, 1979

Selected Sector	Atlantic			Quebec			Ontario			Prairie			British Columbia		
	Small Business Percentage			Small Business Percentage			Small Business Percentage			Small Business Percentage			Small Business Percentage		
	No. of Businesses	Sales	Employ- ment	No. of Businesses	Sales	Employ- ment	No. of Businesses	Sales	Employ- ment	No. of Businesses	Sales	Employ- ment	No. of Businesses	Sales	Employ- ment
Manufacturing	90	10	23	86	10	22	85	5	12	94	14	28	96	9	14
Construction	98	51	79	97	45	68	98	53	75	98	47	68	99	57	79
Trade	96	47	61	95	30	48	95	23	37	95	27	47	96	24	42
Services	96	83	76	99	62	75	99	40	53	99	70	90	99	68	68
Total all Sectors	97	36	57	96	22	36	96	16	32	97	27	56	98	26	43

Source: Compiled from "An Analysis of the Overall Contribution to Small Business to Economic Activity," Small Business Secretariat, November 15, 1982.

Small business makes the lowest proportional contribution to the Ontario economy. This is partly attributable to the importance of manufacturing which accounts for 42 percent of the province's sales and 36 percent of its employment. Within the Ontario manufacturing sector, small businesses are best represented in metal fabricating (53 percent of sales), printing and publishing (73 percent), furniture and fixtures (70 percent), clothing (69 percent), and textiles (52 percent). Trade is the second most important sector but is dominated by large businesses in the wholesale end. Small businesses are not well represented in the important financial sector except in insurance and real estate.

In the Prairies, construction is better represented than elsewhere in the country. With 90 percent of all sales and 11 percent of employment, small business has a major share of that activity. As in the case of the Atlantic region, the exclusion of small business from the agricultural sector underestimates independent business people's contribution to the Prairie economy.

Small business is numerically more important in British Columbia than elsewhere but in terms of sales and employment its share is lower than that in the Atlantic and Prairie regions. The importance of resource extraction and processing largely accounts for this.

Summary

The population we have defined and identified in this chapter is the subject of the remaining chapters of the Report. Despite serious data problems, we can undertake an examination of the activities, contributions and problems of the approximately 620,000 small businesses in Canada with a certain confidence. We know that the vast majority of these businesses are tightly managed, that they are most heavily concentrated in the service and trade sectors and that they make a greater proportional contribution to sales and employment in the Atlantic Region and in Western Canada than in Ontario and in Quebec. In the following chapters we will examine small business' contribution to key economic activities in Canada -- employment and manpower training, innovation, exporting, specialized supplying and regional and social development.

Footnotes to Chapter 2

- 1/ This information from the Small Business Secretariat reflects the situation in 1978. The text and tables in later sections of this chapter expand on this data.
- 2/ While these ceilings are used for data collection, several other different ceilings are used by the federal and provincial governments for program delivery.
- 3/ Our notion of tight management is similar to that associated with closely-held corporations. We do not use the expression "close management" in order to avoid confusion with the legal category of closely-held corporations which is not synonymous with small business.
- 4/ J. K. Galbraith, American Capitalism, The Riverside Press, Cambridge, Massachusetts, 1956.
- 5/ Among others questioning the efficiency of large scale management, Norman Macrae, in a series of articles at different times in The Economist, has suggested radically different ways of organizing business, including that of setting up several competing divisions or profit centers to tender for tasks within a major corporation. See The Economist, London, December 25, 1976, April 17, 1982, and January 8, 1983.
- 6/ The Dun and Bradstreet data used are broken down by establishment rather than firm. A firm breakdown might give some support to the hypothesis although it is unlikely to change the shape of the curve significantly.

The hypothetical explanation of Canada's industrial weakness in terms of firm size can be modified to consider not just the number but the quality of firms in the different size categories. If firms in a certain size group were less innovative and competitive than those in other categories there would be a gap or a soft stop in the country's industrial structure. Such a situation could arise, under tariff or other forms of protection, if the less competitive firms were maintained in existence by means of access to foreign capital, technology or other resources. While this is a hypothesis which should be investigated, it is not strictly relevant to this report.
- 7/ Statistics have been collected with reference to the \$2 million ceiling since 1977 and these offer the most complete data base for small business in Canada. Several agencies are now collecting data on a \$5 million basis, and the Small Business Secretariat, which is responsible for small business

data, recognizes that the \$2 million base should be adjusted. We will be using both bases in this report. In terms of the number of firms, there is little difference since in 1978 there were only 21,000 firms with sales between \$2 million and \$20 million. However, there could be important marginal differences.

3. Small Business' Contribution to Employment and Manpower Training

Small businesses employ about 35 percent of the total Canadian employment. They are also perceived as making a major contribution to job creation and manpower training in Canada. In recent years, it has been suggested that they are responsible for a majority of all new jobs created. On the training side, many commentators believe that small firms play a particularly valuable role in integrating young people, unskilled workers, women returning to paid employment and people seeking part-time work into the labor force, and that they offer a more diversified form of training than that provided by large corporations. These assertions are of particular interest to Canadian policymakers since job creation and training are among the country's major economic concerns in the 1980s.

In this chapter, we investigate small business' role first, in creating and maintaining jobs, and, second, in training workers. We use Canadian data whenever available, but much more work has been done on these questions in the United States. This is particularly true in the key area of job creation. We examine the available data in some detail here because of the potential importance of the findings advanced by David Birch in the United States.

Since small businesses are much more numerous than medium or larger ones, as well as being more labor-intensive, there is a strong likelihood that they play a major role in the labor market. Birch originally suggested that businesses with fewer than twenty employees were responsible for two-thirds of U.S. job creation from 1969 through 1976. More careful definition suggests that their share may have been nearer 56 percent, and may have fallen to around 40 percent in 1978-80. No comparable Canadian data exists, but complementary studies suggest that small business plays a major role in creating and maintaining jobs in this country as well. It has been further suggested that in the United States, small businesses have a tendency to enter (and expand within) regions and sectors which are relatively weak in terms of private sector productive activity.

Turning to the question of training, available data shows that the amount of formal training provided by a firm increases with the size

of the firm. However, larger firms also report greater current and anticipated shortages of trained employees than small firms. The data does not allow us to show whether there are significant differences in the quality of training provided by the two groups of firms, but there are some indications to suggest that small firm training may be more general and thus more interchangeable than that provided by large firms.

We have not been able to test the hypothesis that small businesses provide proportionately more jobs and training for individuals in what is sometimes called the "secondary" labor market -- workers seeking their first job, women returning to the work world, immigrants and others. The hypothesis is however intuitively probable. It is certain that small businesses train future small business people, both by offering role models for younger members of the owner/managers' families and by deliberately or involuntarily creating circumstances under which employees are encouraged to set up their own business.

In general, the findings of this chapter show that small business plays several important roles in the labor market; all of which merit further research in Canada.

Small Business and Employment

In this section, we first review the potential relationship between small business and jobs, and then examine small business' contribution to the level and growth of employment.

Small Business and Jobs

There are several reasons for examining the particular relationship between small business and the labor market.

- . Small firms are much more numerous than larger ones and, to that extent, may be perceived as accounting for a substantial proportion of total employment.
- . To the extent that the level of labor-intensity is significantly different, on the average, in small firms than in large firms, the size of the firm may be an interesting variable to consider when examining the job creation process.
- . The extent to which small firms tend to enter and expand in fields with few or no large firms may also be of concern when assessing firms' employment patterns and growth in relation to their size.

We will look at small business and jobs from two points of view: first, small business' contribution to the level of employment in the economy, and second, and more significant, employment growth in relation to firm size.

Small Business and the Level of Employment

Using data provided by Statistics Canada, the Small Business Secretariat (SBS) has developed a data base that can serve for statistical analysis purposes.^{1/} According to SBS data (presented in Table 7), small firms accounted for 41.4 percent of total Canadian private-sector employment in 1979. One-third of the remaining jobs were found in medium-size businesses (15.1 percent), and two-thirds in large firms (43.5 percent). So, small firms employ almost as many workers as large ones and twice as many as medium-size ones, in the aggregate.

However, on an industry basis, the proportion of employment in small firms varies substantially. In Table 7, we can see that small firms account for a significantly higher than average proportion of employment in agriculture (84.4 percent), forestry (73.0 percent), fishing (83.3 percent), construction (73.4 percent), and services (80.2 percent) industries, while a proportion significantly below the average appears in mining (9.8 percent), manufacturing (15.1 percent), and transportation (24.8 percent) industries. In trade and in finance, small firms' proportion of employment was just slightly above the national average (43.9 percent and 48.1 percent respectively).

For purposes of comparison, large firms accounted for a significantly higher than average proportion of employment in only three industries: mining (81.0 percent), manufacturing (69.2 percent), and transportation (65.7 percent). Medium-size businesses do not account for more than 25.0 percent of employment in any of the industries listed, the highest proportion being found in trade (22.1 percent) and the lowest in mining (9.2 percent). It should also be noted that industries in which employment in large firms is predominant accounted for nearly twice as many jobs as industries in which employment in small firms predominates (43.4 percent of total employment compared with 24.7 percent).^{2/}

TABLE 7

Firms' Shares of Employment by Size and Industry, Canada, 1979
(percentage)

<u>Industry</u> ^{a/}	<u>Small</u> ^{b/}	<u>Medium</u> ^{c/}	<u>Large</u> ^{d/}	<u>Total</u>
Agriculture	84.4	14.4	1.2	74,773
Forestry	73.0	21.4	5.6	54,419
Fishing	83.3	16.7	0.0	7,999
Mining	9.8	9.2	81.0	270,465
Manufacturing	15.1	15.7	69.2	2,520,309
Construction	73.4	20.6	6.0	509,139
Transportation ^{e/}	24.1	10.1	65.7	998,784
Trade	43.9	22.1	34.0	1,954,911
Finance	48.1	10.5	41.4	916,091
Services	80.2	10.2	9.6	1,527,807
Total	41.4	15.1	43.5	8,834,697

a/ These data exclude: Governments, Crown corporations and individual farmers, fishermen and professionals.

b/ Annual sales of less than \$2 million.

c/ Annual sales of between \$2 million and \$20 million.

d/ Annual sales \$20 million and over.

e/ Includes communications and utilities.

Source: Small Business Secretariat, November 15, 1982 and estimations of the authors.

Small Business and The Growth of Employment

For policy-making purposes, much of the interest in the relationship between small business and employment has centered on the growth of employment rather than on the level of employment by firm size. Recently this matter has become a major subject of interest following the publication of several studies by David Birch^{3/} on the job creation process. Birch presented his findings in these striking terms:

Of all the net new jobs created in our sample
between 1969 and 1976, two-thirds were created in
firms with twenty or fewer employees, and about 80
percent were created by firms with 100 or fewer
employees Large firms are no longer the
major providers of new jobs for Americans.^{4/}

Before examining Birch's results further, we will look at other studies in order to establish a comprehensive picture of employment growth by firm size. There are two types of studies available in this field -- comparative time series and longitudinal studies.

Studies of the first type use time series analysis to assess employment growth. This method consists of a comparison of two or more breakdowns by firm size in different years thus assessing the differences in shares of employment by size category in each year. Several important problems arise when one wants to use this method to assess employment growth by firm size. The main problem is that many firms move from one category (defined in terms of number of employees) to another, thus hiding the true employment growth within individual firms and leaving us only with differences in employment shares by size category.

Moreover, since the SBS uses a sales class breakdown, its data are not appropriate for calculating differences over time since inflation, relative price changes and changes in corporate strategy and structure (such as the decision to 'make' or 'buy' which will affect the relationship between sales and value-added) may shift all firms to higher sales classes. On the other hand, the Manufacturing Census and the Department of Regional Economic Expansion (DREE) data are also of limited usefulness due to the use of establishments (instead of firms) as the basic unit. In addition, the former only covers manufacturing and

the latter is invalid as a time-series due to a major "clean-up" that took place during the years under investigation.

One available time-series is that commissioned by the Canadian Federation of Independent Business (CFIB) to compare small business shares of employment over different years using the Statistics Canada Establishment Survey.^{5/} The main results of this study are presented in Table 8. It shows that, using the small establishment cutoff at twenty employees, small establishments' share of the difference in employment was 27 percent for the 1961-71 period. Essentially, the authors of the study have established the difference in the level of employment in Canada between two points in time, and they have estimated the contribution of small business to that difference. Small business' share of the difference, which was 27 percent over the ten-year period, increased to 59 percent for 1971-77 and to 97 percent for 1976-77.

However, these numbers do not permit us to identify the part of the small establishments' share which comes from establishment start-ups, that which comes from their growth and that which comes from the contraction or fragmentation of large establishments. A further limitation of this data is that it is based on the establishment rather than on the firm. Large firms with small establishments may account for a substantial share of total employment. These results must also be treated with reservation because while all establishments with twenty or more employees are surveyed, this is not the case for those with fewer than twenty employees which are only sampled. Finally, a further problem with the results is that they represent differences in employment from year to year (and the small "firms'" share of that difference) and not the increase in small "firms'" share of total employment.

To look at actual changes in employment within firms, we have to use another method which follows individual firms (rather than establishments) over time -- longitudinal surveys.^{6/} Birch's work was a step in that direction since it was based on a follow-up of individual establishments over time. The Birch studies are of interest not only for their path-breaking use of individual establishment data but also because of the magnitude of the results which we quoted above. These results are presented in Table 9.

TABLE 8

Total Changes in Employment Levels and Small Business'
Shares of Total Changes, 1961-77, 1971-77, 1976-77

<u>Year</u>	<u>All Firms</u>	<u>Changes in Employment Level</u>		<u>Share of "Firms"^{a/} With 20 Employees or More</u>
		<u>Establishments With Less Than 20 Employees</u>	<u>Establishments With 20 Employees or More</u>	
1961-71	1,359,100	994,863	364,237	27 percent
1971-77	1,168,600	482,748	685,852	59 percent
1976-77	178,500	6,171	172,329	97 percent

^{a/} Although the study refers to firms these are not distinguished from establishments.

Source: Preliminary data presented by the Canadian Federation of Independent Business, 1979. Refer to footnote 5.

TABLE 9

Share of Net Job Generation by Size of Establishment
and Status, United States, 1969-76
(percentage)

<u>Status</u>	<u>Number of Employees</u>					<u>Total</u>
	<u>0-20</u>	<u>21-50</u>	<u>51-100</u>	<u>101-500</u>	<u>500+</u>	
Independent	51.8	4.4	0	-1.5	3.1	57.8
Headquarters/Branch	11.9	4.9	3.1	5.6	10.6	36.1
Parent/Subsidiary	2.3	1.9	1.3	1.1	-0.5	6.1
Total	66.0	11.2	4.4	5.2	13.2	100.0

Source: David L. Birch, The Job Generation Process, Massachusetts Institute of Technology, Program on Neighborhood and Regional Change, 1979, p. 30.

There has been much controversy regarding the Birch findings, the quality of the data, and David Birch's interpretation of what he observed. There are three sources of misunderstanding to clear up. First, the Birch results are not necessarily inconsistent with the observation that small establishments' share of total employment does not change very much over time. For the purpose that Birch had in mind, it was necessary to classify an establishment as having a certain number of employees at some point in time and then leave that establishment in the corresponding category regardless of variations in its level of employment. Therefore a new establishment which starts up with five employees in 1969 and grows to one hundred employees in 1976 remains in the 0-20 employee classification. In Birch's own words, "the job creators are the relatively few younger ones that start up and expand rapidly in their youth, outgrowing the 'small' designation in the process."⁷ So though these establishments outgrow the "small" designation they remain in the small classification so that their impact can be measured.

A second source of confusion concerns the role of new firm start-ups in the job generation process. Birch defines new jobs as the number of people employed due to the birth of a new establishment plus the increased employment created by the expansion of an existing establishment, that is, births plus expansions. Birch finds that 50 percent of new jobs are births. Two points must be emphasized here. First, new jobs are not net new jobs. To calculate the latter he subtracts deaths and contractions. Second, a birth is an establishment start-up, not a firm start-up. Of the 50 percent of new jobs that are births, only 25 percent occurred in new firm start-ups (independents), the rest were in new branches of existing firms. In addition the share of new firm start-ups in total births fell substantially over the period studied (from approximately 40 percent in 1969 to 25 percent in 1976). Therefore, new firm start-ups accounted for approximately 12.5 percent of new jobs in the United States for 1976.

Finally, another point to be made clear (and perhaps the most important in relation to Birch's work) is related to his classification of business by establishment size rather than actual firm size. As a result, many small branches of large manufacturing firms, local retail outlets, and

regional business offices of national firms were counted as small even though the consolidated employment of the entire firm was above the number used to define small business.

The importance of this last point has been outlined in a recent study by Armington and Odle with data extracted from a later version of the same Dun and Bradstreet microdata file that Birch used. The same approach as Birch's was adopted. Microdata records for over 5 million business establishments were linked for two points in time, 1978 and 1980, in order to measure change in individual businesses.

As explained by Armington and Odle, it is important to distinguish adequately between the concept of "firm" as opposed to that of "establishment" because,

. . . . although the number of employees at the establishment location may be the appropriate unit of measure for studies of management techniques or sociology of the workplace, the size of the entire firm's workforce is the preferable measure for evaluating the effects of public policy on small business and assessing the impact of the small business sector on the economy. 8/

The main consequence of thus distinguishing between the establishment and the firm is a notably large difference in the share of employment growth share attributed to small business. Thus, while Birch argues that "about 80 percent . . . of all the net new jobs . . . were created by firms [sic] with 100 or fewer employees"9/ between 1969 and 1976, Armington and Odle submit that small firms generated only 39 percent of the net new jobs created between 1978 and 1980. Armington and Odle's results are presented in Table 10.

When we look at the share of net job creation in "independent" firms' establishments, (in Table 9) which is closer to Armington and Odle's definition of small business, the percentage is 56.2 for the period 1969-76. This is still higher than the results obtained by Armington and Odle for the period 1978-80. The difference here may have occurred because of the relatively massive growth in service-related industries between 1969 and 1976 as compared to that between 1978 and 1980.

TABLE 10

Small Business' Shares of Employment Change,
United States, 1978-80
(in thousands)

<u>Establishment Category</u>	<u>1978 Total</u>	<u>1978-80 Net Change</u>	<u>Births</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Deaths</u>
All establishments	81,408	7,104	6,333	11,453	-5,723	-4,959
Small firm establishments	29,177	2,780	2,317	4,547	-1,747	-2,336
Small business percentage share	35.8%	39.1%	36.6%	39.7%	30.5%	47.1%

Source: Armington and Odle, "Small Business -- How Many Jobs?," The Brookings Review, Winter, 1982, p. 15.

From an analysis of industrial and regional employment creation patterns, Armington and Odle further conclude that ". . . the tendency of small businesses to enter and expand into relatively weak areas of production provides an important moderating influence that can slow or even interrupt the decline of weakening regions and industries."^{10/}

Don Layne has carried out a similar analysis, of the manufacturing sector in Canada, which was also based on longitudinal data. Using a data base constructed from the annual Statistics Canada Census of Manufacturers for the 1974 to 1979 period, Layne estimated a relatively high rate of attrition among the small manufacturing units. This was accompanied by a high rate of new entrants, most of which were small. The highly dynamic nature of small firms was further explained by Layne in his study:

While the survival rate for small manufacturers was lower, those who did survive exhibited a better growth performance than larger firms when measured by the key indicators: employment, values of shipment and value-added.^{11/}

Conclusions

In summary, we have seen that analyses of employment growth using time-series and longitudinal studies both suffer from limitations when it comes to estimating small business' share. While time-series studies cannot account for firms (or establishments) which move from one category to another, longitudinal studies have suffered from definitional problems.

One does not have to accept the tentative quantitative conclusions of the studies examined to appreciate their central finding; that small firms are probably more important to the ability of an economy to create jobs than has hitherto been realized.

How much more important is still an open question. The problems of method, data quality and conceptual clarity are serious. Birch, followed by Armington and Odle, seems to have demonstrated the need to use longitudinal analysis to discover the precise nature of the small firm's role. The Birch studies also illustrate the need for theoretical reasoning to interpret the data, separating the various causal elements and providing a basis for

understanding how small firm employment reacts to changing circumstances. While this is totally missing from Birch's work, Armington and Odle have drawn attention to the importance of an adequate unit of measure for these studies. There is certainly need for work of this kind in Canada. Current awareness of the conceptual and definitional problems may allow Canadian researchers to learn from the pioneering work in the United States.

One of the most important findings of the Armington and Odle study may be its suggestion that small business makes a particular contribution to job creation in industrial fields or in regions in which the level of productive activity is relatively low thereby slowing or even halting these regions' economic decline. This also could be usefully followed up in the Canadian context.

Small Business and Training

Training is a key issue for economic growth and development in this country. Indeed, the simultaneous existence of shortages in some highly skilled occupations and of high rates of unemployment in most of the other occupations has led analysts to question the Canadian training system's ability to provide the skills necessary for improved economic growth and productivity in the 1980s.

Training may also be important from the small business standpoint since, as seen in the preceding section, small firms make an important contribution to employment. Do they make as great a contribution to training and is their contribution of a different type from that of medium and large firms? This section attempts to answer these questions.

There is evidence that the training process in small firms is sufficiently different from that in large firms to require separate analysis in order to develop a workable policy. Recent experience in the United Kingdom provides an example of the possible consequences of not taking the size of firms into account when establishing a system for financing training. The use, in that country, of a levy/grant system to finance industrial training apparently led to an unintended transfer of money from small to large firms. This suggests that it may be difficult to design training policies that are neutral with respect to firm size without explicitly taking size into account.

Defining the Question

Training, in its broadest sense, is an individual's acquisition of human capital which serves to improve his or her productivity. It not only includes specific skills but also the accumulation of all useful knowledge about the work environment. A narrower definition of training is that of the Human Resources Survey (HRS) which we will use here. The HRS defines training as "the worker's acquisition of vocational skills to directly improve future productivity."^{12/} This definition is both more manageable and more relevant for policy analysis, since it corresponds to the objectives of federal government training policies.

However, when using this simpler definition, we must be aware of the possibility that the way in which training is measured may bias the results against small firms. For instance, there may be quality differences in the training provided by firms of different size, because the complexity of the organization's structure varies with size. A small firm, with its non-structured work environment, may train in such a way that the individual develops initiative and acquires autonomous decision-making skills, while the highly structured large firm may develop his or her capacity to function according to a set of detailed procedures. Even though the skills transmitted are the same according to the vocational definition, the training content may be packaged differently depending on the size of the firm.

When attempting to measure training activity in a firm, one should thus take account of the possibility that a small firm may provide more training in "general" or "basic" work skills, in addition to training in strictly vocational work skills, than does a large firm. In other words, the proportion of general to specific training may be higher in small firms. Elements of general training which a worker has acquired are likely to be more easily transferable to other firms than is the specific training. Having noted this possibility which we cannot measure with existing data, we turn to the relative volume of training taking place in firms of different sizes.

Differences in Training Activity by Firm Size

Differences in the levels of vocational training by firm size were outlined in the Human Resources Survey conducted by the Economic Council of Canada in 1979.^{13/}

The main results of this survey are presented in Table 11. It shows that the proportion of establishments reporting any training activities (in both categories of "some training" and "training programs lasting at least one year") increases with the size of the establishment. It thus appears that larger establishments are more likely to be involved in training activities.

Table 12 shows, on the other hand, that the incidence of hiring difficulties, both experienced and anticipated, also increases with establishment size. Furthermore, Betcherman concluded that establishments reporting hiring difficulties, training, and utilization of formal manpower forecasting techniques tend to be large and to be paying high wages, while those reporting no hiring difficulties, no training and no formal forecasting tend to be small and in the low-wage category.

A study by Meltz^{14/} which covers the same period showed that, in the case of tool and die makers, differences in training activities by firm size may also depend on the type of production activities performed by the firm:

It may be more efficient for small specialty firms to engage in apprentice training while /large/ manufacturing firms use only journeymen and confine their tool and die work to maintenance and repair.^{15/}

The above quotation implies that, in the particular case of tool and die makers, training in small firms (which tend to be highly specialized in their production) is of a general nature (that is, apprenticeship) while, in larger firms, training is highly firm-specific.

Conclusions

The results of the Human Resources Survey do indicate that, on the whole, the probability that an establishment is involved in some sort of training increases with its size. It also provides, however, some evidence that the incidence of training within an establishment is related to the unfilled demand for skilled workers within the establishment, this being apparently more frequent in large than in small establishments.

However, from the tool and die makers' experience it is also clear that this general picture conceals particular cases in which small firms

TABLE 11
The Incidence of Vocational Training, by
Establishment Size, 1979

<u>Establishment Size</u> (number of full- time employees)	<u>Number of</u> <u>Establishments</u>	<u>Proportion of Establishments</u> <u>that Reported</u>	
		<u>Some</u> <u>Training</u>	<u>Training Programs</u> <u>Lasting at Least</u> <u>One Year</u> (percentage)
Less than 20	208	42.8	9.1
20-49	492	59.4	18.3
50-99	230	63.9	21.3
100-499	234	77.8	27.4
500 or more	73	93.2	46.6
All establishments ^{a/}	1,237	62.9	20.7

^{a/} Size information was unavailable for 117 establishments.

Source: Gordon Betcherman, Meeting Skill Requirements, Report of the
Human Resources Survey, Economic Council of Canada, 1982, p. 51.

TABLE 12

The Incidence of Hiring Difficulties, Experienced
and Anticipated, by Establishment Size,
1977-79 and 1980-84

<u>Establishment Size</u> (number of full- time employees)	<u>Number of</u> <u>Establishments</u>	<u>Establishments that Experienced</u> <u>or Expect Difficulties</u>	
		<u>1977-79</u> (percentage)	<u>1980-84</u>
Less than 20	208	35.6	30.3
20-49	492	44.5	39.4
50-99	230	50.4	44.4
100-499	234	63.7	55.1
500 or more	73	74.0	60.3
All establishments ^{a/}	1,237	49.5	43.0

^{a/} Size information was unavailable for 117 establishments.

Source: Ibid., p. 18.

make a significant contribution to training. In such cases, small firms were not only where the bulk of training activity was taking place, but were also providing training for more general and transferable skills.

Summary and Review of Findings

We have seen in this chapter that small business plays a significant role in the labor market. Although this role appears to be more important, in terms of employment than analysts and policy-makers used to believe, it may not be as important as some of its most vocal supporters suggest. And whether or not it is likely to be more or less important in Canada in the 1980s remains to be seen.

However, we have seen that small firms tend to be concentrated in particular industries and that they tend to have a different employment structure from that of larger firms. This raises the issue of the quality of employment which may differ from small to large firms. On the one hand, small firms being less capital-intensive (and thus less "productive" in terms of value-added per employee) may be paying lower wages and salaries but, on the other hand, being less structured, they may well provide a more human working environment.

Footnotes to Chapter 3

- 1/ In SBS data, firm size is based on the value of annual sales. Small firms are those with annual sales of less than \$2 million, medium firms those with sales between \$2 and \$20 million, and large firms those with sales above \$20 million.
- 2/ Similar patterns of employment have been noted using data from other sources, even though no direct comparisons can be made because of differences in data bases and in small business definitions. For more details, see for example, Small Business in Canada: A Statistical Profile, Department of Regional Economic Expansion, Canada, 1980; J. Whipp, E. Hughes and J. R. D'Cruz, "A Profile of Small Business in Canada," prepared for the Small Business Financing Review, March, 1982.
- 3/ See, in particular, David L. Birch, "Who Creates Jobs?," The Public Interest, No. 65, Fall, 1981, pp. 3-14.
- 4/ Ibid., pp. 7-8. Author's emphasis.
- 5/ Preliminary data from a study of job creation performed by a consulting firm on behalf of the Canadian Federation of Independent Business, January, 1979. p. 2.
- 6/ The relationship between time-series data and longitudinal surveys is not very clear but one can argue that if longitudinal data show a larger net growth in one size category than in another, the time-series data should reflect it through an increase in the share of that former category in relation to the total.
- 7/ Op. cit., p. 8.
- 8/ The need to distinguish between establishment size and firm size is further explained by the authors when they mention that:

. . . . establishment is often used as a proxy for firm size because it is more frequently available and is the same for many businesses. Indeed, 91 percent of businesses with employees have only a single location, so their firm size and establishment size are the same. However, the other 9 percent that are multi-location firms employ 62 percent of the private sector workforce and consequently have a substantial impact on aggregate measures.

Catherine Armington and Marjorie Odle, "Small Business -- How Many Jobs?" The Brookings Review, Winter, 1982, p. 14.

9/ Birch, op. cit., p. 7.

10/ Armington and Odle, op. cit., p. 17.

11/ D. Layne, "The Performance of Small Manufacturing Units," Federal Business Development Bank, 1982.

12/ G. Betcherman, Meeting Skill Requirements, Report of the Human Resources Survey, Economic Council of Canada, 1982.

13/ Betcherman, op. cit.

14/ N. Meltz, Economic Analysis of Labour Shortages: The Case of Tool and Die Makers in Ontario, Ontario Economic Council, 1982.

15/ Ibid., p. 54.

4. Small Business as an Innovator and as a Foreign Exchange Earner

One of the reasons why small business' role in the Canadian economy has been overshadowed by that of large business may be that the latter is associated with large scale research and development undertakings and with export activities. Living in an open, high wage economy, which sells a quarter of its output abroad and depends on imports to maintain its standard of living, Canadians have always been aware of the need to export. In the 1980s, they are increasingly aware of the need to strengthen and diversify their export capacity in the face of stiff international competition. They are also becoming increasingly aware of the need to innovate in a world in which their comparative advantage in resource products is being eroded and in which constant innovation is the only alternative to exports based on low wages or mass production.

In this chapter, we examine small business' contribution to innovation and to foreign exchange earnings. Before beginning, we have to clear up two misunderstandings. First, the fact that small businesses cannot spend as massively as large ones on research and development (R & D) does not mean that they cannot innovate. R & D, although related to innovation, is not synonymous with it. Second, not all foreign exchange earnings arise from direct sales abroad. Indirect export earnings and the tourist industry make major contributions. Small business is probably responsible for half of all tourist industry foreign exchange earnings in Canada. The development of Canadian small business' direct export potential is still to come, but small firms have long been in the forefront of invention and of innovation.

Small Business' Contribution to Innovation

It is clear from our investigation that small business plays a disproportionately large role in the invention process in terms of both its size and its expenditures on R & D. Although large businesses are the highest R & D spenders, R & D dollars spent in small firms are the source of proportionately more inventions leading to innovations. Their contribution is typically made in the early stages of product invention and is complementary to the subsequent, capital-intensive, product development for a large market. Entrepreneurship is the essential ingredient in small firm innovation and threats to entrepreneurship, arising either from scarcity of venture capital or from a negative attitudinal environment, are likely to prevent small firms from realizing their key contribution to innovation in the Canadian economy.

In this section we first explain our understanding of invention and innovation. We then explore the relationship between small firms and innovation, highlighting the importance and the specificity of small firms' participation in both invention and innovation. We review innovation's links with entrepreneurship and job creation before turning to some of the problems innovating small firms face in Canada.

Innovation and Invention

Definitions

It is essential at the start to be clear what is meant by innovation and how it differs from other terms often associated with it. Innovation is defined for this study as the process by which new knowledge is generated and applied to the operations of society. Thus it is more than discovery and more than invention, for until the new "know-how" has been incorporated into the operations of society, society does not benefit from it, and by definition innovation has not occurred.^{1/} Only those inventions or new scientific or technological ideas that go through the entire complex of activities from conception to culmination and emerge as new and useful commercial products, processes or techniques can be accurately termed "innovations."^{2/} Technological innovation is defined as comprising those technical, industrial, commercial or other steps which lead to the successful marketing of new manufactured products or to the commercial use of technically new processes or equipment.^{3/}

Importance of Innovation to the Canadian Economy

It is likely that the main reasons underlying the recent, much increased interest shown in innovation by governments -- not only in Canada, but also in the United States and throughout the Organisation for Economic Co-operation and Development (OECD) countries -- are:

- . its contribution to competitive vitality;
- . its contribution to the formation of creative firms or new ventures of existing firms crucial as sources of significant new products in manufacturing;

- . its contribution to a "genetic pool" in every economy -- that is, to the seeds for continued economic growth and development -- from which the successful techno-economic growth combinations of the future will emerge;^{4/} and increasingly
- . because innovative activity is becoming the only comparative advantage Canada and other developed countries have in the face of acute competition from developed, and, more especially, from newly-industrialized countries;^{5/} and
- . lastly, but certainly not least important, innovation is attracting increased attention due to its association with job creation and employment stability.

Small Business and Innovation

The most widely accepted opinion seems to be that large firms are -- as J. K. Galbraith would have it -- inherently more innovative than small businesses. This erroneous perception is believed to derive from the fact that, as a group, large firms spend substantially more on R & D than small business; although their efforts are by no means as productive. Research cited by the Canadian Federation of Independent Business indicates that large organizations typically spend from three to ten times as much as small businesses to develop a particular product.^{6/} This is confirmed by a recent striking indication of small business' contribution to innovation in a 1981 study by the National Science Foundation which shows that small firms produce about twenty-four times as many innovations per research and development dollar spent as large ones.^{7/}

Small Business' Place in Invention and Innovation

Table 13 shows that small businesses and independent individuals have been active, and extremely successful, in the inventive process in the twentieth century. All the entries in the table achieved commercial use and so qualify also as innovations.

Contemporary examples of invention and innovation within small firms abound, including the recent and continuing development of semi-conductor technology in the United States, and of micro-electronic, technology-based firms in Canada. In addition, it appears from numerous sources that some of the most promising developments in DNA/bio-technology in the United States are taking place within a number of small firms which are

TABLE 13

Some Important Inventive Contributions of Independent
Inventors and Small Organizations in the Twentieth Century

<u>Invention</u>	<u>Inventor</u>
Xerography	Chester Carlson
DDT	J. R. Geigy & Co.
Insulin	Frederick Banting
Vacuum tube	Lee De Forest
Rockets	Robert Goddard
Streptomycin	Selman Waksman
Penicillin	Alexander Fleming
Titanium	W. J. Kroll
Shell moulding	Johannes Croning
Cyclotron	Ernest O. Lawrence
Cotton picker	John & Mack Rust
Shrink-proof knitted wear	Richard Walton
Dacron polyester fibre "Terylene"	J. R. Whinfield/J. T. Dickson
Catalytic cracking of petroleum	Eugene Houdry
Zipper	Whitcomb Judson/Gideon Sundback
Automatic transmissions	H. F. Hobbs
Gyrocompass	A. Kaempfe/E. A. Sperry/S. G. Brown
Jet engine	Frank Whittle/Hans von Ohain
Frequency modulation radio	Edwin Armstrong
Self-winding wristwatch	John Harwood
Continuous hot strip rolling of steel	John B. Tytus
Helicopter	Juan De La Cierva/Heinrich Focke/Igor Sikorsky
Mercury dry cell	Samuel Ruben
Power steering	Francis Davis
Kodachrome	L. Mannes and L. Godowsky Jr.
Air conditioning	Willis Carrier
Polaroid camera	Edwin Land
Heterodyne radio	Reginald Fessenden
Ball-point pen	Ladislao and Georg Biro
Cellophane	Jacques Brandenberger
Tungsten carbide	Karl Schroeter
Bakelite	Leo Baekeland
Oxygen steelmaking process	C. V. Schwarz/J. Miles/R. Durrer

Source: Technological Innovations: Its Environment and Management, United States Department of Commerce, Washington, 1967.

collaborating closely with universities, independent investors, and risk capital institutions. Indeed in terms of firm size and invention, evidence suggests that small firms or independent inventors have played a disproportionately large part in creating major twentieth-century inventions. As Table 14 demonstrates, in a survey of five research studies, none of the authors showed independent inventors and small firms to be responsible for less than 50 percent of the major inventions examined. However, re-analysis of the Jewkes, Sawers and Stillerman 1958 data listed in this table shows that while universities, independent inventors and small firms made the major contribution to the more radical type of twentieth-century invention before 1930, since that time corporate R & D has played the dominant role. It is also noteworthy that at least half the inventions in the same sample subsequently owed their successful commercial exploitation to the development work and innovative efforts of large firms.^{8/}

In Canada, about half of the R & D-performing companies in manufacturing are small (in this definition, with annual sales of less than \$10 million), but the 25 percent of firms which account for more than 70 percent of R & D expenditures are large (that is, with sales of over \$50 million).^{9/} Similarly, OECD statistics (1967 and 1971) show conclusively that the performance of R & D is highly concentrated in large firms in all the industrialized (so-called) capitalist countries.^{10/} In Canada, however, R & D intensity tends to decrease in Canadian-controlled firms as firm size increases.^{11/}

Large and Small Firms in Innovation

The perception that large firms are more innovative than small businesses is fostered because, due to their lack of resources, it is only in certain industrial fields that small businesses are able to contribute to technological development. However, small firms and entrepreneurs play a particularly important role when technology in any industry is new and fluid, and when markets are expanding fast, although the importance of their role decreases as the particular technology and the industry mature.^{12/} This highlights the interrelationship between small and large firms, and emphasizes the importance of the creative role played by new technology-based small firms (NTBFs).^{13/} Small firms, therefore, are unlikely to play an important part in innovation where capital costs are high and

TABLE 14

Research on the Frequency of Major Inventions
by Small Firms or Independent Inventors

<u>Authors</u>	<u>Type of Inventions</u>	<u>Percentage of Inventions by Small Firms or Independent Inventors</u>
Jewkes, Sawers, Stillerman (1958)	61 important inventions and innovations of the twentieth century	(over) 50
Hamberg (1963)	Major inventions in the decade 1946-55	(over) 67
Peck (1962)	149 inventions in aluminum welding, fabricating techniques and aluminum finishing	86
Hamberg (1963)	7 major innovations in the American steel industry	100
Enos (1962)	7 major inventions in the refining and cracking of petroleum	100

Source: R. Rothwell and W. Zegveld, Innovation and the Small and Medium Sized Firm (London: Frances Pinter, 1982), p. 59. From Prakke (1974).

where large-scale economies are necessary, although they may play a significant role by supplying specialist products in highly-segmented markets.

In sum, it is not so much a matter of whether small firms generally are or are not inherently more innovative than large. The question must be addressed more specifically, taking into consideration the industrial sector, the aspect of innovation, and the particular stage in the product or industry life cycle involved. For example, study has shown that in Canada small business contributes exceptionally high proportions of innovations in certain industries -- including scientific and professional equipment, plastics fabricating, organic industrial chemicals, and machine shops -- and, relatively much lower shares in industries such as aircraft and aircraft parts, inorganic industrial chemicals, and iron and steel mills.^{14/} This is illustrated in Table 15. It is fundamental, however, that wherever innovation occurs, whether in small businesses or large, its success depends mainly on the leadership and inspiration of individuals.

Innovation is difficult to quantify partly owing to lack of a standard definition, and partly to the absence of empirical data resulting from that lack. Very little empirical research has been designed specifically to determine the contributions of small businesses to the innovation process, but although consequently scant statistical evidence is available on the subject,^{15/} a study of 380 important innovations in five countries (including the United States, Japan, and West Germany) between 1953 and 1973, showed that overall small businesses contributed 31 percent (35 percent in the United States), and large firms 54 percent, of all innovations introduced.^{16/} However, De Melto and others, who studied 283 major innovations in five industries in Canada, found no clear correlation of innovations with firm size. They concluded that "very small and larger Canadian-controlled firms tend to produce a higher proportion of original innovations than do foreign-controlled firms of these sizes."^{17/}

Particular Role of Small Business in Innovation

The study by De Melto and others also showed that, in Canada, small businesses tend to be product innovation-oriented (79 percent of their innovations are products) and large firms process innovation-oriented (54 percent of their innovations are processes). This is generally true at the industry level as well.^{18/} Where large firms achieve product inno-

TABLE 15

Share of Innovations in Selected
Industries, by Size of Firm
(percentages)

<u>Industry</u>	<u>Firm Size</u> (number of employees)	
	<u>Under 200</u>	<u>200 and Over</u>
Machine shops	100	-
Scientific and professional equipment	90	10
Plastics fabricating	75	25
Industrial chemicals (organic)	53	47
Machinery and equipment	51	49
Aircraft and parts	6	94
Iron and steel mills	6	94
Industrial chemicals (inorganic)	5	95

Source: Christian De Bresson, "Have Canadians Failed to Innovate? The Brown Thesis Revisited," HSTC Bulletin (Journal of the Canadian Science and Technology Historical Association), Vol. VI, No. 1, January, 1982, pp. 10-23.

vations these tend essentially to be improvements, and incremental in nature; in contrast with discontinuous, or "leap-frog" innovations characteristic of small businesses. Large firms' technology is often strongest in the technology of current products, and incremental innovations are relatively less risky for them in established markets. Further, major process innovations tend to be extremely costly and far beyond the resources of small firms.^{19/}

Two other characteristics of innovation by small Canadian firms are noteworthy. First, the motivation of small firms in introducing innovations is more often to fill specific market gaps (or niches),^{20/} as compared to larger firms which seek generally to expand their existing markets.^{21/} Second, Canadian industrial innovation tends to be custom- and small batch-oriented -- more frequently so, of course, in small firms -- and not to make the transition later through growth to series or mass production.^{22/} Although it is not clear whether, and, if so, to what extent the Canadian experience in this regard is typical, success in innovation must depend both upon the ability of an economy to single-out custom-developed innovations with major commercial potential, and subsequently on achieving a dynamic transition to (full-scale) line production of the selected innovations to obtain greater economic benefits. Bombardier's snowmobile is an outstanding Canadian example of success in innovation, but evidence for a period of thirty years presented by one study suggests that, although there has been no lack of customized innovations, unusual constraints may be present in the Canadian economy or technological innovation process which have prevented many innovations with considerable commercial potential from achieving success on a large scale. Thus, of 170 new products examined in this study, 116 (68 percent) were the result of innovations by firms with less than 200 employees, and of these, 68 (59 percent) continued in custom production at the time of the survey. A further 16 percent were in batch production, but only one-quarter (26 percent) had achieved the transition to line production.^{23/}

Innovative small Canadian firms appear to have difficulty in making the switch from producing for a client or small group of purchasers to producing for a market. Cases of such transitions on a substantial scale are rare; in addition to the snowmobile there are the four-wheel articulated log skidder, the chip'n saw, and the factory-built mobile home, but, it is

believed, relatively few others.^{24/} The crux of the problem in Canada may be not so much a lack of innovation by small business, or of entrepreneurial nerve, but rather of incentive, and the survival and further growth of medium-sized firms following their expansion from small business status. This is likely to be due to a combination of factors of which lack of market data, problems in developing markets, and possible lack of management expertise may in some cases be at least as important as lack of funds.

Advantages and Disadvantages of Small Firms in Innovation

Small businesses have significant advantages in certain aspects of innovation, including rapid response to technical and market developments, the possibility of a dynamic, entrepreneurial style of management, good internal communications, and flexibility. But they may also suffer from lack of management expertise and of technically qualified manpower, poor external (technical) contacts and communication, lack of market data, problems in developing their markets, and lack of funds. In other words, in innovation as in all other aspects of their operations, small businesses are subject to the relative advantages and disadvantages of scale. Hence, while small businesses generally benefit from a number of human-related advantages, large firms tend to benefit from advantages arising from their greater resources. However, these advantages and disadvantages are not uniform under all conditions or in all industrial sectors. Thus, the relative advantages in innovation of a new technology-based small firm operating in an emerging market differ significantly from those affecting a long-established small firm operating in a long-standing mature market such as textiles. And both these models would differ to some extent from the benefits and disadvantages facing a small firm in a technology-based, established field such as scientific instruments.^{25/}

Entrepreneurship, Small Firms, and Innovation

Among the reasons mentioned earlier why small business provides a favorable climate for innovation is the association of a dynamic, entrepreneurial style of management with small business. While entrepreneurship, including technological entrepreneurship, depends on the particular qualities, talents, and proclivities of individuals it is clear that small manufacturing firms, and, more especially, small high-technology firms are often controlled by dynamic entrepreneurial owners or managers. Large firms, in contrast,

are frequently organized in ways which tend to restrict initiative and entrepreneurial behavior, and are relatively disinclined to run risks. Further, owner-managers in small firms, particularly those who created organizations based on an innovation, are probably more inclined to undertake further innovation projects than are managers in large firms, who may be constrained by assessment and selection procedures with an inherent bias against higher-risk opportunities. Thus, small business generally constitutes a more favorable and appropriate environment for entrepreneurship.

From the point of view of economic growth and development, entrepreneurship is more important to society and the economy than either invention or innovation per se:

Without entrepreneurship, invention is the sound of the waterfall in the forest that no one hears. With entrepreneurship there is a guarantee of invention and innovation in the broadest sense, and a vehicle for bringing invention, in the narrow sense, into use, of making sure that it becomes an innovation. ^{26/}

There is strong evidence to the effect that a very significant, although not precisely determined, proportion of all innovation in North American society is and can best be achieved through the entrepreneurial process, and a series of recent studies, mainly in the United States, has stressed the vital contribution of new, young firms to innovation and job creation. Shapero, in a recent paper, concluded that the number of company formations, the survival rate of new companies, and their diversity provide good measures of a community's capacity to renew itself, and views "entrepreneurship, as measured by company formations, ^{as} a positive response to the environment, an expression of resilience. ^{27/} However, in considering company formations, too much attention should not be focused on the reverse; company failures. Litvak and Maule, in a Canadian study, pointed out that many technological entrepreneurs started new firms several times and that the firms which failed were to a large extent "first starts." ^{28/}

While recently there appears to be no marked lack of entrepreneurship per se, a shift has taken place in its incidence toward the service sector in areas such as software, management and technical consultancy, marketing, and public relations. Apparently, while the requirements for

start-up in manufacturing are relatively high in terms of facilities and finance (and the penalties for failure correspondingly greater), in the service area such obstacles (and risks) are much lower.^{29/} The implications of this change are not clear. However, as the state of the economy improves the movement may be expected to diminish, and the proportion of manufacturing start-ups to rise.

Innovation and Job Generation by Small Firms

Innovating small firms create jobs. Some commentators fear that technical innovations will reduce the number of jobs in a given sector. While this may be true in the case of some medium and large firms, it is obviously not so in the case of small, particularly small new, firms, which live by innovation. In the preceding chapter, we saw that small business plays an important role in the labor market. Information about innovating small business confirms and amplifies this finding.

An extensive study by the U.S. Electronics Association in 1978 divided firms by age into four categories:

Start-up -- under 5 years old

Developing -- 5 to 10 years old

Teenage -- 10 to 20 years old

Mature -- over 20 years old.

The survey showed that employment growth in Start-up companies was 115 times greater than for Mature companies; that it was 55 times higher in Developing companies, and 20-40 times higher in Teenage companies than in Mature companies. Although the Mature companies had, on the average, 27 times more employees than the average of all firms founded since 1955, in 1976 the newer companies created an average of 89 new jobs per company, while during this time Mature companies created an average of only 69 new jobs per company.^{30/}

The survey data does not state so specifically, but it seems logical to presume that small businesses would have been represented most strongly in the youngest age categories, and that in the electronics industry particularly, innovation would be likely to have played an important role in the establishment of the youngest, and, in terms of numbers of employees, smallest companies involved.

A recent study in the Republic of Ireland, by the National Board for Science and Technology, indicated a positive relationship between innovative-

ness and employment growth. The study, which involved constructing an "innovation index" for each of 120 firms with under fifty employees found that negative employment growth was correlated with lack of innovativeness, while high employment growth was strongly associated with innovativeness. The period covered by this research was 1976-79.

Other interesting findings of this study are:

- firms over thirty years old tended to be less innovative than younger firms;
- innovativeness demonstrated some regional variation;
- rate of growth in turnover was strongly correlated with innovativeness.

These important aspects of innovation support the hypothesis that it is probably with the formation of innovative new firms, more especially NTBFs, that the greatest long-term employment growth possibilities lie.^{31/}

Problems and Potential

There can be no doubt of the need for invention, nor, in the light of our findings, of small business' ability to further it. Yet small innovative firms face a number of problems, particularly in Canada, which prevent them from making their optimal contribution to the innovation process.

Many of these problems are common to most growth-oriented small businesses -- overextended management unable to devote scarce time to marketing, insufficient access to information networks, limited access to financing and so on. These almost universal problems are discussed in Chapter 6 under Small Business' Way of Operating.

Innovating small firms, however, also face special problems. One is the lack of suitably qualified technical personnel. Another is access to venture capital. Innovating small businesses may have a greater and more urgent need of funds than other small businesses but be unable to raise them. Financing was preeminent among the problems of innovating small firms and those which were Canadian-controlled according to the De Melto study.^{32/} The lack of funds has come about, in part, because venture capital companies, only seventy of which exist in Canada, have tended to become disenchanted with the returns on investment they have achieved in funding innovative, high risk small businesses. There is also a lack of liquidity affecting investors in successful small firms who have experienced difficulties in Canada in arranging for small businesses to go public, or for institutional sources to take over from themselves as the initial investors.^{33/}

A third problem which affects innovating small businesses more than many others is the decline in support for entrepreneurship in North America, and in Canada in particular. This decline cannot be documented succinctly, but it is undoubtedly associated with passing of decision-making in large firms from owner/managers to salaried professionals. With this transition, and as Western political concepts evolved, the guiding policy shifted in large firms, particularly, from profit maximization to risk minimization, and so the willingness of firms to scrap existing investment in favor of innovation, new technology, and new methods declined radically.^{34/} The most prevalent negative factor affecting small business generally, and more especially entrepreneurs and would-be entrepreneurs, is the degree to which their positive motivation and willingness to take risks in creating new manufacturing firms in Canada, and in making them grow, has declined and continues to decline.

Governments in Canada, as elsewhere, are beginning to realize that if industrial innovation by small business is not actively encouraged, the prospects for successful innovation and hence for economic growth will be much diminished. There are signs that governments are rethinking their stance in this area. Tax policy, and to a lesser extent social policy in the workplace, have negative effects on growth-oriented small businesses. These are discussed in Chapters 8 and 11.

Further, consistent with action taken in other countries, the federal government has recently introduced support for two Canadian industrial innovation centers (CIICs) in Montreal and Waterloo, designed to stimulate and improve the quality of invention, innovation and enterprise formation in Canada through direct assistance and participation in the innovation process, and by the preparation of people for roles in technological innovation. Similarly, Ontario has established an IDEA Corporation, to help smaller businesses with "blue sky" research, as well as six specialized high technology centers to adapt and demonstrate technology useful to industry and to assist in the conception and preparation of specific programs and plans. Thus, support of innovation, and awareness of its importance and of the vital role played by small business in the process, are growing and should continue to do so; in Canada, and among the country's principal trading partners.

Small Business' Contribution to Foreign Exchange Earnings

Canada's share of world markets declined and its current account position deteriorated throughout the 1970s and early 1980s. (The exceptional current account surplus of 1982 was due to a more severe decline in imports than in exports and probably will not be maintained after the recession.) Canadians concerned with public policy are anxious to find ways to improve the country's international trade and payments situation, but few of them think of small business as having a significant contribution to make to the problem.

It is true that small businesses only make a marginal contribution to manufactured exports, one which was valued at \$221 million in 1979, and virtually no contribution to foreign sales of raw and processed materials. Yet they probably earn up to 50 percent of all foreign currency earnings from tourism and have the potential to greatly increase their earnings in the service and the manufacturing sectors. Currently it seems likely that scarcely 5 percent of small incorporated manufacturing businesses with export potential are engaged in exporting, or seeking to develop exports.

In this section, we first review small business' direct earnings from foreign sales, then its earnings from indirect exports and from tourism. An examination of some of the reasons why small business' export potential is underdeveloped follows in order to discover whether or not its potential export contribution is significantly greater than its current contribution.

Direct Exports

In 1979, small manufacturing firms sold 4.5 percent of their total sales or \$221.3 million worth of goods abroad.^{35/} This represented only 0.64 percent of total Canadian manufactured exports. The proportion of their sales exported by small manufacturers varied considerably from province to province. Thus, small manufacturers in Prince Edward Island and Nova Scotia exported 23.4 percent and 13.4 percent of their sales, respectively, by far the highest proportions among all provinces. By contrast, the corresponding lowest proportions were from Alberta (2.2 percent) and Manitoba (3.1 percent). Exports by small manufacturers in Quebec (3.5 percent) and in Ontario (4.7 percent) were only slightly higher proportionately.^{36/}

Variations in the proportions of their sales exported by small manufacturers in specific industry groups also varied in 1979, but less widely. Thus,

industries with the highest and lowest proportions of sales by small manufacturers were: highest -- electrical products (12.4 percent), machinery (10.7 percent), and transportation equipment (10.2 percent); and lowest -- printing, publishing and allied industries (0.3 percent) and textiles (1.7 percent).^{37/}

Data on sales of services abroad by small businesses is even less reliable than that of manufactured goods. The Department of Regional Industrial Expansion (formerly Industry, Trade and Commerce) is working on size breakdowns of service exports but figures will not be available for some time, and no reliable estimates are presently obtainable. That aggregate foreign exchange earnings by small businesses in the service sectors may well be of the same order of magnitude as the total value of direct exports by small manufacturers, or possibly even greater, is suggested by the data in Table 16.

TABLE 16

Foreign Exchange Earnings by Selected
Small Business Groups

<u>Group</u>	<u>Year</u>	<u>Foreign Exchange Earnings</u> (\$ million)
Consulting Engineers ^{a/}	1981	85.0
Management Consultants ^{b/}	1979-81 (Average)	1.4
Inuit Artist Cooperatives ^{c/}	1981	<u>0.8</u> <u>\$87.2</u>

a/ Firms with total revenues under \$5 million annually (Source: Consulting Engineering in Canada, Peter Barnard Associates, March, 1981).

b/ Member firms of the Canadian Association of Management Consultants. (Source: CAMC)

c/ Source: Kay Kritwiser, "Inuit Art: An Industry on the Tundra," The Globe and Mail, August 14, 1982, p. 18.

Thus, just three groups -- among an uncertain number -- from which (more recent) data of foreign exchange earnings were obtainable are seen to have contributed a total of such earnings equivalent to almost 40 percent of the total value of direct exports by small manufacturers in 1979. Precisely what the sum total of the value of exports and foreign exchange earnings by small manufacturers and all small businesses, combined, is cannot be estimated reliably, but it seems possible that it may be in the order of \$500 million or more.

Indirect Exports

Small firms supply medium and large ones. In Canada, roughly 150 of the largest exporting corporations are responsible for two-thirds of the country's exports and much of the remaining one-third is most probably accounted for by a relatively small number of other medium and large exporters. To get a full picture of small business' share in the export effort we would have to know its share in the value of the major exporters' foreign sales.

Canadian data is not compiled in a way which allows us to calculate this share. Moreover, a feasibility study of a quantitative survey of major exporters' purchases by size of vendor revealed difficulties in obtaining the required information.^{38/} As a proxy for the missing information, Don Allen & Associates have made estimates based on Canadian Input/Output Tables. Their key assumption is that exporters purchase inputs from each "size-of-establishment" grouping in proportion to the latter's relative share of value added in the different industrial sectors in Canada. Thus, for example, the transportation equipment industry will purchase a share of goods and services from small businesses in the metal fabricating sector and in the business services sector which is equal to small business' shares of value added in these two sectors respectively.

On this assumption and using 1981 exports from those sectors which registered exports valued at \$1 billion and more in 1981, they ran simulations using the Input/Output System. Canadian exports of goods and services in the \$1 billion dollar and more sectors totaled \$87.6 billion in 1981, \$26.3 billion of which was made up of purchased inputs -- indirect exports. Small firms contributed \$6.2 billion or 23.7 percent of this, medium firms \$5.6 billion or 21.5 percent and large firms \$14.4 billion or 54.8 percent.

In dollar terms the major sources of small business' indirect contribution to exports originated in the non-manufacturing sectors, primarily agriculture, services to business management, and forestry as Chart 1 shows. These three sectors accounted for about 43 percent of the total value added contribution of small business. In general, the non-manufacturing sectors accounted for 85 percent of small business' indirect contribution to exports. This is typical of the indirect contribution of all size groupings. Seventy-three percent of the indirect component of export sales arose from non-manufacturing sectors.

Tourism

Small business is the predominant element in the tourist industry in Canada, in terms both of numbers of establishments involved and more importantly, share of foreign exchange earnings.

Structure of the Canadian Tourist Industry

"The tourism industry involves some 100,000 inter-related, but competitive businesses (mostly small) in distinct sub-sectors such as transportation, accommodation, food and beverage services, attractions and events, and sales and distribution outlets."^{39/} Other activities catering to the tourist industry include marinas, service stations, auto repair shops, pharmacies, tour guides and travel services and a host of other related operations. Tourism is a natural environment for the entrepreneur since the tourist generally seeks something new or different.

Small Business Segment of the Tourist Industry

The small business segment of the tourist industry is certainly large, but is nowhere precisely defined; either in Canada or the United States. This concerns the Canadian Government Office of Tourism (CGOT) which points out "that the matter of defining the 'small business' segment of the industry is complex and remains to be settled, particularly when considered in the context of the total 'Small Business' sector."^{40/} Problems occur in compiling statistics for small business sub-groups in each of the principal industry sectors -- transportation, accommodation, food and beverages, and so on. The CGOT is currently preparing certain data on small businesses in the tourist industry, but this will not be available for some time.

CHART 1

Key Contributing Sectors to Small Business' Indirect
Role in Canadian Exports^{a/}

<u>Value of Major Groups' Exports</u> (million dollars, percentage of total exports)		
	<u>Value</u>	<u>Percentage</u>
AGRICULTURE	942	15
BUSINESS SERVICES	878	14
FORESTRY	855	14
FINANCIAL INSTITUTIONS AND REAL ESTATE	569	9
WHOLESALE TRADE	425	7
TRANSPORT AND STORAGE	404	6
CONSTRUCTION	365	6
RETAIL TRADE	305	5
FISHING	253	4
METAL FABRICATING	214	3
OTHER MANUFACTURING	701	11
ALL OTHERS	321	5
	<u>6,232</u>	<u>99</u>

a/ Based on estimates for 1981.

Source: Don Allen & Associates and Edwin Reid & Associates, unpublished paper, prepared for the Small Business Secretariat, 1983.

Individual officers within the CGOT estimate unofficially that in terms of actual numbers, small businesses in Canada represent 85 to 95 percent of all establishments engaged in the industry, with the likelihood that the higher figure is the more reliable. In the United States, in 1977 -- the most recent year for which complete data are available -- there were over 500,000 U.S. firms "significantly involved in serving the traveller away from home," and of these, 98.8 percent were small businesses according to the size standards of the U.S. Small Business Administration.^{41/}

As Table 17 shows, in the hotel and restaurant sector of the tourist industry in Canada, establishments with annual sales of \$2 million or less represented 97.8 percent of all businesses active in the sector in 1978. More striking still, establishments with annual sales of between \$10,000 and \$250,000 represented 64.1 percent of the total number of establishments. Thus, of 16,844 hotels and restaurants analyzed by Statistics Canada for 1978, only 283 (2.3 percent) had sales of over \$2 million.

In terms of sales volume, hotels and restaurants with annual sales of \$2 million or less in 1978 accounted for 58.2 percent of aggregate revenues by establishment of all sizes. Thus, 2.3 percent of hotels and restaurants in Canada -- those with annual sales exceeding \$2 million -- accounted for almost 42 percent of aggregate sales. This implies that the multitude of small businesses in the hotel and restaurant sector, but more especially the host of small restaurants, are unlikely to obtain a share of disbursements by tourists in Canada proportionate to their numbers. The point is significant because a basis is required for dividing international travel receipts in Canada (which are well-documented over time) between the small business segment and the remainder of the tourist industry. The allocation is made more difficult by the fact that no data is available to indicate what proportion of other elements catering to the tourist industry -- tour guides and travel services, auto repair shops, marinas, or sales and distribution outlets -- are small businesses. Therefore, in the absence of a more precise estimate, official or otherwise, we have assumed that small business' share of foreign exchange earnings from tourism in Canada falls between a high of approximately 58 percent (the proportion of total sales revenues accounted for by all businesses in the hotel and restaurant

TABLE 17

Hotels and Restaurants:^{a/} Canada
Number and Sales Volume, by Size Groups, 1978

	<u>Size Groups (by Sales Volume)</u> (\$000's)						
	<u>\$10-\$250</u>		<u>\$250-\$2,000</u>		<u>Over \$2,000</u>		
	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	<u>Total</u>
Number of businesses	10,790	64.1	5,672	33.6	382	2.3	16,844
Total sales	998,189	13.7	3,233,857	44.5	3,039,543	41.8	7,271,589

a/ Standard Industrial Classification, 1960.

Source: Small Business Secretariat, based on "New Statistics on Small Business in Canada - 1981,"
 Statistics Canada data derived from corporate income tax files.

industry with sales under \$2 million) and a low of approximately 45 to 50 percent, which seems conservative. Thus it may not be unreasonable, but could well be conservative, to assume that the actual figure could prove to be slightly higher than 50 percent, say between 50 to 53 percent. This estimate, which is recognized as quite probably significantly inexact, must serve for the present purpose in default of any other.

Small Business Share of International Travel Receipts in Canada

Table 18 shows international travel receipts in Canada, including and excluding passenger fares and crew spending. Since passenger fares accrue mainly to large corporations, and since data for crew spending are not available, it seems best to base calculations for the present purpose on international travel receipts excluding fares and crew spending.

The figures, in current dollars, are large and show an uninterrupted progression culminating in 1981 with a total of \$3.038 billion. Assuming that 50 to 53 percent is attributable to small business, we may estimate that total foreign exchange earnings by small business in the tourist industry in Canada in 1981 was between approximately \$1.5 and \$1.6 billion.

Full Economic Effect of Small Business Activity
in the Tourist Industry in Canada

Assuming that foreign exchange earnings by the small business segment of the tourist industry in Canada in 1981 were in the order of \$1.5 to \$1.6 billion, the full economic effect of this expenditure would certainly have been greater. The Canadian Government Office of Tourism and the Ministry of Tourism and Recreation, Ontario apply a multiplier of one point seven times to tourist receipts in calculating the total contribution of tourist revenues, including international travel receipts, to the economy. On this basis, it appears that in 1981, within the tourist industry, small business' overall contribution to the Canadian economy by way of foreign exchange earnings would have been in the order of \$2.55 and \$2.72 billion.

The Potential for a Greater Small Business Contribution to Direct Exports

Although small business makes a very significant contribution to tourist earnings and indirectly to other firms' foreign sales, we have seen that its direct contribution is small. This direct contribution could be greater if certain obstacles in the way of small firms' participation in foreign markets were removed.

TABLE 18
International Travel Receipts in Canada
(millions current \$)

	<u>Including Passenger Fares</u>			<u>Excluding Fares ^{a/}</u> <u>Foreign Total</u>
	<u>U.S.</u> <u>Travellers</u>	<u>Overseas</u> <u>Travellers</u>	<u>Foreign</u> <u>Total</u>	
1972	1023	207	1230	1108
1973	1160	286	1446	1290
1974	1328	366	1694	1455
1975	1337	478	1815	1547
1976	1346	584	1930	1600
1977	1525	500	2025	1700
1978	1650	728	2378	1944
1979	1881	1006	2887	2332
1980	2121	1228	3349	2650
1981	2491	1269	3760	3038

a/ Excluding passenger fares and crew spending.

Source: Canadian Government Office of Tourism, based on Statistics
Canada Data.

Identifying Problems

Traditionally small firms have been less export-minded in Canada and in the United States than in Europe. Distance from potential markets is one explanation common to both countries, but, whereas in Canada resource-based commodities produced by large corporations have dominated export trade, in the United States the size and vigor of the domestic market were, until recently, more than sufficient to absorb the output of U.S. small businesses. In both countries the need to encourage small businesses to export has recently been recognized and studies have been made of why small firms, particularly those in the manufacturing sector, have shown so little interest in foreign markets.

There are three main problems -- attitudes, information gaps, and marketing weaknesses. United States studies show that many owner/managers overestimate the risks involved in exporting. The authors observe a difference in attitudes before and after export experience.^{42/} Systematic Canadian surveys of changes in attitudes are not available, but anecdotal evidence suggests that the export decision is often only taken in the last resort because of a drying-up of domestic markets, and that in many cases it turns out to be less painful and more profitable than expected.

Lack of information is the second major hurdle. Small businesses already have major problems obtaining adequate information about domestic market opportunities. Many of them do not know how to start in foreign markets. This is confirmed in the United States by the findings of a survey conducted recently for the Small Business Committee of the United States Senate to determine obstacles to exporting faced by small businesses.^{43/} The Subcommittee responsible for conducting the survey contacted 6,249 small businesses and received responses from 1,181 (19 percent). Eight hundred and ninety-nine firms (76 percent of the respondents) were exporters, 282 (24 percent) were not. The firms were asked to list the three major obstacles they face in exporting, and four general categories accounted for over 70 percent of the obstacles identified. These are:

<u>Categories</u>	<u>% Responses</u>
1. Lack of information	20.0*
2. Regulations	17.5
3. Expenses incurred	17.16
4. Financing	15.7

* This 20 percent represents 39 percent of all firms responding to the "Obstacles to Exporting" question.

Of the 20 percent of responses identifying lack of information as a major obstacle to exporting, 69 percent was accounted for by deficiencies in two specific categories:^{44/}

<u>Specific Lack</u>	<u>% of Category Responses</u>
Information about potential foreign customers and agents	41.7
Information about foreign markets	<u>27.0</u>
	<u>68.7%</u>

Available evidence suggests that the situation is similar in Canada. Studies of exporting problems have been carried out in both Quebec and Ontario. In 1977, the Quebec Chamber of Commerce undertook a major investigation of small- and medium-sized firms' (those with between 20 and 500 employees) export potential. There were about 3,000 such firms in the province, 20 percent of which were exporting and a further 15 percent of which had export potential. The firms surveyed concluded that high production costs, lack of time to develop new markets, competition, lack of managerial skills in marketing, and the complexity of requirements affecting exports were the six most important barriers facing them. (Financial problems were mentioned by only 11 percent of respondents, and ranked eighth in importance.) Based on observation and personal experience, the Chamber of Commerce study team concluded that important shortcomings constraining these firms in the development of exports included:

- . lack of aggressivity (will);
- . lack of knowledge of opportunities and market conditions; and
- . deficiencies in management, especially in marketing.^{45/}

A study of international marketing and industrial strategies covering a sample of firms of all sizes in Ontario active in foreign markets was carried out two years later, early in 1979. Seventy-one small and medium firms (those with sales of less than \$10 million) were involved and they made up 52 percent of the total sample.^{46/} The firms covered derived, on the average, 25 percent of their revenues from abroad in 1976, and a very large majority claimed to be searching actively for new export opportunities, an encouraging response even from firms chosen for their involvement in foreign marketing. Significantly, although "an active search posture" was claimed by both indigenous and foreign-owned firms, indigenous firms were more aggressive in seeking new opportunities outside Canada.

Strengthening Export Potential

Since the Quebec and Ontario surveys were completed in the 1970s, further work on export success and export potential has been done, notably at the Faculty of Management Studies at York University and within Statistics Canada.^{47/} In particular, preliminary work toward determining measures of "critical size" for exporting by the twenty major industry groups has been undertaken by the Analysis and Development Section, of Statistics Canada's Manufacturing & Primary Industries Division. Based on data on the destination of shipments in the 1974 Census of Manufacturers relating to enterprises located in Ontario and Quebec, but operating in only one province, the findings to date indicate that for all major industry groups, in the aggregate, the median critical size in terms of annual sales below which small firms may not have the resources necessary to develop exports may be as low as \$500,000.^{48/} The provisional, tentative and experimental nature of these calculations must be emphasized. However, they may serve to define the universe of small incorporated businesses in Canada with some export potential as in the order of 270,000-400,000 firms. Based on the latest available data of the export capability of Canadian manufacturers, it seems most unlikely that even 5 percent of this group is currently concerned with export markets.

One of several alternative ways in which this potential export capacity could be tapped would be to encourage the establishment of small business export associations or consortia which could pool resources and share export-related costs. As described by a U.S. small business consultant, Small Business Export Associations (SBEAs) represent one way in which small

businesses can pool their export resources to overcome some of the barriers to exporting associated with their size. Small Business Export Associations may be able (1) to provide their members with specialized export assistance in areas in which they need such help (market research, contacting foreign customers, checking on credit ratings); (2) to spread fixed export costs, such as the costs of establishing a foreign office, over a number of different firms; and/or (3) to facilitate joint bidding on major foreign projects. At the same time, SBEAs may allow their members to retain greater control over their export operations than they would have if they sold through an independent middleman such as an export management company, and participation in a SBEA may give firms a greater stake in, and exposure to, exporting than simply filling unsolicited foreign orders or selling through an export management company.^{49/}

Enabling legislation, authorizing the establishment of SBEAs and other forms of export associations which provide for the participation of larger firms, was passed recently by the U.S. Congress and regulations governing the operation of such groups are now being prepared. Among other things, the legislation provides for investment by banks in SBEAs and other export associations, subject to various restrictions and limitations.

The Canadian Program for Export Market Development (PEMD) can also be used to assist certain kinds of export consortia. Data on PEMD utilization shows a major increase in the number and value of grants approved in recent years. While many of these grants were taken up for activities other than those of a consortia type, the recent interest in the program suggests that it may have a useful role to play in strengthening small business' export potential.^{50/}

Summary and Review of Findings

We have seen in this chapter that small business is much more than a passive participant in the two fields of economic activity discussed. At present, small business' direct foreign sales only represent approximately \$500 million worth of the total \$99.5 billion Canadian sales of goods and services to foreigners in 1981. Yet since only about 5 percent of the small business manufacturers who are estimated to be potential exporters currently do export this contribution could increase very considerably.

Meanwhile, small businesses are already making major contributions to foreign exchange earnings in the tourism industry where they bring in approximately \$1.55 billion annually, and in the supply of an estimated \$6.2 billion worth of inputs to major Canadian exporters. Small business is therefore not an insignificant actor as regards Canada's international trade and payments.

While small business' full potential contribution to Canada's foreign exchange earnings is still to come, in technological innovation it has long played a leading role. We have seen that small business is responsible for a disproportionately large share of the number of inventions in North America, and has a better record of innovation per dollar of expenditure than that of large, professionally-managed firms. Small firms are particularly active in new technological fields, in product rather than process innovation, and in innovations which leapfrog over the continuous development and exploitation of new processes.

Both exporting and innovating require a certain dose of entrepreneurship. Small businesses find it hard to undertake either type of activity when access to risk capital or to accommodating financial assistance is lacking. Hitherto, the small Canadian firm has seemed to be more naturally at home in domestic innovation than in penetrating new markets. But the increasing number of successful small business exporting experiences in Canada suggests that more of the potential in this field may be realized in the 1980s.

Footnotes to Chapter 4

- 1/ Based on D. Hornig, in the National Academy of Sciences paper by H. Brooks, et al, to U.S. Office of Technology Assessment re publication Health of the Scientific Enterprise -- An Advisory Panel Report, 1978.
- 2/ Extracted in part from Science Policy -- A Working Glossary, Fourth Edition U.S. Government Printing Office, 1978.
Invention, on the other hand, is defined more narrowly than innovation as the creation out of existing elements of knowledge of new -- that is, not previously known -- technically functioning products, processes, or methods. See E. A. Haeffner, "Innovation Strategies for Industrial Corporations and for Satisfying National Needs," in Industrial Innovation -- Technology, Policy, Diffusion, J. J. Baker, (ed.), The MacMillan Press Ltd., London, 1979.
- 3/ Policies for Stimulation of Industrial Innovation, Analytical Report, mimeo., Vol. 1, OECD, Paris, 1978.
- 4/ Roy Rothwell and Walter Zegveld, Innovation and the Small and Medium Sized Firm, Frances Pinter (Publisher), London, England, 1982, and James M. Utterback and Goran Reitberger, "Technology and Industrial Innovation in Sweden: A Study of New Technology-based Firms," Center for Policy Alternatives (CPA), Massachusetts Institute of Technology, for the National Swedish Board for Technical Development (STU), Stockholm, May 1982.
- 5/ Kerry Schott, Industrial Innovation in the United Kingdom, Canada and the United States, British-North American Committee, 1981.
- 6/ A. C. Cooper, "R & D is More Efficient in Small Companies," Harvard Business Review, May/June, 1964. Cited by the Canadian Federation of Independent Business (CFIB) in a submission to the House of Commons Standing Committee on Bill C-26 (Scientific Activities), May, 1977, p.5.
- 7/ America's Small Business Economy: Agenda for Action, Report to the President by the White House Commission on Small Business, U.S. Government Printing Office, April, 1980.
- 8/ Rothwell and Zegveld, op.cit.
- 9/ "Pressure on Research and Development," U.K. Ranga Chand, The Canadian Business Review, Winter, 1980.

- 10/ Economics of Research and Development, Science, Technology and Society: A Cross-Disciplinary Perspective. Edited by Ira Spiegall-Rosing, Derek de Solla-Price, Sage Publishing, 1977.
- 11/ "Innovation and Technological Change in Five Canadian Industries," Discussion Paper No. 176, Economic Council of Canada, 1980. Mimeo., Dennis P. De Melto, Kathryn E. McMullen and Russell M. Willis.
- 12/ Rothwell and Zegveld, op.cit.
- 13/ Definition: New Technology-Based Small Firm (NTBF). The term (and acronym) were coined by Arthur D. Little Inc. in a report prepared in 1976 for the Anglo-German Foundation for the Study of Industrial Society, and refers more to "new firms" than to "new technology" in any absolute sense. (The term "technology-based new firm" would have been more explicit.) More precisely, the term NTBF was defined by its originators as follows:
 - The firm must be new. (A. D. Little in 1976 confined the term NTBF to technology-based firms created since 1950, and set up by an individual or group of individuals for the purpose of exploiting an invention or technological innovation.)
 - The firm must be technology-based. (This part of the definition is inevitably the most difficult because there can be no precise definition of technology. There will always be a grey area of firms that some will consider technological and others will not.)(The foregoing definition is based on "Innovation in Small Manufacturing Firms," National Board of Science and Technology, Republic of Ireland, 1981, Appendix 2.)
- 14/ Christian De Bresson, "Have Canadians Failed to Innovate? The Brown Thesis Revisited," HSTC Bulletin, Vol. VI, No. 1, January, 1982.
- 15/ See, "Technological Innovation: Its Environment and Management," Report of the Panel on Invention and Innovation, Robert A. Charpie, Chairman, U.S. Department of Commerce, 1967.
- 16/ Rothwell and Zegveld, op.cit.
- 17/ De Melto et al, op.cit., pp. 118-122.
- 18/ De Melto et al, op.cit.
- 19/ Rothwell and Zegveld, op.cit.

- 20/ The subject is discussed further in Chapter 5, "Small Business as a Specialized Supplier."
- 21/ De Melto et al, op.cit.
- 22/ See, "Bombardier's Mass Production of the Snowmobile: The Canadian Exception." Unpublished paper by C. De Bresson and J. Lampel presented to a joint session of the Canadian Historical Association and the Canadian Science and Technology Historical Association, Ottawa, June, 1982.
- 23/ C. De Bresson and J. Lampel, ibid.
- 24/ Christian De Bresson, op.cit.
- 25/ Rothwell and Zegveld, op.cit.
- 26/ Albert Shapero, "Entrepreneurship: Key to Self-Renewing Economies," Commentary, April 20, 1981, pp. 19-23.
- 27/ Ibid., op.cit., p.20.
- 28/ I. A. Litvak and C. J. Maule, "Policy and Programs for the Promotion of Technological Entrepreneurship in the U.S.: Perspectives for Canada," Carleton University working paper (1975).
- 29/ Rothwell and Zegveld, op.cit.
- 30/ Dr. Edwin Zschau, American Electronics Association Study, testimony before U. S. Senate Select Committee on Small Business, 1978.
- 31/ Rothwell and Zegveld, op.cit., pp. 136-37.
- 32/ Technical problems were most frequently cited in the case of process innovations, innovation of large firms and of foreign-controlled firms, and for new innovations. For product innovations and innovations of small firms, marketing problems were most frequently cited. Canadian-controlled firms and small firms most often experienced financial difficulties in producing their innovations. Large firms seldom cited financial problems, and the largest firms never did.
- De Melto et al, op.cit., p. xxix.
- 33/ Gordon R. Sharwood, "Investment for Innovation," a report prepared for the Industry Branch, Ministry of State for Science and Technology, 1977.
- 34/ See, "The American Inventor: An Historical Perspective," paper presented by Harold C. Livesey, Virginia Polytechnic Institute and State University to the 1982 Small Business Research Conference, Bentley College, Waltham, Massachusetts.

- 35/ In this section, in contrast to the preceding one, small firms are those with annual sales of less than \$2 million. 1979 is the last year for which data is available. See Small Business in Canada: A Statistical Profile, Ministry of Small Business and Tourism, 1981. The information was derived from special tabulations prepared by Statistics Canada from the 1979 Survey of Destinations of Manufacturers' Shipments. According to Statistics Canada, the 1979 survey included all but the very smallest establishments, and the omissions are probably not significant. However, the value of exports may be understated because respondents to the survey reported only the first destinations of their shipments. If this was a domestic broker, those shipments would be excluded from the value of exports. The precise extent of the underestimates of export values, and of their proportion of total shipments, is unknown, but Statistics Canada believes it would be unlikely to change the figure significantly.
- 36/ Ibid.
- 37/ Ibid.
- 38/ Don Allen & Associates and Edwin Reid & Associates are undertaking a joint study on this question for the Small Business Secretariat. The information in this section comes from their unpublished study.
- 39/ "Tourism Sector Strategy," Policy Formulation, Canadian Government Office of Tourism, April, 1981, p. 24.
- 40/ Letter dated August 25, 1982. P. Chau; Policy, Planning and Co-ordination, Canadian Government Office of Tourism, to C. D. Howe Institute.
- 41/ "The 1981-82 Economic Review of Travel in America," U. S. Travel Data Center, based on data from U. S. Bureau of the Census, Washington, D.C.
- 42/ For example, Delwin Roy and Claude Simpson reporting on "a program of research to determine present export attitudes of Southeastern-based manufacturing firms" involving 59 exporting firms (average sales \$4.6 million) and 65 non-exporting firms (average sales \$1.6 million) concluding in part as follows:
- Of the non-exporting decision-makers /i.e., chief executive officers/ 64.4% felt that risk was greater in export marketing than in domestic marketing. In the exporting

firms, 52% of the CEOs interviewed felt that risk was greater before exporting. Since these percentages are not significantly different, there is apparently little difference in initial risk perception between non-exporters and exporters. The most dramatic results are shown in the shifts that take place in export risk perception after export experience. In this case, only 25.4% of the CEOs in exporting firms continued to perceive risk in the 'greater than' category.

The conclusion to be drawn is that CEOs of the smaller firms view exporting in a fairly conservative fashion up to the point of actually opting to attempt to export. Thereafter, the perception of risk of the large majority of CEOs who choose to export moderates to a significant degree. Even the CEOs of those firms who currently do not export, but have prior export experience and have elected to discontinue the activity (21 of the 65 non-exporting firms), register a similar moderation in the perception of risk after gaining the export experience. While genuinely unhappy with their export experiences, they do not elect to discontinue it because of the risks involved. Rather, they feel that too much time is involved for the returns to be gained.

Delwin A. Roy and Claude L. Simpson, "Exporting Attitudes of Business Executives in the Smaller Manufacturing Firm," Journal of Business Management, April, 1981, p. 17.

43/ Survey of Findings on Obstacles to Exporting Faced by Small Businesses.

Report of the Committee on Small Business, United States Senate, July 31, 1982.

44/ The report of the Small Business Committee continues:

One of the biggest problems faced by would-be exporters is obtaining the information necessary to enter the export market. This problem is especially severe for small firms because they often lack the internal resources to research essential information. . . .

Concrete information on prospective foreign markets is essential before exporting can occur. It is particularly disturbing, therefore, that a lack of information necessary to enter the export market was the single most cited obstacle to exporting, according to both practicing and potential small business exporters.

Nearly 75 percent of the responses in this category dealt with the lack of such basic information as foreign customers and agents (42 percent); foreign markets (27 percent); and foreign demand for products (6 percent). A small businessman from Toledo, Ohio, summed up the views of many respondents:

If I could identify foreign customers for my product and if I knew where to go to locate an honest and effective agent to promote my product, I would export. The time and expense to do this don't seem warranted. Ibid.

- 45/ REDEX: Recherche sur le potentiel d'exportation des entreprises québécoises.
La Chambre de Commerce de la Province du Québec, May, 1977.
- 46/ Harold Crockell and Ian Graham, "International Marketing and Canadian Industrial Strategy," The Business Quarterly, Spring, 1979.
- 47/ From the Faculty of Management Studies at York University, see, for example, "Export Behavior in the Small Canadian-Owned Manufacturing Enterprises -- An Empirical Investigation," Doctoral dissertation, Stanley D. Reid, York University, March, 1981, Donald J. Daly, "Canadian Manufacturing: Specialization and Trade Performance," in I. Dobozi, ed., The Economic Choice of Small Countries, Budapest, 1982, and Donald Daly and Donald McCharles "Export Potential of Medium Sized Canadian Firms," forthcoming. Preliminary work on estimates of threshold exporting size was received from Statistics Canada on a confidential basis.
- 48/ Statistics Canada, see preceding footnote.
- 49/ Clark J. Chandler, Economic Consulting Services Inc., "A Study of the Feasibility of Using Export Associations to Promote Increased Exports by Small Businesses," a working paper presented at Small Business Research Conference, Waltham, Massachusetts, March, 1981.
- 50/ Small business' utilization of PEMB is discussed in greater detail in Chapter 11.

5. Small Business: Specialized Supplier and Agent of
Regional and Social Development

In this chapter we review three different roles which small business plays in industrial countries. The roles -- that of being a supplier of specialized goods and services, as well as being an agent of both regional and social (including individual) development -- have little in common except that their successful execution is necessary to society's economic and social well-being. We examine the way in which small business performs each of these three roles in Canada in order to better understand its current and potential role in the economy.

Small Business' Contribution as a Specialized Supplier

Considerable importance is currently attached in small business literature to small firms' role as suppliers of specialized goods or services occupying specific market niches. In this section, we attempt to analyze this notion and see what relevance it has for the Canadian economy.

Small businesses sell both to final consumers and to other businesses. Their output in both markets can be considered specialized in contrast to the standardized goods and services offered by large scale processors, manufacturers and retailers. Even the corner convenience store and the local barber provide a service which is adapted to their customers' needs and is, hence, in a way, specialized. The degree of specialization is much greater in the case of ethnic food stores or fashion boutiques. Yet important as this custom service is, it is not what is generally referred to as 'specialized supply' but more in the way of a contribution to the quality of life in a community, which is discussed later in the chapter.

A small firm is a specialized supplier if it provides goods or services of particular importance to major industries and is sufficiently specialized in a sufficiently limited business niche to deter a proliferation of competitors. The circumstances under which specialized supplying take place make it risky and costly for the large-firm customers to deal with any supplying firm which lacks the specialized supplier's know-how and experience. We will first review the relationship between large industrial purchasers and small suppliers of components or services in general. After a report on an in-depth study of the specialized

supplier-large firm relationship, the section ends with some considerations as to the importance of this relationship for the Canadian economy.

Relationships Between Large and Small Firms

The relationship between large and small firms is clearly asymmetrical and there is evidence to suggest that each of the parties regards the other with a certain apprehension and suspicion.^{1/} The financial and marketing resources of large firms give them obvious advantages. They can ruin small businesses by withdrawing contracts, altering specifications, or delaying payments. On the other hand, they are often dependent on small firms for vital components or rush orders. From a longer-term perspective, the larger firms rely on the small suppliers to provide alternatives for in-house production and to experiment with new and less expensive ways of doing things. Yet they are irked by this dependence. Peterson's survey showed that senior managers in large corporations are worried by the unpredictability of small business people which could put their own careers at risk.^{2/}

In an attempt to understand the dynamics of the relationship between the two groups, several authors have classified the many possible large/small relationships in different ways.^{3/} Two of these classifications coincide -- that of the Bolton Committee in the United Kingdom and that of the Quebec Chamber of Commerce. Bolton divides small businesses supplying large ones into open marketeers, specialized suppliers, and satellites and defines them as follows:

Open Marketeers: small firms which compete in the same or similar markets as large firms, for example, computer software companies, fashion merchandise manufacturers, restaurants, insurance brokers, travel agencies and service stations.

Specialized Suppliers: small firms carrying out functions which large firms do not find it economic to perform.

Satellites: small firms that are heavily dependent on one large customer as is common, for example, in the motor, aircraft and engineering industries.

The Chamber of Commerce's three categories, which apply to medium as well as to small firms, are -- loyal opposition, free agents and satellites, which are defined as follows:

Loyal Opposition: small and medium enterprises competing directly with large firms. Examples include suppliers of automobile replacement parts, software specialists and sawmills.

Free Agents: are found mainly in industries where conditions do not favor integration and the establishment of large firms. Some industrial sectors are inherently fragmented -- for example, the clothing industry -- and in these sectors small and medium firms predominate. Free agents are also found in new industry sectors, too young to have reached a phase of integration. (Snowmobiles before 1970, mobile homes currently.) New industry sectors provide high growth potential, but eventually there is only room for a few survivors.

Satellites ("Downstream" and "Upstream"): provide specialized services to one or more large firms. For example, at the retail level, franchise operations are satellites. A large manufacturing firm often has a considerable number of satellite sub-contractors. Generally, satellites have little autonomy, and scant control of either their markets or profitability. On the other hand, they have fewer financial problems than independent firms.

Table 19 summarizes the Bolton Committee's and the Quebec Chamber of Commerce (COC)'s classifications. While many small firms obviously will not fit precisely into one or the other of the classes, the classifications help us to focus the notion of a specialized supplier. A small firm which is playing this role may be threatened with satellite status or tempted to become an open marketeer. In a competitive economy, movement between the different roles will be frequent.

Specialized Suppliers

Although research has been done on specialized suppliers elsewhere, there is little empirical material available in Canada. We approached the question through contacts and interviews with the Automotive Parts Manufacturers' Association of Canada, The Air Industries Association of Canada, and with corporations engaged in major northern projects in Canada. We also commissioned an in-depth study of the supplier/purchaser relationship in the supply of know-how intensive goods or services.^{4/} Information received on a sectoral basis generally corroborated the findings of the special study.

TABLE 19

Comparison of Bolton Committee and Quebec Chamber
of Commerce Small Business Classifications

<u>BOLTON</u>	<u>COC</u>
<u>Open Marketeers</u>	<u>Loyal Opposition</u>
Compete directly with large firms in same or similar markets.	Same concept.
<u>Specialized Suppliers</u>	<u>Free Agents</u>
Carry out functions which large firms do not find it economic to perform.	Similar concept. (Free agents are found in sectors which do not favor the establishment of large firms, and also in new industries.)
<u>Satellites</u>	<u>Satellites</u>
Small firms, including sub- contractors, heavily dependent on a small number of large customers.	Same concept.

David Newman's study of the supplier/purchaser relationship covered six major industrial corporate purchasers selected in accordance with the following criteria:

- 1) each was in a different industrial sector;
- 2) each was dominant in its sector -- having sales of at least \$1 billion in 1981;
- 3) each was relatively concentrated in its business mainstream (rather than being a conglomerate with scattered interests);
- 4) each was in the private sector with widely held public ownership;
- 5) each had a strong presence in the Canadian market;
- 6) each was headquartered in Canada and maintained extensive operations there (though some also had substantial operations in other countries as well);
- 7) each was de facto controlled by Canadians (though not all were majority-owned by Canadian shareholders).

Interviews were held with the top procurement officers in each organization, focusing on the firm's purchasing policy, if any, the development of the procurement function, and how the function and the policy were being implemented. Each person seen was also asked for the names of smaller firms that were perceived as sources of significant specialized goods and/or services. Twelve of these smaller suppliers were contacted; to obtain an account of the firm's history, status, and founder(s). In all but one case the person seen was the chief executive.

The study's findings confirm that the specialized supplier-large purchaser relationship is a risky but profitable one. The key element is the market niche, which has to be specific and narrow enough to deter competition, even that which might come from the purchasing firm itself. The increasing professionalism of large firms' procurement policies has made the market more predictable and probably increased profit opportunities by encouraging outside purchasing and standardizing policies. Yet dangers of satellization, particularly as a consequence of purchasers' excessive quality requirements, remain. Suppliers are aware of these dangers and have generally managed to avoid them. However, the combined effects of the recession, with a return to internal sourcing, and of the assumption by large firms that their pool of suppliers will reproduce itself automatically, may be threatening this key relationship.

One of the purposes of Newman's study was to refine the notion of a specialized supplier's niche in the market. An Organisation for Economic Co-operation and Development report suggested that a niche is a particular market too narrow to be of interest to a growing medium or large firm.^{5/} Rein Peterson, however, pointed out that during a period of market contraction, medium or large business would most likely turn its attention to such a niche and oust a smaller firm from it.^{6/} Newman's empirical work shows that the operative factor is the intensity of know-how. The secure specialized supplier's niche is so precisely defined that it inhibits would-be competitors, including the purchasers of the good or service, who might otherwise be tempted to make rather than buy the desired good or service.

In addition to the concept of a market niche, the key elements in the specialized supplier function are, first, the growing professionalization of large corporations' procurement, second, the large firms' perspective of the supplier's role and activity, third, the supplier's reaction to the supply opportunity in the market, and fourth, the results of the interaction between the two parties. We will consider each briefly.

Large Firm Procurement

There seems to be a correlation between the crisis history of an industrial sector and the adoption of formal procurement policies and practices by firms in that sector. Rapid changes in the economic environment culminating in the current recession and the proliferation of "buy-local" guidelines have led to increasing professionalism and formalization of large firms' procurement practices.

Procurement includes purchases of three types -- components, services, and capital goods and equipment. In each case the large firm's management theoretically has a 'make' or 'buy' option, although in many cases 'buy' is the obvious choice. In general, the recent trend has been to increase the bought share of parts and equipment in the manufacture of increasingly sophisticated products. Engineering services were also increasingly being purchased from outside the firm up until the current recession, when many firms repatriated engineering work to keep in-house engineering teams busy.^{7/}

In the case of capital equipment, the prime considerations are the supplier's technical reputation and his performance in relation to very special needs. Location and even price are of secondary importance if the supplier

can convince the purchaser of the quality and reliability of his product. While certain items such as pumps and compressors come almost exclusively from large, financially and technically well-established firms, many smaller firms can design and fabricate very sophisticated capital items and install and integrate them into the purchaser's larger system.

Newman has identified a number of important elements in large firms' implementation of procurement policies and practices, and itemized the large firms' perspective vis-à-vis its smaller niche suppliers:^{8/}

- . Building up sourcing data bases, using extensive qualification questionnaires, where the data base entry criteria correspond to a firm's procurement policy intentions, for example, Canadian content, value-added, ownership, and so forth.
- . Encouraging partners and affiliates in major capital joint ventures to follow the same procurement policy and to use the same sourcing data base.
- . Insisting as far as possible that prime consultants and contractors on major capital projects follow the same policy and use many of the same sources for goods and services that are included in the sourcing data base.
- . Briefing potential suppliers -- detailing the firm's categories of needs, its policy, and who to contact and how.
- . Ensuring close involvement of in-house engineering and other specialist groups in:
 - a) 'make' or 'buy' evaluations and decisions
 - b) upgrading of suppliers' capabilities through extensive, often deeply technical, interaction
- . Negotiating relatively long-term agreements with major suppliers -- referred to as 'central contracts' -- aiming for year-by-year price reduction or stabilization by buying in quantity. Each operating unit then orders against the corporate contract. (These are also known as blanket orders or 'national' contracts, since all plants and facilities across the country are involved.) These longer-term negotiations usually cover the relatively few types of items that account for most of the cost of materials in the end product. This centralized purchasing is aimed specifically at suppliers who can stock and distribute to plants across the nation -- the buyer wants to ensure a national distribution capability. Accordingly, such suppliers are almost inevitably larger firms.

- . Treating internal and external suppliers on the same basis. This aspect of policy is beginning to have some impact. Awareness of anti-trust is one factor in its adoption, but the more significant aspect is the continuing evaluation of 'make' or 'buy'. The traditional patterns of extensive backward vertical integration seem to be breaking down under competitive pressures; instead there is increasing reliance on shrewd sourcing, with an attempt to ensure multiple sources for each item.
- . Seeking out areas of common interest with other major firms in the same or related industries -- to see if a viable domestic market might exist as a minimum basis for encouraging establishment of a new supplier capability that might then also evolve into the U.S. and overseas markets. In other words, the major buyers try to identify areas of collective demand where a critical mass might exist in Canada, to enable development of a Canadian capability to displace non-Canadian suppliers. If such a demand area is identified, and a decision taken as to where a Canadian source should preferably be located, a major firm might proceed with some or all of the following:
 - a) checking the financial strength and backing of the smaller firm intended as a supplier
 - b) giving that firm an understanding of several years of business -- not expressed as an absolute dollar volume but only as a share of whatever sales the major firm has, which therefore does not protect the smaller firm against loss of sales by the major customer
 - c) providing advice and support to help the smaller firm achieve quality and price competitiveness
 - d) providing, at the major firm's cost, the tooling for special items.
- . If a supplier develops an improvement in design or process that results in cost saving to the major firm, sharing that cost saving with the supplier so that both parties benefit.
- . Operating its own trucking fleet. This gives the purchaser the discretionary power to help a local firm to be competitive by picking up F.O.B. the supplier's plant, thereby helping it to overcome the competitive disadvantage of trying to distribute to the physically vast Canadian market.
- . Specializing the buying function within the firm. Each buyer usually deals in a particular family of items -- pumps, computers, etc. -- and each buyer has a considerable influence on sourcing. Accordingly, a smaller firm

wanting to become a supplier to a sophisticated major firm will need equivalent technical and specialist capability involved in its marketing.

- . Breaking at least some of the procurement down into 'packages' small enough to allow local firms to bid with a reasonable assurance of success. Such a policy of encouraging local involvement will tend to emphasize site preparation, excavation, and more conventional engineering and construction as the near-exclusive domain of local firms. Conversely, because of size and scale, some other aspects of a project would 'automatically' be assigned to non-local firms: for example, process control systems packagers are usually major firms in their own right. Research and development is an important cost in their business and this usually means that such firms either are large, or have the backing of a large organization. (This is one area where there is an evident lack of Canadian-owned capability.)

The Large Firm Perspective on Smaller Niche Suppliers

A major industrial corporation seeks particular qualities in its specialized suppliers and expects particular kinds of market behavior from them. In some instances the suppliers are unable to fulfill their large clients' expectations but the case studies showed a good correspondence between the purchasers' expectations and the suppliers' qualities. The large purchasers were seeking:

- . Quasi-customized design and fabrication rather than mass production. (Mass production requires large-scale capital investment and a broad market, so that a small Canadian firm could not compete on this level even with customs duty protection.)
- . Ability to respond flexibly to custom demands on short lead-times, and even faster dedicated performance when the major firm encounters a throughput emergency.
- . Industry-specific know-how -- for example, metal-fabricating experience for the food processing industry is different from metal-working for the electronics industry. Generic capability might prove irrelevant or even harmful in some special situations.
- . High intensity of know-how, including skills and trades as well as professions.
- . Know-how that includes capabilities for working with state-of-the-art materials and composites.

- . Close technical quality relationships between the niche firm and its major customer(s).
- . Good understanding of local and special environmental contexts such as marine, arctic, and oil sands environments. For example, native businesses can be an important supply community -- knowing regional conditions better than any other organizations, they offer good possibilities of increased cost-effectiveness. In addition, a major firm may have to recognize their jurisdiction -- in fact if not in present law -- over natural resources and rights of way.

In particular, purchasers expect small firms to be:

- more willing to listen and learn,
- more hungry -- lean and competitive on price,
- innovative -- sometimes presenting different and better ways of tackling a problem,
- more accessible and easier to deal with face-to-face,
- quicker at making decisions.

Characteristics of Small Specialist Firms

There is no such thing as an average specialist firm; each business, in some ways, is unique as each founder has his or her idiosyncratic motivations, background, and interests, and each firm responds to its own distinctive situation and time within the larger economic environment. Yet, the smaller specialist firms contacted reveal a remarkably consistent pattern in certain aspects -- even though they were founded at different times, are located in different parts of Canada, work in various business areas, and serve a variety of customers. These commonalities can be summarized as follows:^{9/}

- . The founder is male, a graduate engineer, with considerable prior technical and managerial experience in the same kind of business with a medium or large firm, located in the same town or city where he sets up his own;
- . He sets up his own venture when he is just under 40 years of age, for one of several reasons:
 - his career with his employer is blocked or terminated by family members moving in or as a result of sale of the business to new owners
 - he is basically an entrepreneur who has always wanted to be on his own and now has the maturity to handle it;
 - he is doing well with his employer but sees a real opportunity in the market that the employer is unwilling or unable to exploit; so he takes the plunge and sets up on his own;

- he takes over an existing family business and puts his own strong imprint on it;
- . The founder has no formal training in commerce or business administration;
- . He has almost no net worth at the time of founding his business;
- . He is likely to set up initially with one or more partners, and within a few years the partner may bow out;
- . He is more likely to set up a new venture than to buy an existing business;
- . The business starts off small, and grows gradually as the limitations of lack of plant and equipment, and of cash, are overcome. Exceptionally the founder may obtain government capital grants at the inception of the business and undertake immediate capital investment. Where this happens, the business is less likely to be viable than if it grows more gradually.
- . Capital investment comes several years after the business is founded, usually in a period of rising economic prospects, and is more likely than not to create a financial crisis in which cash flow is inadequate to meet the demands on the expanding business;
- . The founder, more often than not, finds his bank unwilling to meet the usually short-term exceptional demand on the business, and has to scramble in order to survive;
- . The business overcomes its problems quickly and then grows rapidly for a time, displaying a remarkable ability to expand in favorable times (and contract in poor times) without affecting its viability;
- . It is run conservatively, with little long-term debt; most capital investment being based upon profits and most of the earnings being plowed back into the business;
- . Despite its reliance on obtaining a major contract from a major firm, the business avoids becoming overly dependent and diversifies its customer base by cutting across industrial sectors and/or expanding geographically;
- . The product or service base is narrowly focused, and the value-added is relatively high;
- . The know-how of the key people in the business is outstanding in one or more respects -- skills and trades, design, tooling, or business insight;
- . Marketing is formal and intensive, aiming at end users with sophisticated procurement knowledge;

- . Selling is done across Canada and often into the United States and abroad;
- . The business tends to have few competitors because of the degree of its specialization, and is slightly above average size for its niche;
- . It makes notably little use of government incentives, and those it does harness are mainly to do with marketing;
- . The founder attributes success to five main factors:
 - special expertise
 - reliable performance
 - ability to respond swiftly
 - price competitiveness
 - innovativeness
- . He wants further growth and seeks this mainly through geographic expansion of marketing, and product diversification within a fairly narrow range of technology and materials;
- . The business is kept under control through a variety of devices, but the main control mechanism is to proceed incrementally in all things over time -- expanding into a potential market and building up capacity accordingly, rather than making sweeping commitments of money and resources in an attempt to acquire a major market share.

The Interaction Between Suppliers and Purchasers

The specialized supplier relationship is unlikely to remain static in an evolving market. The purchaser's needs will change and the supplier will have to adapt his product while remaining profitable. The relationship is a delicate one since if the purchaser pushes the supplier too hard he may put him out of business or be obliged to provide "protective satellization." In the special study, Newman examined the effects of the relationship in terms of supplier dependence, the inhibiting effects of specialization, the impact of professional procurement and the two parties' respective frames of reference for their mutual on-going activities.

Supplier Dependence

Nearly all the firms visited had, from their inception, avoided being tied to one major customer. Even those firms tied narrowly to a single industrial sector had quickly developed a fairly broad customer base.

The one firm that maintained a tied relationship entered into it as a matter of survival; there was an urgent need to bring work into an existing facility. Being captive in a narrow specialization, this supplying firm had to follow the major customer's dictates as to size and kind of capital expansion and questions of quality, where the purchaser's requirements appear to have been excessive. This increasingly raised the captive firm's costs -- in capital investment as well as working capital -- taking up any resources that might have been devoted to diversifying the customer base.

This kind of captivity is intense and all-consuming. The risk is not balanced since it is far from being an equal partnership. The continued favor of the major customer is essential to the small specialist firm's survival, but the major customer can seek or establish other sources for the same goods or services. The extent of the dependency also means that the captive firm has little recourse in the event of inequities -- technical as well as contractual -- which can occur as a result of oversight, or that are inevitable when working close the frontiers of knowledge and of know-how.

Further, the major customer, by the nature and the significance of the good or service involved, might exploit the relationship in ways that could potentially benefit both parties but that place the captive firm at high risk. For example, the major customer may wish to see the supplier evolve into a showplace facility and organization -- in line with what the major customer would have wanted to do in-house, if it could afford it. The dependent firm then is forced into an accelerated capital investment program and rapid growth in size as well as know-how.

Captivity, however, was rare among the firms visited. Nearly all have avoided the trap or rather have deliberately chosen another strategy for survival and growth. There are more chances of succeeding in their strategy if they start small with a completely new venture, rather than acquiring a fair size one that is in financial trouble. They are then able to expand incrementally as cash flow allows and there is less pressure to chase the large contract to ensure survival. Survival comes from 'bread-and-butter' business, while the large contract is viewed as a vehicle for growth.

Most of the firms seen, at some point in their history, have sought an important contract with a major industrial customer. This strategy looks

to the contract to confer technical and managerial credibility, as well as credibility with the banks. The contract is a jumping-off point for further diversifying the customer base -- it is an entrée into the 'big league,' a way of reducing dependence on any one major customer. At this stage the successful smaller firm's aim is not survival; survival is already a reality. The major contract is strictly a stepping-stone to accelerated growth -- a milestone marking the supplier's emergence as a significant force in its chosen market niche.

Specialization and Diversification

Specialization can be a property of facilities and equipment as well as of know-how and reputation. Any of these forms of specialization can lead to a narrowly-focused set of customers, and limited credibility with potential customers outside the set.

All but one of the smaller firms visited and which dealt within just one industrial sector were scrambling to diversify to other sectors -- their chief executives perceived an increasing vulnerability as the economic climate turned hostile. (The other single sector firm had hedged its vulnerability by diversifying geographically -- becoming a world-scale firm with a global set of narrowly defined customers.) In all cases, diversification meant extending process and/or product to closely adjacent fields -- techniques, materials, customers, industry sectors. The pattern was that of moving incrementally on the basis of well-established capabilities and credibility. In no case did or would such a firm jump to a very different market or product or process.

Some observers believe that customer quality requirements narrow a supplier's diversification possibilities and can eventually force it into satellite status.^{10/}

In general however a smaller firm often benefits from purchasers' insistence on technical excellence unless this is pushed too far. In only one case among the twelve smaller specialist firms was a firm 'penalized' by its unusually rigorous quality standards. Its attempts to compete in less demanding markets suffered because its costs were higher than those of competitors, as a result of its quality mechanisms. But this was not the result of pressure from a customer but rather a direct outcome of the decision of its founder to enter a narrow niche that required exceptionally strenuous quality procedures.

Experience shows that it is difficult for a specialized supplier to step outside its established quality level to selectively adopt lesser or more stringent standards. The quality assurance process is integral to such a firm's entire production process and to its employee's perceptions and attitudes. Under these circumstances, diversification in terms of different quality markets would probably succeed more easily if undertaken by the creation of an arms-length division with its own ethos and equipment, its own customers and probably its own sales force.

The Impacts of Professional Procurement

Major corporations have reacted to market and financial squeezes by embarking on productivity improvement and cost-cutting, and by establishing more formal and professional approaches to sourcing. In all but one of the major corporations contacted -- each one in a different industrial sector -- the introduction of professional procurement was quite a recent event.

The impact of the crises which led to the professionalization of procurement and of the new purchasing environment on smaller specialist suppliers has been mixed. To date the recession which strengthened the tendency to more formal buying policies appears to have had a greater effect than the changes in purchasing which resulted.

The initiating crisis in an industry sector has sometimes been a sharp downturn in business. Smaller suppliers are also hurt, since the major firms cut back their capital investment which is the mainstay of these specialist suppliers. The crisis, however, may arise from new opportunities or technological change. In this case productivity and effectiveness become paramount, capital investment is maintained, and smaller specialist firms may have an enhanced role to play.

The current economic crisis is double-edged -- it combines features of dramatic technological change with the worst features of a broadly-based recession. The best of policy intentions tend to be blunted in such circumstances. Competition among suppliers becomes very keen, and the major firms look more to price than to other qualities. Since the recession is global, there is more competition from outside the country -- sometimes cutting prices to well below cost in an attempt to buy into a new customer. Both market share and absolute profits of the suppliers suffer. This is not necessarily dumping in the strict legal sense, and so the federal government can do little to prevent it.

Canadian ownership is not a significant advantage in these circumstances. Many^{11/} major firms pay lip service to the concept of Canadian sourcing but there is, at least in some industry sectors, a marked tendency to buy from established foreign sources whether or not price-competitive Canadian sources are available. This reflects world-scale industrial ties in which certain industries are closely related, as a result of years of working closely together, with major prime consultants and contractors who do much of the packaging on major industrial projects. The Canadian subsidiaries of these global enterprises will tend, in the longer-term interests of their parent firms, and with strong rationalizations to support their decisions, to deal with each other and with their international suppliers.

Professional procurement can take the edge off these harsh competitive practices -- trying to keep at least the semblance of a balanced and professional approach. But while some major corporations have brought in a new and more highly trained generation of procurement policy specialists to guide the activities of existing purchasing groups, this is usually a staff role -- a new function with new meaning. Though corporate policies may express the best of intentions, and are clearly understood at the upper corporate level, there is a wide gap between the intention and what is practiced by the operating units. It will take time -- probably some years -- before the full impacts of new policies spread broadly through industry. There are short-term impacts however:

- . A more rational examination of in-house operations with a view to 'make' or 'buy' evaluation, usually leading to more contracting out which has opened up quite broad opportunities to suppliers;
- . While cost consciousness means tighter negotiations, there is more assurance now of predictability in the behavior of major corporations, even though there is no assurance of volume of orders in the current economic climate;
- . Major firms are finding it difficult to maintain even minimum teams of in-house specialists. Accordingly, there is some reduction in contracting out -- less "complete responsibility" for packages going to larger consultants, and more guarding of in-house front end and process know-how (which are viewed as a last-resort area of corporate expertise). But the current pace of technological innovation is difficult to keep up with. It is costly and

difficult for a firm to build and to keep the know-how and the capacity to do it all in-house. Even in these hard times there are opportunities for smaller specialist firms that have outpaced the sophisticated customers they serve. Smaller firms that deal directly with end users, rather than depending on distributors/packagegers to link them to the final customer, can benefit from the re-assumption of project responsibility by the major firms.

The Frame of Reference Through which Major Industries and
Smaller Suppliers View Their Mutual Relationship

The Large Organization View

The large corporation looks out over a variety of suppliers each occupying and serving a distinct niche of needs. Purchasers responsible for each niche are encouraged to develop several or more sources. In other words, the large corporation sees the population of specialized smaller suppliers in terms of a replacement model. If one niche firm vanishes -- fails, discontinues, changes direction -- the replacement model assumes that an equivalent firm will come into being in that niche so that the status quo continues. For many years this model held up well. Until very recently, more firms appeared each year than disappeared. So the overall supplier population has held fairly steady or has grown, though individual firms come and go from year to year.

However, a constant number of firms does not necessarily imply a steady-state condition. We cannot be sure that when a firm fails or goes out of business, its know-how will reappear unaltered in other guises. Does the total national intangible wealth remain constant, or has something altered? Know-how is as much a team attribute as an attribute of individuals. It refers to the capability of individuals with relevant skills and experience to work together on projects. If the team dissolves, there is a cost to assembling new teams in other circumstances -- even if the same individual members are the building blocks.

Large purchasing firms do not take these considerations into account in the replacement model. It appears that in circumstances in which a valued supplier's continued existence is in jeopardy the large firm will extend a considerable amount of advice, time, and technical and even managerial aid. But only rarely will it provide financial help -- even though some large firms have their own venture arms looking for investment opportunities. With genuine regret the smaller firm will be allowed to fail, while the desire for having multiple sources of supply is strengthened. The replacement model thus

operationally requires the large firm to have alternative sources on stream. This observed pattern of behavior and attitudes suggests that purchasers, at least in our sample, do not encourage satellization if that would entail financial assistance.

The niche firm looks out over a limited number of major customers and attempts to diversify its activities incrementally from its mainstream know-how and its mainstream territory. The model through which niche managers view the world looks at capital investment by industry sector. Diversification is an attempt to lessen the vulnerability of the smaller firm to reduced capital investment by one firm and by one sector and to broaden the market base -- to include other firms within the same sector and to firms in other sectors with related needs.

Importance of the Specialized Supplier Relationship

Both the United States and Japanese economies are characterized by the depth and diversity of the relationship between large manufacturers and small-to-medium firms supplying them with components. The nature of the relationship differs between the two countries but it appears that in both instances large firms rely on smaller ones to share a part of their risks and to reduce their costs. Although little work has been published on this subject in Canada, it is intuitively obvious that a healthy industrial structure requires a group of prosperous specialized suppliers to service, and in some lines to compete with, the major corporations. This relationship of mutual dependence will be strengthened as the trend away from vertical integration and maximum in-house procurement continues.

The cases in our special study concerned firms which were no longer small according to our quantitative criteria. They had however begun operating as small businesses and some still were, or had recently been, tightly managed firms. Tight management indeed complements the portrait of a typical founder of a specialized supplying firm which was revealed by Newman's extensive interviews.

The specialized supplier relationship is often unstable and may be particularly vulnerable in Canada's resource-dominated economy. Newman concludes that if purchasers try to get too much out of the relationship in the short term, it could be jeopardized. As he says, in this relationship the large firm hopes to build a stable of several or more suppliers; each holding a more or less steady share of its business and each able to grow or contract

as the economy dictates. The specialist suppliers each hope to build a stable of several or more customers across a few industry sectors; each customer representing a more or less steady share of its business and each representing a growth market, assuming there will be a broadly-based economic expansion. Hence, both major firm and specialized supplier share a desire for a diversified and assured set of relationships, but the replacement model perspective of the large firm can lead to the non-rational captivity of smaller specialist firms -- with the possibility then of high risks for both parties.

Small Business' Contribution to Regional Development

Turning now to regional development, we find that there is a strong presumption that small business has a potentially important role to play in this field in Canada. Serious doubts that have been cast on the efficacy of regional development strategies which rely on the startup or relocation of medium-to-large scale manufacturing plants in declining or less-developed regions. Small business may offer an alternative or a complementary instrument of regional development. There are four parts to the discussion -- first, a reminder of the relevant regional development issues in the Canadian context, second, an examination of the a priori reasons for believing that small business has a special contribution to make in this field, third a review of what we know about this contribution, and finally a summary.

Regional Development Issues in Canada

The existence of important economic disparities between different parts of the country has, for historical and political reasons, led Canadians to adopt an active policy of regional development. As in most other developed countries, regional development policy in Canada is concerned almost exclusively with the problems of disadvantaged rather than booming regions. It is also formulated largely in terms of the needs of a mature economy in which maintenance of economic activity, rather than industrialization, is the key problem.

Disadvantaged Regions

"Region" has several meanings in the Canadian economic development context. Here it is taken to mean circumscribed economic areas which usually fall within provincial boundaries. It is not taken in the sense of Central Canada's resource hinterland -- most of the country excluding southern Ontario and western Quebec.

Areas or regions are usually economically disadvantaged for one or more of the following reasons -- their remote location, their dependence on a single resource-based activity, their dependence on mature industries

threatened by import competition or obsolescence, and their inability to sustain competition with nearby metropolitan areas. The first two causes are particularly intractable in Canada. In Quebec, for example, there were still 114 municipalities almost totally dependent on forest products in 1981 and diversification of single-industry towns are disappointingly slow.^{12/} (Inner-city neighborhoods which have been the focus of concern in the United States and Britain are not considered as targets for regional development policy in Canada.)

Regional Development and Regional Stabilization

The objectives of regional development policy have changed considerably in the post-war period. Narrowing interregional disparities in personal disposable income and in access to public goods was an immediate target. It has been partially attained by means of transfer payments to individuals, unemployment insurance and the federal-provincial equalization system. Wide disparities persist, however, in unemployment and participating rates, labor productivity and unit costs, both between and within provinces.

Regional development policy now focuses on the level and stability of economic activity in the disadvantaged regions. The challenge of regional development is to raise the long-term levels of productivity and entrepreneurship on the basis of the region's comparative advantage rather than on that of transfers and subsidies. Two key elements in the process are efficient industrial diversification, which reduces the region's vulnerability to changes in external markets, and repatriation of decision-making into the hands of economic agents whose primary interests lie in the region.

Development of this nature may not be possible in some regions and in some time periods. In certain cases, maintaining a minimum viable level of economic activity in a region is the objective. This level may be threatened by outmigration, for example, as a result of the dominant industry's loss of markets or of comparative advantage, or of cuts in transportation links. Since cumulating economic decline associated with outmigration of management personnel and young people is a common problem in Canada's disadvantaged regions, measures aimed at stabilizing a region's economy are often included in regional development policy. This section addresses small business' contribution to both regional development and regional stabilization.

Process and Measurement of Regional Development

Various models have been developed to explain how a region's economy operates and changes. The export base model, one of the simplest and most operational, is the one adopted here. All economic activities within the region are divided into two groups -- those which bring income in the region -- export base activities -- and those which service both the export base and the local residents -- induced activities. The level of income and employment in the induced activities sector depends on the prosperity of the export base sector. Creation of a new export base job leads to the creation of at least one, and often two or three, new jobs in the induced sector.^{13/}

Regional development thus depends on the growth and stability of the export base sector. This means that the rate of creation of new jobs in this sector and its diversification away from dependence on a single market can be used as evidence that development is taking place.

Small Business' Potential Contribution to Regional Development

The optimism regarding small business' potential contribution to regional development stems partly from pessimism regarding large business' contribution and partly from the nature of small business' operations. In the 1960s and 1970s, both central and local governments made great efforts to persuade major corporations to locate their new plants in disadvantaged regions in the belief that such new establishments would greatly improve the regions' growth climate and prospects. Such efforts are now viewed with increasing scepticism in Canada, the United States and Britain.

Limits to Large Firms' Contribution

One reason for this scepticism is that there are fewer large branch plants being created than in earlier years. Furthermore, the costs of attracting them are high both financially and politically, and the likelihood of success is small. A concerted effort by the Government of Quebec over the 1970s yielded a one in a thousand success rate.^{14/} Policy-makers at the local and even at the national level rarely have a determining influence on a major corporation's plant location.

Expectations as to such plants' contribution to local development have also been scaled down. Although they make an important initial contribution to employment, once they have reached their planned operating capacity they are unlikely to expand or set up a second plant in the same area.

Regional branch plants are part of a national or international whole and regional considerations often do not weigh heavily in head office decisions. Even management personnel recruited locally usually cannot take advantage of entrepreneurial opportunities outside their direct responsibilities. While the new plants may offer new opportunities for local production and sale of components, in many cases the onus is on the local suppliers to modify the branch plants' national or international buying practices.

The positive effects of the presence of one or more large employers in a region cannot be ignored, however some studies have suggested that in areas and in industries dominated by large companies it is harder to establish new firms than in areas and industries with a more diversified business structure. In the case of Atikokan township in Ontario, it was suggested that a tradition of relying on mine employment deterred laid-off tradesmen from considering setting up firms in other sectors.^{15/} In an empirical study of Cleveland County in Britain over the period from 1965 to 1976, D. J. Storey concludes:

. . . . the entry into Cleveland, during the 1965-76 period, of large firms, although it created the bulk of the new jobs in the area, may actually have depressed the rate of new indigenous firm formation. It has resulted in the large externally-owned branch plant coming to the area. This type of firm produces relatively few entrepreneurs from within its workforce, and it buys relatively little from local companies and offers little opportunity for the development of local managerial talent Continued reliance upon the entry of large manufacturing firms may, if anything, lead to a depressing of indigenous rates of new firm formation, which, in turn, has been shown to be a necessary condition for prosperity.^{16/}

Locating government activities of either a service or a production nature in a disadvantaged region is another option which has been fashionable in recent years. The setting-up of a large public sector establishment will obviously contribute to job creation and increase the demand for induced activities but it is unlikely to lead to industrial diversification. It may also have a negative effect in raising salary expectations in the area.

Small Business' Potential Contribution

Small businesses are believed to be particularly apt at promoting both regional stabilization and regional development. It is they which carry out virtually all the activities making up the induced sector. These include providing goods and services to residents and servicing the export base sector. The induced sector often hires spouses of export base sector employees and may train workers for the latter.

In periods of regional decline, small businesses in the induced sector are directly affected by shutdowns and lay-offs in the export base sector. Despite their vulnerability, they may be able to play an important role in stabilizing the regional economy and assisting a transition to a new or modified export sector base. On the socio-political front, since they have the most to lose from their region's decline, they are likely to be active in coordinating efforts to renew the community's export base. At the same time, successful small businesses provide role models for managers and employees facing lay-offs by large firms. In an active small business community, starting up one's own business is likely to appear as a feasible option. More importantly, small businesses in both the induced and the export base sectors are likely to be the prime movers in diversifying their region's industrial structure.

With the possible exception of activities directly dependent on natural resources endowments, it is impossible to predict the products that a particular region can produce competitively. Only by a process of trial and error can the region's potential be developed and adapted to market demand both within the region and beyond it. Generally speaking, only local entrepreneurs will be interested in setting up new activities in the region.

Given the need for trial and error, diversification of the industrial base is often done in an incremental, small-scale manner. Local firms may establish clusters of activities complementary to those of the traditional export base, either as inputs to the latter or by using the latter's by-products. Alternatively, entrepreneurs in the region may experiment with wholly new products without any special contribution from the established regional economy. To the extent that these endeavors succeed, not only is the industrial base strengthened and diversified but also the weight of local residents in economic decision-making is increased.

Review of Small Business' Contribution

Preceding sections have suggested that large firms cannot be relied on to stabilize and develop disadvantaged regions' economies and that there are reasons to believe that small businesses may be able to play a vital role in both the stabilization and the developmental process. Unfortunately data on their actual contribution in Canadian regions is very scarce.

Data on Sub-Provincial Bases

In Chapter 2 we saw that small business makes a greater contribution to economic activity outside Central Canada but provincial breakdowns are insufficient for our purposes, yet data is not generally available on business' contribution to the economy of sub-provincial regions by size of firm. Certain sectoral studies have been done such as that on the distribution of manufacturing activity in Quebec in the first half of the 1970s, which have detailed breakdowns by firm size.^{17/} But these are rare and often out of date, and in most cases researchers have to rely on case studies and anecdotal evidence which has been collected for purposes other than investigating small business' role in a regional economy.

The most complete data found to date is that for manufacturing in Quebec. This shows, as expected, that value added per employee was higher in 1975 in larger than in smaller firms in all the nine administrative regions. It also shows that manufacturing firms with 100 employees or more employed a larger number of people than did smaller manufacturing firms in all regions. This is to be expected given aggregate figures on employment by firm size in manufacturing, although it is noteworthy that in Eastern Quebec 48 percent of all manufacturing jobs were in firms with fewer than 100 employees. The provincial average was 32 percent.

Changes in value added per employee and in employment may provide some indicators of firms' vitality. The study shows value added per employee to have increased more rapidly in small firms during the early 1970s than in medium-sized and large ones in most Quebec regions. This difference is more marked in non-metropolitan regions. Evidence on job loss and gain does not have any clear direction but suggests that new jobs were largely created in manufacturing firms with between 100 and 499 or over 1,000 employees while those with 500 to 999 employees tended to register job losses.

Data from this study confirm the vitality of the small business sector over the period and can be used to examine industrial changes within regions by firm size. They suffer from the short period covered and the lack of attention to sectors other than manufacturing.

Small Business' Role in Industrial Diversification

We have suggested that small business can assist in diversifying a region's industrial structure in different ways -- by setting up activities complementary to the traditional export base or by creating new export base activities. In either case the initiative may be taken by a wholly new firm, by a firm already active in the export base sector, or by a firm previously active in the induced sector.

A series of regional case studies in Quebec and New Brunswick completed by SECOR Inc. provides examples of small business undertaking successful ventures which increased industrial diversification. The post-World War II establishment of ten small firms offering mining services in Rouyn Noranda is a case of local entrepreneurs building on mining skills and on the demand for specialized inputs to set up companies which now do a substantial part of their business outside the region. These companies could consider maintaining their activities, even if exhaustion of ore bodies and/or environmental control measures forced closure of Rouyn Noranda's mines.^{18/}

In some regions, as the Quebec examples illustrate, small businesses have launched into entirely new production lines as in the Shawinigan-Grand-Mère region where there were eight small businesses producing motor boats for sale outside the region in 1976.^{19/} An example from the West is that of hydroponic cultivation of tomatoes in Barons, Southern Alberta.

Launching into the export base sector, using experience in the induced sector, is often easier than starting from scratch, particularly regarding access to funds, yet many small businesses in consumer goods, repair services and other induced sector activities hesitate to do so. Successful initiatives in Quebec's regions have been particularly numerous in the construction industry, where specialized trade contractors have gone into extra-regional sales of building materials and of mobile and modular homes, and in the food industry -- especially dairy-based products. Two of the best known Quebec enterprises of the 1970s, Vachon and Bombardier, began as small businesses -- a bakery and a repair shop -- in the induced sector.

It is difficult to draw any conclusion from such anecdotal evidence apart from the very general intuition that initiatives such as those described in the case studies could not have been planned by a public body nor easily undertaken on a large scale. For each successful venture there are probably four or five which fail. These failures entail very heavy costs for the individuals concerned but such costs can be more easily absorbed by the regional economy as a whole than can the costs of the closing of one large branch plant.

This leads to a consideration of small business as an example for potential entrepreneurs. The topic concerns regional development since certain regions in Canada (and in other industrial countries) seem to have developed a higher level of entrepreneurship than others. The Beauce region in Quebec is one that is often cited. Jankunis and his colleagues' studies of towns in Southern Alberta, which experienced economic decline and out-migration in the 1950s and 1960s, suggest that renewal largely came through the simultaneous establishment of a number of small businesses in the 1970s.^{20/} Since evidence from the United States and elsewhere strongly supports the intuition that regional diversification and growth is related to a high level of entrepreneurial activity, measured by the rate of births and deaths of new firms, the existence of a critical mass of small firms is most probably a prerequisite for regional development.^{21/}

Summary and Conclusions Regarding Regional Development

The preceding discussion presents what is basically an a priori case for suggestion that small business has a necessary role to play in regional development. On the strength of the information available, we can make three additional statements.

First, if small business is necessary to regional development it has not been suggested that small business activity is sufficient to bring about regional development. It is the mix that is important. To take the Quebec examples, both the Eastern Quebec region, where small business is unusually important in manufacturing, and the Saguenay-Lac St. Jean region, where large business dominates, are areas in which regional development has been sporadic and uncertain.

Second, although there is ample anecdotal evidence to document small business' contribution to both regional development and stabilization, data is not sufficient to generalize from particular situations. Detailed time series are required for different regions before the hypotheses advanced in the second section of this paper can be confirmed or disapproved.

Third, small business appears to play two distinct roles in regional economies -- a service role and a developmental role. Both are essential and it is only ex post that observers can distinguish the firms which have supported the on-going economic life of the region from those which have diversified its industrial base. It is these latter which contribute to regional development as strictly defined but many of them originate in the induced sector. An easy movement from one sector to another would seem to be an important element to cultivate with a view to promoting regional development.

Small Business' Contribution to Personal, Community and Social Development

This is an area in which there is a great deal of conventional wisdom and little concrete information. Since most observers incline to the view that small business typically makes a positive contribution to personal satisfaction and to community and social development, we will try to avoid repetition of widely held opinions. The objective of this section is to describe, as precisely as possible, what small business' contribution is believed to consist of and to refer to available data. The discussion starts with the individuals' viewpoints and moves through the group and the community to the social perspective.

Small Business' Contribution to the Fulfillment of Personal Goals

The satisfaction of diverse goals and the pursuit of different life styles require a wide choice of workplace situations. Some goals are more easily achieved within large organizations and others within small ones. Probable examples of the latter are independence, close personal contact with fellow employees and customers, and direct recognition of accomplishment. The Bolton Committee in the United Kingdom summed up the contribution of small business as follows:

The small firm provides a productive outlet for the energies of that large group of enterprising and independent people who set great store by economic independence and many of whom are antipathetic or less suited to employment in a large organisation but who have much to contribute to the vitality of the economy.^{22/}

Satisfaction of the owner-manager's goals are given prominence in the literature, but small business' potential contribution to satisfaction of employees' goals should not be forgotten.

The continued existence of small businesses and the constant creation of new ones, despite the fact that many owner-managers receive lower net financial rewards than they would as employees, demonstrates that small business fills a need. Investigations such as those undertaken by Burnett and Ellis suggest that there is an identifiable set of goals pursued by many owner-managers.^{23/}

Small Business' Contribution to Group Development

Small business can provide a way for minority groups to integrate into, benefit from, and contribute to mainstream economic activity in a society. The minority groups most often referred to are ethnic minorities, immigrants, handicapped people, adults with no work experience and the majority group -- women. Informal recruiting procedures in small business and their general operating style, as well as the frequent possibility of flexible hours, help minority members to integrate as employees. Even more important is the fact that they can create and take charge of small businesses and use their entrepreneurial talents, whereas lack of formal education, of linguistic fluency, discrimination, and other factors, might have excluded them from managerial and entrepreneurial tasks in large firms.

Since there is no legal definition of a minority group in Canada (with the exception of Official Language Minorities) there is no data on minorities' economic activity. In the United States, the Bureau of the Census Surveys of Minority-Owned Business provide basic economic data on businesses "owned by Blacks, persons of Spanish or Latin American ancestry, and persons of American Indian, Asian, or other origin or descent." In 1977, there were over 560,000 minority-owned firms in the United States accounting for 5.7 percent of all U.S. small businesses. Their total gross receipts represented 3.5 percent of U.S. small business' receipts. From 1972 to 1977 the number of minority-owned firms grew by 31 percent and the value of gross receipts by 69 percent (compared to 62 percent growth in GNP).^{24/}

Minority, particularly ethnic minority, small businesses often go through several phases in their integration into a country's economic life. These phases are continuous but for the purpose of presentation can be divided into three -- family-run businesses serving local ethnic markets, family-run businesses with some employees from outside the ethnic group serving

a widening market but often limited to supplying inputs into a larger package sold on the national market, and independent incorporated small- or medium-sized businesses selling directly to Canadian consumers, corporations and public authorities. In the course of this evolution these small businesses promote social mobility and increase the talent available to the economy. There is anecdotal evidence to suggest that they may also make special contributions to training by arranging for the immigration of the skilled workers they require and to exports by their readiness to try new markets.^{25/}

Canadian data has recently become available on women owner/managers.^{26/} In the period from 1964 to 1979, the number of women business proprietors increased more than eightfold (from 15,339 to 130,230) compared to a nearly fourfold increase in male proprietors (from 93,865 to 365,920). The increase in women proprietors declaring taxable income was not so large but it nonetheless more than doubled, whereas that of men proprietors earning taxable income increased by only 25 percent.

Women proprietors in both Canada and the United States typically earn less than their male counterparts. The relative newness of women-managed firms may partly explain this. In a survey of 275 women owner-managers in Southern Ontario in 1981, almost 75 percent had been owners for fewer than three years. Small businesses owned and operated by women in Canada are not found exclusively among the smallest businesses. The survey found that the average number of employees (full- and part-time) was 5.57, with women accounting for about 80 percent of all employment in the businesses surveyed.

U.S. data also show a very rapid increase in the number of women owner-managers from a very low base. Canadian studies rank "challenge" and "being one's own boss" as the most important factors for women going into business while a U.S. study cites the need to achieve, the desire to be independent, the need for job satisfaction, and economic necessity.^{27/}

Small Business' Contribution to Community Development

The potential contribution can be considered from four related viewpoints -- education, participation, decision-making, and the cost of transactions.

First, small business people "educate" a community by providing role models and demonstrating that small business can succeed. A large

number of enquiries have shown that young people, laid-off employees, women, and others are more likely to go into business for themselves if they have relatives or friends who have succeeded. Most Canadian women owner-managers surveyed, contrary to widely held beliefs, had started their own businesses rather than inheriting them or buying established businesses, but the survey found a "very close correlation between having come from a family that owned a business, having another member of the family as a business owner, and being the owner of a business."^{28/} Similar correlations between entrepreneurship and entrepreneurial family traditions were reported in a 1977 study of entrepreneurship in Quebec.^{29/}

Second, participation in community activities of all types is believed to be greater in communities in which there are a larger number of small businesses.^{30/} Communities with a higher level of participation are commonly believed to have lower health and policing costs and to provide better services per dollar of public expenditure. If these assumptions are true, such communities are likely to attract residents and encourage local businesses to hang on longer in difficult times.

Third, small businesses take decisions -- hiring, firing, construction, diversification of activities, etc., of concern to the community. Several studies have shown a decline in social cohesion and an increased alienation of residents from public life when the majority of economic decisions affecting them are taken elsewhere.^{31/}

Finally, a strong network of local small businesses can reduce transaction costs in a number of ways.. First, mutual trust can be viewed as a public good which reduces the cost of borrowing and writing, interpreting and enforcing contracts. Second, small businesses are traditionally readier to advise customers and listen to their complaints than are large firms. Third, small businesses may be able to accept locally produced goods, for example, garden produce or handicrafts, that would not warrant marketing further afield.

Small Business' Contribution to Social Development

This, the widest area under consideration, is the least open to empirical investigation. Three hypotheses have been put forward and since they are intuitively probable, they merit mention. Their validation is however beyond the scope of this study.

First, the diffusion of power and wealth is likely to be greater in a society with a large number of small businesses and this is believed to strengthen democratic institutions and practices.

Second, the larger the number of small business people, the greater the pool of candidates for elective or consultative office who have had responsibility for management decisions and have directly assumed the consequences of these decisions. This, it is believed, increases the likelihood of realism and independent thinking in government.

Third, the presence of a large small-business sector reduces the danger of the individual citizen feeling alienated by the apparent domination of society by "big business, big unions, and big government" and thus opting out of social responsibility.

Footnotes to Chapter 5

- 1/ See reports of interviews and "Quester" research with the participation of senior management, in Rein Peterson's "Small and Large Firms Together -- in One's Self-Interest -- Phase II," a study for the Small Business Secretariat, December, 1979.
- 2/ Ibid.
- 3/ See, for example, Robert T. Averitt, The Dual Economy (New York: W. W. Norton and Company), 1968. Report of the Committee of Inquiry on Small Firms (J. E. Bolton, D.S.C., Chairman), 1971. Rein Peterson, "Small and Large Firms Together: Phase I -- An Exploratory Narrative," for the Small Business Secretariat, March, 1978. La Chambre de Commerce de la Province du Québec, Pour une stratégie de développement industriel : la croissance des P.M.E., Annexe technique, 1974.
- 4/ The study was carried out for the Institute by David A. H. Newman and the material in this section is taken from his report entitled "Relationships Between Large Canadian Firms and Smaller Knowhow-Intensive Suppliers." The full report is included as Appendix 1.
- 5/ "The Place of Small and Medium Firms in OECD Countries and Trends in Their Development." Draft report, Organisation for Economic Co-operation and Development, Paris, 1980.
- 6/ Peterson, op. cit., Phase II.
- 7/ See Appendix 1 for necessary qualifications of this overview.
- 8/ Each of these elements of procurement is being implemented currently by at least one of the major firms seen.
- 9/ This summary is based on the five tables that follow this introductory section in the full version on the special study in Appendix 1.
- 10/ Observations in other research confirmed this. For example the low level of tolerances in the aerospace industry, leads to very high costs which preclude sales in less demanding markets.
- 11/ This 'many' is based on comments of founders of some of the smaller firms visited, as well as on broader surveys which were not part of the special study.
- 12/ See Gouvernement du Québec, Le Virage technologique, Bâtir le Québec - Phase 2, 1982.

13/ For discussion of this model see:

Ralph W. Pfouts (ed.), The Technique of Urban Economic Analysis, Chandler Davis, 1960.

Harry W. Richardson, Regional Growth Theory, John Wiley & Sons, New York, 1973.

Robert B. Williamson, "Regional Growth: Predictive Power of the Export Base Theory," Growth & Change, 1975.

14/ Information obtained by SECOR Inc. from interviews with senior economic policy-makers.

15/ See The Atikokan Story. Quetico Centre for the Municipal Advisory Committee, Northwestern Ontario, Government of Ontario, 1980.

16/ "New firm formation, employment change and the small firm: The Case of Cleveland County," Urban Studies, October, 1981.

17/ La répartition régionale de l'activité manufacturière québécoise, Ministère de l'Industrie, Commerce et Tourisme, Québec, 1979.

18/ SECOR Inc., "Une stratégie de développement de la région de Rouyn-Noranda," presented to the Industrial Development Corporation of Rouyn-Noranda, January, 1981.

19/ SECOR researchers returned to this region four years after their original case study to monitor the situation. They found that despite the recession and the particularly tough economic climate in the region, there had been a net creation of ten new small businesses from 1979 through to late 1982. There had been no expansion or creation of large or medium business with the exception of government activity. SECOR Inc., "Le développement économique à moyen et à long-terme de la zone spéciale de Trois-Rivières-Shawinigan," Montreal, September, 1982.

20/ Frank J. Junkunis, "Small Town Alberta: Some Points of View on growth and Development" (Edmonton: The Faculty of Extension, University of Alberta), 1980.

21/ David Birch's work has demonstrated that the key variable for job creation is the rate of replacement of failing small businesses by new ones. As long as the birth rate is higher than the death rate, an apparently high rate of failure is not a problem at the aggregate level. Summarizing data on employment creation in several U.S. States, Birch says "Practically all the variation in net change [in job creation] is due to variation

in the rate of replacement, not the rate of loss" (p. 8). He shows that of the 1,066,893 replacement jobs created from 1969 to 1976, in his New England sample, 634,531 were created by firms employing fewer than 51 people during part or all of the period. David Birch, "The Role of Small Business in New England," Massachusetts Institute of Technology Program on Neighborhood and Regional Change, 1981.

- 22/ Report on the Committee of Inquiry on Small Firms, op. cit., p. 343.
- 23/ E. Burnett and W. H. Ellis, "The Human Side of Entrepreneurship," Conference Papers, International Council for Small Business, April, 1981, and E. Burnett and W. H. Ellis, "The Human Side of Entrepreneurship: Some Measurement Approaches," Conference Papers, International Council for Small Business, April, 1982.
- 24/ The State of Small Business -- A Report of the President, transmitted to the Congress, March, 1982, U.S. Government Printing Office, Appendix C.
- 25/ Based on interviews with small business people and staff members of the Economic Expansion Office of the Montreal Urban Community.
- 26/ "Canadian Women Owner/Managers," Small Business Secretariat, working paper, Government of Canada, January, 1982.
- 27/ Ibid.
- 28/ Ibid.
- 29/ Jean-Marie Toulouse, L'entrepreneurship, Dossier technique (2.3) Sous-système économique (2) Prospective socio-économique du Québec, 1ère étape, Office de planification et de développement du Québec, 1978.
- 30/ Several detailed case studies have confirmed this intuition. See for example "Small Business and the Community: A study in the Central Valley of California on Effects of Scale of Farm Operations," in Small Business and the Quality of American Life, also the Bolton Report, op. cit.
- 31/ See, for example: Daniel W. Bromley "The Economist and Rural Development: Concepts and Conflict," American Journal of Agricultural Economics, Vol. 53, No. 5, 1971, Brady J. Deaton "CDCs, a Development Alternative for Rural America," Growth & Change, 1975, Rein Peterson, Small Business Building a Balanced Economy, Procépic, 1977, and Small Business and the Quality of American Life. A Compilation of Source Material on the Relationship Between Small Business and the Quality of Life, 1946-76, Select Committee on Small Business, U.S. Senate, November, 1977.

6. Small Business' Way of Operating

We have established that small business makes a significant contribution to the Canadian economy in several important areas. This contribution could be greater; it could also be reduced if small firms proved unable to prosper in tomorrow's economy. The environment in which firms operate is shaped, in part, by government policies which strongly influence market signals. The second part of this Report analyzes the impact of federal government policy on small business. But before turning to this subject, we must look at the way in which small firms participate in the market. Their particularities contribute to both their successes and their failures. Once we have a better understanding of small business' modus vivendi, we will be able to evaluate the impact of economic management in general, and of individual federal policies in particular.

Small businesses tend to operate in different ways when compared to professionally managed medium and large firms. In this chapter, we review four aspects of small business' way of life -- management, financing, risk and profitability, and personnel. The findings of this review are summarized here and explained in the subsequent sections. First, regarding management goals, methods, and operations, tight firms have certain common characteristics. Their owner/managers prize independence above profit maximization. They run their businesses in a personal, 'hands-on' manner and inevitably work at adapting to, rather than predicting and moulding, their environment. They suffer in their relationships with their environment from insufficient access to, and control of, information so that they underestimate marketing problems and find compliance with government regulation a heavy burden.

Second, financing and balance sheet characteristics of small business are distinguished from those of professionally managed businesses by the interchangeability of personal and firm assets. Small businesses are more dependent than are medium or large firms on bank and trade credit. They are also more highly leveraged and experience greater difficulty in obtaining long-term financing.

Third, small businesses are riskier than medium or large ones. In many cases they are more profitable, but the risk of loss is an ever-present consequence of the owner/manager identity.

Fourth, the owner/manager identity also impacts forcibly on personnel relations. Managing owners and employees have fundamentally different relationships toward the business, which may hamper the development of middle management and impede growth.

Management

Tight management by owners as opposed to management by employees is what characterizes small business. The identity between owners and managers means that the owner/manager has a vital, long-term interest in the business. Yet poor management is held responsible for as many as 97 percent of all small business failures in Canada^{1/} and many analysts attribute the majority of small business' problems to weaknesses in management. In fact one could simplistically summarize the literature on small business problems in terms of the "bad management school" versus the "financial discrimination" school. This Report cannot do justice to all the hundreds of case studies of small business management, completed and underway. In the following paragraphs, we provide an introductory overview of small business management goals, methods and operations.

Small Business Managers' Goals

Owner/managers' goals may range from securing an independent income to founding a business empire. All classes of small business managers seem, however, to share three characteristics -- a fierce desire for independence, a comparatively short time horizon, and a relative downgrading of immediate financial returns. The first and the third are inter-related; since the small business person values independence so highly, the opportunity cost of self-employment -- the foregone salary, leisure time and peace of mind -- often appears to be under-rated. This is not to say that small business people do not pursue high income but that a very large number of them persevere in business for many years at a high personal financial cost. The need for independence was well summed up by the Bolton Committee in the United Kingdom.^{2/}

Hand-in-hand with this desire for independence, goes the owner/manager's realization that the success of his business determines not only his personal wealth and standard of living but also his family's position in society. The fact that the firm's future is the focal point at which

individual and familial, financial and social, goals meet complicates growth and expansion decisions. As Yvon Gasse has pointed out, growth is more often a conscious decision for small than for professionally managed firms.^{3/} Owner/managers may be ambivalent toward growth which would change the nature of the firm or of the risks associated with its ownership. This suggests that they may respond in a different way from that of professional managers to the same market signals.

Small business management objectives must however promise rewards, even if of a non-financial nature, in the near to medium term. Not only are small business people constrained by their own working life-span, but they are also aware that their fragile businesses must succeed to survive. Given the strong personal element in owner/managers' goals, it is not surprising that these goals are seldom spelled out in terms of a strategic plan. The implicit strategies will however probably correspond to one of the three sets we identified in Chapter 2: independent self-employment, stable, high-income independence, or independence by means of innovation and growth.

Small Business Management Methods

In a large firm, management tries to predict market changes and develop and implement strategies which will allow the firm to influence these changes and, if possible, control them. Scientific methods and formal planning and decision-making procedures are used for this purpose. Small business organizations, on the other hand, do not usually operate in market conditions which allow them to influence their environment. They therefore "concentrate their efforts not on attempting to predict and control their environment, but on adapting as rapidly as possible to its changing demands."^{4/}

Inevitably management in a small business is less formal, more personal, less specialized and more likely to be product- or service-oriented than in a professionally managed firm. Numerous studies have shown that there are significantly fewer hierarchical levels and written objectives and procedures in small businesses than in others.^{5/} In the absence of formal structures, efficiency and quality depend on personal initiatives and instructions. In many cases this is an advantage, ensuring high standards of performance. But it leads to frustration if informal management procedures imply failure to delegate as well as lack of promotion opportunities.

The small business manager or managers are responsible for all the management functions. While they cannot devote their exclusive attention to any one of them, they are obviously likely to be more interested and skilled in producing the product or service for which the firm was set up than in finance, personnel management, or marketing. The management group of most successful small businesses includes a person with financial and/or marketing expertise but inevitably "the owner is typically interested in the operational side of the business rather the general management areas."^{6/}

Management and the Firm's Environment

Each small business is different but the remarks which follow are distilled from a wide literature search and extensive contacts. A small business which survives its early months is competitive in its own line of business, but very vulnerable to turn downs in its market since it cannot spread its risks over several markets nor finance its customers for extended periods. On the other hand it can react swiftly to new opportunities in its line of business and take advantage of short-lived opportunities.

Owner/managers tend to underestimate marketing problems and are frequently criticized for underinvestment in marketing information. In a study of 100 small manufacturers conducted for the U.S. Small Business Administration in 1964, Hoad and Rosko concluded that inability to find profitable markets was the single most important factor contributing to failure among firms in their sample.^{7/} Litvak and Maule state that " the literature on small business is replete with examples of failure due to factors which include :

1. unawareness of customer requirements
2. ignorance of competition
3. ineffective and costly distribution arrangements
4. absence of promotion
5. erratic and discriminatory pricing policies
6. overestimation of market potential
7. absence of market research analysis."^{8/}

Small business' attention to marketing may have increased since these studies were released but other evidence confirms that marketing remains a major small business problem.^{9/}

Financial operations are examined in detail in the following section. From the management standpoint, financing is regarded as an external constraint to which a minimum of scarce time has to be accorded. Owner/managers of small businesses have to be able to mobilize loans from friends and relatives and to temporarily forgo a salary in order to succeed. Their desire for independence, however, makes them extremely reluctant to give up control of their businesses in return for easier access to funds.^{10/}

Small businesses have an advantage in personally knowing their suppliers, their clients, and often their competitors, which allows them to provide high class services. Yet they suffer from a severe lack of other information which is frequently due to a lack of time. The time/information constraint is particularly severe with respect to compliance with tax laws, regulations, and reporting requirements imposed by municipal, provincial and federal governments, access to government assistance, awareness of technological development, and participation in the political process. Owner/managers' inability to invest time in finding out about future problems and opportunities can put them at a disadvantage.^{11/} This matter is taken up in the following chapter.

Paperburden has become a symbol of small business people's difficulty in coping with the multiple demands on their time and resources. In Canada, the Canadian Federation of Independent Business' national surveys of member firms have shown that government regulations and paperwork rank among the top five concerns of independent businesses. A survey conducted in 1977 by Industry, Trade and Commerce, Canada revealed that of 5,000 businessmen interviewed, 35 percent identified paperburden as the major irritant in their relations with government. A survey carried out in the same year by the Government of British Columbia involving a very restricted sample of only two small firms showed that, to comply with information demands of all three levels of government -- but predominantly the federal -- cost each firm close to \$5,000 annually. Compliance with income tax and associated regulations were additional, and estimated at \$3,000. There are also important "psychological costs" to businesses in complying with government requirements. These are expressed in terms of resentment, frustration, disillusionment, and " a general attitude of 'them against us' " which counter efforts to improve government relations with business.^{12/} The same paper concludes, among other things, that: "In assessing costs exacted by government paperwork, small business can undoubtedly be singled out as particularly

hard hit" "Often paperwork represents a direct demand on the time of the principal -- time he requires to work, plan and innovate in order to stay in business and grow."

In general, owner/managers tend to feel more at ease in tackling problems internal to their business and at a loss regarding obstacles which they perceive as originating from outside the firm. Typically they appear to underestimate their internal management problems and attribute most of their difficulties to external factors, whereas management consultants, financial advisors, and economists usually identify internal causes as the more important when they analyze small business' difficulties.^{13/}

Financing and Balance Sheet Characteristics

Small business' access to financing and the state of their balance sheets are among the most controversial topics to be addressed in this section of the Report. Firms, either large or small which make the headlines by declaring bankruptcy, are, almost by definition, over-leveraged and unable to obtain further credit. But their closing balance sheet does not necessarily explain why they failed.

It is particularly difficult to understand small business' balance sheet characteristics and financial problems for four reasons. First, our usual size classifications based on sales value are misleading. Firms with large assets and net worth will be classed as small in terms of sales during their early years as will firms which are in the process of liquidation. Conversely firms in resale and distribution activities will have a very different balance sheet structure from manufacturing or service businesses with a similar sales value. In this sub-section we will use asset ranges rather than sales value. The class of firms with total assets below \$500,000 corresponded quite well to those with sales below \$2 million in 1977. To allow for inflation, and because most series used a \$1 million asset value as a cutoff point, we will consider small businesses as those with assets below this figure, although the significance of this choice will obviously differ from one industry to another.

A second problem with balance sheet analysis for small business concerns the reliability of the data. Even ignoring the possibility of false reporting, one must question, for example, the distinction between debt and equity in many private corporations. The tax system encourages

equity holders to put additional money into the firm in the form of shareholders' loans, the interest on which is tax deductible, rather than by increasing their equity. Several of the statistical series we have used show a low debt-to-equity ratio for very small firms, followed by the highest ratio for any size group which then declines as the firm size increases. This suggests that in start-up situations or for very small operations, the owner/manager mobilizes his own capital and that of his immediate circle. Recourse to shareholders' loans may extend this situation to larger firm categories. If such shareholders' loans are in fact disguised equity, this may understate the firm's capitalization and overstate its leverage.

A third problem in interpreting small business' balance sheet problems is attitudinal and it is of particular relevance to small firms' access to financing. In the past, small businesses have tended to view financial institutions and venture capitalists as adversaries, while the chartered banking system has been hypersensitive to suggestions that their members made it difficult for small business people to raise funds. Recent studies have cleared the air, and the notion of a credit gap, which we discuss later, has been clarified.^{14/} Moreover CFIB Surveys appear to show an improved understanding between CFIB members and their banks.^{15/} However some small businesses still find it difficult to understand the banks' apparently unsympathetic reaction to their needs while they themselves remain very reluctant to yield control of their enterprise to venture capitalists.

A fourth problem, which haunts any financial analysis in the early 1980s, is the exceptional nature of the current financial environment. A majority of firms -- large, medium, and small -- are suffering from severe over-indebtedness as disinflation provokes balance sheet crises.^{16/} In this environment it is difficult to focus on the particular financial characteristics of small businesses. In referring, as we will do, to data of the mid- and late 1970s we are supposing that the current environment is exceptional and that early data continue to have some long-term relevance.

In this section we look at the financial position of small businesses in terms of the composition of their assets, the sources of their funds, their debt structure, and the evidence relating to a credit gap.

The Composition of Small Business Assets

As one would expect, small businesses have fewer fixed assets and fewer investments in affiliates as a proportion of their total assets than do larger firms and, in general, a lower value of assets as a percentage of sales. Current assets, particularly cash and deposits, inventories, and accounts receivable make up a larger proportion of total assets.^{17/}

Sources of Funds

Small businesses are more dependent on bank credit and on business trade credit than are medium and large firms and they have less shareholders' equity and deferred tax liabilities to fall back on than do other firms. This is clearly demonstrated in Table 20 and Chart 2. The latter shows that 19 percent of the liabilities of the smallest firms are financed by trade credit compared to less than 10 percent of those of the largest firms.

While these statements are true for the small business population in the aggregate, there are significant differences between different groups of small businesses. The smaller and the newer the business the more dependent it is on internal capital and on friends, relatives, and suppliers. "Businesses less than 2 years old for example are five times as often reliant on personal sources of financing as their colleagues with more than 10 years' track record."^{18/} Thus the Canadian Federation of Independent Business, which represents the smaller end of the small business population, estimates that banks only put up 57 percent of small business financing. Other sources estimate the banks' share to be between 60 percent and 80 percent.^{19/}

Debt Structure

The two elements of small business' debt structure that have aroused the most interest are their leverage rates and the term structure of their debt.

1. Leverage Rates

Virtually all existing evidence based on asset-range classifications suggests that small firms are more highly leveraged than medium to large ones,^{20/} as is illustrated by Table 20. The exception, as already mentioned, may be the smallest and the newest firms. On a sectoral basis, small businesses in manufacturing and trade typically have a lower total debt to asset ratio than those in construction, transportation, and services. In 1977 it was 27.9 percent in manufacturing, 27.4 percent in trade, 35.3 percent in construction, 39.7 percent in transportation, and 36.1 percent in services.^{21/} United States

TABLE 20

Distribution of Corporate Financing, by Category of Instrument
and by Size of Firm Assets, Canada, 1977
 (percentage of assets)

	Assets					
	<u>\$249,999</u> <u>and Less</u>	<u>\$250,000 to</u> <u>\$999,999</u>	<u>\$1,000,000 to</u> <u>\$4,999,999</u>	<u>\$5,000,000 to</u> <u>\$9,999,999</u>	<u>\$10,000,000 to</u> <u>\$24,999,999</u>	<u>\$25,000,000</u> <u>and Over</u>
Liabilities	58.3	52.0	51.6	46.9	41.2	36.6
Short-term	42.9	38.2	37.5	33.5	28.8	18.7
Long-term	15.4	13.8	14.1	13.4	12.4	17.9
Mortgages	4.4	5.2	4.5	4.0	2.1	0.6
Debenture	0.8	0.9	1.7	1.9	2.2	12.1
Other ^{a/}	10.2	7.7	7.9	7.5	8.1	5.2
Shareholders' equity	41.4	47.2	46.5	50.1	55.3	56.5
Deferred taxes	0.2	0.9	1.9	3.0	3.6	6.9
Total ^{b/}	100.0	100.0	100.0	100.0	100.0	100.0

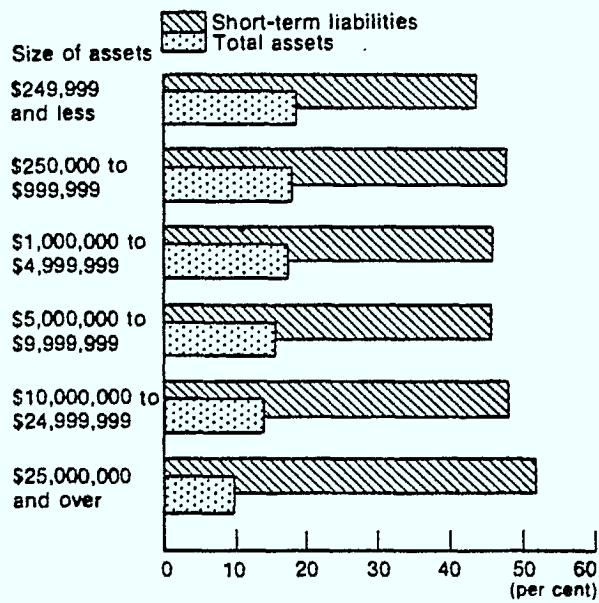
^{a/} Includes bank term loans, long-term financing by caisses populaires, credit unions, and other sources.

^{b/} Totals may not sum due to rounding.

Source: Intervention and Efficiency, A Study of Government Credit and Credit Guarantees to the Private Sector,
 Economic Council of Canada, 1982, Table 3.2.

CHART 2

Business Trade Credit as a Proportion of
Short-Term Liabilities and of Total Assets
by Size of Assets, Canada, 1977



Source: Intervention and Efficiency, op. cit., Chart 3.2.

data for the manufacturing sector show a similar picture over a long time period. From 1957 through 1980, non-durable goods manufacturing firms with assets under \$5 million had the highest debt-equity ratios followed by small durable manufacturers. A more detailed U.S. breakdown for 1977 shows that construction and transportation firms were the most highly leveraged. Other U.S. small firms are more highly leveraged than medium or large ones but the sectoral pattern is a little different from that in Canada.^{22/}

2. Term Structure of Debt

Traditionally, small businesses were offered short-term loans while large businesses had more flexibility because of their access to the corporate bond market. In 1961, the Small Business Loans Act was adopted to facilitate small business access to term debt. As the chartered banks entered the term loan market in the 1970s, the difference between different-sized firms' access to longer term loans declined. Large businesses continued to benefit from access to the bond market and from easier access to fixed rate loans. But in the recent inflationary period, very few long-term, fixed rate bank loans have been available to firms whatever their size. Table 20 shows that there is little difference in term debt with regard to firm size although firms in the smallest category have a slightly larger share of long-term debt than those in the next four categories, while the largest size category had a significantly higher share of long-term liabilities. The biggest difference is the largest firms' access to debentures which are scarcely used by small and medium businesses. Access to the corporate bond market and accumulated deferred taxes provide the larger firms with financial resources, in addition to their higher equity, which are not available to small businesses.

Small Business in Financial Markets

Many small businesses feel badly treated by financial markets which, they believe, are oriented to the needs of medium to large firms with established reputations. A great deal of work has been done in the last few years to discover whether or not there is a credit gap in Canada. A credit gap has been defined as a "differentiated shortage of financial capital caused by market imperfections -- that is, a shortage that affects differently those participants in the economy who face similar risks and expected returns."^{23/} Such a gap could exist in either the debt or equity markets or in both.

Research has shown that many of the difficulties experienced by small businesses trying to raise funds can be attributed to causes other than market imperfections. In some cases, small business people are over-optimistic or insufficiently prepared when they go to the financial institutions; in other instances they refuse to share control with potential backers. Yet serious problems remain with regard to the short- and long-term loan markets and the equity market.

Chartered banks charge small businesses higher rates for loans and require more collateral than they do from larger businesses. They explain this by the higher administrative costs and greater risks associated with a loan to a small business. While this explanation appears to be largely valid, three problems remain. First, the rapid changeover, heavy workload and inexperience of many bank officers responsible for small business loans may create unnecessary difficulties.^{24/} Second, what the Economic Council calls "implicit regulation"^{25/} -- a reluctance on the banks' part to charge a high enough rate to cover all the risks and transaction costs -- may lead to market distortions. Third, banks' evaluation of small business' collateral is questioned by commentators as well as by clients.^{26/}

Small businesses are generally inexperienced in the term loan market, but should they try to raise funds through debentures or mortgages they may encounter difficulties arising from regulations intended to protect savings invested in pension funds and life insurance companies. These regulations favor companies with a stable history of earnings, which, as we see below, is not typical of small businesses.^{27/}

Turning to the equity market, owner/managers who are prepared to share ownership have to overcome several hurdles. There are relatively fewer venture capital firms in Canada than in the United States and the market for junior industrial shares is narrow, so investors are reluctant to take up illiquid positions in small businesses. Costs of new equity emissions vary inversely with size so that it is usually prohibitively expensive to raise less than \$2 million.^{28/} In addition, certain categories of financial institutions are prevented from investing in businesses which appear risky by performance clauses relating to the stability of a firm's earnings and dividends.

In the light of the preceding paragraphs, it is no surprise to discover that small businesses in Canada appear to be severely under-capitalized. An examination of their balance sheets suggests that one of the main requirements is a strengthening of their equity position. This is not necessarily the way owner/managers diagnose the situation, however. While financing has come up as the number one problem in a series of small business surveys, the high cost of borrowed money is at present the main subject of complaint.

Profitability and Risk

Proportionately fewer small than medium and large businesses show a profit in any typical year while proportionately more go out of business. This does not necessarily imply that small firms are less profitable than large ones. To understand small firms' profit position we need to know the level and stability of their profits compared to those of other firms and to be able to estimate the reliability of profit data.

Less than half the small businesses operating in Canada have declared profits in recent years. Yet only a small proportion of the unprofitable firms go out of business. This suggests small business may be making undeclared profits or that owner/managers find their activities so rewarding that they are unconcerned by their firms' lack of profitability. Both answers are probably correct since declared profits in a small business are a residual after the salaries and all the expenses of the management group have been paid, in addition to operating and interest costs. Studies of United States and Israeli firms have shown that upward adjustments of 50 and 70 percent respectively could be made to declared small business profits to put them on the same basis as those of other businesses.^{29/} This understatement of profits helps to explain the resilience of small business in the face of reported results which seem to condemn it to extinction.

Turning to the level of declared profits earned by small and other businesses, sectoral influences appear to outweigh differences by firm size. The available data does not allow us to discern any strong trend, but what size differences there are, tend to favor small firms. If these firms also understate their profits one can conclude that small businesses which declare profits are likely, in the aggregate, to be more profitable than medium and large ones.

Small business profits are however much more volatile than those of other businesses. Observations in almost all countries in which research is done on small business confirm this. Table 21, showing the distribution of independent firms in different asset ranges by rate of return on assets, illustrates this for 1977. The results are for after-tax returns, but, as we will show later, this is not likely to distort the information. The contrast between the smallest size group, a majority of which was at the two ends of the spectrum -- negative rates of return and rates greater than 16 percent -- and all the other size groups, for which returns were between zero and 16 percent, is striking.

Small firms can be very profitable but there is a high risk of zero profits in the small business world. This risk is confirmed in the eyes of potential creditors by the evidence of small business' vulnerability provided by financial ratios. Table 22 and Chart 3 show that small firms' defences against unexpected losses, consequences of errors of judgment, and credit squeezes are weak.

Risk is a way of life for a large majority of small business people. Even those who aim at stability are likely to face wide swings in their rates of return because of their dependence on one market and the weakness of their financial defences. Familiarity with risk explains much of small business people's way of operating and their frequent sense of grievance vis-à-vis salary earners in both the public and private sectors.

Personnel

Tight management entails a sharper distinction between owner/managers and employees than that which commonly exists in medium and large firms. In a professionally managed firm everyone is an employee although, at the same time, a large number of people may be managers; but none of them risks personal bankruptcy if the firm fails. The sharp demarcation between owner and employee in a small firm has repercussions on hiring, training and unionization. Subsequent chapters will discuss these questions.

This demarcation may also influence the medium- to long-term growth of the firm. If, as is often the case, there is no room for middle management in a small business, the owner/manager has to bring in outsiders as his business grows and needs new managerial resources. In some cases he is reluctant to do this in time, and growth opportunities are lost. The literature

TABLE 21

Distribution of Independent Firms in the Primary and Secondary Sectors, by
After-Tax Rate of Return on Assets and by Size of Assets, Canada, 1977
 (percentage of assets)

	Assets					
	<u>\$249,999</u> <u>and Less</u>	<u>\$250,000 to</u> <u>\$999,999</u>	<u>\$1,000,000 to</u> <u>\$4,999,999</u>	<u>\$5,000,000 to</u> <u>\$9,999,999</u>	<u>\$10,000,000 to</u> <u>\$24,999,999</u>	<u>\$25,000,000</u> <u>and Over</u>
Rate of return	28.2	17.4	14.3	13.2	8.8	9.2
Negative	18.7	28.9	30.1	34.8	33.5	39.1
0 to 18 percent	22.8	28.9	39.0	37.1	38.0	37.4
8 to 16 percent						
Greater than	30.3	24.8	16.5	15.1	19.7	14.4
16 percent						
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Intervention and Efficiency, op. cit., Table 3.4.

TABLE 22

Leverage, Current and Quick Ratios for
Firms by Asset Size, 1977

Asset Size Category (\$ mil.)	Leverage		Current Ratio ^{c/}	Quick ^{d/} Ratio
	a/	b/		
0 - $\frac{1}{4}$	1.19	1.36	1.18	.74
$\frac{1}{4}$ - 1	1.04	1.17	1.35	.80
1 - 5	1.09	1.22	1.37	.76
5 - 10	.90	1.04	1.41	.80
10 - 25	.75	.89	1.46	.81
25 and over	.76	.85	1.54	.82

a/ Current and non-current liabilities less other current and non-current liabilities and liabilities due to affiliates divided by shareholders' equity plus liabilities due to affiliates.

b/ Current and non-current liabilities less liabilities due affiliates divided by shareholders' equity plus liabilities due to affiliates.

c/ Current assets divided by current liabilities.

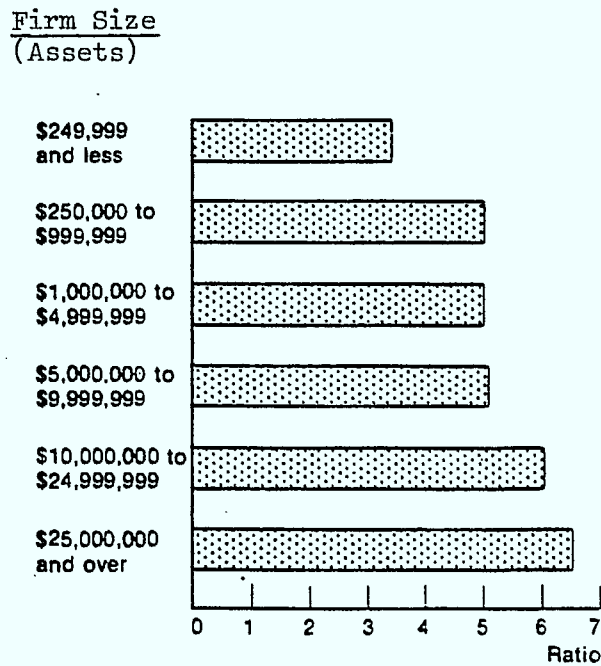
d/ Current assets less inventories divided by current liabilities.

Note: Mining firms are excluded.

Source: R. W. Boadway, N. Bruce, and J. M. Mintz, "The Effect of Taxation on the Financing of Large and Small Businesses in Canada," Queen's University, May, 1980.

CHART 3

Ratio of Business Operating Income (before Amortization,
Interest, and Taxes) to Interest on Debt, by Size of Firm in
Terms of Assets, Canada, 1977



Source: Economic Council, op. cit., Chart 3.4.

on small business is replete with case studies of growing pains and transition problems as the manager ages. Fear of experiencing such difficulties may lead small businesses to adopt 'stand pat' strategies despite opportunities for market and profit growth.

Our findings regarding the specificity of small business' way of operating were summarized at the beginning of this chapter. The heterogeneity of our subject population prevents us from drawing any general conclusions. Nonetheless, it is very probable that the majority of small business owner/managers have a different view of the world and different problems from those of their professional counterparts in medium and large firms. Policies may impact on their businesses in different ways while their reactions to market and government-induced signals may be other than those expected by analysts accustomed to observing the world of large corporations.

Footnotes to Chapter 6

- 1/ Dun & Bradstreet, The Canadian Business Failure Record 1980, Toronto, 1981.
- 2/ This need for "independence" sums up a wide range of highly personal gratifications provided by working for oneself and not for anybody else. It embraces many important satisfactions which running a small business provides -- the personal supervision and control of staff, direct contact with customers, the opportunity to develop one's own ideas, a strong feeling of personal challenge and an almost egotistical sense of personal achievement and pride -- psychological satisfactions which appeared to be much more powerful motivators than money or the possibility of large financial gains.

Report of the Committee on Inquiry on Small Firms (London: Her Majesty's Stationery Office, Cmnd. 4811, 1971), p. 23. Author's emphasis.
- 3/ Yvon Gasse, Faculty of Business Management, Laval University, unpublished paper.
- 4/ Yvon Gasse, op. cit., p. 71-2.
- 5/ See for example, T. Cohn and R. A. Lindberg, How Management is Different in Small Companies, An AMA Management Briefing, New York, 1972, and Yvon Gasse and Gerald d'Amboise "Performance in Small Firms and the Utilization of Formal Management Techniques," Faculty of Business Management, Laval University, 1974.
- 6/ Russel M. Knight, "The Determinants of Small Business Failure," paper presented to the Small Business Seminar, Queen's University, January, 1980.
- 7/ W. H. Hoad and P. Rosko, Management Factors Contributing to the Success or Failure of New, Small Manufacturers, University of Michigan, Report commissioned by the U.S. Small Business Administration, 1964.
- 8/ I. A. Litvak, and C. J. Maule, Canadian Entrepreneurship: A Study of Small, Newly Established Firms, Department of Industry, Trade and Commerce Canada, 1972.
- 9/ See "Study Shows Need for Better Planning & Marketing," The Montreal Business Report, Nov./Dec., 1982.
- 10/ Meir Tamari, "The Financial Structure of the Small Firm -- An International Comparison of Corporate Accounts in the U.S.A., France, U.K., Israel and

Japan," American Journal of Small Business, Vol. IX, No. 4, Spring, 1980, p. 20. See also Yvon Gasse, "Attitudes of Canadian Entrepreneurs towards Outsiders Investing in their Business Ventures," research report submitted to the Department of Industry, Trade and Commerce, Ottawa, October, 1979.

- 11/ In several European countries, including West Germany, membership in chambers of commerce is obligatory. This obligation reduces some of the isolation often experienced by small business people in English-speaking countries.
- 12/ Minister of State for Small Business, Paperburden, Discussion Paper, February 2, 1978.
- 13/ See, for example, Cohn and Lindberg, op. cit., T. C. Dandridge and M. A. Sewell, "A Priority Analysis of the Problems of Small Business Managers," American Journal of Small Business, Vol. III, No. 2, 1978, and David Watkins, "Management Development, Training and Education," keynote address to the European Small Business Seminar, Lille, France, September, 1982.
- 14/ See, in this context, Larry Wynant, et al, Bank Financing of Small Business in Canada, University of Western Ontario, 1982, Facsym Research Limited, Small Business Financing and Non-Bank Financial Institutions, Vol. I: Text, A Study for the Small Business Financing Review, 1981, and House of Commons, Standing Committee on Finance, Trade and Economic Affairs, Minutes of Proceedings into Bank Profits, Issue No. 109, July 27, 1982.
- 15/ "Analysis of Bank Survey Results," Canadian Federation of Independent Business, Toronto, December, 1982, showed a 74 percent level of satisfaction with banks despite the recession. In 1974, the level of satisfaction in a similar survey was 61 percent.
- 16/ See Henri-Paul Rousseau, "La régime fiscal et la vulnérabilité financière des entreprises" (Montreal: C. D. Howe Institute, November 4, 1982).
- 17/ See Wynant op. cit., and R. W. Boadway, N. Bruce and Jack Mintz, "The Effect of Taxation on the Financing of Large and Small Businesses in Canada," Queen's University, Kingston, Ontario, May, 1980.
- 18/ Canadian Federation of Independent Business, "Submission to the House of Commons Committee on Finance, Trade and Economic Affairs," further to the Enquiry into Bank Profits, May 27, 1982, p. 2.

- 19/ See Wynant, op. cit., and Don R. Allen & Associates, Banking and Small Business, A Comparative Study of Canada and Other Industrialized Countries, Canadian Federation of Independent Business, Toronto, 1982.
- 20/ See, for example, Wynant, op.cit., Mintz, op. cit., and Economic Council of Canada, Intervention and Efficiency, A Study of Government Credit and Credit Guarantees to the Private Sector, Ottawa, 1982.
- 21/ See Wynant, op. cit.
- 22/ The State of Small Business: A Report to the President (Washington, D.C: U. S. Small Business Administration, March, 1982).
- 23/ Economic Council, op. cit., p. 12.
- 24/ See Don R. Allen & Associates, Banking and Small Business, A Comparative Study of Canada and Other Industrialized Countries, Canadian Federation of Independent Business, 1982, and Wynant , op. cit.
- 25/ Economic Council, op. cit., p. 26.
- 26/ Allen, op. cit. Criticisms of the banks' collateral requirements refer to both the level of collateral demanded and the valuation of the collateral put up by the borrower. A relatively high level collateral requirement implies that the lender is basing his loan on assets rather than on expected cash flow. In some cases this may be advantageous to the borrower. However, the two parties may disagree as to the value of the borrower's assets.
- 27/ See Economic Council, Chap. 3, op. cit., for a discussion of this situation as it applies to pension funds and life insurance companies, whose regulations are "detrimental to small businesses because their profits are less stable," p. 23.
- 28/ The Economic Council has calculated that small businesses may pay up to 49 percent of the money raised in a first issue for brokerage and option costs. See Patrick Robert, "L'Etat et les Difficultés financières des Entreprises," speech to Le Cercle Finance et Placement du Québec, Montreal, January 20, 1983.
- 29/ See Meir Tamari, "The Financial Structure of the Small Firm -- An International Comparison of Corporate Accounts in the U.S.A., France, U.K., Israel, and Japan," American Journal of Small Business, Vol. IV, No. 4, 1980.

II. PUBLIC POLICY AND SMALL BUSINESS

7. The Policy Environment for Small Business in Canada

The first part of this analysis has examined small business' particular contributions to the Canadian economy. These are not inconsiderable. Small businesses account for 97 percent of all Canadian businesses; they generate 24 percent of private sector gross national product (and 14 percent of total GNP), 22 percent of total sales, and 41 percent of all private sector jobs. Small businesses are most frequently found in the service sector and in the Maritime provinces. They play a disproportionately large role in innovation, a major role in job creation and supply of specialized intermediate goods, and a potentially important role in regional development and international exporting, as well as providing opportunities for personal and social development.

In this second part of the analysis, we examine the public policy environment for small business. The objective of this phase of the investigation, which will encompass both the general policy environment and particular government policies, is to see whether public policy is neutral by firm size, or whether measures which are believed to be neutral, in practice have direct or unintended effects which differ according to size of the firm.

In this chapter, the framework is established for that analysis, and the thrust of policy since 1972 is reviewed from a small business perspective. This review will provide the background for the examinations in subsequent chapters of five selected policy and program areas -- tax policy, monetary policy, manpower training policies, legislation affecting the workplace, and industrial policies. These areas have been chosen, after extensive consultation, on the basis of their relative weight in Canada's overall policy thrust, their relevance to the goals that govern economic management, and the feasibility of carrying out meaningful research.

Unlike some larger businesses and multinational corporations which may be able to choose their location according to the desirability of the national policy environment, small businesses in Canada must take that policy environment largely as given. Representatives of small business may press for changes; indeed investigations like this one may conclude that certain changes would reduce obstacles to fuller realization of small business' economic contribution. But how should such conclusions be judged? How should the inevitable tradeoffs be made? Small business' economic contribution can only be appreciated,

and hence these questions addressed, within a framework that establishes the main criteria for evaluating overall economic performance.

The Framework for National Economic Management

Modern economies can be described as moving along a long-term potential growth path which could be realized if all resources were utilized as fully and efficiently as possible. In the short term, growth performance can be disturbed by cyclical problems and external shocks. Achieving growth potential is one of several goals sought by economic management in the short run. Other major goals pursued are steady growth in the standard of living, full employment, price stability, equitable distribution of income, and balance in international payments.

These goals have several functions. They are the bases of public policy options and are thus at the root of government policies. At the same time, they constitute the criteria by which overall economic performance is measured, different economic agents' contribution to the economy evaluated, and different groups' conflicting claims adjudicated. In the long run attaining these goals is likely to create a propitious climate for small business. But over the medium and short terms, certain policies may be adopted with a view to achieving the long-term goals which have undesired effects on small business. Other policies, which also seek to attain the same goals, may assist small business to contribute to economic well-being. The basic economic management goals thus provide a framework for choosing policies and for assessing the tradeoffs entailed in this choice.

The priority accorded to one or other of these goals, the means adopted to attain them, and the way in which different economic groups pursue their own interests within the overall policy framework are important elements making up the policy environment. This environment varies from one country to another and changes overtime. In the rest of this chapter, we review key aspects of the economic policy environment in Canada from a small business perspective.

The Policy Environment

In Canada, the fallout from the federal structure has a major impact on the economic environment. Two, and increasingly, three levels of government tax, regulate, and attempt to assist the private sector. Although these activities might be expected to complement each other, frequently they are

competitive and impose added costs on firms which have to comply with their differing laws and regulations. This analysis focuses exclusively on federal policy, except in the labor field, for reasons explained in Chapter 10; thus, the problem of competitive jurisdiction is not explicitly addressed although it should not be forgotten in a study concerned with small business.

Three types of federal policy are of concern here -- general and specific economic policy, and non-economic policy. Each can be implemented in different ways -- by legislation, regulation, or departmental programs. General economic policies include fiscal and monetary policy, regional development and competition policy. Specific economic policy, which can be more or less directly targeted to relevant sectors and firms, includes energy policy, export development policy and policies to promote or influence research and development. Non-economic policies that affect a firm's economic environment include education and social security.

In adopting certain policy measures rather than others to attain national goals, the federal government has to respond to political as well as economic considerations. Policy formation is subject to political priorities and to pressure from elected representatives. It is also influenced by the concerns of other levels of government and of interest groups and by the way in which the media reflects and relays these concerns. All of the resulting pressures create costs and benefits to be associated with various policy options. In effect, a political market can be envisaged which affects the selection and implementation of any economic strategy. These influences are taken into account in the following pages; we first discuss the general thrust of national economic policies since 1972 before turning to small business' perspective on them and its consequent role in the political market in Canada.

National Policies Since 1972

The decade of the 1970s was a turbulent period during which it was difficult to distinguish cornerstones and turning points in economic policy. Since 1972, policy-makers have been faced with problems posed by the declining effectiveness of macro-economic policy. These problems were linked with persistent inflation, slowly adjusting economic structure and micro-economic problems revealed in the search for an industrial policy that would replace Sir John A. Macdonald's National Policy and restore rapid rates of economic growth to which Canadians had become accustomed in the 1950s and 1960s.

In the 1970s, economic policy moved back and forth in several areas between different emphases. In the early 1970s, high priority was accorded to curbing rising unemployment. By the mid-1970s, growing concern with accelerating inflation led to the introduction of a package of policies in 1975 designed to reduce inflation gradually over time. This package included controls on wages and profit margins, restraint of federal government expenditure growth, the introduction of monetary gradualism by which growth in monetary aggregates was to be reduced through time, and policies to eliminate supply constraints. In effect, this strategy sacrificed growth for price stability. Too gradual implementation of restrictive monetary policy, lack of coordination of domestic policy, and external price shocks prevented success of this package. In 1981, tight U.S. monetary policy induced high interest rates which Canadian monetary policy had to respond to, or face depreciation of the value of the Canadian dollar with inflationary consequences. By following U.S. interest rates to historically high levels in mid-1981, the Bank of Canada imposed an extraordinary credit crunch on the Canadian economy, bringing about widespread bankruptcy and high unemployment. In 1983, policy attention was again moving toward concern with unemployment.

Other policy shifts occurred in the 1970s as the international economic environment changed. As an economy that is liberally endowed with natural resources, Canada's industrial structure and employment has been skewed toward emphasis on the primary sector to promote economic growth and to balance international payments. Canadian policy has, over the years, moved back and forth between giving priority to natural resources and to secondary manufacturing. Too much reliance on the former can lead to vulnerability to volatile international price movements of primary commodities. Hence, Canadians have always been impatient to graduate from their status as "hewers of wood and drawers of water." The commodity boom in the early 1970s associated with the first OPEC crisis and fears of resource "limits to growth," made them hesitate. However, further processing of natural resources, and possibly even controls on resource exports, seemed to promise economic prosperity without foreign control. Nonetheless, starting in 1972, federal budgets reduced incentives for mining and resource extraction and greatly enriched the incentives for capital intensive processors of resources and manufacturers. These measures were reinforced in the 1974 Budget. In the mid-1970s the belief that Canada could become self-sufficient in oil and gas and insulate itself from external shocks was encouraged. Yet anxieties were increasingly

expressed about the viability of manufacturing tailored to the Canadian market if, and when, the Tokyo Round of Multilateral Trade Negotiations removed tariffs and non-tariff barriers to trade.

In November, 1981, the federal government appeared to have committed itself to building Canada's comparative advantage on the foundations of the country's natural resource endowments.^{1/} The terms of trade were thought to be moving against manufacturing and toward energy, food, and mineral resources. The megaprojects, which were to develop these resources, received strong government support. In addition to large export earnings, they appeared to offer opportunities for overcoming the traditional hinterland/heartland polarization, for reconciling Quebec, Nova Scotia, Newfoundland and the West with Ottawa and Ontario, and for cooperation between management and organized labor. They also promised opportunities for the development and testing of Canadian engineering and equipment capabilities in new fields with prospects for international specialization.

In this section, we are less concerned with the substance of the various policies which were proposed, adopted, implemented and modified, than with certain aspects of their underlying approach to economic development. Not surprisingly in the light of Canadian history, large scale projects were to be the cornerstones of development. In the Canadian climate, forestry, mining and energy projects usually have to be large although there are exceptions, even in the energy field. In manufacturing, "rationalization" and "modernization" were key words and Canadian industry was constantly under attack for its small size. Many analysts as well as policy-makers believed that Canada's prosperity depended on the establishment of world sized plants and the stimulation of fundamental research and development.^{2/}

This diagnosis cannot be criticized lightly. Canada is well known for its branch plant manufacturing, its under-investment in research and its poor performance in product development. However, the emphasis on bigness and capital intensity left little room for the 97 percent of all businesses which are small. They were offered incentives, notably in the budgets of 1973, 1976 and 1977, but the language in which their expected contribution was described suggested that it would be essentially social rather than developmental. Since they contribute just slightly less than one-quarter of GNP originating in the private sector, this treatment could be justified but it

took no account of the specificity of small business' contribution nor of its potential role in assisting in the solution of some of the country's major problems.

There were a number of policy decisions taken in the 1970s which appeared to signal government's relative neglect of issues of concern to small business. Regulation is one example, where, despite increasing evidence of its cost to the whole economy, and particularly to small business, no serious attempts at deregulation were made. Other examples include competition law and corporate concentration where no significant changes were made despite extensive study and discussion. At the same time, the stimulus toward institutionalization of savings through mechanisms such as Registered Retirement Savings Plans and Registered Home Ownerships Plans made it more difficult for small businesses to attract capital. The policy of successive governments in the 1970s has been summed up as "an economic strategy" based on the notion that multinational resource and manufacturing companies are the essential instruments of economic development . . . and a social strategy centered on the reconciliation of the ordinary citizen to the power of large institutions^{3/}

The second prong of this perceived strategy refers to the individual Canadian. In the late 1960s and early 1970s, a series of social measures were adopted which aimed at greater equity in income distribution and broader access to public goods for Canadian citizens. The slogan of a "Just Society" launched by the Prime Minister in 1968 evolved into a program for a "Protected Society."^{4/} The earlier emphasis on equity and equality of opportunity represented, for example, by the so-called "Orange Paper" on social security^{5/} was expressed in a proliferation of guarantees and safety nets which reduced the necessity of planning for one's economic future, weakened the incentive to adapt to changing market conditions, and appeared to ignore the existence of independent business as a normal alternative to salaried employment or social assistance.

Faced with increasing economic uncertainty and major regional and constitutional problems as the 1970s progressed, the federal government attempted to involve more voices in the policy formation process. The General Development Agreements negotiated between the federal department of Regional Economic Expansion and the provinces were intended to coordinate federal and provincial economic development measures. In 1977-78 there was a serious

effort at multipartite consultation and a formal process of consultation with twenty-three industrial task forces. Within the government, a Board of Economic Development Ministers was formed, and later the Ministry of State for Economic and Regional Development was set up, to coordinate federal policies. The principal players in these activities were, inevitably, the major corporations, representatives of organized labor and active government agencies. Although they were the ones whose opinions were automatically solicited, new actors had appeared on the scene, notably independent business associations.

Small Business Perspectives and the Political Market

Small business people did not accept their exclusion from national decision-making easily. The Canadian Federation of Independent Business was founded in 1971 and the Canadian Organization for Small Business in 1979. The tax reform proposals of 1969 and the subsequent debates on the Benson White Paper had acted as a catalyst to the former organization. Partly as a result of its activities, the federal government created a cabinet post for a minister of small business in 1976 and set up the Small Business Secretariat.^{6/} This official recognition of small business led established business associations such as the Canadian Chamber of Commerce, the Canadian Export Associations and the Canadian Merchants Association to set up or strengthen small business chapters or sections.

Despite this belated recognition by official and private sector institutions, small business continued to encounter major difficulties in drawing attention to its concerns. At the government level, there has been a tendency to consider that since the Small Business Secretariat is part of the Department of Industry Trade and Commerce (ITC), all small business' interests can be dealt with by that department. Yet other departments, particularly Finance (and the Director General of Banks who reports to the Minister of Finance), may have an equal if not greater impact on the small business population than ITC. The voices of small businesses have to be heard in more than one center of government decision-making.

However, successful participation in a political market requires resources in terms of time and money.^{7/} Participants have to understand the motivations and behavior of senior public servants, of media people and of their own competitors. They have to invest time in discovering what will be on tomorrow's agendas and which compromises are likely to be acceptable to most parties.

Small business people are handicapped by their limited time and resources. In the past, lobbying individual members of Parliament in their home ridings was a more effective form of action than it is today. Tight managements have very few spare resources to devote to developing political antennae. They are therefore forced to band together to make their presence felt. This feeling of relative helplessness vis-à-vis the big actors in the political market explains both the success of the Canadian Federation of Independent Business (and in the United States, that of the National Federation of Independent Business) and the vociferous nature of its representations.

The small business world, however, is not one community. Despite their common tight management, small businesses are characterized as much by heterogeneity and by conflicting views as they are by consensus. Their objectives, needs, and grievances will vary with their market strategies and the age of their firms as well as with their sectoral interests. Faced with a particular issue, such as minimum wage legislation or public procurement, some small businesses will feel directly concerned and be willing to fight while others will be uninterested or even side with opposing groups. An American analyst, Bruce Kirchhoff recently attempted to group small business into five categories for the purpose of evaluating policy issues. Table 23 reproduces his matrix for an evaluation of the probable impact of selected U.S. tax instruments on different kinds of small business. He suggests, for example, that one measure -- simplification of asset depreciation schedules -- has a positive impact on all five of his categories of small business, but a greater impact on those which typically do not have access to sophisticated accounting techniques. An investment tax credit on machinery and equipment is likely to affect a slightly different type of firm -- one with greater growth ambitions -- while reduction of inheritance tax has the greater impact on traditional family-held firms.^{8/}

Not all Kirchhoff's examples are relevant to Canada, but he illustrates potential diversities of policy interests among small business people. The heterogeneity of small business interests suggests that small businesses may suffer if considered as one sector or "community." Although the costs of organization and mobilization militate in favor of establishing a large group (or groups) which will rally around a common cause, in some instances, it may not always be an efficient form of participation in the political market. But

TABLE 23

Tax Policy Assessment Matrix: Estimated Levels of Impact of
Selected Tax Changes on Different Types of Small Business
(high, medium or low level of impact)

<u>Selected Tax Changes</u> ^{b/}	<u>Economic Core</u>	<u>Type of Small Business</u> ^{a/}			
		<u>Constrained Growth</u>	<u>Internal Resource</u>	<u>Glamorous</u>	<u>Ambitious</u>
Simplification of depreciation schedules	High	High	High	Low	Low
Increase in investment tax credit on machinery and equipment	Low	Med.	Low	High	High
Reduction in capital gains on sale of small business equity interest	Low	Low	High	Med.	Med.
Reduction of inheritance taxes	High	High	Low	Low	Low
Liberalized leasing policy	Low	Low	Med.	Low	Low
Reduction of personal income tax rates	High	High	Low	Low	Low
Increased IRA allowances	High	High	Low	Low	Low

a/ Type of Firm:

Economic Core: Low growth, low innovation, usually family proprietorship.

Constrained Growth, Internal: innovative businesses whose growth is constrained by management choice, including decisions not to share ownership with non-family individuals.

Constrained Growth, Resource: innovative businesses whose growth is constrained (temporarily) by lack of funds, market acceptance or other circumstances.

Glamorous: high growth, high innovation, usually with outside equity, on the way to medium size.

Ambitious: high growth but low innovation; after initial innovatory spurt, fast growth may show.

b/ Selected measures from the U.S. 1981 Economic Recovery Tax Act.

Source: Bruce A. Kirchhoff, "Classifying Small Business for Purposes of Evaluating Government Policy," unpublished paper presented at the Small Business Research Conference, Bentley College, 1982.

alternatives are hard to find. Their relative impotence in the political market creates resentment among small business people and this in turn aggravates their difficult relationship with government officials.

Neither geographical factors nor policy orientations have favored small business' voice in shaping Canadian policy in the post-war period. The importance of natural resource-based sectors in the Canadian economy, the weight attached to the decisions of a few big actors, and the premium accorded security and regulation in a "protected society" have implied that small businesses are less important than are other actors, large firms, union members or public employees. Small business has fought back and staked a major claim in the political market. Its spokespeople argue that important policies have had unintended negative effects on small firms.

Has the relative lack of sensitivity to small business concerns and the apparent underestimation of small business' potential economic contribution led to a bias in the adoption or implementation of policy measures? It must be noted that successive Canadian governments have adopted a series of measures specifically aimed at assisting small businesses. Some of these have been assessed elsewhere. The purpose of the chapters that follow is to examine policies which are believed to be neutral by firm size in five areas to determine whether a systematic bias can or cannot be identified that has discriminated positively or negatively against small business.

Footnotes to Chapter 7

- 1/ See Economic Development for Canada in the 1980s, Government of Canada, 1981.
- 2/ Yet, since the earlier enthusiasm for large scale plants in the 1960s and early 1970s, research has shown that efficiency gains do not necessarily arise from large organizations or even from large plants, but rather from specialization in product lines and processes within the plant. See, for example, D. Daly "Economies of Scale and Canadian Manufacturing," in Appropriate Scale for Canadian Industry, Science Council of Canada, Ottawa, 1977.
- 3/ See Eric Kieran's review of James and Robert Laxer's The Liberal Idea of Canada in Canadian Public Policy, Summer, 1978.
- 4/ Thomas Courchene proposed the expression "The Protected Society" in his broad analysis of the country's economic and social situation in his Innis Lecture to the Canadian Economics Association in June, 1980.
- 5/ Working Paper on Social Security in Canada, Marc Lalonde, Minister of National Health & Welfare, 1973.
- 6/ The Canadian government's choice of a minister with an advocacy role to support small business is often contrasted with the legislative route adopted in the United States.
- 7/ The following paragraphs take the notion of a political market as given. For a introduction to the political market in Canada see D. N. Dewers, D. G. Hartle, R. S. Prichard, and M. J. Trebilcock, The Choice of Governing Instrument, a study prepared for the Economic Council, 1982.
- 8/ See Bruce A. Kirchhoff, "Classifying Small Business for Purposes of Evaluating Government Policy," unpublished paper presented at the Small Business Research Conference, Bentley College, 1982.

8. The Impact of Tax Policy on Businesses of Different Sizes

Taxation has a direct impact on a firm's cash flow and hence on its continued existence. It is also one of the most important determinants of the way in which an economy allocates its resources. The decision to go into business, to choose a certain type of activity, to incorporate, to borrow, to expand, to buy or to lease equipment, to train employees, depends at each stage on a risk/reward calculation which is affected by modifications in the tax system.

Some analysts believe that the Canadian tax system overcompensates small business for difficulties arising from its size.^{1/} However many small business groups claim that taxation weighs more heavily on them than on medium and large firms. The existence of the Small Business Deduction (SBD) and the flexibility which owner/managers enjoy in choosing the form and the time of their own compensation, are the main features favoring small business. The bias against risk-taking, the complexity of the system, the costs of complying with it, and the burden of pre-profit taxes are the elements which weigh most heavily on small business.

It would be impossible to offer a comprehensive analysis of the Canadian tax system as it bears on small and large business in one chapter. In what follows, we approach the subject from different perspectives. We first provide an overview of some of the major aspects of the Canadian tax system and consider possible incidence by firm size. We then turn to the tax treatment of small business with particular reference to the integration of personal and corporate income tax and to the Small Business Deduction. In a third part we examine effective rates of corporate taxation in detail and their impact by firm size, before drawing some general conclusions. This analysis is inevitably arid, but we believe that the importance of the subject justifies the length and detail with which it is treated.

The Canadian Tax System: Some Relevant Aspects

Following a major reform in 1972, the Canadian tax system has undergone a series of modifications in the last ten years which have attempted to respond to a very wide variety of concerns. Policy-makers undertook to

provide economic development incentives, attain social objectives, stabilize the economy, and maintain a level of effective taxation similar to that in the United States, while at the same time raising sufficient revenue for rapidly growing transfers to individuals and to provincial governments. In this section we look at five aspects of the system as it currently operates -- complexity and the costs of compliance, incidence on risk-taking, incidence on the source of business funds, sectoral biases and pre-profit taxes.

Complexity and the Costs of Compliance

The Canadian tax system is both exceedingly complex and, at least over the last ten years, subject to frequent modifications. Its complexity may be, in part, the price of flexibility and a concern for equity.^{2/} But it is also due to the repeated use of tax incentives to further social and industrial policy objectives. A minority of small businesses, such as those working in the fields of management consulting and business services, can take advantage of all the options the system offers to minimize their tax burden. Most others, however, find it a threatening jungle.

Unlike most professionally managed firms, small businesses cannot afford to set up a division dedicated to tax compliance and minimization. Their owners are obliged either to take scarce time away from their own work or to hire outside experts. Since the majority of small businesses have no formal short-, medium- and long-term strategies, the outside experts are often unable to give them the full advantage of their expertise by drawing up tax strategies which complement business goals, and are thus limited to fiscal firefighting.

Reports and interviews show that many small business people do not even consider using some of the fiscal incentives available to them because they are already overburdened by the regular tax schedules. In recent years, tax legislation and interpretation have been changed frequently resulting in almost constant uncertainty. Small businesses cannot cope with this additional uncertainty. Changes, even those in their favor, add to their confusion and resentment.^{3/} It is generally recognized that there are increasing returns to scale in coping with the tax system. Legislation is drafted by tax experts for tax experts thereby imposing an unintended additional burden on firms which do not have such expertise.

Incidence on Risk Taking

Small business is generally riskier than medium or large business, as we have seen. The tax system can impact on the risk factor in a number of ways. In Canada the results of this interaction tend to reduce the resources available to risky business.^{4/} In the absence of taxation, funds would be allocated among firms so that the gross rate of return to capital invested in smaller firms would exceed the gross rate of return on capital invested in larger ones by an amount which is just sufficient to compensate for the differential risk. Corporate income tax will then direct funds from the smaller, riskier, firms to the larger, less risky ones if it is levied at the same rate on both and does not allow for the higher proportion of losses among small firms.

The tax system may thus increase the relative riskiness associated with investments in a small firm. It does this by increasing the variance of the stream of returns expected from an investment. The fact that the taxing authorities do not share in a firm's losses in the same way in which they share in its gains reinforces the variance of earnings, which in small businesses, are already volatile. Limiting deduction of non-capital losses to one year in the past and five years forward means that many firms may have to bear the whole weight of losses whereas they will always be taxed on a certain proportion of their profits.^{5/} Since small firms are not diversified, they cannot write losses in one market off against profits in another. Losses carried forward are less valuable in present value terms than losses applied against profits in the same year because they must be discounted to reflect the interest cost of waiting. Even when small businesses can utilize the loss provisions of the Income Tax Act they are likely to benefit less than are other firms.

At the same time as corporate taxation may reduce the returns to risky investment, other features of the personal tax system are discouraging investors from undertaking such investments. Capital gains tax^{6/} and incentives to savers to invest in deferred tax instruments, such as Registered Retirement Saving Plans and Registered Home Ownership Saving Plans, are two features introduced in Canada in the 1970s which tend to reduce investment in risky activities. Several suggestions have been made

to change the regulations governing RRSPs to allow registered funds to be invested in equity holdings of private Canadian corporations.^{7/} But, as the law stands, the creation of RRSPs and RHOSPs has intensified the institutionalization of savings and hence its allocation to established corporations and to the real estate market.

Incidence on the Source of Business Funds

At the same time as the tax system in Canada tends to discourage risk-taking and hence equity investment in small businesses, it provides an incentive to debt financing. From the firm's point of view, the full deductibility of interest charges from taxable income compared to the non-deductibility of dividend payments (and of the opportunity cost of equity in general) encourages debt over equity as a source of funds. The debt-holder is, of course, taxed on his interest income, nevertheless, the total tax burden may be less than if dividends were paid. In tightly held firms in which shareholders are close to management, financing by means of shareholders' loans will then be preferred to equity. Capital gains tax reinforces this tendency since withdrawal of equity from the firm attracts taxation whereas shareholders' loans can be terminated and renewed without being taxed.

Both large and small firms are subject to this incentive to debt financing. There are however two features peculiar to the latter. Small firms already tend to be undercapitalized because of the relative inaccessibility of venture capital. They also have little choice with regard to their debt instruments. Unlike large firms, they cannot hope to float corporate bonds and must rely on bank credit and shareholders' loans.

Sectoral Biases

The Canadian tax system favors manufacturing, processing, and resource-based activities. In contrast to the United States, Canada has a special corporate income tax rate for manufacturing and processing firms. It also provides for depletion allowances and incentives to resource exploration and development. At the same time, three other measures, one of which represents a major tax expenditure, favor capital intensive activities -- the capital cost allowance (to the extent that it exceeds economic depreciation), the investment tax credit and, to a lesser extent, the inventory valuation deduction.

These measures and their impact by firm size are discussed in detail below. At this preliminary stage, we should recall the important contribution deferred taxes make to large firms' financing (see Table 20). Such deferred taxes largely arise from the measures mentioned in the preceding paragraph. Since small business is underrepresented in the manufacturing, processing, resource and utilities sectors, which benefit from these measures, they are clearly of less use to small businesses in the aggregate than they are to medium and large ones. Moreover, to benefit from them, corporate tax payers have to maintain fairly sophisticated accounting systems which many small businesses do not do.

Pre-profit Taxes

Taxes levied, regardless of the profit or loss position of the firm, are bound to weigh more heavily on those which are not earning profits unless they can be shifted forward to customers. Indirect taxes have recently become more important in Canada, although many of them are imposed at the provincial or municipal level (tax on paid up capital) rather than at the federal level. A recent enquiry has shown that in Canada, 21¢ of each tax dollar collected from business arose from factors such as total wages paid, real estate values, and total capital invested. In the United States the comparable figure was 4¢ per dollar collected.^{8/}

Payroll deductions are not traditionally considered as being on the same footing as other elements of the tax system yet they deserve mention in a study concerned with small business.

They are certainly the most onerous of the pre-profit taxes, both in dollar terms and in administration. Small business, being generally more labor-intensive than large and medium business, will pay proportionately more both in dollar terms and in time consumed in collecting for the two levels of government. In Canada the annual payroll cost was approximately \$1,500 per employee in 1980 and recent increases have brought it nearer to \$2,000 in some jurisdictions. This means that businesses employing between six and twenty people will have payroll costs of between \$9,000 to \$30,000 per annum. Since a large proportion of small businesses declare annual profits of \$50,000 or less, it is obvious that the deductions represent a heavy burden.

Tax Treatment of Small Business

In this second section we turn to the tax treatment of small business. While the object of our Report is to investigate possible differences in the impact by firm size of policies which are intended to be neutral by size, we cannot dispense with a review of the Small Business Deduction (SBD). This tax measure is commonly believed to compensate small business for unfavorable treatment it may receive from other elements of the tax system. Some analysts believe that it overcompensates small business. In the absence of the SBD, or of some alternative tax measure which compensates for the double taxation of corporate dividends paid out by small firms, most small businesses would probably not incorporate. This would in turn eliminate the possibility, which exists at present, of optimizing a combination of the owner's remuneration and the firm's cash flow by skillfully managing the distribution of gross profit to salary, dividends, and retained earnings. This optimization allows many small businesses to survive and their owners to receive, over time, a total compensation package which rewards them for their labors. In this section we will first discuss the SBD and then turn to the compensation options.

The Small Business Deduction

The SBD is, in fact, not a deduction but a tax credit which reduces the nominal tax rate of qualifying small businesses from 46 percent to 25 percent of taxable income. In the case of manufacturers, the reduction is from 40 percent to 20 percent.^{9/} Several countries apply a lower nominal corporate tax rate to profits up to a certain ceiling, as Canada did prior to the 1972 Tax Reform. The reasoning behind such a two-tier rate is that small, and particularly start-up firms, should not be forced to pay a price for the legal and tax deferral advantages of incorporation which might put them out of business or severely hamper their growth.

The 1969, Benson White Paper on Tax Reform and the subsequent tax legislation addressed the question in terms of the double taxation of dividends. Dividends paid by a firm subject to the full nominal corporate tax rate are taxed twice, since the net effect of the dividend gross-up and the dividend tax credit does not fully compensate the stockholder for the corporate tax levied on the firm's profits before distribution.

After much debate, this situation was finally judged acceptable by the Canadian government in 1972. The fact that large firms paying dividends are usually in competition in raising equity with firms laboring under similar burdens in other countries was an important argument.

The double taxation of dividends of small businesses, however, was seen in another light. Since the stockholders are most often the managers of the business, it is they who decide whether or not to incorporate it. They therefore compare the overall tax burden after incorporation with that applying to an unincorporated proprietorship or partnership. In this context, any double taxation of their dividends is unacceptable. The White Paper clearly opted for two parallel tax rates rather than a two-tier one on the basis of these considerations, that is to say, "to create one set of rules for the closely-held corporation -- and another set of rules for the widely-held public corporation."^{10/}

The result of the SBD, as it was adopted, is to provide for full integration of corporate and personal tax on dividends under a 33 percent dividend gross-up. In 1977, the gross-up was raised to 50 percent. This led to "overintegration" and hence to a net advantage to small business stockholders receiving dividends, which discouraged the retention of earnings in small firms. Beginning on January 1, 1983, a 12.5 percent dividend distribution tax will come into force at the start of the small business' financial year. This will eliminate overintegration on income paid out and will encourage retention of earnings.

Eligibility for the SBD depends on legal status and on the level of profits. To qualify, a business must be incorporated, privately held, unaffiliated with a public corporation (one whose shares are listed on a Canadian stock exchange) and controlled by residents of Canada. The tax credit applies annually to the eligible firm's first \$200,000 taxable income from active business in Canada. A firm loses its eligibility for the SBD when its total accumulated profits exceed \$1 million. Prior to 1982 a firm could maintain its accumulated profits at a level below \$1 million by continually paying out dividends. This additional incentive to profit distribution disappeared at the end of 1982.

The SBD is a different kind of tax expenditure than most of the others which we will be analyzing in the following section. It is unrelated to any

particular objective such as increasing research and development or upgrading raw materials. Its justification seems to lie in the belief that a small business should be encouraged to benefit from incorporation.

However, eligibility for the SBD is itself the main argument in favor of incorporation. Whereas a proprietor or a partner will be taxed on his business' profits at his personal income rate, if he incorporates his undistributed profits will be taxed at a nominal rate of 25 percent or 20 percent. Not only is there no double taxation of dividends, in addition, the owner/manager can defer paying tax at his (presumably higher) marginal rate on such dividends while they remain in the firm. In the absence of the SBD, the owner's choice would be between paying tax on profits at his own personal rate or paying at a relatively high corporate rate and incurring some double taxation when earnings were distributed.

Other arguments in favor of incorporation include limited liability, the right to make dividend distributions to family members, to benefit from income splitting, the possibility of using roll-over procedures to avoid certain capital gains and several others. Since banks tend to require personal assets as collateral, limited liability is less important than it appears at first sight. Given a corporation's restrictions on loss write-offs, it is unlikely that many small businesses would incorporate if the SBD, or an alternative measure, did not exist.

Small Business Flexibility in Compensation Options

Owner/managers of incorporated small businesses have a great deal more flexibility than either proprietors or professional managers when it comes to compensation. They can decide on the shares of gross profits going to management salaries, dividends and retained earnings. Their aim will be to maximize the firm's growth potential and their own income over time while paying the least tax and ensuring an adequate cash flow.

There are numerous variables to be considered in this calculation depending on provincial tax rates, the value of previously accumulated profits, the owner/manager's marginal tax rate, his desired contribution to registered savings plans and so on. Tax advisers increasingly specialize in producing tables which compare the options. The basic element of the situation is that both corporate and personal income tax scales are equally important to the owner in making his business decisions.

While some tax practitioners believe that the breadth of choice open to small business managers is a major advantage, many small business people see the situation in a different light. They refer to situations in which gross profits are low or non-existent and the only compensation option is zero -- working without salary until the business grows or recovers from a downturn. As pointed out in Chapter 6, many small businesses would not have survived if they had had to pay their managers regularly what they could have earned in a large business or in the public sector. Nonetheless, the flexibility in allocating available gross profits largely depends on the way in which the tax system works and, as such, is an important part of this chapter.

This flexibility poses a problem for the tax authorities. They have to refrain from opening up opportunities for tax avoidance unplanned by the legislators, yet the Income Tax Act, which they administer, clearly intends to give small business people a special status via the SBD. The need to limit unintended tax avoidance has led to a more precise specification of eligibility for the SBD and to tighter control over some of the deferred tax options previously open to owner/managers. Almost inevitably, greater specification increases the system's complexity while changes impose additional costs on small business management.

Corporate Taxation and Size of Business

Despite the fact that small business people are constantly weighing their tax options in terms of personal and corporate rates, it is the corporate rates most people think about when they consider tax incidence by firm size. Is the corporate tax system neutral between firms of different sizes? Which firms bear the heaviest effective tax burden? Which corporate tax measures are the most advantageous to firms in different sectors and of different sizes? How much do the various tax expenditures cost the government?

To answer these questions, we commissioned a study of the impact of corporate tax measures on firms of different sizes, in general and by sector.^{11/} Data from the federal income tax files was used to calculate the effective tax rates paid by firms in 1973, 1976, and 1979. The effective rates were calculated in terms of a firm's net cash revenue (NCR) which is its income after deduction of all the costs of doing business, including economic depreciation. In the absence of specific fiscal measures, corporate

tax would be levied at the nominal rate on each firm's NCR. The impact, or the value, of the various fiscal measures in force in the 1970s was calculated in terms of the amount of NCR which each of them allowed firms in different sectors and size classes to retain. The total impact of the twelve measures studied explains the difference between the nominal corporate income tax for which a firm is liable and the effective rate which it actually pays. The study only included firms paying taxes in the respective year and broke these firms down into six classes by size of annual income.

We start with a comparison between nominal and effective aggregate tax rates and the implication for firms' cash flow. The data is first examined in the aggregate, and then each individual tax measure is analyzed and identified with respect to its impact on the cash flow of firms, by size and by industrial sector over the selected period. The overall results are then analyzed with respect to the implications of the tax system as a whole.

Nominal and Effective Tax Rates

In 1973, the first year the data was collected for our analysis, the basic corporate tax rate was 49 percent of taxable corporate income. At that time the Small Business Deduction (SBD) was 24 percent of taxable income and the Federal Tax Abatement (FTA) was 10 percent. The small business rate was applicable to the first \$50,000 of taxable income with an allowable cumulative maximum amount of \$400,000 entitled at the small business rate. In subsequent years, the basic corporate rate and the Small Business Deduction were both scheduled to drop by one percentage point each year until the basic corporate rate reached 46 percent, while the small business rate was maintained at 25 percent and the net rate after FTA stayed at 15 percent.

During the 1970s, the cumulative amount of income qualifying for taxation under the small business rate was increased in stages. In 1976 and 1979 it was \$750,000 and the yearly maximum taxable income entitled under the small business rate was moved up to \$150,000.^{12/} Thus, over the period examined, the nominal corporate rates for large businesses dropped significantly and, while the nominal small business rate remained at the same level, the amount of taxable income allowed under the small

business rate increased substantially thereby letting in a larger number of firms under the umbrella of the small business rate.

Section 123 of the Tax Act sets out the basic federal rate of corporate tax which was 50 percent in 1972 and declined as follows:

	<u>Basic Federal Corporate Rate</u>	<u>Small Business Deduction</u>	<u>Small Business Rate</u>	<u>Federal Tax Abatement</u>	<u>Net Small Busi- ness Rates Before Provincial Tax</u>
1973	49	24	25	10	15
1974	48	23	25	10	15
1975	47	22	25	10	15
1976 and subsequent years	46	21	25	10	15

Table 24 provides an aggregated overview of the tax burden by firm size over the period examined. It shows that, while tax legislation reduced the basic federal corporate tax over the period examined by some four percentage points, the effective rates dropped by approximately five percentage points. Thus, in relative terms, the effective^{13/} tax paid by the average firm dropped by 20 percent while the nominal rates were only reduced by a factor of 8 percent from their original level.

The effective tax rates shown in Table 24 were higher in 1973 for the smaller size categories than for the large size categories. Therefore it seems clear that, a decade ago, the larger revenue size businesses paid a lesser proportion of their net cash revenue in taxes than did their small counterparts. Over the period, however, it appears that this imbalance has been rectified to the advantage of the smaller size firms. Indeed the latter benefitted from a substantial drop in their effective tax rate which was relatively greater than the drop experienced by the larger size groups.

The change in the effective tax rate curve from 1973 to 1979, shown in Figure 2, deserves a closer look. In 1973, the effective tax rate definitely worked to the advantage of the larger size categories, with the two largest size categories paying effective rates of taxation a notch below the others. By 1976, however, the bias had been completely

TABLE 24

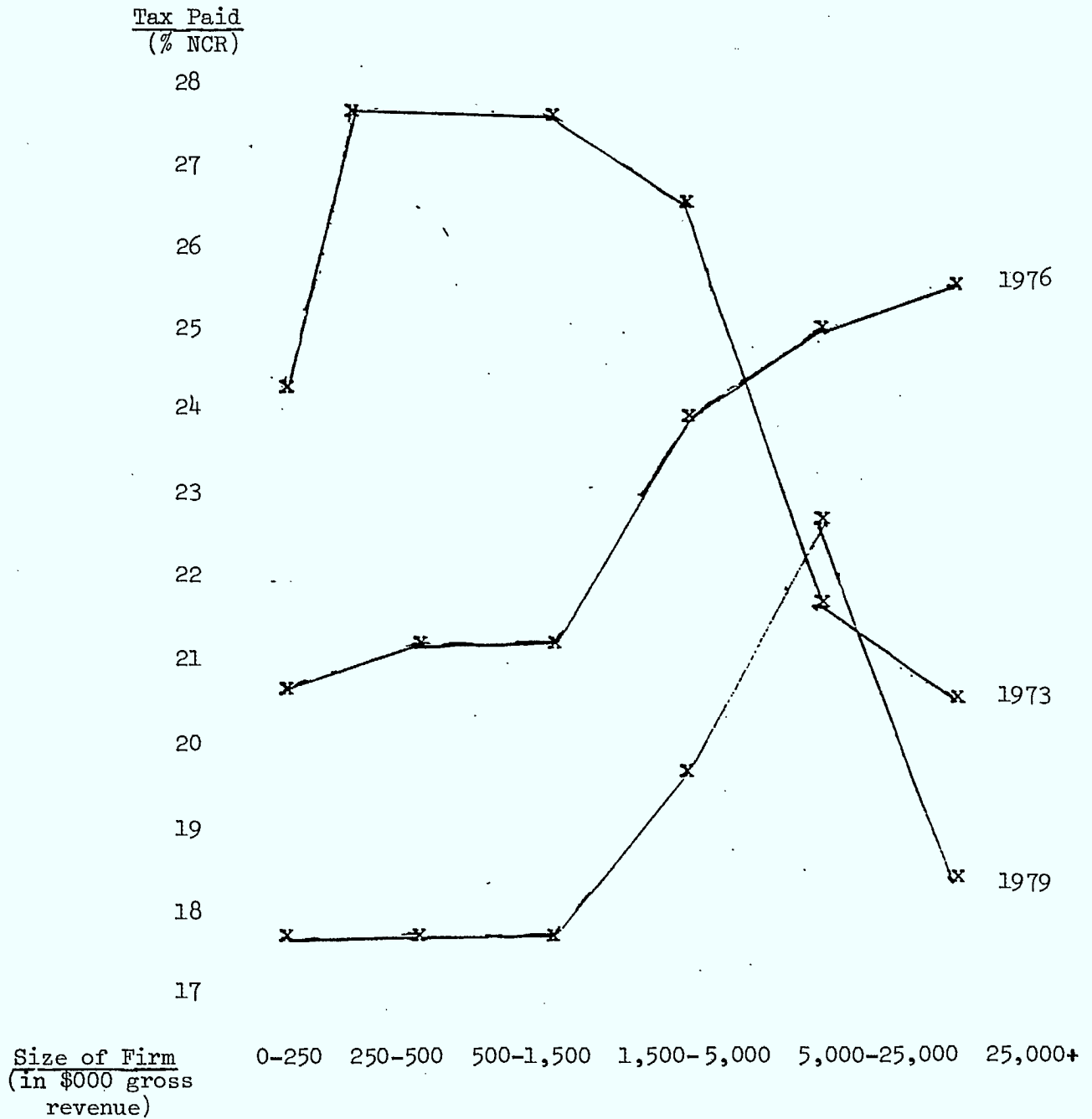
Effective Tax Rate on Net Cash Revenue
For All Sectors by Value of Gross Business Revenue, 1973, 1976, 1979
 (percentages)

<u>Year</u>	<u>Firm Size (in \$000 of gross revenue)</u>						<u>Average</u>
	<u>0-250</u>	<u>250-500</u>	<u>500-1,500</u>	<u>1,500-5,000</u>	<u>5,000-25,000</u>	<u>25,000+</u>	
1973	25.62	28.11	28.04	27.32	22.20	21.15	24.22
1976	20.99	21.43	21.67	24.37	25.85	26.07	24.92
1979	17.90	17.75	17.94	20.32	22.95	19.14	19.54

Source: Data in Tables 24 through 37 and Figures 2 and 3 is taken from the special study by ERA Consulting Economists Inc., mentioned in the text.

FIGURE 2

Effective Tax Rates by Firm Size, 1973, 1976, 1979
(percentage of net cash revenue)



reversed with the three smallest-size categories being effectively taxed at about 21 percent while their larger counterparts were paying about 25 percent in corporate taxes.

By 1979, the curve had once again changed in two ways, although its shape had remained generally the same, with the effective tax rate still being higher for the larger size business. However, between 1976 and 1979, the effective rates dropped for all size sectors and the gap between the smaller and larger categories narrowed, resulting in a curve oscillating between 18 and 23 percent, whereas previously it had fluctuated between 20 and 28 percent.

The largest size category narrowed the gap with the smaller business by a greater degree than the two sizes nearest to it. The highest effective tax rate in 1979 was being paid by the corporate group with revenues between \$5 and \$25 million, and in general that seems to have been the case since 1976. On the whole, the drop in effective tax rates and the readjustments among size groups seem to have provided businesses with revenues up to \$1.5 million with the greatest relative advantage over the period examined.

Differences between the nominal and effective rates of taxation have increased rather than diminished, for all size groups. Indeed it appears that firms of all sizes, with the exception of the \$5-25 million revenue group, have been able to reduce their tax base so as to end up with a smaller percentage of tax paid than in 1973. The fact that effective rates across the board dropped further than the legislated changes in the nominal rates, indicates that firms have taken advantage of other fiscal measures and deductions to reduce their tax base. Some of the measures, which we review in subsequent paragraphs, were introduced after 1973, either as instruments of general fiscal policy or targeted at particular sectors of the economy.

From the evidence in the data it also seems that the smaller size categories have been able to reduce their taxable base more effectively than the larger size group firms. Indeed firms with revenues of between \$250,000 and \$1.5 million had their effective tax rate drop by more than 10 percentage points while the largest size group only managed a two percentage point drop.

In fact two size sectors do not appear to have been able to even match the drop in nominal rates scheduled over the period with their effective rates.^{14/}

Individual Tax Measures

Capital Cost Allowance Versus Book Depreciation

Book depreciation is meant to provide an account of depreciation taken in a manner which reflects the actual life -- physical, technological or economic -- of the asset. The Capital Cost Allowance (CCA) rate may differ from book depreciation by an amount which has been allowed by legislation to provide an accelerated depreciation of the asset and thus diminish the asset holder's tax liability by increasing his non-cash expenses for tax purposes. In general, CCA accelerated rates are used to stimulate capital investment in selected sectors of the economy. This is done by varying the depreciation rates on certain classes of assets and thus reducing the after-tax cost of the asset to the acquiring firm. A corporation which anticipates a certain return from an asset and sees the after-tax cost of the asset reduced substantially, will be encouraged to invest by the change in the risk-return ratio which the higher CCA rates can bring.

The Capital Cost Allowance is not intended as a sector-specific tax measure, but, to the extent that the depreciation rates it allows are more generous than book depreciation, it in fact benefits any sector which is capital-intensive. It has been in effect, in one form or another, since well before 1973 so that data is available for the three years examined.

The impact of the CCA has been relatively constant in three ways, as Table 25 shows. First, the impact per thousand dollars of net cash revenue, has, on the average, been around \$24, with a slight decline toward 1979 when it reached \$21 per thousand. Second, the impact is definitely skewed toward the largest size groups with the virtual entirety of CCA benefits being taken, in 1976 and 1979, by the three largest size groups.^{15/} Third, the CCA impacts consistently on a limited number of industry groups -- primary industries, wood and paper fabrication, metal machine and transportation, equipment manufacturing, petroleum and chemicals and real estate. This is to be expected since these sectors are highly capital-intensive and generally composed of large firms which are subject to the higher nominal corporate tax rate.

TABLE 25

Fiscal Value of Capital Cost Allowance by Firm Size, All Sectors
and Selected Sectors, 1973, 1976, 1979
(\$ per thousand of net cash revenue)

Sector	Year	Firm Size (in \$000 of gross revenue)						Average
		0-250	250-500	500-1,500	1,500-5,000	5,000-25,000	25,000+	
All sectors	1973	7	22	27	34	34	34	28
	1976	-3	-4	-1	8	19	39	23
	1979	-1	-3	-1	6	19	31	21
Primary industries	1973	0	8	8	18	13	21	17
	1976	1	1	1	18	25	33	28
	1979	-3	-3	-1	12	15	24	21
Wood and paper fabrication	1973	20	60	48	55	74	14	41
	1976	3	5	3	6	40	63	51
	1979	-4	-5	2	15	28	45	40
Metal, machine and transportation equipment manu- facturers	1973	34	33	55	46	44	61	50
	1976	5	8	17	27	43	57	49
	1979	3	5	11	18	32	57	48
Petroleum and chemical	1973	16	25	22	27	40	61	57
	1976	8	13	16	32	28	67	66
	1979	-1	0	9	19	25	45	45
Transportation	1973	30	34	83	59	64	50	59
	1976	-11	-8	18	5	11	43	31
	1979	1	-5	-6	34	22	27	27
Retail	1973	-2	18	5	13	22	20	11
	1976	-6	-8	-5	1	19	23	10
	1979	-1	-2	0	0	-4	3	1

Note: Minus entries indicate that the firms in the group did not use CCA and used depreciation at rates less than those to which they were entitled.

In contrast, the CCA provisions are largely ineffective for small-size businesses and it seems clear that the latter do not avail themselves of this means of reducing their tax liability. The implication is that any asset or capital accumulation which they undertake is funded from other sources, be it other fiscal measures or leasing. In fact, it appears that for the smaller size categories, not only is the CCA not commonly taken advantage of, but indeed often relinquished, with only partial depreciation of the assets being taken. Lastly, the retail, wholesale and service sectors do not appear to avail themselves of CCA at all. This, obviously is less a matter of choice than of circumstances, as most of the firms in these sectors operate with few or no depreciable assets. The aggregate value of the CCA in terms of after-tax cash flow, exceeded the billion dollar mark in 1979. In that year, more than 98 percent of the impact was concentrated in the two largest size classes.

Federal Tax Abatement

The Federal Tax Abatement (FTA) has long existed in one form or another but the only recorded data in our sample is for 1979. It is not a tax incentive but a device for allowing tax room to the provinces. It is an abatement computed as a percentage of and a deduction from taxable income earned in Canada. Thus, for example, with current corporate tax rates of 46 percent, a firm with a taxable income of \$100,000 would pay \$46,000 of taxes. However, with the FTA, the tax payable is reduced by 10 percent of the taxable income, \$10,000 in our case, and the tax payable becomes \$36,000.

Although it does not have the same policy implications as the other measures analyzed, there are two features of the FTA which interest us. First, it seems to decrease in relative importance as the size of the firm grows. That is, the net impact on the firm's cash flow decreases as firms increase in size. The difference, however, is not overwhelming -- the range moves from a high of 6.4 percent in the second size group to 4.6 percent in the largest category. Furthermore, the difference belies the fact that in aggregate dollars, the bulk of the impact still lies in the large size classes. Corporations with revenues of \$250-500,000 benefited from the highest relative advantage through the FTA but in the

aggregate increased their cash flow only by some \$120 million through this tax measure. On the other hand, for the second largest size sector (the one with the smallest relative advantage), the total cash flow increase attributable to the FTA exceeded \$350 million. Thus, while the larger size groups lose in relative terms, they have gained in the aggregate dollars of cash flow. This is illustrated in Table 26.

The second feature is the relationship between the importance of the Small Business Deduction and the FTA. The value of the FTA in dollar terms plays a smaller role for the small size classes of corporations than the SBD, although it is worth about 80 percent of the SBD. As the corporations grow in size, the value of the FTA equals and then surpasses the value of the SBD. The FTA, therefore, seems, as did the CCA, to be one of the fiscal measures which, as corporations grow in size and rely less and less on the SBD, compensates for the SBD by maintaining low effective tax rates.

It must be emphasized, however, that as an automatic abatement it does not give rise to policy issues in the same way as the other measures analyzed. An exhaustive analysis would examine the effects of the FTA in conjunction with the various provincial tax rates.

Investment Tax Credit (ITC)

Tax legislation allows a firm making a capital investment for new plant and equipment to use a percentage of the value of the investment as a credit against the tax payable. The amount of credit allowed depends on the region in which the investment is made. In certain areas of high unemployment, ITC rates are higher than the normal 7 percent and range up to 10 and 20 percent. The ITC is applied against tax owed, thus, for example if a firm has \$250,000 corporate tax payable and makes an investment of \$500,000 with an ITC of 7 percent, the tax liability for the period will be reduced to \$215,000 ($\$250,000 - \frac{7}{100}$ percent of $\$500,000$). At the same time the base from which the CCA is computed drops from \$500,000 to \$465,000.

TABLE 26

Fiscal Value of the Federal Tax Abatement, by Industry and Size, 1979
(\$ per thousand of net cash revenue)

Industry	Firm Size (in \$000 of gross revenue)						Average
	0-250	250-500	500-1,500	1,500-5,000	5,000-25,000	25,000+	
Primary industries	5.6	5.4	5.4	6.3	3.2	4.0	4.0
Food and beverages	5.6	7.2	5.9	7.0	7.0	5.6	6.6
Tobacco, rubber, plastics	5.4	9.5	7.0	7.8	6.6	6.0	6.1
Leather	5.7	6.8	7.3	8.5	7.8	6.3	7.5
Textiles, knitting, clothing	6.2	7.8	6.0	7.4	7.7	6.0	6.8
Wood and paper fabrication	6.8	7.5	6.2	7.0	7.6	6.5	6.7
Printing, publishing and allied	6.8	6.7	7.8	7.1	7.6	5.7	6.5
Metal, machine and transportation equipment manufacturers	4.3	7.7	7.7	7.1	7.2	5.5	5.7
Petroleum and chemical	5.5	8.2	6.0	7.4	8.3	4.2	4.5
Miscellaneous manufacturing	6.6	7.5	7.3	6.8	7.8	5.9	7.0
Building construction	6.1	7.0	7.0	6.2	5.2	3.5	6.7
General contractors	7.2	6.5	5.6	5.2	3.8	4.8	5.1
Special trade contractors	7.2	7.8	7.5	6.5	5.4	6.6	6.9
Transportation	5.3	6.4	4.9	4.4	4.9	3.1	3.4
Truck transport	7.1	6.4	7.3	6.9	6.2	5.2	7.5
Miscellaneous transport	6.5	7.5	6.5	7.8	7.4	3.0	4.1
Storage, communications, utilities	7.0	6.7	6.6	7.4	7.5	5.1	5.4
Miscellaneous wholesale	6.6	7.8	8.1	8.0	6.6	6.0	6.9
Wholesale not elsewhere specified	7.5	7.8	7.6	7.1	7.5	5.8	7.3
Food stores	5.8	7.9	8.2	8.5	6.1	7.3	7.5
General Merchandise stores	4.2	4.6	5.7	4.2	2.9	2.8	3.7
Tire, battery and accessories	5.1	7.0	5.7	7.1	6.0	3.3	6.8
Gasoline service stations	7.2	8.8	9.0	9.0	9.7	-	7.6
Motor vehicle dealers	6.8	8.7	8.5	8.0	8.1	7.7	6.9
Motor vehicle repair shops	7.2	8.8	9.0	8.9	9.7	-	8.6
Clothing and shoe stores	6.8	8.7	8.5	8.0	8.1	7.6	7.9
Household furniture and appliance stores	6.8	7.0	8.1	8.0	7.5	7.4	7.5
Other retail	6.7	8.4	7.9	8.0	7.4	5.5	7.4
Retail not elsewhere specified	6.2	6.9	7.8	7.0	7.8	-	7.2
Finance, insurance, real estate	5.1	4.5	3.3	2.5	2.2	1.2	2.6
Community, business and personal services (excluding hotels)	7.5	8.0	7.1	6.0	5.8	7.2	7.0
Hotels and motels, restaurants, taverns	5.3	7.3	6.9	5.8	4.6	6.1	6.3
Services to business management	7.7	6.7	7.0	6.8	6.8	6.8	7.1
Total all industries	5.9	6.4	6.1	5.8	5.4	4.6	5.1

The investment tax credit is calculated as a percentage of current investment in new assets such as buildings, machinery and equipment. The fiscal objective is to encourage plant investment, modernization, or upgrading by making the investment more attractive to corporations on an after-tax basis. A priori, one would expect this tax credit to behave cyclically in accordance with the level of plant investment and to be concentrated in capital intensive industries.

The pattern divulged by the data and illustrated for one year in Table 27 indicates that the aggregate impact of the tax credit on the cash flow of the corporation is minimal, generally worth less than \$1 per thousand dollars of cash flow.^{16/} Furthermore, the pattern which emerges shows that the concentration of tax benefits lies in the largest size categories, with the three largest categories absorbing 75 percent of the tax credit benefits, and the largest size category itself benefitting from more than 50 percent of the tax advantages. For the latter category, the tax advantage comes close to \$42 per thousand in 1979, a quantum jump over 1976. One of the investment tax credit's interesting characteristics is that it parallels the CCA both in intensity and with respect to the size and type of business that it affects.

Although there are no figures for 1973 prior to introduction of the ITC, the 1976 and 1979 data indicate that there has been a substantial change in the tax credit claimed by corporations. In all cases, the tax credit claims more than doubled from 1976 to 1979, while the basic allowance which had started at 5 percent rose to 7 percent. This may mean one of two possibilities: either the investment climate improved and the tax credit followed the cycle of investment, or the investment tax credit spurred investment which consequently accelerated over the period. The former is more plausible and can be attributed in part to effects of the depreciation of the exchange rate and the strong recovery of the United States.

Prior Year Losses

Tax legislation allows a business to average out its positive and negative earnings over the years. Those firms which had prior year non-capital losses could, in profitable years, offset the losses by carrying these forward five years and back one year thus reducing their tax liability.

TABLE 27

Fiscal Value of Investment Tax Credit by Industry and Size, 1979
(percentage of net cash revenue)

Industry	Firm Size (in \$000 of gross revenue)						Average
	0-250	250-500	500-1,500	1,500-5,000	5,000-25,000	25,000+	
Primary industries	1.5	2.3	1.9	1.6	1.3	1.4	1.4
Food and beverages	.6	1.1	1.5	2.1	2.2	2.0	2.0
Tobacco, rubber, plastics	.7	0	.6	.5	1.0	.3	.3
Leather	0	0	.8	.5	.9	.6	.9
Textiles, knitting, clothing	.2	.7	.9	1.0	1.6	2.7	2.3
Wood and paper fabrication	.4	1.2	1.3	2.0	2.1	3.0	2.1
Printing, publishing and allied	.7	1.3	1.6	2.0	2.0	1.5	1.7
Metal, machine and transportation equipment manufacturers	.7	.9	1.5	1.8	1.5	3.3	3.0
Petroleum and chemical	.3	.2	.8	1.3	1.5	2.3	2.2
Miscellaneous manufacturing	.4	.5	1.3	2.0	1.4	1.0	1.3
Building construction	0	.1	.1	.2	0	0	.1
General contractors	.2	.3	.7	.4	.3	0	.3
Special trade contractors	.1	.1	.2	.4	.2	.3	.2
Transportation	.2	.3	.3	.5	.4	3.0	2.3
Truck transport	1.0	1.4	1.4	3.2	4.0	3.2	2.7
Miscellaneous transport	.1	1.2	.3	.1	.1	.4	.3
Storage, communications, utilities	.4	.1	.2	0	.1	.6	.5
Miscellaneous wholesale	.1	.2	.3	.4	.4	1.0	.5
Wholesale not elsewhere specified	.1	.2	.2	.3	.3	.3	.2
Food stores	.3	.3	.4	.2	.2	.4	.3
General Merchandise stores	0	0	.1	.2	.2	.6	.3
Motor vehicle dealers	.1	0	-	.1	.1	.2	.1
Motor vehicle repair shops	.1	.2	.2	.6	.1	0	.2
Clothing and shoe stores	.1	.2	0	0	0	0	0
Household furniture and appliance stores	0	0	0	0	.3	0	0
Other retail	0	0	0	.2	0	0	0
Retail not elsewhere specified	0	.1	.1	.1	.2	0	0
Finance, insurance, real estate	0	0	0	0	.1	0	0
Community, business and personal services (excluding hotels)	.1	.2	.6	1.0	1.1	2.1	.8
Hotels and motels, restaurants, taverns	0	.1	.3	.5	.7	3.7	.9
Services to business management	0	0	.2	.3	.5	.6	.3
Total all industries	.2	.4	.5	.7	.9	1.7	1.3

Note: Values of less than .1 are entered as zero values in the data. Other numbers are rounded to the nearest decimal.

The data obtained identifies the carry forward provision's effect on corporations' cash flow. The main feature of this particular fiscal measure for our purpose is that it demonstrates no major trend correlation either to size or over time.

Table 28 demonstrates two points. First, in 1973 the provision was much more valuable to the smaller size groups than it was in subsequent years. This is explained in large part by the fact that the SBD had not yet become fully effective. Subsequently the lower tax rate reduced the after-tax value of the loss carry forward. In 1976 and 1979, the value of this fiscal provision was much more evenly distributed across the size categories, with an almost flat distribution of benefits in 1979. Second, although this is not as clear as the first point, the largest size class appears to be the one which either benefits least or utilizes this provision to a lesser degree than the other sectors. While the gap was important in 1973, it had narrowed by 1979.

As far as its impact on any one industrial sector is concerned, Table 29 shows that the benefits derived from prior years losses carried forward vary widely from industry to industry. In any event, this fiscal measure is not a major component of the tax system in absolute dollar terms, even though it has grown in magnitude over the time period examined. In 1979, the revenue impact of prior year losses carried forward totaled \$553 million. Economic cycles will affect its magnitude. It is in that sense, a passive measure providing a buffer more than an incentive. To the extent that some of the losses are CCA associated, or non-cash, it provides the corporation with a positive means of planning its after-tax cash flow over the years, and of smoothing out fluctuations in earnings.

Exempt Income

Certain income, derived from subsidiaries through dividends and other flows of money on which corporate tax has been paid, is received tax free by the recipient. In nominal terms, the value of this fiscal measure has doubled since 1973, rising from slightly over \$500 million to \$1.04 billion in 1979. The relative value per \$1,000 of cash flow ranges from

TABLE 28

Fiscal Value of Carry Forward Loss Provision
 (\$ per thousand of net cash revenue)

<u>Year</u>	<u>Firm Size (in \$000 of gross revenue)</u>					
	<u>0-250</u>	<u>250-500</u>	<u>500-1,500</u>	<u>1,500-5,000</u>	<u>5,000-25,000</u>	<u>25,000+</u>
1973	28	22	16	10	10	2
1976	15	14	13	15	12	7
1979	11	12	10	12	13	11

TABLE 29

Fiscal Value of Carry Forward Loss Provisions by Industry and Size, 1979
(\$ per thousand of net cash revenue)

Industry	Firm Size (in \$000 of gross revenue)						Average
	0-250	250-500	500-1,500	1,500-5,000	5,000-25,000	25,000+	
Primary industries	15	14	13	13	7	6	7
Food and beverages	18	14	23	12	15	18	17
Tobacco, rubber, plastics	38	6	17	28	14	5	6
Leather	19	21	8	1	0	73	32
Textiles, knitting, clothing	17	21	12	17	23	15	17
Wood and paper fabrication	24	19	17	14	15	19	18
Printing, publishing and allied	5	5	4	7	7	16	11
Metal, machine and transportation equipment manufacturers	14	13	9	16	16	12	13
Petroleum and chemical	62	67	18	13	10	13	14
Miscellaneous manufacturing	20	16	11	19	14	4	13
Building construction	15	15	10	9	7	2	9
General contractors	81	62	37	23	26	20	29
Special trade contractors	11	13	13	14	24	45	16
Transportation	28	19	19	23	21	45	44
Truck transport	19	14	19	25	30	8	20
Miscellaneous transport	16	17	10	13	29	0	4
Storage, communications, utilities	42	36	30	26	26	2	5
Miscellaneous wholesale	12	12	9	10	16	20	16
Wholesale not elsewhere specified	10	11	7	6	20	14	11
Food stores	14	18	17	12	8	21	18
General Merchandise stores	8	10	11	8	4	12	9
Motor vehicle dealers	8	11	5	5	9	18	10
Motor vehicle repair shops	8	9	5	3	3	-	7
Clothing and shoe stores	9	10	6	11	27	38	19
Household furniture and appliance stores	11	10	8	3	0	12	8
Other retail	12	14	7	4	4	57	37
Retail not elsewhere specified	11	11	9	20	55	-	16
Finance, insurance, real estate	10	9	7	8	6	2	5
Community, business and personal services (excluding hotels)	7	9	10	11	25	15	12
Hotels and motels, restaurants, taverns	15	16	14	29	31	42	22
Services to business management	4	4	4	6	14	13	7
Total all industries	11	12	10	12	13	11	12

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Note: Values of less than .1 are entered as zero values in the data. Other numbers are rounded to the nearest decimal.

\$16 to \$39 which would have been paid in taxes in the absence of this measure, as Table 30 shows. While its overall magnitude has grown over the years, the relative impact on corporate cash flow has remained within the same range.

In terms of the impact correlation to size, there is a steady pattern with the smaller size sectors benefiting less than the larger ones. For example, the two smallest size sectors have generally benefited only half as much as the second largest sector, the latter one being almost invariably, though inexplicably, the most favored size sector. The largest sector has not fared as well, being generally at par with the smaller size groups. In absolute terms, however, the dollar concentration lies in the largest size sector where more than 50 percent of the tax dollar benefits lie.

The sector distribution by industrial classification does not exhibit any set pattern. The randomness is probably due to the fact that the nature of this fiscal measure implies holdings in other corporations that are not necessarily vertically integrated and, therefore, it demonstrates in part the extent of cross-sectoral financial flows.

Net Capital Gains/Losses

This measure has been in effect throughout the data period and its relative impact on corporate net cash revenue has not changed significantly over the years. Earnings flowing into a corporation, on which corporate tax has already been paid, will flow tax-exempt to the recipient corporation. In many cases this income flows to parent companies from their subsidiaries through the payment of dividends. The tax treatment of capital/gains losses has provided corporations with a means to improve their after-tax cash flow by \$13 to \$16 per thousand.^{17/} The aggregate impact on the economy was \$770 million in 1979, rising substantially from the 1973 level of \$273 million. This major increase can be linked closely to the severe inflationary trend experienced over that same period, which caused assets to rise substantially in nominal terms, and resulted in large nominal gains for corporations.

TABLE 30

Fiscal Value of Exempt Income Provisions
(\$ per thousand of net cash revenue)

<u>Year</u>	<u>Firm Size (in \$000 of gross revenue)</u>					
	<u>0-250</u>	<u>250-500</u>	<u>500-1,500</u>	<u>1,500-5,000</u>	<u>5,000-25,000</u>	<u>25,000+</u>
1973	19	23	22	26	29	33
1976	16	18	23	27	39	30
1979	18	18	18	27	34	20

The retail industry is the only one which did not benefit from this measure to any significant degree. The correlation with other industries shows that the largest benefactors were the primary resource, the real estate, finance and insurance industries. Again, the pattern is one which appears to be dictated by the asset configuration of corporations. The real estate industry, as evident in the data, is the prime candidate to benefit from this particular measure and with other asset-heavy industries has managed to raise its after-tax cash flow by an average of \$25 per thousand.

Inventory Allowance

The Inventory Allowance is a tax measure which was introduced after 1976 and consequently data appears only in 1979. It is an expense which is allowed to firms holding inventory. The measure was introduced to counteract the effect of inflation on profits calculated from the cost of goods sold from inventory. The Allowance is a percentage, currently 3 percent, of the eligible inventory. The impact can be expected to be concentrated in corporations with a large inventory component in their balance sheet. Thus, the finance, insurance, real estate and other such industries are not expected to benefit; at the same time they do not suffer from taxation of inventory profits.

The total impact is not major, totaling \$255 million in 1979, with \$200 million of this being concentrated in the two largest size groups. The relative impact ranges from \$2 to \$8 per thousand of net cash revenue as an average for all corporations classified by size.

The impact by industry, however, is slightly different and exhibits a broader range than the average given for size classes as Table 31 shows. For example, and as expected, about 40 percent of the total impact is concentrated in three industries: the wholesale trade sector, petroleum and chemicals, and metal machinery and transport equipment manufacturing. For these three industries, the range is \$3 to \$26 per thousand of net cash revenue, with the trend being to have the relative impact ascend as the corporation grows in size, up to a maximum of approximately \$25 million gross revenue.

TABLE 31

Fiscal Value of the Inventory Allowance by Industry and Size, 1979
(\$ per thousand of net cash revenue)

Industry	Firm Size (in \$000 of gross revenue)						Average
	0-250	250-500	500-1,500	1,500-5,000	5,000-25,000	25,000+	
Primary industries	1	1	1	1	0	1	1
Food and beverages	5	3	5	8	15	18	16
Tobacco, rubber, plastics	6	6	8	13	14	22	21
Leather	8	9	14	22	22	18	20
Textiles, knitting, clothing	7	8	11	17	22	11	15
Wood and paper fabrication	6	7	6	10	11	5	6
Printing, publishing and allied	1	1	3	5	8	3	4
Metal, machine and transportation equipment manufacturers	4	4	6	12	15	15	14
Petroleum and chemical	3	10	6	13	14	5	5
Miscellaneous manufacturing	4	6	7	13	18	14	13
Building construction	0	0	0	1	2	0	1
General contractors	1	0	1	1	1	2	1
Special trade contractors	1	2	3	5	6	6	3
Transportation	0	0	0	0	0	0	0
Truck transport	0	0	0	0	1	0	0
Miscellaneous transport	0	0	0	1	0	1	1
Storage, communications, utilities	0	0	0	0	0	3	3
Miscellaneous wholesale	11	11	16	26	30	26	24
Wholesale not elsewhere specified	6	10	12	23	26	21	18
Food stores	10	11	11	10	12	34	22
General Merchandise stores	5	13	14	14	12	14	13
Motor vehicle dealers	26	24	19	38	48	20	35
Motor vehicle repair shops	1	3	5	11	25	-	4
Clothing and shoe stores	20	19	20	24	24	26	24
Household furniture and appliance stores	17	17	22	32	44	32	26
Other retail	17	18	16	28	35	29	26
Retail not elsewhere specified	13	14	20	23	27	0	19
Finance, insurance, real estate	0	0	0	0	0	0	0
Community, business and personal services (excluding hotels)	0	1	1	1	1	3	1
Hotels and motels, restaurants, taverns	0	0	0	1	1	2	1
Services to business management	0	0	0	0	1	16	3
Total all industries	2	3	5	8	8	5	5

Note: Values of less than .1 are entered as zero values in the data. Other numbers are rounded to the nearest decimal.

Manufacturing and Processing Profits Deduction

Firms which qualify as manufacturers or processors are entitled to a deduction from taxable income. Thus, as in the example used for the FTA, if a firm has a \$100,000 corporate taxable income and benefits from a \$10,000 FTA, in addition it will get another \$6,000 (6 percent) in manufacturing and processing profits deduction (or \$5,000 $\frac{5}{100}$ percent if it has already benefited from the SBD).

This fiscal measure provides manufacturing and processing firms with a special corporate tax abatement. It has been recorded in the data since 1973 and has increased net cash flow to selected corporations by more than \$400 million in 1979, providing firms with between \$2 and \$18 per thousand of increase in cash flow. Table 32 indicates the reduction in effective tax rate which this fiscal measure provided to qualified firms, by size group. Two factors are evident: first, in the earliest period, the overall fiscal advantage available through this measure was greater than in subsequent periods. Second, there is a marked trend which indicates that the larger size firms are the ones who benefit most, both relatively and absolutely. Changes between 1976 and 1979 appear to be fairly minimal and the pattern is almost the same.

By definition, this fiscal measure is meant to provide a tax break to firms in the manufacturing and processing sectors, and this is where it has its impact. The value of this measure to other sectors is insignificant.

The Small Business Deduction

The Small Business Deduction allows qualifying small business corporations to pay taxes at a lower rate. The 1973 data run does not contain any broken out data on the SBD since the small business rate was introduced in 1972 and had not yet been recorded into the statistical base. In fact, in 1973 it was only available for firms with profits of \$50,000 or less and with a cumulative allowable of \$400,000. The impact, therefore, would not be expected to be as considerable as in the subsequent years in our data base when the value of the 21 percent tax credit was applicable to the first \$150,000 of profits of eligible firms with a cumulative allowable of \$750,000.

The SBD's impact on cash flow was minor in 1976, but major in 1979. In 1976, the availability of the small business deduction meant less

TABLE 32

Fiscal Value of the Manufacturing and Processing Profits Deduction, 1973, 1976, 1979
(percentage reduction in effective tax rate)

<u>Year</u>	<u>Firm Size (in \$000 of gross revenue)</u>					
	<u>0-250</u>	<u>250-500</u>	<u>500-1,500</u>	<u>1,500-5,000</u>	<u>5,000-25,000</u>	<u>25,000+</u>
1973	.35	.90	1.48	1.88	1.79	1.61
1976	.17	.36	.60	.99	1.34	1.32
1979	.15	.29	.59	.87	1.23	1.15

than a one dollar difference, taking all industries together, per \$1,000 of cash revenue for all corporations with revenues up to \$5 million. By 1979, the configuration had changed dramatically, with firms having revenues of up to \$1.5 million benefiting almost equally, by approximately ten dollars per \$1,000 of additional cash flow, from the small business deduction. The impact on the cash flow of larger firms diminishes rapidly and becomes respectively insignificant and non-existent for the two largest size categories.

In essence, what was the dollar value of the small business tax rate on the first three size categories, the ones where almost 100 percent of the impact is felt? In 1979 for categories with gross revenues of 0-\$250,000 and \$250,000 to \$500,000 respectively, it was worth an additional \$290 and \$203 million in cash flow, which firms in these categories would not have paid in tax in the absence of the Small Business Deduction. For the medium-size corporations, with revenues between \$500,000 and \$5 million, the tax benefit was valued at \$334 million for the smaller of the two classes and at \$214 million for the other one. Thus, for what is generally classified as the small business sector of the economy -- corporations with revenues of \$5 million or less -- the total cash flow advantages related to the Small Business Deduction amounted to over one billion dollars in 1979. By contrast, for the firms with revenues above \$5 million, the tax benefits in 1979 amounted only to \$53 million, 95 percent of which was concentrated in the size group with revenues below \$25 million.

In the second instance, what was the impact by industry of the small business tax rate? In 1976 and 1979, as Table 33 shows, its effect on small businesses appears to be fairly evenly distributed around a 12 percentage point reduction in effective taxes. That is, without the use of the Small Business Deduction, firms which had been paying taxes at an effective rate of, for example, 20 percent, would have paid taxes at the rate of 32 percent of their net cash revenue.

In the three size groups affected by the SBD, the firms with revenues between \$250,000 and \$500,000 seem to be the ones benefiting most from that particular tax measure. More notable, however, are the divergences among industries.

. "Finance, insurance and real estate" and "transportation" are the two industries which benefit least from the small business tax rate. These two

TABLE 33

Fiscal Value of the Small Business Deduction by Firm Size and Industry, 1976, 1979
(\$ per thousand of net cash revenue)

Industry	Year	Firm Size (in \$000 of gross revenue)						Average
		0-250	250-500	500-1,500	1,500-5,000	5,000-25,000	25,000+	
Primary industries	1976	.42	.90	.13	.22	.31	.12	.14
	1979	9.24	9.83	7.70	3.33	0.21	0.00	.64
Food and beverages	1976	.63	1.81	2.43	2.21	.37	.02	.28
	1979	9.71	14.03	12.29	8.11	1.33	.03	1.24
Tobacco, rubber, plastics	1976	2.78	3.58	4.76	1.35	.49	.00	.14
	1979	6.04	11.52	10.40	2.67	.55	.00	.16
Leather	1976	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	1979	11.55	13.50	15.58	10.64	1.03	.00	3.37
Textiles, knitting, clothing	1976	1.93	2.92	4.36	2.80	.27	.00	1.34
	1979	11.43	15.66	14.93	1.07	.90	.01	2.97
Wood and paper fabrication	1976	1.00	.35	.12	.30	.25	.00	.27
	1979	7.21	13.50	10.76	6.14	.50	.00	.71
Printing, publishing and allied	1976	.24	.60	.88	.73	.07	.00	.12
	1979	13.00	14.93	13.10	6.77	.47	.00	3.21
Metal, machine and transportation equipment manufacturers	1976	1.16	2.37	3.56	1.25	.13	.00	.25
	1979	11.78	13.68	12.86	5.05	.35	.01	1.04
Petroleum and chemical	1976	2.21	4.67	3.60	.65	.08	.00	.05
	1979	10.57	13.14	9.19	3.14	.12	.00	.08
Miscellaneous manufacturing	1976	.98	1.19	1.65	1.39	.17	.00	.59
	1979	11.78	14.34	13.32	6.08	.41	.02	3.71
Building construction	1976	.41	.57	.60	1.20	.68	.00	.65
	1979	11.33	13.73	12.81	9.74	2.83	.05	8.28
General contractors	1976	.16	.11	.76	1.06	.49	.02	.36
	1979	11.83	12.94	10.17	5.51	.72	.00	2.92

TABLE 33 (Continued)

Industry	Year	Firm Size (in \$000 of gross revenue)						Average
		0-250	250-500	500-1,500	1,500-5,000	5,000-25,000	25,000+	
Special trade contractors	1976	.35	.42	.50	.75	.33	.00	.47
	1979	14.43	15.60	15.03	9.85	1.61	.00	11.40
Transportation	1976	.72	.37	.86	.03	.28	.00	.11
	1979	6.87	9.96	6.36	1.34	3.30	.00	.37
Truck transport	1976	.24	.40	.52	.77	.34	.00	.45
	1979	13.74	12.71	13.18	6.57	.99	.00	7.10
Miscellaneous transport	1976	.79	1.13	2.58	.85	.00	.00	.23
	1979	12.02	14.00	10.28	4.61	.35	.00	1.41
Storage, communications, utilities	1976	2.09	1.97	1.15	.16	.02	.00	.08
	1979	12.52	11.19	7.28	.98	.02	.00	.31
Miscellaneous wholesale	1976	.35	.47	.75	.98	.48	.05	.48
	1979	10.69	14.39	14.07	9.82	1.84	.07	4.75
Wholesale, not elsewhere specified	1976	.47	.54	.53	.69	.36	.00	.48
	1979	13.77	14.74	12.45	8.73	1.28	.08	7.02
Food stores	1976	.28	.17	.62	1.31	.77	.00	.34
	1979	9.45	16.07	16.50	16.17	5.86	.04	6.11
General merchandise stores	1976	.13	.32	.32	.48	.79	.09	.41
	1979	5.25	9.86	11.55	7.97	4.55	.40	5.61
Tire, battery and accessories	1976	.00	.00	.00	.02	1.04	n/a	.30
	1979	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gasoline service stations	1976	.21	.70	1.09	.70	1.07	.00	.71
	1979	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Motor vehicle dealers	1976	.03	.32	.56	1.25	2.19	1.10	1.31
	1979	5.30	11.93	11.29	13.44	7.54	.55	8.15
Motor vehicle repair shops	1976	.40	.28	2.05	3.67	.55	n/a	1.07
	1979	14.68	17.44	14.99	14.25	.56	n/a	15.36
Clothing and shoe stores	1976	.34	.27	1.38	2.25	.54	.00	.79
	1979	12.62	17.39	16.50	8.90	.93	.00	7.58
Household furniture and appliance stores	1976	.61	.67	.79	1.69	.63	.00	.74
	1979	12.42	14.42	16.18	12.50	2.50	.00	10.53

TABLE 33 (Continued)

<u>Industry</u>	<u>Year</u>	<u>Firm Size (in \$000 of gross revenue)</u>						<u>Average</u>
		<u>0-250</u>	<u>250-500</u>	<u>500-1,500</u>	<u>1,500-5,000</u>	<u>5,000-25,000</u>	<u>25,000+</u>	
Other retail	1976	.68	.92	1.66	4.18	.77	.00	.64
	1979	12.51	17.23	15.56	11.89	1.58	.00	5.03
Retail not elsewhere specified	1976	.38	.32	.64	.52	.20	.00	.45
	1979	11.82	14.37	15.19	10.24	2.15	n/a	11.86
Finance, insurance, real estate	1976	.28	.23	.33	.41	.08	.01	.17
	1979	5.55	4.74	2.45	.76	.10	.00	1.64
Community, business and personal services (excluding hotels)	1976	.62	1.33	1.45	.99	.15	.02	.72
	1979	14.31	14.36	11.21	4.27	.61	.03	7.72
Hotels and motels, restaurants, taverns	1976	.29	.39	.71	.57	.13	.00	.38
	1979	7.19	13.42	12.52	8.43	.80	.02	7.70
Services to business management	1976	.44	.45	.71	.52	.07	.01	.29
	1979	15.04	13.49	10.93	5.40	.70	.00	7.90
Total all industries	1976	.40	.64	.96	.94	.23	.01	.28
	1979	9.14	10.85	9.75	5.66	.78	.00	2.30

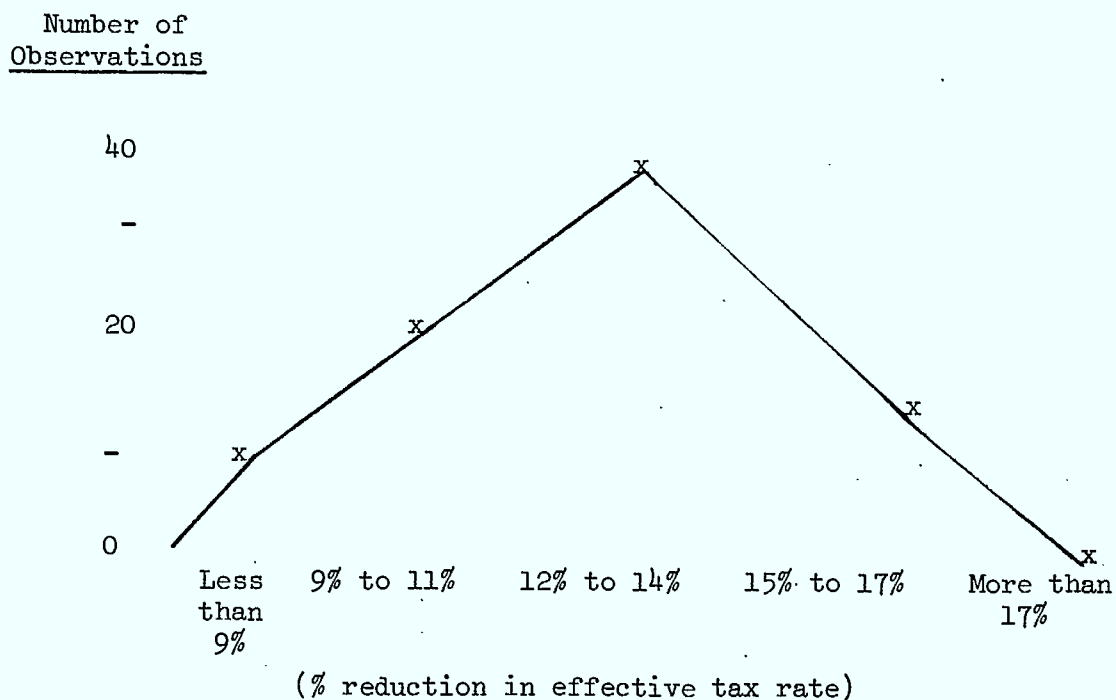
industries, on the average, were able to drop their effective tax rate on net cash revenue by 4.5 percent and 8 percent respectively. It must be remembered, however, that these two industries had exceptionally low effective tax rates to start with.

- . Retail establishments such as food stores, clothing and shoe stores and "other retail" benefited most from the SBD, dropping their effective tax rate by as much as 18 percentage points.

On the whole, however, as indicated by the frequency histogram in Figure 3 which amalgamates all industries for the first three size categories, 30 percent of the observations are within ± 1 percent of the mean and more than 75 percent are within ± 3 percent of the mean.

FIGURE 3

Distribution of Impact of the Small Business Deduction
(observations by sector within the three small firm classes)



The small business tax rate is the most significant element in the array of fiscal measures affecting small business and, for the smaller size groupings, accounts for the vast majority of their ability to reduce their effective tax rates from the nominal rate.

Industry Specific Tax Measures

Several additional tax measures are available to corporations to abate their tax liability, most of which are sector- and even size-specific by nature and by design. Fiscal measures which are designed to provide an incentive or a relief to a specific industry are efficient if the measure in question stimulates or assists the targeted industry or, in our analysis, materially increases the cash flow of firms operating in it.

The following fiscal measures have been found to be effective only in a very narrow spectrum of the corporate economy and in a sense, marginally applicable to the balance of corporations:

- Resource allowance
- Exploration and development tax credits
- Scientific (R & D) allowances.

Most of these measures are recent introductions to the tax system: R & D allowances were only included in our data base for 1979 data, while resource allowance affected the results from 1976 onwards. Exploration and development tax incentives had been previously introduced but were altered significantly after 1975, following world commodity shortages.

Our data shows that the resource allowance and exploration and development tax incentives have been used by three industries only -- primary industries, machinery and transportation, and petroleum and chemicals. Since these three industries are the ones largely responsible for the development of resources in our economy, it appears that the measures are well targeted.

The scientific or R & D allowance is not intended to be industry-specific but the distribution of its benefits follows a pattern similar to that of the industry-specific incentives. The impact is concentrated in one classification, in this case, the "metals, machinery and transportation equipment manufacturing" industry which claims more than 80 percent of

the benefits, while the remainder of claims are scattered in relatively insignificant amounts among a few other industries in the economy. Within the key industry, the impact is also weighted heavily toward the larger half of the size groupings where 90 percent of the tax advantages are taken.

Overall, during the period examined, two points can be made about industry-specific tax measures: first, the impact is effective insofar as the measure affects those industries which were targeted. Second, the fiscal measures which we have just reviewed were consciously aimed at specific industries of the economy but they also affected specific size groups within these industries. As an illustration, in the metal, machinery, transportation and the petroleum and chemical industries, the largest size grouping was responsible for a very large majority of the total fiscal benefits from two of the three measures described. Only in the case of exploration and development incentives did the firms in the lower size grouping also benefit from that particular fiscal measure. In essence, therefore, what we have witnessed is the recent creation of certain fiscal measures which were intended to be industry-specific and which, in that sense, are very effectively utilized. However, it also seems clear that, as of 1979, the impact of these fiscal measures has been limited to the large size firms as Table 34 illustrates.

Summary of Specific Measures

Tables 35 and 36 sum up the cost of the respective measures to the Treasury, and their benefits to firms in the different size groups. The CCA, and the SBD are the most costly while the ITC, the Inventory Valuation Allowance and the R & D provision are the least important in financial terms.^{18/}

Effects of Corporate Tax Measures on Firms' Strategies

The relative values of the measures examined obviously affect business strategy. In order of importance, the Small Business Deduction and the Capital Cost Allowance rank among the highest. We have already noted that the SBD has allowed the smaller size classes to reduce their effective tax rate and that other fiscal measures have enabled larger businesses to maintain effective rates below the nominal reduction which was accorded them over the 1973 to 1979 period. It is interesting to note

TABLE 34

Fiscal Value of Selected Fiscal Measures, 1979

(a) \$ per thousand of net cash revenue

(b) in million dollars

<u>Fiscal Measure</u>	<u>Firm Size (in \$000 of gross revenue)</u>						<u>Average</u>
	<u>0-250</u>	<u>250-500</u>	<u>500-1,500</u>	<u>1,500-5,000</u>	<u>5,000-25,000</u>	<u>25,000-</u>	
R & D Allowance (a)	0	0	0	0	0	1	1
(b)	0	0	.1	.5	1.8	21.6	24.3
Resource Allowance (a)	0	0	1	2	6	20	13
(b)	.4	.6	1.8	5.9	38.3	584.6	638.4
Exploration and Development (a)	0	1	1	2	8	21	14
(b)	1.4	1.0	2.9	7.1	55.0	504.0	676.5

TABLE 35

Aggregate Dollar Value of Specific Fiscal Expenditure Measure
by Year and by Size, 1973, 1976, 1979
(\$ per thousand of net cash revenue)

Measure	Year	Firm Size (in \$000 of gross revenue)						Total
		0-250	250-500	500-1,500	1,500-5,000	5,000-25,000	25,000+	
Inventory Allowance	1973	-	-	-	-	-	-	-
	1976	-	-	-	-	-	-	-
	1979	6	6	15	30	51	151	255
Capital Cost Allowance	1973	24	20	51	88	136	176	513
	1976	-6	-4	-2	21	85	510	578
	1979	-4	-5	-4	23	124	877	1,009
Exploration and Development	1973	2	5	16	33	63	119	255
	1976	-	-	-	6	48	187	232
	1979	1	1	3	7	55	604	676
Resource Allowance	1973	-	-	-	-	-	-	-
	1976	1	-	2	5	38	406	433
	1979	1	1	2	6	38	585	638
R & D Allowance	1973	-	-	-	-	-	-	-
	1976	-	-	-	-	-	-	-
	1979	-	-	-	-	2	22	24
Carry Forward Loss Provisions	1973	99	20	31	26	42	11	220
	1976	28	17	27	38	56	88	360
	1979	35	22	35	46	89	328	553
Exempt Income Provisions	1973	69	21	43	67	116	170	502
	1976	29	19	48	70	179	395	733
	1979	58	33	61	101	221	579	1,043
Capital Gains	1973	59	18	44	56	56	12	233
	1976	33	23	44	65	104	98	377
	1979	43	30	54	71	168	412	770
Manufacturing and Processing Profits Deduction	1976	n/a	n/a	n/a	n/a	n/a	n/a	280 ^{a/}
	1979	n/a	n/a	n/a	n/a	n/a	n/a	420 ^{b/}
Small Business Deduction	1976	n/a	n/a	n/a	n/a	n/a	n/a	745 ^{a/}
	1979	n/a	n/a	n/a	n/a	n/a	n/a	1,200 ^{a/}
Investment Tax Credit	1976	n/a	n/a	n/a	n/a	n/a	n/a	90 ^{a/}
	1979	n/a	n/a	n/a	n/a	n/a	n/a	225 ^{a/}

a/ and b/ The data generated for this project did not allow us to calculate the aggregate dollar value of the Manufacturing and Processing Profits Deduction, the Small Business Deduction or the Investment Tax Credit. We therefore inserted figures from other sources to give a comparable order of magnitude:

a/ Government of Canada Tax Expenditure Account, 1980.

b/ Corporation Financial Statistics, 1982, Statistics Canada.

TABLE 36

Summary Table of Effective Tax Rates and Fiscal Advantages Related to
Specific Fiscal Measures for All Sectors, by Size, 1973, 1976, 1979^{a/}

Effective Tax Rate (percent of net cash revenue)	Year	Firm Size (in \$000 of gross revenue)						Weighted Average
		0-250	250-500	500-1,500	1,500-5,000	5,000-25,000	25,000+	
	1973	25.62	28.11	28.04	27.32	22.20	21.15	24.22
	1976	20.99	21.43	21.67	24.37	25.85	26.07	24.92
	1979	17.90	17.75	17.94	20.32	22.95	19.14	19.54
Fiscal Measure (\$ per thousand of net cash revenue) ^{b/}	Year	0-250	250-500	500-1,500	1,500-5,000	5,000-25,000	25,000+	Weighted Average
Inventory Allowance	1973	-	-	-	-	-	-	-
	1976	-	-	-	-	-	-	-
	1979	2	3	5	8	8	5	5
Capital Cost Allowance	1973	7	22	27	34	34	34	28
	1976	-3	-4	-1	8	19	39	23
	1979	-1	-3	-1	6	9	31	21
Exploration and Development	1973	1	5	8	12	16	23	14
	1976	0	0	0	2	11	14	9
	1979	0	1	1	2	8	21	14
Resource Allowance	1973	-	0	-	-	-	-	-
	1976	0	0	1	2	8	31	17
	1979	0	0	1	2	6	20	13
R & D Allowance	1973	-	-	-	-	-	-	-
	1976	-	-	-	-	-	-	-
	1979	0	0	0	0	0	-	-
Carry Forward Loss Provisions	1973	28	22	16	10	10	2	12
	1976	15	14	13	15	12	7	10
	1979	11	12	10	12	13	11	12
Exempt Income Provisions ^{c/}	1973	19	23	22	26	29	33	28
	1976	16	18	23	27	39	30	29
	1979	18	18	18	27	34	20	22
Capital Gains	1973	17	20	23	21	14	2	13
	1976	18	21	21	25	23	8	15
	1979	14	16	16	19	25	14	16
Federal Tax Abatement ^{c/}	1973	-	-	-	-	-	-	-
	1976	-	-	-	-	-	-	-
	1979	6	6	6	6	5	5	5
Small Business Deduction	1973	-	-	-	-	-	-	-
	1976	0	1	1	1	0	0	0
	1979	9	11	10	6	1	0	2
Manufacturing and Processing Profits Deduction	1973	0	0	1	2	2	2	2
	1976	0	0	1	1	1	1	1
	1979	0	0	1	1	1	0	1
Investment Tax Credit	1973	-	-	-	-	-	-	-
	1976	0	0	0	0	0	1	0
	1979	0	0	0	1	1	1	1

a/ Spaces with no values indicate that the fiscal measure was not in effect at the time or that its value was not yet recorded in the statistics. Zero values indicate recorded values of .66 or less.

b/ All figures rounded to the nearest dollar.

c/ See Footnote 18.

the transition that occurs as firms grow in size; indeed, there is a definite pattern emerging as the firm size changes and as its managers seek to maintain its low effective tax rate while, through profitable growth, it ceases to qualify for the SBD. Looking at the overall results for 1979, one sees that the CCA is of major interest to firms which are ineligible, or have lost their eligibility for the SBD. This suggests that firms may organize their growth so as to minimize their tax liability.

It has been argued that firms in the lower size groups do not take full advantage of CCA and certain other fiscal measures because they are financially unable to maintain a stream of new capital investment. The process, allegedly, is a vicious circle which sees the growing firm forced to undertake large investments as it graduates from eligibility for the SBD in order to benefit from other compensating fiscal instruments.

Evidence is at present insufficient to verify this hypothesis but it does suggest that there might be a significant threshold effect created by the presence of the SBD qualification limits. Over time, we observe that a large number of firms gravitate their taxable income so as to maintain themselves below the threshold of the full corporate rate. This kind of evidence points to the degree of voluntary control that firms can exert over their growth and profitability to take full advantage of the fiscal shelters available. There is some logic to that since we have noted that the largest effective tax rate in industrial sectors often occurs at the midpoint in size categories. To proceed beyond a certain threshold implies a greater degree of risk which is not necessarily compensated for by higher returns. Thus, while the overall effective tax rate does not vary widely across size classes, retaining a relatively low effective tax level becomes more complex once the SBD is no longer available. In addition it often requires substantial capital investments. The simplicity of maintaining firms in the SBD zone mitigates strongly against the risk inherent in growing and having to achieve a low effective tax rate through a complicated set of risky investments and other fiscal measures.

Summary of the Corporate Tax Analysis

There are two schools of thought with regard to tax incidence -- those who believe that larger businesses are advantaged by the tax system, and those who believe that small business has the greater fiscal advantage.

A comparison of effective rates in 1979 refutes the hypothesis that small business benefits substantially more than large business from the existing tax system. What we notice, however, is that while there were discrepancies in the effective rates at the beginning of the 1970s, these have been largely ironed out so that we now have an almost flat rate of effective taxation for all size groups. The corollary of this statement is that the counter-hypothesis, which would have large business at a clear advantage, is also rejected.

The preceding conclusions, however, should be tempered by two considerations: first, some writers would argue that the marginal value of a drop in effective tax rates and the corresponding increase in cash flow is of greater value to small business than it is to large business. This argument, which parallels the one that led to graduated marginal rates in personal income taxes would, therefore, consider a flat effective tax rate as discriminatory and consequently detrimental to small business. Proponents of this argument would, therefore, consider our present findings as supportive of their argument that large business is favored by the present tax system.

Yet another argument along those lines points out that whether one size class or another is favored by the tax system cannot be established by looking at the effective rates as an absolute, but rather by examining the relationship between the effective and the nominal rates. Our findings show that large-size businesses pay tax at about half their nominal rates while small businesses pay at about 85 percent of their nominal rates. This leads us to conclude that large business has a breadth of fiscal choice to minimize its tax liability which does not seem to be shared by small business.

The presence of the small business tax rate seems to have contributed very significantly to an equalization of effective tax rates among size classes, and, to a lesser extent, sectors. The SBD is clearly the major factor in reducing small business' effective rate of taxation; without it there would be a pronounced imbalance in effective taxes between small and large businesses. Thus, if the objective of the small business tax rate was to equalize effective tax rates for all sizes of business, then this particular objective has been largely achieved. However, it has significantly altered the major difference between small business' effective/nominal tax ratio and that of medium and large business.

Turning to the industry-specific measures and the R & D allowance, the data showed that these particular fiscal measures, while having the desired impact on the selected industries, have only affected certain size categories within these industries. In almost all the cases observed, the fiscal impact was concentrated in the larger size categories. The fact that between 80 percent and 100 percent of the fiscal benefits of these measures accrue to the two largest size categories implies two possibilities regarding the smaller firms: either they do not have the means to accede to these benefits or other tax measures have provided them with sufficient tax shelter so that they do not use these particular measures to further reduce their effective taxes. The net effect observed leads us to conclude that the cash flow of smaller firms is not significantly improved as a result of these industry-specific measures and that, therefore, they do not serve as a stimulus to internally generated growth in the smaller firms. In this respect, if one of the objectives of these selective tax measures was to improve the cash flow of small and large firms alike, the implementation of the measures has been ineffective since large firms are the sole users and benefactors.

Review of Findings

While the preceding sections of this chapter have examined a great deal of information, we still have had to ignore several relevant aspects of the Canadian tax system as it influences firms of different sizes. Among the potentially significant topics omitted are the effects of provincial tax rates on the total tax burden, the effects of the tax system on corporate concentration,^{19/} the differential tax impact on new and on established firms^{20/} and the perverse effect of inflation and high interest rates on the value of the SBD.^{21/} Table 37 illustrates the differences in combined federal and provincial tax rates on firms eligible for the SBD and thus suggests some of the consequent differences in total tax burden by province.

We have no firm conclusion as to the neutrality or non-neutrality of the tax system in Canada: our analyses are partial, and the criteria of neutrality are difficult to apply. A tax system is said to be non-neutral if it causes any two investments with the same before-tax rate of return to have different after-tax returns. This means that the ranking of invest-

TABLE 37

Combined Federal and Provincial Tax Rates on Profits^{a/} of a
Canadian-Controlled Private Corporation, 1982
(percentage)

	<u>Tax Rate on Profits</u> <u>Ineligible for</u> <u>Manufacturing and</u> <u>Processing Credits</u>	<u>Tax Rate on Profits</u> <u>Eligible for</u> <u>Manufacturing and</u> <u>Processing Credits</u>
Newfoundland	27	22
Prince Edward Island	25	20
Nova Scotia	25	20
New Brunswick	24	19
Quebec	18	13
Ontario	15	10 ^{b/}
Manitoba	25	20
Saskatchewan	25	20
Alberta	20	15
British Columbia	23	18

a/ These rates apply to income from the corporation's business activity not its investment activity.

b/ For taxation years ending after May 13, 1982 and before May 14, 1984.

Source: Canadian Tax Journal, September-October, 1982, p. 650.

ment projects is the same before and after taxation. Turning to the size of a business, we could say that a tax system which made an investment in a small business appear less attractive to a private investor than one in a large business, and that produced lower pre-tax returns than the former, discriminated against small business. Once again, measurement is extremely difficult.

Rather than declaring neutrality or non-neutrality, we end this investigation prudently by drawing attention to some of the major findings and suggesting that several of these may represent results unintended by policy-makers and legislators:

- . In general, firms of all sizes adjust their behavior and strategies to the tax system. As incentives and corrective measures are added to the system it becomes increasingly complex. This complexity may prevent small businesses without tax expertise from taking advantage of tax incentives available to them;

- . The Canadian tax system has not, on balance, offered major incentives to risk-taking in small business over the last decade. All risky firms have suffered from an incentive to debt financing but small business may have suffered more than others given its limited access to long-term debt and venture capital;

- . Industry-specific tax incentives have hit their marks in the aggregate but they have not been taken up by the small businesses in the industries concerned;

- . Effective tax rates no longer differ widely by firm size. In the aggregate, no size group therefore is an obvious winner or loser. This reduced variance is very largely due to the Small Business Deduction;

- . The SBD may unintentionally have introduced a barrier to the continued growth of some firms since its value as a tax credit is so great, and the threshold for utilizing alternative tax incentives is relatively high, that managements may opt for a policy of "deliberate smallness."^{22/}

Footnotes to Chapter 8

- 1/ See the Small Business Financing Review, Department of Industry, Trade & Commerce, 1982. For a more general and a widely held view that the North American tax system favors small business see Peter Mieszkowski "Effects of Business Taxation: The Special Case of Small Business," in Dean Carson (ed.) The Vital Majority: Small Business in the American Economy (Washington, D.C: U.S. Government Printing Office, 1973) in a paper commissioned by the Small Business Administration.
- 2/ The Minister of Finance recently stated "To be a supporter of tax certainty, economic incentives and fairness may imply support for tax complexity." Marc Lalonde, Speech to the Canadian Tax Foundation, Toronto, November 23, 1982.
- 3/ An example of this situation is the confusion over the 12.5 percent dividend distribution tax introduced in the November 1981 Budget and postponed, in June, 1982, until the 1983 tax year. Remuneration decisions were made in the belief that the tax would be in vigor. Shareholder/owners would have most probably opted for payment of dividends rather than salary if they had known the tax was to be postponed. After postponement, they still did not know for several months whether they would be allowed to reverse their remuneration decision for 1982 or whether they would be obliged to maintain their decision and pay an unnecessarily high level of tax. See Gordon Riehl, "Firms Face Penalty for Ottawa's Errors," Globe & Mail, September 13, 1982. For an explanation of some of the major difficulties involved in complying with the new legislation, see Ronald Larter and John Lee "The Corporate Distribution Tax: The Government Strikes Back," Canadian Tax Journal, Vol. 30, No. 5.
- 4/ The argument in this and the following paragraph follows Thomas S. McCaleb in "Tax Policy and Small Business Financing," prepared for The Interagency Task Force on Small Business Finance, December, 1981 (available from the Small Business Administration, Washington, D.C.). Although his context is American, much of his argument is relevant to the situation in Canada.
- 5/ This asymmetry is reinforced by a progressive personal income tax. Therefore some anti-risk bias would remain even if government made full allowance for losses but levied progressive personal income tax. See McCaleb, op. cit., pp. 23-24.

The federal budget of April 19, 1983, which was brought down after the

research for this Report was completed, has modified loss provisions and thus reduced the bias against risk taking.

- 6/ The fact that capital gains are only taxed at 50 percent, while other income is taxed at 100 percent, was seen as an incentive to risk-taking in the early 1970s. The effects of inflation on capital gains and the introduction of other, more attractive, incentives have turned the capital gains tax into a disincentive.
- 7/ See, for example, Canadian Federation of Independent Business, "Federal Pre-Budget Submission," Toronto, January 13, 1983.
- 8/ See "A Comparative Study on Small Business Taxation," Peat, Marwick, Mitchell & Cie, for the Small Business Secretariat, May 31, 1982. The authors warn however against generalization given the sampling techniques used.
- 9/ More precisely the nominal corporate rates are stated as 46 percent (25 percent) and 40 percent (20 percent) minus the ten percentage point federal tax abatement plus the relative provincial corporate rate. As Table 37 shows, this gives a number of quite widely varying rates.
- 10/ The SBD is also examined, with other corporate tax measures, in the following section. The pertinent statement in the White Paper (paragraph 4.19) reads as follows:

The government's proposal is to create one set of rules for the closely-held corporation -- the incorporated proprietorship or partnership -- and another set of rules for the widely-held, public corporation. This distinction reflects the difference in the relationship between the two types of corporations and their respective shareholders. It also reflects the fact that, by and large, the closely-held corporation competes with proprietorships, partnerships and of course with other closely-held corporations, while the public corporations compete with other public corporations, both Canadian and foreign.

Proposals for Tax Reform, Hon. E. J. Benson, Minister of Finance, 1969, Queen's Printer.

- 11/ The study was carried out by ERA, Consulting Economists Inc. in Montreal. See Appendix 2 for additional findings and methodological notes.
- 12/ The small business eligibility ceilings were again raised, to the levels mentioned in the preceding section, in 1982, after the period covered by this detailed study.

- 13/ The high rate of inflation in the 1970s must be remembered in all references to effective rates. An ideal comparison of effective rates would take into account changes in real income.
- 14/ An individual examination of the effective tax rates prevalent within sectors indicates that within the averages that were discussed above there are some major divergences and often some notable perversities within individual industrial classifications. These are reported in Appendix 2.
- 15/ To some extent this may be influenced by our methodology based on the difference between capital cost allowance and book depreciation since many small firms use CCA rates for their own books. To avoid this problem one would have to make an estimate of the economic depreciation of their assets.
- 16/ This does not imply that it may not play a significant role in inducing individual firms to invest. A 7 percent reduction in the price of an investment may be sufficient to affect decisions in certain cases.
- 17/ Figures in this subsection are from additional tables in the special study.
- 18/ The Exempt Income Provision is also of major importance in dollar terms but cannot be properly considered as a tax expenditure measure since it is a procedure for avoiding double taxation. A similar argument applies to the Federal Tax Abatement.
- 19/ U.S. analysts are concerned by the possibility that tax incentives may promote corporate concentration against small business interests. See, for example, S. Vasek, "Tax Law Effects on Business Concentration," Small Business Administration Contract -2651-OA-79.
- 20/ See, for example, a forthcoming study for the Small Business Administration by Day, Stohl and Whaley, "Taxes, Financial Policy and Firm Size."
- 21/ R. W. Boadway, N. Bruce and J. Mintz treat this question in "The Effect of Taxation on the Financing of Large and Small Business in Canada," Queen's University, Kingston, Ontario, May, 1980, unpublished study for the Economic Council of Canada.
- 22/ We have not been able to research this hypothesis but we suggest that such research be pursued in the future.

9. The Impact of Monetary Policy on Businesses of Different Sizes

When lenders foreclose on unusually large numbers of firms, as has happened during the current recession, the managers of those firms tend to blame credit rationing and high interest rates for their plight. The proportion of bankruptcies among small business has increased since 1974,^{1/} and, in 1981, 97.1 percent of businesses that declared bankruptcy had assets of less than \$250,000,^{2/} although firms of this asset size make up a much lower proportion of the corporate population in Canada. Since, as we saw in Chapter 6, small business is more dependent on the banks for financing than are medium and large firms, small business people naturally believe that they suffer more than others from a restrictive monetary policy applied by the banking system.

The balance sheet crisis that leads to prohibitively high costs of funds, loan turn downs, and, eventually, foreclosures may, however, be attributable to one or to a combination of three causes: management's poor business decisions, a general (or a sectoral) recession, as well as the direct effects of monetary policy. To the extent monetary policy is at issue, it may affect firms of all sizes in the same way or it may be hurting some size categories more than others.

Some small business spokespeople and many members of the public believe that restrictive monetary policy unintentionally imposes a heavier burden on small than on other firms.^{3/} The objective of this chapter is to examine this hypothesis. One of the first problems is how to define the issue in a way that distinguishes the effects of monetary policy from those of other causes. The following section addresses this. The data required to test the hypothesis empirically is not available but, as subsequent sections show, small business is much more vulnerable to interest rate fluctuations than other businesses, and may suffer more from lenders' greater prudence in a downturn. The perverse working of the Small Business Deduction increases the disproportion in small business' burden. The monetary authorities cannot respond directly to this problem, but they could show somewhat more sensitivity to it in the relative emphases they give to the various policy instruments.

The Problem

Restrictive monetary policy, as manifested in high and volatile interest rates and greater stringency in the granting of loans, is believed

to weigh more heavily on small than on other businesses. The hypothesis has not been tested in Canada nor in the United States, although a lot of work has recently been done on small business financing in both countries. One of the two main difficulties in testing it is defining the problem; the other arises from the inadequacy of existing data.

We first have to distinguish the problem of whether or not monetary policy affects firms in different ways or to different degrees depending on their size, from the different, although related, problem of banks' regular lending practices to firms of different sizes. Studies in Canada and in the United States have revealed that the banks' lending rates for small businesses tend to be 1-3 points higher than for other firms while their collateral requirements are considerably greater. Banks justify the higher costs on the grounds that both risks and administrative costs of small business loans are higher. But they do not let their interest rates rise to clear the market. Although it is generally agreed that this policy leads to a certain credit rationing, its nature is uncertain. The subject of this chapter is not to discover whether the banks's current practices are justified,^{4/} but whether monetary policy affects these on-going practices in such a way that the impact differs with the size of the borrower.

A second distinction has to be made between the direct and the indirect effects of restrictive monetary policy on a firm's balance sheet. Monetary policy has a direct effect on the cost and volume of funds available for borrowing. But the firm's balance sheet also suffers from the consequences of a business downturn -- reduced demand, falling sales, and reduced cash flow to carry rising levels of inventory. Production cutbacks may follow, as firms can no longer finance purchases. To the extent that the downturn was also induced by restrictive monetary policy, the consequent negative effects on the firm's balance sheet are due, indirectly, to such policy. In any given situation, it is difficult to distinguish the balance sheet effects of the downturn that are indirectly due to monetary policy from those that are due to changes in patterns of demand, external shocks, and other non-monetary factors. This means that to demonstrate that small businesses are particularly vulnerable to a market downturn does not prove that they are particularly vulnerable to, or affected, by monetary policy. Small business' inability to spread its

risks over different sectors, for example, makes it more vulnerable to a downturn in its sector of activity than a larger diversified business, but this tells us nothing about the size-specific impact of monetary policy.

The question to be investigated is whether or not monetary policy has a different direct impact on firms of different sizes. Since the chartered banks are the main instruments of the government's monetary policy and it is from them that small businesses obtain most of their borrowed funds, the impact is most likely to be felt in terms of access to, and cost of, bank loans. The hypothesis would be verified if, as a result of restrictive monetary policy, small business' access to funds was curtailed more than that of medium or large business and/or the total costs of funds increased more for the smaller than the larger firms.

At present, the data required to test this hypothesis is not available. Most of the empirical studies refer to changes in share sizes of loans. (It is supposed that small firms request small loans.) We would need complementary information, such as the variation in interest costs as a percentage of cash flow by firm size over the business cycle, to better understand the problem. From the lender's side, we would need to know the changes in size-of-account shares and the fluctuations in pricing differentials (in terms of premium over prime) by firm size over the cycle. But even with more adequate data, the difficulty of distinguishing between direct and indirect monetary policy effects would remain.

We therefore do not aim to conclude the debate in this chapter, but rather to increase understanding of the problem of possible unintended effects of restrictive monetary policy on small business. In the following section, we examine small business' vulnerability to monetary policy. We then turn to existing evidence of different direct application of restrictive monetary policy in Canada and the United States. A brief review of recent Canadian monetary policy and of alternative means of pursuing similar monetary policy goals follows.

Small Firms' Vulnerability to Monetary Policy

In a period of restrictive or tightening monetary policy, first the banks, and then other financial institutions, pass on the rising costs of credit to their customers. If interest rates are expected to fluctuate widely, they will also try to pass on some of the risks of financial inter-

mediation by reducing their amount of fixed rate lending. Firms which have retained earnings or untapped sources of credit can obviously weather this situation better than those which have not.

Small businesses, as we saw in Chapter 6, tend to rely more on debt financing than do large and medium firms. With the exception of the very smallest businesses, small firms have a higher debt to equity ratio than medium and large business and a lower interest coverage in terms of the relation between cash flow and interest payments. An increase in the costs of their debt is therefore extremely onerous. But since they raise very little money from corporate bonds or other non-bank sources, they are liable to feel any increase in rates immediately via the banks.

If the banks raise the costs of money or ration the supply, most small businesses have nowhere else to turn. They are unlikely to be able to rely more extensively on trade credit -- their second most important source of external financing -- at a time of general monetary tightness.^{5/} At the revenue end, they are likely to suffer from slower payment of receivables, particularly from large corporate customers who are in a stronger bargaining position. Since a large number of owner/managers have already had to put up the totality of their personal assets as collateral, they cannot negotiate better terms with their bankers by offering to put up more. Small business' lack of reserves to draw on as credit becomes tighter may explain U.S. observations that small firms tend to increase their liabilities less than do medium and large ones during the recessionary phases of the cycle.^{6/} Small business are not less affected by the downturn but they have no further resources to draw upon.

Interest rate volatility compounds the problem, particularly in a period of high inflation. Uncertainty in financial markets reduces or even eliminates the availability of fixed rate bank loans. The consequence for small business is that virtually all its debt bears an interest rate that fluctuates with the market. This makes financial planning difficult for firms not having specialists able to devote time to forecasting rate changes and to seeking innovating financing to hedge against severe swings in rates. The more highly leveraged the firm the more it will suffer from this situation.^{7/}

In the preceding paragraphs, we have been considering small business as a whole. The situation of new firms, starting up in a period of restrictive monetary policy is likely to be even more difficult.

In addition, the existence of the Small Business Deduction, which was examined in Chapter 8, can have perverse effects. It will tend to worsen the balance sheet position of a small firm in a period of high inflation and high interest rates. Since interest payments are deducted from taxable income, very high nominal interest rates, such as those prevailing in 1980-81, lead to a major reduction in tax liabilities, which is of greater value the higher the firm's marginal tax rate. Unless the real interest rates are also very high, high nominal rates can weigh very lightly on firms in a high tax bracket while bearing heavily on these in a low tax bracket. Apparently tight monetary policy pursued via high rates can thus be neutral or even expansionary for some large firms while restrictive for those using the SBD. John Bossons has provided the following numerical example.^{8/} He compares three firms all facing a 22 percent interest rate while inflation is at 12.5 percent and shows that the higher the tax bracket, the lower the after-tax debt cost and the lower the real after-tax interest rate:

	<u>Tax Rate</u>	<u>After-Tax Debt Cost</u>	<u>Real After-Tax Interest Rate</u>
Large retailer	48%	11.4%	-1.1%
Large manufacturer	42%	12.8%	0.3%
Small manufacturer	22%	22%	4.7%

There can be no doubt that small businesses tend to feel the negative effects of restrictive monetary policy more quickly and more profoundly than medium and large businesses. We turn now to the question of whether or not the policy is applied more harshly to them than to larger firms.

Evidence of Differential Size Impacts of Monetary Policy

There is no consensus among analysts in Canada or in the United States as to whether it can be demonstrated that monetary policy is applied in different ways to firms of different sizes.^{9/} Many people tend to think that small businesses are treated more harshly but are unable to verify their intuition.^{10/} There are two aspects to differential application of

monetary policy -- the hardening in the terms of lending and the crowding out of small borrowers by large ones.

Hardening Bank Terms

There are many ways in which banks can get tougher with their corporate clients in periods of credit restriction. They very rarely raise interest rates more than 3 points above prime but they can increase collateral requirements, shorten the maturity of loans, require compensating balances, reduce overdraft privileges, demand higher safety margins for operating credit and so on. Most drastically, they can refuse to renew or to accord loans previously considered bankable on a sectoral or a risk basis. Not surprisingly, hard evidence of such credit restriction by firm size is difficult to come by, although there are reasons why banks might tend to be tougher on small than on medium or large borrowers in a tight money period.

First, in Canada, notwithstanding what was said above, the chartered banks know that small businesses do have some other credit openings. They can turn to the Federal Business Development Bank, resort to provincial government programs, or in certain cases apply for a subsidized loan under the Small Business Loans Act. Second, for the reasons already explained, restrictive monetary policy may increase the riskiness of small businesses proportionately more than that of others, so that on the basis of a constant risk calculation more small business loan demands than before will be turned down or they will become more costly. The banks generally claim that it is this second reason which explains the apparently harsher treatment of small firm borrowers in tight and/or expensive monetary periods. This may also justify the fall in their ratio of new-to-established accounts. The relationship between the banks and their small business clients is likely to be sensitive in such periods. Many bankers believe they are doing prospective and existing business people a service by not satisfying their loan requests, while the same clients tend to feel that their bankers are letting them down at the crucial moment.

Crowding-out by Large Firms

In most cases, large firms have more bargaining power than small ones when they go the bank since they use a wider range of its services. They may hold large cash balances which they can deposit where they like or they may use other banking facilities such as foreign exchange services.

In some instances, their outstanding debts may be so large that it is not in the bank's interest to further weaken their competitive position by tightening credit.^{11/}

In the late 1970s and early 1980s, large and medium firms increased their demand for bank credit very considerably. This was largely due to the drying up of the equity and debenture markets as a result of inflation and related uncertainties, and only indirectly to restrictive monetary policy. The presence of large borrowers does not seem to have affected the rate of increase in small loans in Canada until 1980. When size-of-loan classes are adjusted for inflation, the amount of bank financing available to the smallest business borrowers (measured by size-of-loan) grew at 7.9 percent per annum over the period 1974-80. This rate exceeded the growth rate of the banks' business loans in general and does not differ significantly from the adjusted growth in the outstanding value of business loans under authorizations in excess of \$5 million, which was 8.9 percent over the period. In 1981, the situation changed drastically. The outstanding value of loans under \$200,000 fell by 6.8 percent in that year while that of loans in excess of \$5 million grew by 83.2 percent. Loans in the intermediate groupings -- \$200,000 to \$1 million and \$1 million to \$5 million -- grew by 15.1 percent and 25 percent respectively.^{12/}

The Evans Committee Report on Bank Profits, from which these figures are taken, suggests that the drop in small business loans was due to a fall-off in demand caused by high interest rates rather than by credit rationing by the banks. As we noted earlier, small firms are less able to bear higher interest costs than are others, and are therefore less able to increase their liabilities to get through a difficult period, even if they would like to do so.^{13/}

In general, therefore, we are left with very little evidence when we attempt to discover whether lenders apply the consequences of monetary restriction more stringently to small than to large borrowers. Since the question is obviously an important one, an empirical investigation of Canadian experience seems to be warranted.

In the absence of the results of such an investigation, an alternative route is to look at the main causes of small business failures in Canada to see if these suggest that monetary policy plays a major role. The most important immediate causes of small business failure are inadequate sales and heavy operating costs, responsible for 41 percent and 47 percent respectively

of business failures in 1980.^{14/} An economic downturn will provoke a decline in sales while heavy operating costs will be partly due to high interest charges. David Whyte, a member of the banking community, has recently studied the correlations between small business failures and interest rates and small business failures and growth of GNP.^{15/} He finds a strong relationship between failures and high interest rates, but one which is at least as marked between failures and low or declining growth in real GNP. This reinforces our earlier argument that the crisis in small business balance sheets is caused by a variety of market factors which may be linked directly, indirectly, or not at all to monetary policy. We can sum up this discussion by stating that, although the effects of high and volatile interest rates and tighter loan conditions weigh more heavily on small than on medium and large businesses, we have very little evidence at present that small businesses receive different treatment from lenders as a result of restrictive monetary policy. We now turn to a discussion of recent Canadian experience with monetary policy to see how it tries to attain desired objectives and whether it could be implemented in alternative ways, likely to cause less hardship to small business.

Recent Experiences with Monetary Policy

In 1975, the Bank of Canada adopted a policy of monetary gradualism whereby the rate of expansion of M1--currency and demand deposits in chartered banks--was to be reduced gradually to bring down the rate of increase of the general price level and to unwind inflationary expectations. Carrying out such a policy implied that interest rates would be left free to respond to the decline in the money supply growth targets and to fluctuations in demand for money balances. Similarly, the exchange rate in Canada, which is a small open economy, would be free to adjust as well.

In the initial period of implementing such a policy, it was expected that interest rates would rise; the impact of slower monetary growth would dampen aggregate demand and, eventually, inflation. In other words, high inflation contributed to high interest rates because of the "inflation premium" embodied in nominal interest rates required to maintain the real value of assets to lenders.

The Bank operationalized its strategy by setting target rates for M1 growth that have been reduced gradually since 1975. The range was chosen so as to exert downward pressure on wage and price expectations while allowing for real growth in economic activity. If M1 exerted a higher than desired rate of growth

interest rates could be expected to rise to curtail money growth. During this period the implementation of the strategy involved a number of compromises and departures from the interpretation of gradualism as outlined.

When Canada embarked on this strategy in 1975 the dollar was generally believed to be over-valued in relation to the U.S. dollar. From a peak value in 1976, the Canadian dollar has since depreciated about 20 percent. Beginning in 1978, the Bank has placed increasing emphasis on generating an "acceptable" level for and movement of, the exchange rate. This tactic meant placing increasing reliance on interest rates as the instrument that would assure exchange rate stability, and correspondingly less emphasis on growth of the money supply per se. The Bank argued that altering interest rates to achieve exchange rate target ranges was also consistent with the targets for reducing money growth. In other words, the two policy targets were consistent with each other.

By 1982, while the conduct of monetary policy remained essentially unchanged, the rhetoric had changed. In November 1982 the Bank announced what analysts had noted for several years -- the use of M1 as a target variable was no longer relevant because of innovation in financial markets.^{16/} The connection between the public demand for money and the chosen measure of money supply had changed, so that altering the growth of M1 did not have the desired impact on inflation. This means that the conduct of monetary policy includes exchange rate targets combined with greater attention to fluctuations in interest rates adjusted for inflation -- "real" interest rates -- as well as concern about the growth of broader monetary aggregates.

In an assessment of the impact of this conduct of monetary policy on small business, there are two important factors to consider. The first is that, as a "framework" policy that plays a fundamentally important role in controlling inflation in the economy as a whole, monetary policy cannot be "fine-tuned" to take account of its impact on particular sectors, regions, types of business organization, or households. The second is that the Bank has some latitude in the conduct of monetary policy so that it may accord varying weight to the policy targets established -- monetary aggregates, interest rates, and the exchange rate. Of particular concern to small business, which is highly credit-sensitive, is the latitude the Bank can accord real interest rates as targets.

Latitude for Monetary Policy Targets

Interest rate volatility and high real interest rates are of special concern to small business because of its particular reliance on debt financing.

By contrast, exchange rate volatility tends to have a somewhat less serious impact on small than large firms. It follows from these propositions that to the extent the Bank of Canada has discretionary room to choose between stabilizing exchange and interest rates, the economic interests of small business, at least in the short run, would be better served by lower interest rates. Of course, in noting this, it has to be recognized that small business' economic goals are also promoted by price stability. Over a period of time, determined pursuit of lower interest rates in Canada could have inflationary consequences for two reasons. First, since Canada's capital market is so closely connected with that in the United States, lower nominal short-term rates in Canada could lead to capital outflows and exchange rate depreciation. By raising the prices of imported goods, the consequence would be inflationary. Second, lowering interest rates would, over time, require expansion of the money supply which would also be inflationary.

It is now clear from the experience since mid-1981, when monetary policy became highly restrictive to prevent sharp depreciation of the dollar, that monetary policy can control inflation.^{17/} Since mid-1981, interest rates have declined because inflation in Canada has declined. Since autumn 1982, both measured inflation and interest rates have dropped; interest rates have not fallen as far as the CPI, however, in part because of continued high real rates in the United States. Since it abandoned monetary targeting the Bank has tended to pursue a combination of an exchange rate strategy with attention to real interest rates. One of the main reasons for greater attention to real interest rates is because of growing concern about the severity of the recession and the growing magnitude of business failures and unemployment.

Looking to the future conduct of monetary policy, Canadians can expect the Bank to pursue an eclectic strategy in the foreseeable future.^{18/} Such a strategy will consist of an exchange rate strategy, a real interest rate strategy combined with monitoring the growth of a broad range of monetary aggregates. A key element in lower nominal interest rates will be an inflation performance in Canada that is superior to that in the United States. Lower real interest rates will depend to a large extent on the same factor, and on lower U.S. interest rates as well. It is also possible that monitoring the range of monetary aggregates broader than M1 may influence interest rate volatility. On this question there is little accepted wisdom at the present time among economists or central bankers. The

severe unintended effects on small business of high and volatile interest rates suggest, however, that more attention be devoted to this problem and that greater appreciation be developed of the longer-term growth consequences of high real rates' impact on the viability of small businesses.

Footnotes to Chapter 9

- 1/ See David A. Whyte, "Interest Rates as a Factor in Small Business Failures," paper presented to the Stanford Graduate School of Business, July, 1982.
- 2/ See Don Allen & Associates, "Working Paper on Business Bankruptcies." An Initial Examination of the Data File for 1977-1981," Small Business Secretariat, March, 1982. It should be noted that for every federally registered bankruptcy there are approximately ten business closures.
- 3/ Restrictive monetary policy, that is policy restricting the growth of monetary aggregates, is one of the main elements of anti-inflationary policy in Canada and is therefore likely to be of continuing relevance. The analysis in this chapter is limited to restrictive policy, so that we have not considered whether expansionary monetary policy will have symmetrical effects.
- 4/ For a discussion of this question see L. Wynant, et al., Chartered Bank Financing of Small Business in Canada, University of Western Ontario, 1982, and the House of Commons Committee of Finance, Trade & Economic Affairs, Report of the Enquiry into Bank Profits (Evans Committee).
Don Allen, Small Business and Banking, op. cit.
- 5/ The Economic Council of Canada's recent study on financial markets mentioned that large firms, which can obtain bank loans during periods of limited credit, can transfer them to their smaller customers in the form of trade credit. Intervention and Efficiency, op. cit., p. 21. But most authors seem to think large suppliers are likely to reduce trade credit to small business during a period of restrictive credit. See, for example, David Whyte, op. cit. However, his study of bankrupt firms in Ontario in the 1970s shows that 32.2 percent of their liabilities was in the form of trade credit -- a very much higher percentage than the national average. Ibid., p. 28.
- 6/ See Meir Tamari, "The Effects of Changes in the Business Cycle on Small Firms," Contract #81-474 for U.S. Small Business Administration, 1981.
- 7/ For further discussion, see Whyte, op. cit.
- 8/ See Globe & Mail, "Report on Business," October 19, 1981.

- 9/ The recent study by Larry Wynant et al commissioned by the Canadian Bankers' Association says ". . . cyclical movements in either the dollar value of small business loans or the share of small loans in total business loans do not show any strong or even noticeable connections to measures of monetary policy when looked at over the past decade." Op. cit., p. 27. On the other hand, Andrew Brimmer, after reviewing a series of empirical studies, writes "The overall impression left by this empirical evidence is one of confusion. It does not provide strong evidence for or against the hypothesis that a restrictive monetary policy discriminates against small firms." (p. 150) But, after recalling intuitive probabilities, he goes on "Hence, it would be rather difficult to argue that a restrictive monetary policy does not impose a greater burden on small firms than on large firms." (p. 151) Andrew Brimmer, "Monetary Policy, Interest Rates and Credit Allocation for Small Business," prepared for the U.S. Small Business Administration, Washington, D.C., August, 1980.
- 10/ The 1972-82 period is difficult to investigate in terms of cyclical fluctuations. In addition, a major change in Canadian banking practice took place over this period with the chartered banks moving into the term loan market which corresponded to a small business need. Consequently changes in the number of new accounts or new loans by size of business are likely to be related to several different causes, of which monetary policy may not be the most important.
- 11/ Conflicting evidence regarding small and large firms' bargaining power vis-à-vis the banks comes from Thomas Brady, who observed that interest rates rose faster for large than for small borrowers in the late 1970s, in the United States. Brady explains this in terms of the long-term dependence of the smaller U.S. banks on their small business clients. He suggests that they are anxious not to lose these clients whereas they are aware that they cannot hope to retain large firms as major clients, once other sources of funding return. These results are not applicable to Canada given our much more highly concentrated banking system. See Thomas Brady, "Commercial Bank Business Lending by Size of Loan," Interagency Task Force, U.S. Small Business Administration, 1982.

- 12/ House of Common Committee on Bank Profits, op. cit. This change is partly attributable to the large number of corporate takeovers in that period.
- 13/ Charles Ou claimed to have demonstrated the crowding out of small by large borrowers in an empirical study of bank borrowing by manufacturing firms in the United States over the period from 1956 to 1976, which demonstrated a correlation between a reduction in the volume of loans of small firms and an increase in loans to large ones during tight money periods. On the basis of this work, which covers three cycles and one minor slump caused by the tight money policy of 1966-67, Ou concludes that large firm demand for bank loans crowded out smaller borrowers:

. . . . there is a significant inverse relationship in the ratios between the large and the small manufacturers. The inverse relationships between these two ratios during tight money periods, the periods immediately preceding and after the peak quarter, is most significant. Since large manufacturers borrow more heavily from commercial banks during tight money periods, the observed inverse relationship provides rather conclusive evidence that larger borrowers crowd out smaller borrowers during these periods. The reverse is also true during easy money periods when large manufacturers repay and reduce their borrowings from the banks.

Ou does not, however, explain the mechanisms by which such crowding-out took place. Charles Ou, "Effects of Tight Monetary Policy on the Availability of Bank Loans to Small Business," American Journal of Small Business, Vol. IV, No. 1, July, 1979, p. 25.

- 14/ Dun and Bradstreet Canada, The Canadian Business Failure Record, 1980 Toronto, 1981.
- 15/ Whyte, op. cit.
- 16/ Gerald K. Bouey, "Recovering from Inflation," notes for remarks to the Canadian Club, Toronto, November 29, 1982, reprinted in Bank of Canada Review, December, 1982, p. 7.
- 17/ For a review of economic performance and the conduct of monetary policy during the period, see Thomas J. Courchene, No Place to Stand? Abandoning Monetary Targets: An Evaluation (Toronto: C. D. Howe Institute, 1983).
- 18/ The rationale for such a strategy is developed in Thomas J. Courchene, op. cit.

10. The Impact of Manpower Policy and Workplace Legislation
on Businesses of Different Sizes

Manpower policies and workplace legislation raise complex issues for two reasons. First, they respond to social as well as to economic objectives, and second, in the case of workplace legislation, they flow from the decisions and legislation of two different levels of government. Since small business plays an important role in creating and maintaining jobs and training workers, the purpose of this chapter is to assess whether the government policies which impinge most directly on the labor market facilitate or hamper small business in the execution of this role, and whether they have the same impact on all firms regardless of their size.

The analysis begins with several assumptions: that small businesses are more labor intensive than large ones and are concentrated in relatively low-wage sectors, such as trade and personal services; that transactions costs mount very rapidly for owner/managers and that their firms have limited reserves to draw on, so that they cannot easily substitute capital for labor. In this context, we first examine the federal manpower training programs which cost approximately \$865 million in fiscal year 1981/82. Of this expenditure 13 percent was allocated to General Industrial Training and was used extensively by small business; doubts remain, however, as to whether it corresponds fully to their needs.

We then turn to workplace legislation whereby governments have increasingly used the firm as an instrument for the implementation of social policies. Examination of three social policies -- minimum labor standards, unemployment insurance and union-management legislation -- suggests that in each case small business carries a proportionately heavier share of the costs than do larger, professionally managed firms. This problem is of current concern since changes in the three measures analyzed have recently been made or are under discussion, while other social policies, such as securing retirement income and insuring equality of opportunity, may also be implemented in the form of workplace legislation in the future.

Manpower Policy and Firm Size

Manpower policy is currently an area of great concern in Canada because of concerns about high structural unemployment -- mismatches between

available skills and jobs -- and persistent skill shortages. Although higher priority is now being accorded to upgrading industrial skills and improving market clearing mechanisms, obstacles exist -- in the form of inadequate organization of the training system, and inadequate recruitment and manpower placement mechanisms. These prevent the conventional government-funded market clearing mechanisms from operating efficiently.

Because small business often lacks the necessary financial and organizational resources to take advantage of government manpower programs, however, policy responses that take these constraints into account will be of particular value to the small business sector. An outstanding example of a field where special attention will have to be paid to the adverse effects of these constraints concerns the revolution in micro-electronics. Government may well have to devote particular emphasis in the application of manpower policy, in skill development and in other ways to facilitating ready access by small business -- which represents 40 percent of the total workforce -- to this vital technology.

This section will attempt to untangle the various aspects of the manpower policy issues in order to isolate the particular implications of the policy (and of the various programs involved) by firm size. First, we will briefly review small business' place in the labor market. Second, a general review of labor market policies in Canada will outline both their objectives and their relative importance. The third and fourth sub-sections will examine in greater detail two main features of the Canadian labor market policy -- training and market clearing mechanisms. Finally, the last sub-section will summarize and attempt to evaluate federal manpower programs, taking into account the size of the firm.

The Labor Market Outlook

The severity of Canada's cyclical difficulties are being reflected in the Canadian labor market. Unemployment reached levels unseen in recent years. Yet it must not be forgotten that Canada entered the recession in 1981 with unemployment above 7 percent of the labor force because of structural problems in the labor market. This analysis will therefore focus on the structural side.

On the supply side of the labor market in the 1970s, the Canadian labor force grew quickly because of increases in the working-age population

and in labor force participation rates. Despite fairly high employment growth, higher than average growth occurred in youth and adult female unemployment.

The 1980s are expected to be years of slower labor force growth marked by an increase in the female entrants but a decrease in youth entrants.^{1/} The increase in female labor supply is anticipated from their rising participation rates. Changes in age structure, however, will bring smaller numbers of young people into the labor force. If the occupational pattern of employment by sex remains unchanged, an increasing concentration in managerial and service occupations can be expected. The aging of the workforce is also to be expected, especially in the so-called male occupations.

On the demand side of the labor market, concerns have arisen about the potential impact on labor demand of the energy and resource-related projects in Western Canada, and by rapid developments in technology. Such changes, if they occur, will cause a higher concentration of the employment growth in the goods-producing industries, especially those related to construction activities.

The main consequence of the quite rapid evolution anticipated in the composition of both the supply of, and the demand for, labor is that there will be a greater need than in the past for labor market adjustments if severe skill shortages are to be avoided in certain occupations and severe unemployment in others. For example, slower growth among highly qualified occupations, with the exception of engineering and scientific occupations, has suggested the need for a sustained growth in construction-related highly skilled trades. Moreover, despite a continuous growth in service-related industries, one can expect employment opportunities in this sector to be growing at a lower rate due to the rapid technological "revolution" based on microprocessors. At the very least, the skill requirements in this sector will shift drastically.

In order to induce appropriate labor market adjustments, several rigidities may have to be overcome in the future. Increased occupational and geographical flexibility will be required. Increased wage flexibility will also have to be promoted. Changing attitudes toward working life will be required and increased flexibility in supply patterns -- for example, shifts to part-time work, especially in white-collar occupations, may occur. Immigration as a source of skilled labor has declined in highly skilled occupations; as a result domestic training programs will become an important factor in labor market adjustment in the 1980s.

Labor Market Policies in Canada

Manpower policy can be defined as the set of policies designed to increase the ability of any worker (or individual) to find the best job that he possibly can, according to his skills and experience, in a given labor market. Since it reduces structural unemployment manpower policy can have a favorable effect, in the long run, on both inflation and unemployment.

There are three forms of manpower policy. The first aims at improving the quality of the match between existing manpower supply (workers) and demand (jobs) through placement efforts and counseling. The second aims to upgrade skills of those whose skills have become obsolete so they can better match demand requirements. The third aspect of manpower policy relates to actions taken by public authorities to alter the composition of the demand for labor, namely to increase the level of employment opportunities through job creation programs, either specifically in one set of industries or in the economy at large.

To understand the role that manpower policy has to play in the economy, it is useful to locate it within a larger framework which includes stabilization policy. These two kinds of policy are in fact complementary. Manpower policy is aimed at matching people and jobs more effectively by using a series of instruments and measures to provide better labor market operation. Stabilization policy directed at the total level of economic activity inevitably affects the growth rate and the structure of labor demand. This means that for macroeconomic policy to be fully efficient in increasing the level of aggregate demand, and thus reducing unemployment without inducing inflation, an appropriate mix of stabilization and manpower policy is required.

The structural imbalance in the labor market has led to much more emphasis than in the past on the supply-side forms of manpower policy:

- . the perceived need to adjust training expenditures in order to match industries' needs more adequately,
- . the relatively high level of expenditures committed to training programs, and
- . the need to base the market clearing function on a more accurate information system due to different regional and sectoral economic development patterns in the future.

At the same time, increasing concern has been expressed about the potentially low net gains from direct or indirect government intervention to

influence the structure of demand for labor, particularly via employment creation programs. It now appears that it is necessary to redirect all government employment creation efforts in order to integrate them in a longer-term strategy of economic or industrial development. The remainder of this section will focus on the supply side. First, we examine the federal training policy and its potential implications for small business; then we deal with market clearing policy.

Training Policy

With the drying-up of traditional sources of skilled immigrants, Canada must now rely more heavily on its domestic training capacity to meet industrial skill requirements during the 1980s.

In the examination of Canada's training requirements that follows, we will first review the types of training available, their objectives and the jurisdictional problems they create in Canada. We will then concentrate on the training needs of the small business community, and then briefly review recent evolution of federal training programs. Finally, we will evaluate small business' access to and utilization of these programs.

The Training System

An important distinction must be made between training and education. This distinction has a major jurisdictional impact on implementing labor market training in Canada.

The Constitution Act of 1867 explicitly gives the provinces exclusive jurisdiction over education. Although the federal government has no jurisdiction over educational content, it has been allowed to contribute financially to secondary and post-secondary education.

Training is, in the mind of the federal government, somewhat different from education although both concepts are intrinsic parts of the "human capital" investment process. The Task Force on Labour Market Development in the 1980s summarized the differences between them by saying that ". . . . education is carried out for a variety of purposes which go well beyond the production of skills for the labour market. [Training] applies to only one component of post-secondary education -- that which is directed at producing skills for the labour market."^{2/} So what is called training should in fact more appropriately be called occupational or vocational training. This is the subject of the following paragraphs.

The federal government contributes to post-secondary education through the Federal Provincial Fiscal Arrangements and Established Programs Financing Act. This is on the educational side. On the training (or occupational training) side, the federal contribution is made under the new National Training Act (formerly the Adult Occupational Training Act). Under this Act, the federal government can make arrangements with each province to purchase seats in training courses from educational institutions (either private or public) or from industry.

The objectives of the training system are roughly the same as those of manpower policy in general: economic growth, stabilization, and equalization of opportunities. The training system contributes to growth objectives by reducing the bottlenecks in the supply of particular skills which may result from either rapid technological change or from the changing structure of the demand for labor. Training serves also to increase the productivity of the workforce. Stabilization objectives are pursued "by alleviating the skill shortages and other structural problems which lead to cost-push inflation."^{3/} Training funds contribute to the equalization of opportunities objective both by increasing the employment capacity of certain people or by increasing their earning capacity, both of which help to reduce income disparities.

Training funds are allocated by the federal government through the National Training Program (NTP) to institutional training and industrial training. The institutional training program comprises several types of training courses, each having a particular goal. Skill Training involves pre-employment courses, either to provide entry-level skills in a particular occupation or to upgrade a person's skills in an occupation. Apprenticeship Training is the classroom training aspect of apprenticeship programs operated by the provinces. Basic Training for Skill Development serves to upgrade basic skills in mathematics, science and communication to meet the academic requirements for entry into Skill Training or to proceed to employment. Job Readiness Training is directed to the chronically unemployed who have been out of the labor force for a prolonged period and it may include elements of life skills, work experiences, job orientation and academic upgrading. Work Adjustment Training is designed for workers who are experiencing behavioral difficulties and it provides assistance in acquiring appropriate work habits and attitudes. Occupational Orientation is designed to provide practical experience in a variety of trades to assist the person who wants to select

a trade. Finally, Language Training is offered primarily to new immigrants who have difficulty finding employment because of lack of fluency in English or in French.

The industrial training program provides employer-centered training, which means that the government negotiates a contract with an employer by which the latter is reimbursed for a proportion of certain costs incurred in providing training. This training program has two components. The first, General Industrial Training, is a shared-cost incentive training program which aims at meeting the skill needs of employers, and improving the employability and earning capacity of workers through expansion and improvement or employer-provided training. The second, Critical Trade Skills Training, focuses on selected highly skilled trades and occupations and serves explicitly to encourage industry to develop and expand the training of workers in skilled occupations. The basic differences between these two programs are the duration of training, rates of reimbursement and designated occupations. For instance, the General Industrial Training program provides financial support to employers for up to one year while the Critical Trade Skills Training program provides support for up to two years.

Training Needs of Small Business

Trying to specify small firms' requirements for training their workforce is not an easy task to perform, mainly because of the lack of data on the subject. Two key aspects are at issue in assessing the impact of Canadian manpower training programs on small business. First, we have to distinguish training needs in small firms as opposed to those in large businesses. Second, we must analyze the way these needs are satisfied in relation to firm size.

Earlier in this Report we saw that small businesses make a relatively important contribution both to the level and to the growth of employment in the economy. But small firms are not evenly distributed across industrial sectors. They are concentrated in the trade and services sectors, as we saw in Chapter 2. Tables 1 to 5, in that chapter, further demonstrated that within the broad sectors, small business' participation is highest in a limited number of industrial classifications in both the manufacturing and the tertiary sectors. "These are primarily service-oriented in nature, generally providing products for local markets."^{4/}

On the other hand, and as can be expected, when we look at the sectors where large businesses account for a major proportion of industry sales, a rather different pattern emerges. Indeed, their presence is most significant in primary and in manufacturing industries, as indicated in Table 38.

Since small businesses are concentrated in a different set of industrial activities than are large firms, there is likely to be a size differential in the occupational pattern. In small firms, the pattern will be skewed toward construction trades (carpenters, plumbers, crane operators, etc.) and service- and sales-related occupations (cooks, waiters, retail sales clerks, gas station attendants, etc.). In terms of the type of training required, employment in construction will involve extensive apprenticeship programs while service and sales employment often require no previous training or only a short one.

Large firms are likely to involve more primary and heavy equipment manufacturing-related occupations (machinists, miners, assemblers, etc.); the type of training required appears to be mostly related to machinery operation, involving a good deal of classroom technical training along with more or less extensive on-the-job training.

This analysis is merely indicative of the broad patterns of training requirements according to the occupational distribution by firm size. A case by case analysis -- which is not possible in this Report -- would be necessary to be much more specific.

In terms of skill requirements, large firms appear to be relatively more affected by shortages in highly-qualified occupations (engineers, etc.) while, in small firms, highly skilled blue-collar workers may be more crucial. This observation is not very surprising, since the small employer hires only a very limited number of such highly-qualified workers. However, small business seems to be more concerned about the apparent lack of basic skills provided through the educational system than are larger employers. In other words, small employers are more prone to feel that school leavers have neglected such elementary things as ability to write and spell correctly and, in general, that they lack a sense of responsibility toward equipment, materials, and all the ordinary things involved in getting the job done.

TABLE 38
Sectors Where "Large"^{a/} Firms Account for
a Major Proportion of Industry Sales

<u>Rank</u>	<u>Industry</u>	<u>% of Sector Sales</u>
1	Motor Vehicle, Truck Body & Trailer Manufacturers	95.7
2	Miscellaneous Communication and Utilities	91.3
3	Iron & Steel Mill, Smelting & Refining	90.5
4	Miscellaneous Chemical & Petroleum Industry	88.0
5	Water, Rail & Pipe Line Transportation	86.0
6	Crude Petroleum and Natural Gas	85.0
7	Communications Equipment Manufacturers	82.9
8	Metal & Non-metal Mines	82.1
9	Miscellaneous Food Industry	80.3
10	Miscellaneous Manufacturing Industries (not otherwise specified)	80.0

a/ Large firms are those with annual sales of \$20 million and over.

Source: Small Business Financing Review, Department of Industry, Trade and Commerce, March, 1982, p. 26.

In addition, some owner/managers thought^{5/} that the vocational education system was not flexible enough to provide workers with readily useable skills. On the one hand, they suggested that the theoretical aspects of vocational education (trigonometry, blue-print reading, etc.) were far from adequate while, on the other hand, they emphasized the poor quality of the equipment used by students (equipment which was out of date, for example) in training courses.

It seems also that smaller firms seek a much more polyvalent workforce, even in highly-skilled occupations, than do larger firms in the same industry. They ask their workers to be able to perform a wider range of tasks than do larger employers. The reason for this is related to the fact that the total number of tasks (in a given production process) is distributed among a more limited number of workers. For example, a repairman in a small firm may be required to "know" several types of equipment while, in a large firm, he would only have to work with one type.

Finally, small businesses are less well equipped than are larger ones to deal with organizational problems related to the set-up of formalized training programs because their supervisory staffs are relatively small. Formal control systems are also less elaborate because the owner/manager is closer to his employees. For these reasons, when employees' training appears to be needed, small firms' owner/managers are more prone to set-up an informal on-the-job training program where the trainees are actually participating in the production process instead of a combination of theoretical classroom and practical training (performed along the actual production line).

Recent Evolution of Federal Training Programs

Since the mid-1970s, the emphasis has been on institutional training, in terms both of the number of trainees involved and expenditure shares, as can be seen in Charts 4 and 5. In 1981-82, the federal government spent \$864.9 million on training programs, 82.8 percent of which went to institutional training (compared to 89.1 percent in 1976-77).

General Industrial Training, which took 10.9 percent of the federal government's training budget in 1976-77 and 15.1 percent in 1979-80, represented 12.8 percent of training expenditures in 1981-82, or \$110.3 million. Critical Trade Skills Training started in 1979-80 with as little as 0.1 percent of the budget and rose to 1.0 percent by 1980-81 and to 4.4 percent

CHART 4
Canada Manpower Training Program
Growth Patterns, 1976-77 to 1981-82
(million dollars)

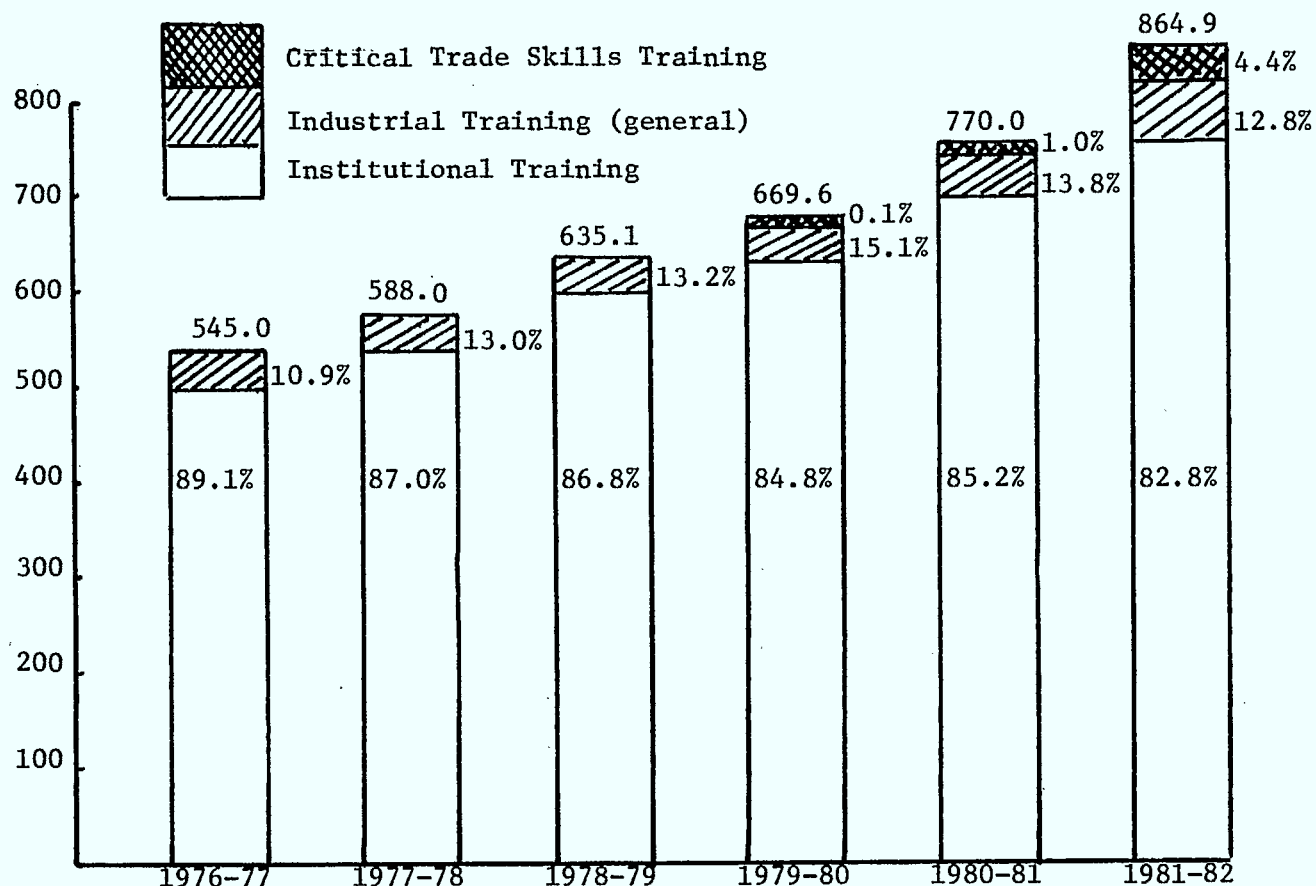
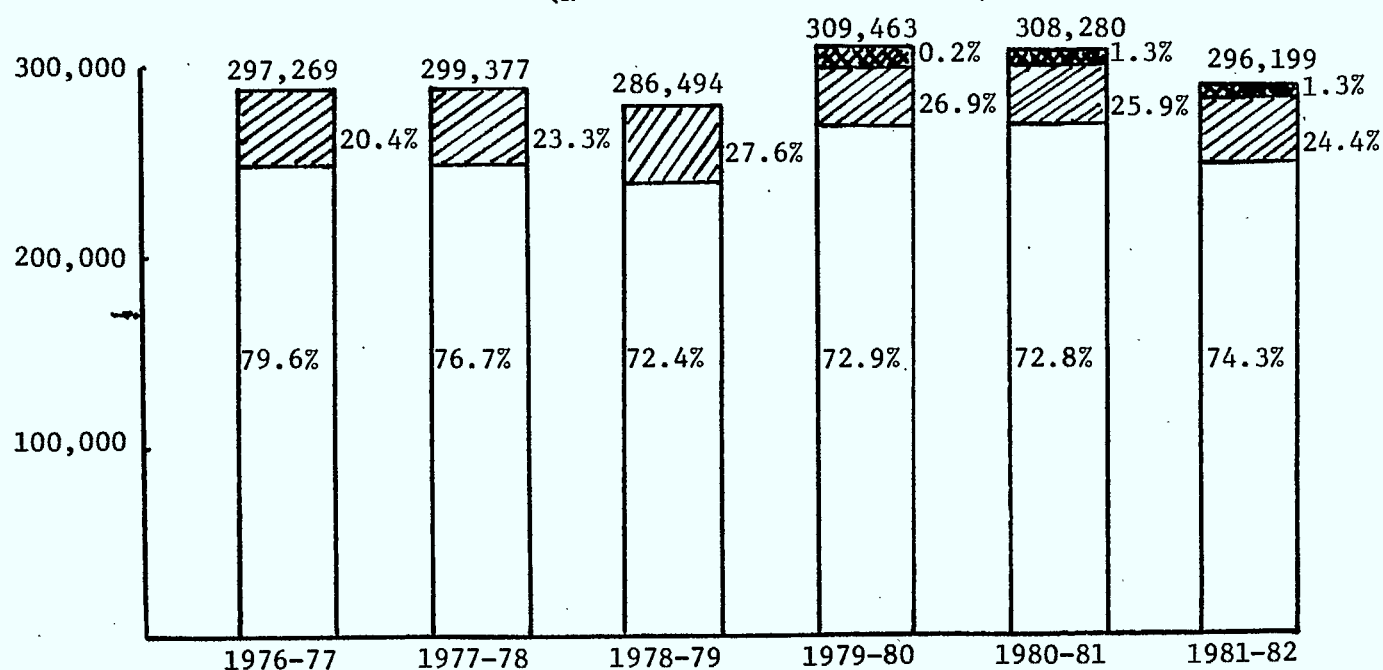


CHART 5
(Number of Trainees Started)



Source: Employment and Immigration Canada, Canada Manpower Training Program, Annual Statistical Bulletin, 1980-81.

by 1981-82. This shows the willingness of the federal government to direct its training policy toward skills which are now, or are expected to be in the near future, in short supply.

In terms of the number of trainees started, similar conclusions are in order, with some exceptions. Unlike expenditures, which rose by almost 60 percent between 1976-77 and 1981-82, the number of trainees started has been stable around 300,000 per year over the whole period, with a low of 286,494 in 1978-79 and a high of 309,463 in 1979-80. The proportion of trainees in institutional training was stable between 72 percent and 73 percent from 1978-79 to 1980-81 but it rose to 74.3 percent in 1981-82. The proportion of trainees in General Industrial Training has been declining since 1978-79 and was 24.4 percent in 1981-82. Trainees in Critical Trade Skills accounted for only 0.2 percent of all trainees in the first year of the program (1979-80), but for 1.3 percent each subsequent year.

Evaluation of Small Business' Access to and
Utilization of the National Training Program

Every private employer in Canada is potentially eligible for government-funded industrial training programs. We have been unable to find any evidence of significant systemic preference on the part of government in favor of, or against, small firms. Closer examination of useage, however, suggests that, in practice, small firms are less able than large firms to make use of what is available.

In terms of the economic aspects involved in the implementation of any on-the-job training program, the fact that training may be subject to economies of scale in relation to direct costs -- as when more than one worker is to be trained in a particular occupation by a given employer -- this might work against small business' involvement in training in general, and in the National Training Program in particular.

We must also remember that the implementation of a training program in any firm involves indirect costs: the opportunity cost of management time allocated to this activity and the probable cost incurred in losing the newly trained worker to another firm. To the extent that the management team in small businesses is relatively less numerous and specialized (often limited to the owner/manager) and consequently more preoccupied with daily (short-term) aspects of running the business, small firms' managers may face a time constraint that the professional manager (in a larger firm) does not

face, especially in implementing a "formal" training program rather than an informal on-the-job training program.

In sum, due to scale economies and constraints on available management time, the smaller firms may be at a certain disadvantage in implementing any industrial training program for its employees.

Moreover, since the Critical Trade Skills Training program is directed toward a precise set of occupations (higher skill manufacturing, construction and mechanical and repair trades), it may well be of little use to most small businesses. Indeed, only a relatively small proportion of small businesses may be able to benefit from this program -- mainly those related to the construction industry (especially Special Trades Contractors) and, to a lesser extent, those operating in the manufacturing sector (machine shops for instance). But the majority of small firms, being in service and retail sales industries, do not employ any of the trade skills listed as critical. The training program component which might be of most interest to them would be the General Industrial Training program which, as noted earlier, is losing ground to the Critical Trade Skills Training program.

Considering that there is a ceiling of \$250.00 a week per trainee for the government participation's in the trainee's earnings, small firms may have a slight cost advantage in training over larger enterprises which pay higher wages. Indeed, the small firms are more likely than these larger firms to benefit from a higher percentage of wage subsidies. For instance, with the wage subsidy being set at 50 percent of the wage paid or \$250.00 whichever is the lower, any firm paying more than \$500.00 a week for a trainee worker will receive less than the maximum percentage of subsidy on the wage paid.

On the other hand, due to the fact that small firms are likely to pay lower wages than larger ones for any given occupation, they are subject to a higher probability of facing "poaching" problems. This is more likely to be the case if we leave aside the fact that some workers may prefer to work in a smaller organization even at a lower wage, because of the more personalized environment. Poaching results in relatively higher training costs, over time, to smaller firms paying lower wages. This may well restrain them from participating in non-subsidized training programs for

their employees but it may also encourage such firms to participate in the National Training Program in order to reduce the costs of the early years of training which are assumed to be the more expensive.

But this latter aspect is not really relevant to small business' relative access to the National Training Program because this "advantage" (reduced financial risks of losing a newly-trained worker) is also available to larger firms. Training subsidies are not an adequate answer to the poaching problem per se.

Turning to data on small business' utilization of the National Training Program, we can see from Table 39 that more than half of the contracts signed (51.1 percent) under the General Industrial Training program involved businesses employing less than ten workers in 1980-81. Indeed, firms employing less than a hundred workers took up 84.1 percent of the contracts signed. However, in terms of the actual number of trainees started, firms with less than one hundred employees represent 60.4 percent of the total. The gap in these two series of data is due to the average number of trainees per contract signed, which varies with the size of the employer. This average ranges from 1.14 trainees per contract in firms of 1 to 9 employees to 6.04 trainees per contracts in firms employing one thousand employees or more. For firms employing less than a hundred employees the average is 1.36 trainees per contract while it is 4.61 in firms employing one hundred or more.

In terms of training costs paid by the government, 68.6 percent of total contracted costs went to firms with less than a hundred employees.

In the manufacturing sector, firms with less than 100 employees accounted for 48.9 percent of the number of trainees started and 54.8 percent of total contracted costs.

Market Clearing Policies

Even though the National Training Program may be of some help to the employer with particular employment requirements and to the worker with particular employment difficulties, the efficiency of such a program always depends on the quantity as well as on the quality of information available to economic agents in the labor market. In this regard, another important aspect of manpower policy analysis relates to the mechanisms used to provide such labor market information.

TABLE 39

Canada Manpower Industrial Training Program
General Industrial Training, Canada, 1980-81
 (percentage)a/

	Number of Employees in Training Firm								Total ^{b/}	Total Number
	1-9	10-19	20-49	50-99	100-199	200-499	500-999	1000+		
<u>All Industries</u>										
Contracts signed	51.1	16.6	10.8	5.6	4.5	3.9	2.4	5.1	100.0	42,028
Trainees started	30.6	12.7	9.8	7.3	7.6	8.5	6.3	16.2	100.0	79,863
Total contracted cost	37.2	15.4	10.2	5.8	5.2	7.4	3.9	13.8	100.0	133,045,821
Trainees per contract (number)	1.14	1.45	1.72	2.48	3.21	4.14	4.99	6.04	100.0	1.90
<u>Manufacturing</u>										
Trainees started	19.7	11.0	9.4	8.8	10.6	12.1	8.5	19.0	100.0	33,570
Total contracted cost	24.9	12.9	9.7	7.3	7.5	11.6	4.7	20.2	100.0	57,170,372

a/ Except for the fourth line, which is presented in levels.

b/ Rows do not always add to 100.0 because of returns for firms the sizes of which were unknown.

Source: Unpublished data from Canada Employment and Immigration Commission's Program Analysis and Information Directorate.

The Task Force on Labor Market Development outlined the need to provide current and judicious, as well as accurate, information regarding workers and jobs in order to improve the operation of local, as well as national labor markets. In the long run, better estimates of both labor demand and supply are required to generate the maximum returns from education and training expenditures.

In the short run, the need for a well-defined labor market clearing policy is more closely related to the current matching between workers and jobs. To reduce the inherent costs of the worker-job matching process the best possible information on the available labor force is required for employers (in terms of quantity as well as quality), and for workers the best possible information is required on available jobs.

With regard to small business, the manpower planning process required to forecast the skills needed to improve the growth potential of the firm in the long run poses a serious organizational problem. Small businesses do not have the necessary resources to perform such a forecasting task, be it in terms of manpower or in any other factor of production. A survey prepared for the Task Force revealed that ". . . the extent of forward planning varies considerably with the size and sophistication of the company's operations. . . . Planning processes for smaller companies usually are much less sophisticated. Some of the smallest operations may exist with nothing more than a month-to-month cash budget."^{6/}

In the short run, the relative lack of necessary resources in small business makes it crucial that placement services provided by the government operate a significantly better screening of the workers referred to employers, no matter the level of skills desired. The Task Force report indicated that this more effective screening process was necessary "to make the service more attractive to employers."^{7/} But it would be of particular help in providing an adequate supply of labor to small businesses which often do not even have a recruiting function.

On the other hand, large firms benefit from considerably higher levels of resources to perform such forecasting tasks as personal development. Moreover, most large firms establish a distinct personnel division

responsible for recruiting employees according to their present as well as to their future demands for labor. They usually do not even have to refer to governments' placement services to fill their personnel needs, unlike small firms for which it may be the only way to recruit personnel.

Summary

Improving the workings of the Canadian labor market in order to avoid a resurgence of inflationary pressure and to realize the country's economic growth potential is of major importance. In contrast with earlier periods, current emphasis is on manpower training and market clearing mechanisms. In 1981-82, the federal government spent \$865 million under the Canada Manpower Training Program, 83 percent of which went to Institutional Training. This represented a decline of 6 percentage points in such expenditures since 1976-77. Industrial Training and, particularly in recent years, Critical Skills Training, has been receiving the balance.

Small businesses, which make a major contribution to employment and job creation, do not appear to benefit fully from this expenditure. All firms are eligible for subsidized training and firms with less than 100 employees signed the majority of General Industrial Training contracts worth nearly 70 percent of expenditures under the program. Yet it is not certain that this form of training best corresponds to their needs. Critical Trade Skills Training, which is gaining ground, probably corresponds even less to small business' requirements.

Small business' needs are primarily in improving basic skills training, which has been assumed to be the responsibility of the educational system (under provincial jurisdiction), developing versatile rather than narrowly specific skills, and improving the quality of labor market information available. They are constrained in their options by the costs of using training programs -- costs which are magnified by fear of losing trained employees to poaching.

Workplace Legislation and Firm Size

Governments frequently use the firm as an instrument for the implementation of their social policies. The objectives of social policies in the workplace have broadened considerably over the last thirty years in Canada. They now encompass not only minimum working conditions, but also such things as notice of lay-offs, equal opportunity and most probably in the near future,

retirement income. Although in many cases these policies are likely to promote economic as well as social development, in other instances social goals have priority and the firm is chosen as the site or instrument of the policy for administrative rather than for economic reasons.

Workplace legislation is of concern to firms of all sizes. It has an impact on both the firm's costs and on the allocation and organization of its resources. The objective of this section is to see whether or not the impact is likely to be greater on smaller than on larger firms.

We will examine three sets of such social policies: minimum labor standards, unemployment insurance, and legislation governing management-labor relations. These were chosen from among the large number of existing and forthcoming policies because of their generally recognized importance and the existence of some Canadian and foreign data on their impact. A preliminary investigation of obligatory pension plans showed that data are, at present, insufficient to address this important issue satisfactorily.

We briefly review the origins and goals of each of the three policies. We then look at its expected economic impact in general and at its impact on small business in particular. Before concluding, we attempt to identify current problems, alternative instruments and expected changes in each of these policies. In this section we depart briefly from our overall attempt to address the impact on small business of federal policy. Both federal and provincial governments legislate in the area of, minimum labor standards and union-management relations, but more firms are covered by provincial than by federal statutes. We decided to include these fields because of their major significance for smaller firms whose owners often believe that they are disproportionately burdened by legislation on labor standards or unionization, which is ostensibly neutral by firm size. Before starting in our analysis, we briefly review the jurisdictional situation.

Jurisdictional Issues

In the field of labor legislation in Canada, the provinces have the main responsibility with federal jurisdiction being limited to some specific sectors under Sections 91 and 92 of the Constitution Act of 1867.^{8/} Thus, both the federal parliament and the provincial legislatures have enacted legislation on minimum labor standards and union management relations, to be applied within their respective jurisdictions. The scope of federal government

application is national, international or interprovincial. Each province legislates for the majority of the firms in its territory.

Minimum Labor Standards

Not all minimum labor standards are equally relevant in terms of their potential impact by firm size. Thus, we will focus on a limited subset of issues which we think are of most concern within the small business sector. In each case, we identify the jurisdiction applying the most restrictive and the least restrictive legislation from a business point of view:

- . Minimum nominal wage rates are in force in all jurisdictions. In 1983, Saskatchewan and Northwest Territories had the highest rates, and the federal jurisdiction had the lowest along with Ontario.
- . Maximum number of working hour regulations have been set by Ontario, Northwest Territories, Saskatchewan, Newfoundland, and the federal government. It should be mentioned that no work can be legally done by an individual in excess of this maximum unless a special permit is issued by the competent authority, which may be quite restrictive from the management viewpoint.
- . Overtime rates to be paid differ with the jurisdiction. The least restrictive, which is one and one-half times the minimum rate, is required in New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island while the most restrictive -- one and one-half times the regular rate is required everywhere else.
- . Minimum number of days of paid vacation have been set in Alberta, Ontario, the Yukon Territory. The Maritime provinces are the least restrictive while Saskatchewan is the most restrictive. Prince Edward Island does not specify any minimum number of paid holidays while the highest minimum (9 days a year) is required in British Columbia, in Saskatchewan, by the federal jurisdiction, and in the Northwest Territories.
- . Notice for group layoffs is required only by the federal legislation, and in Manitoba, Newfoundland, Nova Scotia, Ontario and Quebec.

Union Management Relations

In all Canadian jurisdictions, including the federal, an application for certification can be presented to the appropriate Board, and to a certification agent in the case of Quebec, by any group of employees at any time if there is neither a certified trade union nor an agreement in force. It is then up to the Board, or the certification agent in Quebec, to determine the

appropriate bargaining unit to be certified. The Board has full authority to include or exclude employees in order to form an appropriate unit for the purpose of collective bargaining. In Quebec, this process is slightly different from other jurisdictions in that if a certification agent finds that the parties disagree on the inclusion of certain employees in the bargaining unit, the matter is referred to a labor commissioner who, alone, has the power to settle any matter relating to the bargaining unit, after an investigation.

In all but three jurisdictions, the Board (or the certification agent in Quebec) can certify a trade union without ordering that a representation vote be taken if a majority of the employees in the unit have expressed their wish to have it represent them as their bargaining agent. In British Columbia and in Ontario, 55 percent of the employees must have expressed themselves in favor of the trade union. If not, the Board must order a representation vote. In Nova Scotia, no certification can be delivered without a vote.

In every jurisdiction, legislation allows for the direct intervention of the Minister, at the request of either party or on his own initiative. Depending on the jurisdiction, the Minister may appoint a conciliator (Federal, Quebec, Saskatchewan) or a mediator (Alberta and British Columbia) or both, successively. Moreover, in all jurisdictions but two (Quebec and Saskatchewan), the Minister may, either on application or on his own initiative, refer matters in dispute to an industrial commission of inquiry for investigation and report. In Quebec and in Saskatchewan, this task is performed in an informal manner by the conciliator appointed by the Minister.

Four jurisdictions have established a particular process to deal with the settlement of a first collective agreement. These jurisdictions are the federal government, British Columbia, Manitoba and Quebec. In each a Board is appointed, at the request of either party and with or without an investigation, to settle the terms and conditions of the collective agreement which in all cases becomes binding on the parties.

Finally, in Alberta, New Brunswick, Ontario, Quebec and Saskatchewan, the Minister can, at the request of both parties, refer the matters in dispute to a collective bargaining arbitration board whose decision is binding. This voluntary arbitration process does not appear to exist in the other jurisdictions.

Minimum Labor Standards

Minimum labor standards legislation covers, in addition to the wage dimension, issues such as the duration of the workday and workweek, overtime compensation, paid vacations and holidays, and equal pay for equal work.

Historical Evolution

The minimum labor standards legislation has evolved from covering only the wage compensation of a certain category of workers (namely the women in manufacturing establishments) at the beginning of the century, toward an extensive code regulating many working conditions other than wages. Today almost every working person in the economy has to sell his or her labor according to its requirements.

The first federal minimum-wage-fixing machinery was ratified in 1935, although Alberta, Ontario, Manitoba, and British Columbia had enacted and enforced such legislation by 1920.

Table 40 reviews minimum wage rates in 1981. At that time, Quebec and Saskatchewan ranked at the top while Nova Scotia was at the bottom. The ranking changes when nominal rates are compared to provincial levels of average hourly wage rates in manufacturing. Except for Quebec, which stays at the top, and for the federal government along with Ontario which stays between the middle and the bottom of the ranking, respectively, the ranking in all other jurisdictions changes. This means that in those provinces in which the variation is largest, the minimum wage is most likely to be a burden to small business.

Goals of the Policy

Among the most frequently stated objectives of minimum wage legislation, we will only mention the following: to ensure that all workers receive a "living wage," to prevent unfair wage competition among employers, to be a stabilizing device during recession, to reduce poverty and to maintain an incentive to work among low-wage employees.^{9/} The reduction of poverty is probably the most frequently cited argument.

In the case of other minimum labor standards, the rationale appears to be more in line with the perceived necessity to ensure that all workers should be treated with a minimum of fairness and equity, that is to protect individual employees against what can be referred to as "exploitation."

General Economic Impact

The estimated overall economic impact of raising the level of minimum wage varies from one study to another. However, almost all studies

TABLE 40

Comparisons of Minimum Wage Rates and
Average Hourly Wages, Canada^a/1981

	Federal	Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland	Nova Scotia	Ontario	Quebec	Saskatchewan
Minimum wage rates at the end of 1981	\$3.50	\$3.80	\$3.65	\$3.55	\$3.35	\$3.45	\$3.30	\$3.50	\$4.00	\$4.00
Rank	6.5	3	4	5	9	8	10	6.5	1.5	1.5
Average hourly wage rates (mfg.) in 1981	\$9.17	\$10.49	\$12.19	\$8.04	\$8.46	\$8.60	\$8.16	\$9.13	\$8.47	\$10.12
Rank	4	2	1	10	8	6	9	5	7	3
Minimum wage rates as a percentage of average mfg. hourly wage rate in 1981	38.2	36.2	29.9	44.2	39.6	40.1	40.4	38.3	47.2	39.5
Rank	8	9	10	2	5	4	3	7	1	6

^a/Average hourly wage rate for 1981 is not available for Prince Edward Island.

Sources: Labour Standards in Canada 1982, Labour Canada, for minimum wage rates.
Statistics Canada for average hourly wage rate in manufacturing.

conclude that there is an adverse impact on employment.^{10/} Raising the minimum wage encourages enterprises to substitute capital for labor in order to increase the productivity of the remaining workers.

To the extent that all minimum labor standards, other than wages, imply an increase in labor costs, relative to other costs or production, the same argument appears to be relevant.

Particular Impact on Small Business

Since small businesses are concentrated in service- and retail-related industries, a substantially higher proportion of their employees are affected by minimum labor standards (including minimum wage) than is the case in large concerns. Consequently, it follows that the impact of such social policy on labor costs has, in general, a larger impact on total production costs for small firms and therefore disproportionate negative employment effects.

The above argument should be applied mainly, but not exclusively, to firms paying their employees at the legal minimum wage. An increase in legal minimum labor standards can be expected to affect other firms, paying wages higher than the legal minimum. Indeed, an increase in the legal minimum is likely to have a secondary effect on other wages not substantially above this legal minimum, mainly because workers will fight to perpetuate traditional differences.

Other firms, while being small, will not be affected by an increase in certain minimum labor standards, because they pay wages and offer working conditions that are sufficiently above the minimum set by the law. Rigidities induced by standards such as a maximum number of hours of work and a requirement to give notice for group layoff which are in force in some jurisdictions can also be expected to affect those firms.^{11/}

Raising the minimum wage can have another effect -- a reduction in total available low wage employment. Indeed, this regulation can have the unintended result of discouraging firms from hiring the least productive individuals among the labor force, particularly the handicapped and the inexperienced.

Although legal minimum labor standards induces substitution of capital for labor in firms paying low wages, a substantial proportion of small firms may not even be able to make such a substitution because of

their labor intensity. This means they face increased cost burdens unless they can increase the use of part-time labor. Otherwise these firms may go out of business.

Unemployment Insurance

Historical Evolution

The 1970s were a decade of extensive changes in unemployment insurance (UI). A new act passed in 1971 liberalized access and benefits: more workers were covered and so were possible events like sickness, maternity, and retirement. Eligibility was facilitated while the duration of benefits as well as their levels were increased. Consequently, program costs increased substantially: annual costs were increased more than fourfold between 1970 and 1975, while the federal government's share of costs rose tenfold in the same period.

In response to this dramatic increase in costs, a number of changes were then introduced which were aimed at controlling program costs. Similarly, changes were also made to the program in response to questions raised about its work disincentives. All these further changes have contributed to complicate substantially the understanding of the program as well as its administration.

Description and Goals of the Program

The Unemployment Insurance program has two goals: to provide income protection for workers suffering temporary income interruptions and to facilitate the best possible match between unemployed workers and available jobs.^{12/} It covers about 97 percent of paid workers in Canada. They may qualify for benefits when their paid employment, which must last a certain number of weeks, is interrupted. Eligibility and the period of benefit payments vary according to regional unemployment rates as well as categories of claimants.

In addition to "regular" unemployment, benefits may be received because of sickness, pregnancy, and attendance at an approved training course. The benefit rate is 60 percent of average insurable earnings received by the worker during a certain period of time called the "qualifying weeks." All earnings from employment in excess of 25 percent of the benefit rate received during the period for which benefits are payable are deducted from benefits.

Contributions made by employers, employees and the federal government serve to finance the program. The employee premium rate for 1983 has

been set at 2.31 percent of weekly insurable earnings (maximum weekly insurable earnings are \$385) and the employer premium rate is 1.4 times the employee rate. Unemployment benefits are taxable for income tax purposes while premiums are tax deductible. The government's contribution is based on the difference between total premiums received and total benefits paid. UI funds also contribute to some other programs such as work sharing and job creation projects.

General Economic Impact of Unemployment Insurance

The UI program is mainly to be used "as an income alternative to earnings from employment [to make sure] that market forces leading to employment adjustments can operate without devastating impact on the economic security of those affected."^{13/} It may be viewed as having a significant positive impact in the sense that it helps to reallocate human resources in the country more efficiently, even at the price of longer spells of average unemployment.

However, the program may also have adverse impacts both on the labor market and on the economy as a whole. On the supply side evidence exists "that measured rates of unemployment have tended to shift upward with the increased availability of unemployment insurance . . . either by increasing [unemployment] duration or increasing the number of people on claim."^{14/} Similar evidence was also obtained from a survey of "exhaustees" which "raised the question of whether receipt of UI benefits may have led some people to remain voluntarily unemployed seeking work seriously only after their benefits ended."^{15/}

On the demand side, the employer's UI contribution tends to increase the price of labor relative to capital, even though "it is not possible to be sure if employers simply bear these premium costs themselves in reduced profits or if they may be able to pass the costs on either to consumers through higher prices or to employees by lower wages."^{16/}

Another economic impact of the UI program arises because it induces "a subsidization of the operating costs of those firms prone to unemployment [either through layoffs or high turnover rates] by those with more stable employment patterns."^{17/}

Particular Impact of Unemployment Insurance on Small Business

Small firms are, on the whole, relatively more concentrated than are large concerns in labor-intensive and low-wage sectors; thus, the cost burden created by unemployment insurance premiums can be anticipated to be relatively higher on small business. The reasons are fairly clear. There is a ceiling on weekly insurable earnings received by workers under the program. This means that those earning more than this maximum pay a lower percentage of their earnings than those earning less than the maximum. Obviously, the same is true on the employer-side because employers' contributions are calculated on the basis of their employees' premiums.

Some offsets are available, however, in terms of the more extensive use of part-time workers (who may not qualify for unemployment insurance) by small firms. Another potential offset is the higher than average rate of labor turnover in small firms.

There are burdens on the benefit side as well. Since unemployment payments can be expected to replace a larger proportion of low-wage salaries than high-wage salaries, it can be concluded that firms offering lower wages (a category in which small firms are more concentrated than are large ones) will have more difficulty attracting potential employees away from reliance on unemployment benefits.

Union Management Relations

Historical Evolution

In Canada, the period following World War II was one of rapid growth for trade unions. During that time, trade union membership multiplied fourfold. The 1940-50 period was also one in which the prestige and influence of trade unions increased coinciding with general encouragement, by government, of collective bargaining.

In the subsequent period of 1955-65, union membership stabilized while trade union leadership apparently had difficulties in maintaining their organizations' prestige. In the 1965-80 period a second wave of trade union growth occurred, partly because of unionization of the public sector, and services (mainly white-collar) in the private sector. In recent years, trade union organizations are encountering increasing difficulties in expanding their membership even though only a minority of the labor force is unionized.

Description and Goals of Union Legislation

One of the main reasons why governments have chosen to introduce union legislation is related to the apparent necessity of civilizing the relationship between employers and groups of their workers who want to participate actively in establishing their working conditions.

We have seen that the legal structure regulating union management relations is similar throughout Canada. All jurisdictions set out legal procedures for the acquisition of collective bargaining rights by trade unions. Certain forms of "unfair" employer conduct are also generally prohibited. When a trade union has acquired its collective bargaining rights under this legal structure, the employer is required by the law to recognize the trade union as the exclusive bargaining agent for those employees included in the bargaining unit.

The differences in labor laws refer to the certification process, to the government's intervention in the negotiation process via mediation or conciliation, particularly in relation to the negotiation of first collective agreements.^{18/}

General Economic Impact

In general terms, it is usually agreed that trade unionism has a substantial effect on money wages. However, there is some evidence^{19/} that the impact is felt more as a "shock" effect than as a "continuous" effect. In other words, it appears that it is at the very beginning of the union-management relationship that most of the effects of unionization will be felt on money wages.

. . . . the most pronounced union impact on money wage levels seems to have been in the late 1930's, leading some observers to conclude that the union impact on wages is greatest in the first few years of organization and recognition.^{20/}

No firm conclusions can be drawn concerning the impact of unions on labor's share of the national income. The reason is mainly that the observed "increasing share of labor" is also likely to reflect structural changes within the economy, namely a shift towards high labor share industries within such sectors as education, health, and services."^{21/} There is also the problem of substitution of labor for capital which tends to bias the estimate. Finally, some have argued that unions may have also

the effect of retarding technological change, contributing at the same time to reducing absenteeism and labor turnover.^{22/}

Particular Impact on Small Business

As can be seen from Table 41, the level of unionization appears to increase with the size of firm, whatever the sector considered. A major reason might well be that as the size of firm declines, closer contact may be observed between employer and employees, or in other words, a more human or personal contact develops. Similarly, as the size of firm declines, the manager is involved in more aspects of the business while tending to reduce the general level of formality.

It is impossible to know what these effects imply for small business in particular. In an earlier section, we observed that a legal adviser will often be required to make sure that all regulations are respected. In the case of large firms, professional managers are usually hired to keep up-to-date on these matters. As the size of the firm decreases, however, it appears to require an increasing proportion of costs per dollar of sales to use the services of such professionals. Furthermore, small firms may be proportionately more affected by union-related legal procedures such as grievances arbitration (time spent by company personnel, lawyer's fees, arbitrator's fees, etc.). This means that when small businesses have to face prospective unionization of their employees, they also have to face costlier access to expertise in order to comply with the legalistic process that occurs at the same time.

Moreover, when a collective agreement is signed between an employer and his employees, this usually tends to formalize the structure of work in the enterprise. This can mean for instance, that a seniority system of promotion is implemented or that jobs are more strictly defined in terms of eligible occupations. In a small firm, such formalization may be adversely perceived by the employer because it usually means a reduction of flexibility in the allocation of labor and reduced flexibility may well mean additional costs.

According to a study by the Canadian Federation of Independent Business based on interviews with small firm owners in Ontario,^{23/} the reduced flexibility (through formalization) along with the more legalistic environment tends to create an atmosphere of mistrust between management

TABLE 41

Level of Unionized Wage-Earners in Selected
Industries, by Size of Employer, 1978
(percentages)

<u>Industry Group</u>	<u>Number of Employees</u>			
	<u>Under 100^{a/}</u>	<u>100-199</u>	<u>200-499</u>	<u>500 and Over</u>
Commercial sector	23.5	44.9	50.4	66.1
Forestry	26.9	45.7	62.4	70.2
Mines, etc.	12.8	27.4	66.5	85.8
Manufacturing				
Durable goods	35.2	58.2	63.7	83.2
Non-durable goods	26.8	54.2	62.3	77.6
Total	29.7	56.0	63.0	80.3
Construction	45.3	59.9	55.6	81.6
Transportation, etc.	26.0	68.5	69.9	85.0

^{a/} Includes a small percentage of salaried employees.

Source: Statistics Canada, Employee Compensation in Canada, 1979.

and unionized labor. The owner/manager perceives unions as intruders in the management process because collective bargaining is interpreted as a limit on his freedom to manage "his" business in his own manner.

Another observer also suggested that:

. . . . the employer usually reacts negatively to union interference in his affairs and to the application of measures and regulations which are based on the labour situation in large companies and which he considers -- often with just cause -- inappropriate or simply absurd (for example, bureaucratic procedure for welcoming a new employee).^{24/}

In summary, it is difficult to assess the extent to which small businesses are affected by unionization, but the effect is likely to be negative. Given their more difficult access to financing, small businesses may be less able to afford the capital-labor substitution that the increase in overall costs of labor may require in order to continue to meet competition. The utilization of part-time workers may also be restricted by the collective agreement. To the extent these constraints are obstacles to improving efficiency, they may contribute to the risks of the demise of a small business.

Perspectives on Workplace Legislation

Minimum Labor Standards

We have seen that raising legal minimum labor standards may be expected to have an adverse effect on the cost structure, especially in smaller firms. This appears to be true of minimum wages. It thus is appropriate to consider other policies that could meet the objectives pursued and at the same time be neutral by firm size.

To the extent that minimum wage policy is aimed at the reduction of poverty or redistribution of income, one alternative that has been suggested is a negative income tax or refundable tax credits for people earning less than a certain level of income. This policy appears to have some advantages over the minimum wage policy, as explained by West and McKee.

The /negative income tax/ policy would redistribute income from society as a whole and target it on all individuals or families who are in the lowest income range. The minimum wage policy, in contrast . . . does not place the burden of redistribution on the whole of society but upon some selected employers whose own incomes, from the small-scale and labour-intensive industries that they are engaged in, are quite modest.^{25/}

A measure such as this would help redistribute income while being neutral by firm size and, if carefully defined and applied, could avoid the negative employment effect of the minimum wage policy.

Another alternative is a wage subsidy policy, as mentioned again by West and McKee. But to be fully effective, it should be used instead of the minimum wage, not as a complement.

The consensus is that minimum wages cause people to be disemployed. This situation, in turn, puts pressure on governments to supply subsidies to re-employ them . . . and involve unnecessary administrative expense. . . . The point is that social waste may be involved when the government creates wage rigidities by one policy and then resorts to second-best policies to offset the damage instead of relaxing the first policy directly.^{26/}

Not much can be said about other minimum labor standards, apart from the fact that they also appear to place a higher burden on smaller firms than on large ones. In particular, the payment of an overtime wage rate for overtime may be among the costlier requirements along with the payment for time not worked (such as paid vacations and holidays). In this regard, however, it must be noted that in some jurisdictions, the burden is lower than in others. Indeed, in some of them the payment of an overtime rate is due after 40 hours while in others it is after 44 or 48 hours. The same is true for the overtime rate per se because some jurisdictions have set the overtime rate at one and one-half the minimum wage rate while in others it is one and one-half the regular wage rate.

Unemployment Insurance

In 1983, UI premium increases levied to reduce the growing deficit in the account meant that lower income earners would carry a heavier burden than higher income earners. If contribution rates had not been increased to stem the deficit, the government's share would have had to be increased. Financing this by means of a tax increase, for both individuals and corporations (rather than further increasing borrowing) would have meant a relatively higher burden on higher taxable income earners but an approximately equal burden on firms, whatever the size.

A second potentially important issue is related to whether or not the government should implement an experience rating system which would

bring about a more equitable distribution of unemployment insurance costs. However, it appears that, in the United States where this particular system is in effect, the proportion of program costs paid by employers (and thereby subject to experience rating) is significantly higher than in Canada.^{27/} Such a system is likely to reduce the redistributive effect of the unemployment insurance program, but the extent of this reduction would largely depend on the proportion of the program that is experience rated. In this regard, it has been argued that "to the extent that an employer's workforce is subject to national or even international forces beyond his immediate control, his independent influence over employment, and the effectiveness of experience rating, will be reduced. In Canada, this control is likely to be weakened by the relative openness of the economy and its sensitivity to international economic forces."^{28/} Moreover, it also appears that the system would require complex and costly arrangements which would be difficult to justify, especially if only a small portion of the total benefit costs were experience rated.

Union Management Legislation

For a number of years now, the large union organizations, in Quebec particularly, have been recommending the enactment of an industry-wide bargaining code. Union representatives are interested in this because it would facilitate unionization. Legislation of this kind would however change the rules of the game for firms. One of the most important changes would be that all firms, large and small, would be required to negotiate along with all other firms in the same industry. This raises questions about the impact of a standardization in structure of the wages and conditions of work across the industry on the cost structure of individual firms, the smaller ones in particular. Indeed, some business representatives argue that, in such a multi-employer collective bargaining context, the structure of compensation would tend to be negotiated in terms of what the largest firms in the sector could afford, leaving smaller firms with a prohibitive cost structure. Eventually, many of these firms would go out of business, which might have an additional adverse effect on the remaining small firms because of the increased level of concentration in a particular sector's activity.

Another area of current concern is related to the negotiation of a firm's first collective agreement. In some jurisdictions, small firms feel penalized by compulsory arbitration. Because they are proportionately

less unionized than are large firms, small firms will more likely negotiate such a first agreement instead of renewing the existing one.

Finally, questions are also asked about the effect of collective bargaining in the public sector on the labor cost structure in the private sector in general, and on small business in particular. In this regard, Pierre Fortin has explained that before the public sector wage increases in 1973-74, average weekly wages and salaries in both the private and the public sectors and the productivity rate, were higher in Ontario than in Quebec. After 1973-74 even though the productivity rate in Quebec was still lower than that in Ontario (at a level of about 95 percent), average weekly wages and salaries in private and public sectors were higher in Quebec.^{29/} To the extent that the level of labor's compensation has to be set in relation to the productivity level in order to avoid inflationary effects, among other reasons, we have to admit that the level of compensation in Quebec is too high in relation to Ontario, be it in the private sector or in the public sector. From the small business standpoint, it may pose even more serious problems than in large business. The former are often unable to take advantage of technological changes to adapt their production processes to the new cost structure.

Conclusions

Manpower policy and workplace legislation are of major concern to business because they have an important impact on a firm's efficiency, organization and costs. All businesses are concerned with the potential impact of such social policies, but small businesses are particularly concerned with the potential impact of such social policies.

On the manpower side, small businesses require particular assistance to improving basic skills training. More emphasis than in the past is now being placed by the federal government on improving the organization and efficiency of all training in recognition of the role structural problems in the labor market are playing in Canada's poor economic performance. The jurisdictional split with the provinces, however, means that the latter are responsible for basic skills training, which is of direct concern to small business.

With respect to workplace legislation, because labor costs are such an important part of small business total production costs, these

policies are also of considerable concern to small business. Indeed, the analysis in this chapter indicates that these policies -- particularly minimum labor standards and UI -- have a substantial impact on labor costs. In the case of unionization, the impact on labor costs is rather indirect because it depends on the level of militancy among the workers and on their actual willingness to confront the employer.

It must also be remembered that union-management legislation imposes substantial transaction costs on the employer, in the course of the negotiation process itself but also afterwards when, for instance, the employee has to bear the heavy cost of grievance arbitration. To the extent that the small business has, proportionally, much less space to maneuver, in financial as well as in organizational terms, than has the large firm, its chances of survival are likely to be more seriously affected.

However, because all these measures respond to the perceived necessity to protect the individuals against the unilateral, and possibly arbitrary, action of the employer, it appears unlikely that any of them will be withdrawn. Rather than lobbying for their elimination it would be more realistic for small business spokesmen to promote a greater awareness among policy-makers of the possibility that these social policies may affect the functioning of smaller firms substantially more than that of large firms.

Footnotes to Chapter 10

- 1/ Employment and Immigration Canada, Labour Market Development in the 1980's, Report of the Task Force on Labour Market Development, July 1981, p.59.
- 2/ Ibid., p. 153.
- 3/ Ibid., p. 151. However, some have argued that training funds have been used instead "to counter seasonal and cyclical fluctuations in unemployment," (Barbara Goldman, New Directions for Manpower Policy, Montreal; C. D. Howe Institute, 1976, p.30).
- 4/ James Whipp, Edward Hughes and J. R. O'Cruz, "A Profile of Small Business in Canada," prepared for the Small Business Financing Review, March, 1982 p. 26.
- 5/ Interviews were held with small business owners/managers in the Montreal area where skill requirements were discussed.
- 6/ Employment and Immigration Canada, op.cit., p.85.
- 7/ Ibid., p. 79
- 8/ The federal jurisdiction covers:
 - Interprovincial and international
 - railways; highway transport; telephone, telegraph and cable systems; pipelines; canals; ferries, tunnels and bridges; shipping and shipping services.
 - Air transport and aerodromes
 - Banks
 - Grain elevators
 - Flour and feed mills, feed warehouses, and grain seed cleaning plants
 - Uranium mining
 - Other federal Crown corporations and agencies.
- 9/ Edwin G. West and Michael McKee, Minimum Wages -- The New Issues in Theory, Evidence, Policy and Politics, prepared jointly by the Economic Council of Canada and The Institute for Research on Public Policy, 1980, pp. 7-8.
- 10/ See, for example, West and McKee, op.cit.
- 11/ To support the argument that small firms are likely be affected more by legal minimum labor standards than are large firms, we can refer to a study of the Canadian labor market made by the Economic Council of Canada which

reported an assessment of claims made under the Ontario Employment Standard Act. One of their main findings, in relation to those claims, has been that ". . . . in virtually all cases, the complaints involved small firms." Economic Council of Canada, People and Jobs, p. 116.

12/ Employment and Immigration Canada, The Report of the Task Force on Unemployment Insurance in the 1980's.

13/ The Task Force Report, op. cit., p. 35.

14/ Ibid., p. 37.

15/ Ibid., p. 38.

16/ Ibid.

17/ Ibid., p. 39.

18/ For details, refer to the section on jurisdictional issues.

19/ J. T. Addison and W. S. Siebert, The Market for Labor: An Analytical Treatment, (Santa Monica, California: Goodyear Publishing Company, Inc., 1979), pp. 279-285.

20/ F. Ray Marshall, Allan M. Cartter and Allan G. King, Labor Economics -- Wages, Employment, and Trade Unionism (3rd edition), (Homewood, Illinois: Richard D. Irwin, Inc., 1976), p. 384. However, evidence to which we refer above must be considered with some care because, as mentioned by Addison and Siebert:

. . . . there are . . . differences in the standardizing variables included within the regression. Inclusion of many "personal characteristics" variables might be enough to reduce the union effect to insignificance, indicating that union labor tends to be of higher quality than the nonunion.

Addison and Siebert, op. cit., p. 282.

21/ Ibid., p. 287.

22/ Marshall, Cartter and King, op. cit.

23/ Interviews in Quebec also tend to support the observation of the CFIB study.

24/ Fons Margot, "Employment Problems in Small and Medium-Sized Businesses," in Proceedings from the Eighth International Symposium on Small Business, Supply and Services Canada, 1982, p. 181.

25/ West and McKee, op. cit.

26/ Ibid., pp. 86-87.

27/ Task Force Report, op. cit.

28/ Ibid., p. 35.

29/ Pierre Fortin, Unemployment, Inflation, and Economic Stabilization in Quebec
(Montreal: C. D. Howe Research Institute, 1980).

11. The Impact of Industrial Policy on
Businesses of Different Sizes

Industrial policy has many different meanings. In this chapter we adopt our own definition and examine five industrial policy measures used by the federal government -- the Enterprise Development Program (EDP), the Regional Development Incentives Program (RDIP), the Program for Export Market Development (PEMD), the Export Development Corporation (EDC) and federal government procurement. We deliberately leave aside programs which were specifically intended to help small business since their impact by firm size is determined in advance. Small businesses are active users of all these programs and services, with the exception of EDC, and program officers and officers of the Department of Supply and Services, which is responsible for procurement, have done much to facilitate small business access. However, our examination suggests that the level of transaction costs entailed in using the programs and services make most of them of minor interest to all but a very small minority of small businesses in Canada.

Industrial Policy

A working definition of industrial policy and an understanding of its objectives are prerequisites to the investigation of its impact by firm size. Industrial policy, in the widest sense, can include all types of economic and financial intervention by government -- tariffs, regulations, tax policy, competition laws, manpower training, procurement, financial assistance to firms, and so on. All of these measures affect the country's industrial structure.

During the 1970s and early 1980s, governments and their advisers groped for the most effective way of bringing industrial policy instruments to bear on Canada's economic problems. There was fairly general agreement as to the nature of these problems but much less agreement on the best way to tackle them and the most efficient instruments for doing so.^{1/} In the early 1970s, the federal government considered introducing an integrated industrial strategy. Subsequently, it adopted a number of sectoral strategies. Later on, it advanced the notion of horizontal policies, which would create a framework conducive to transformation of the economy, and its manufacturing sector in particular.

Once the idea of an integrated industrial strategy had been dropped as over-ambitious, interest focused on two sets of alternatives regarding the nature of industrial policy measures. First, with regard to their intended effects, they can be innovative, adaptive or defensive. Political factors largely influence governments in the weight they accord to assisting firms and workers to adjust to changing market circumstances, as opposed to defending them from the effects of change. Second, with regard to the means adopted, the policy measures can be general -- applicable to all businesses, industry-specific, or targeted to firms with particular characteristics. Policies working through general instruments, such as taxation or custom duties, are easy to administer but may miss their target, while firm-specific instruments are more open to lobbying and to administrative discretion, and hence have to be hedged about with time-consuming procedural safeguards.

At the present moment, there is considerable uncertainty both as to the medium-term goals of Canadian industrial policy and the means to attain them. The last major policy statement -- the White Paper entitled Economic Development for Canada in the 1980s -- was tabled in October, 1981 and international market changes, notably in the energy field, have overtaken it. Given this uncertainty, we will adopt a provisional working definition of the objectives and instruments of industrial policy for the purpose of this Report.

Industrial policy in this chapter refers to the set of federal programs and services which are industry- or firm-specific, plus regional development incentives and federal procurement. It thus excludes general programs, such as tax expenditures, custom duties, and manpower training, some of which are examined in other chapters. We believe that the principal objectives policy-makers hope to achieve through these measures are: a reduction in regional disparities, rationalization and adjustment in the manufacturing sector, a higher rate of innovation, improved productivity, and a stronger export performance. On the basis of this understanding of industrial policy, we will first explain our selection of policies and programs for examination, and then proceed to an evaluation of their impact by firm size on the basis of available data.

Selection of Policies and Programs

The industrial policy activities of the federal government can take the form of support services or of financial assistance. Support services, such as management education, seminars explaining tendering procedures, the trade commissioner network and so on, are of more interest to small and medium firms than to large ones. Federal departments have greatly increased their support in the field of market information and in addition to operating the BOSS (Business Opportunities Sourcing Service), they have experimented with detailed market services such as the Hamilton Micro Data Pilot Project.^{2/} This may well be one of the most efficient ways of helping small business. In terms of resource allocation, however, information and management support services only account for a very small share of the money devoted to industrial policy.

Financial assistance, in terms of grants, loans, guaranteed loans, insurance and equity participation can be made available on an industry or a size basis or provided to individual firms. Table 42 shows the allocation of assistance to business (in terms of commitments and loans outstanding) among the principal industrial policy programs, from 1977 to 1982. Two of these programs, the Small Business Loan program (SBLA) and the Federal Business Development Bank (FBDB) were set up specially for small business, as were the Small Business Development Bond (SBDB) and the new Small Business Investment Grant (SBIG) which do not appear in the table. The others are available to any firm which meets the eligibility criteria, regardless of its size.^{3/} However, the Shipbuilding Industry Assistance Program (SIAP) and the Defence Industry Productivity Program (DIPP) are very heavily oriented toward large firms by the nature of the two industries. These four programs -- SBLA, FBDB, DIPP and SIAP -- represent between 11 and 28 percent, depending on the year, of the commitments and outstanding obligations shown in Table 42. The balance of resource allocation could a priori be expected to be neutral in regard to firm size.

Turning to these other programs, the Industry and Labor Adjustment Program (ILAP) has not been in existence long enough to evaluate in terms of impact by firm size, while the Industrial Energy Research and Development Program (IERD) is of minor importance in terms of resource allocation. The

TABLE 42

Principal Federal Assistance Programs to Business Provided by
the Department of Industry, Trade and Commerce and the Department
of Regional Economic Expansion, 1977/78 to September, 1982
(\$ million of commitments)

<u>Program</u>	<u>1977-78</u>	<u>1978-79</u>	<u>1979-80</u>	<u>1980-81</u>	<u>1981-82</u>	<u>1982-83</u> (September 1982)
ITC Program						
EDP Contributions	17.9	39.5	84.6	98.2	119.1	34.6
Loans	106.1	135.7	150.4	231.0	131.7	88.0
DIPP	52.1	29.5	13.0	143.2	262.1	112.0
SBLA	109.3	191.7	275.9	455.3	485.0	195.9
PEMD	9.7	16.1	22.0	17.4	29.2	22.8
SIAP	24.0	61.0	92.5	102.2	143.6	14.0
ILAP	-	-	-	-	22.8	71.6
IERD	0.2	1.5	0.5	0.8	6.0	10.9
Total	319.3	475.0	638.9	1,048.1	1,199.5	549.8
DREE						
RDIA	101.9	109.8	154.3	192.2	207.4	38.7
GDA a/	297.7	317.6	359.1	282.0	341.8	46.7
Total	399.6	427.4	513.4	474.2	549.2	85.4
FBDB						
Loans	479.4	668.6	866.5	484.0	460.0	199.4
Equity	11.7	18.4	14.2	13.6	15.2	2.1
Total	491.1	687.0	880.7	497.6	475.2	201.5
EDC						
Loan	1,809.0	705.6	836.0	989.2	1,206.7	NA
Insurance	2,977.2	2,084.9	2,582.7	3,186.9	1,515.8	NA
Total	4,786.2	2,790.5	3,418.7	4,176.1	2,722.5	
Grand Total	5,996.2	4,379.9	5,451.6	6,196.0	4,946.4	

Source: Unpublished material from the Program Analysis Division of the Federal Department of Industry,
Trade and Commerce.

TABLE 42 continued

Notes to TABLE 42.

ITC	Industry, Trade and Commerce
EDC	Export Development Corporation
DIPP	Defence Industry Productivity Program
SBLA	Small Business Loan Program
PEMD	Program for Export Market Development
SIAP	Shipbuilding Industry Assistance Program
ILAP	Industry and Labor Adjustment Program
IERD	Industrial Energy Reserach and Development Program
DREE	Department of Regional Economic Expansion
RDIP	Regional Development Incentives Program
GDA	General Development Agreements
FBDB	Federal Business Development Bank
EDP	Enterprise Development Program

- a/ Funds allocated under General Development Agreements were generally spent on infrastructure rather than on assistance to firms, although in the Maritime provinces some GDA funds went directly to firms. The GDA figures are included to give a more complete picture of DREE activity.

General Development Agreements (GDA), which were negotiated by the federal Department of Regional Economic Expansion with provincial governments did not constitute a program directed specifically to business.^{4/} The exclusion of these three entries, in addition to the four mentioned in the preceding paragraph, from the list of programs in Table 42 leaves us with the Enterprise Development Program (EDP), the Program for Export Market Development (PEMD), the Regional Development Incentives Program (RDIP) and the Export Development Corporation (EDC). These four programs represent between 64 percent and 84 percent of commitments and obligations from 1977 to September, 1982.

Despite the inclusion of outstanding loans extended by the EDC, which make up more than half of the resources in question, Table 42 only illustrates part of total federal expenditures having an industrial policy effect. To widen the coverage we will also examine available information on federal procurement.

In the following section we will attempt, on the basis of the limited data available, to examine the impact by firm size of five federal programs or services -- EDP, PEMD, RDIP, EDC and procurement. These are all part of the mainstream federal industrial policy thrust and are, at first sight, accessible to businesses of all sizes.

Evaluation

A sound analysis of each of these programs and services would require a three-phase investigation -- first, of access by firm size, second, of utilization by firm size in terms of the rate of penetration of the program by eligible size and industry group, and third, of impact. Impact could be studied by looking at the value of program assistance in terms of users' assets and by monitoring changes in users' and in non-users' performance over time by firm size and industry. At present, data is only available on accessibility and allocation of resources by firm size so that any conclusions which we draw are, at the best, tentative.

Overview

Many small business people express scepticism about, or lack of interest in industrial policy programs such as EDP, RDIP, and PEMD. There are different reasons for this. First, many of the federal government's programs are oriented to the manufacturing and processing sectors, as are many of its fiscal incentives. This initial option automatically excludes

a majority of small businesses. Second, targeted, as opposed to general, programs entail a minimum threshold of activity and certain costs of compliance. Industrial policy programs are supposed to operate according to a principle of incrementality -- that is to say that the project, investment, activity or sale would not take place in the absence of financial assistance from government -- hence this assistance increases the level of economic activity rather than subsidizing an action which would have been taken place in any case.^{5/} Application of this principle inevitably requires that public servants be able to observe a change in the level of activity, investment, employment or other indicators. Since new capital investment is the easiest indicator to observe, industrial policy programs often become investment incentive programs.

At the same time, the fact that a public servant can accept or refuse an application for financial assistance means that the eligibility criteria have to be strictly defined and applied to guard against any possible abuse. This naturally imposes transaction costs on user firms in terms of management time and, in some cases of missed opportunities, as entrepreneurs find that they cannot alter the project without renegotiating the terms under which they obtained assistance. These remarks apply less to the EDC and to government purchasing through the Department of Supply and Services (DSS) than to the Programs, but even here the problems of threshold size and of transactions costs are still present.

In looking at each program or service, we will consider it from three points of view: access, coincidence of its goals with those of business, and utilization.

Enterprise Development Program

The Enterprise Development Program was introduced in 1977 to consolidate, update or replace a series of earlier industrial policy programs. It was intended to promote and assist rationalization and productivity growth within Canadian manufacturing industries and, whenever possible, strengthen their export potential. The Program has four sections -- Productivity, Design, Innovation and Loans. Grants, known as "Contributions", are available for projects which are accepted under the first three sections. The Loans section guarantees up to 90 percent of a firm's borrowing for a project which meets the Program's criteria but for which financing has been refused in the market.

Access

Prior to the recent departmental restructuring, EDP was administered by the Department of Industry, Trade and Commerce which was more centralized than the Department of Regional Economic Expansion. Utilization figures show that program users have been concentrated in Central Canada. They also show, however, that small firms make up the same or a slightly higher percentage of users in the West and in the Prairies as they do in Quebec and Ontario.

EDP assistance is only available to manufacturers and processors, and the fashion and footwear industries are not eligible for its design assistance. This automatically excludes a large number of small manufacturing firms and the majority of small businesses who are not manufacturers or processors.^{6/} To be eligible, firms have to be in a healthy financial position and able to put up 25 percent of the costs of the productivity, design or innovation projects. They also have to demonstrate that financing the project themselves would represent a significant additional burden to their on-going costs so that they could not have carried it, for example, from distributed profits.

Contributions of \$200,000 and less are administered by the regional offices. There is a minimum delay of six weeks, which may often be considerably longer, for an application to be processed. Payment is supposed to be available on approval of the project, but at present it goes through Ottawa and may be delayed. Regional offices are hoping to be able to decentralize the payments procedures to speed them up.

Not surprisingly, given the uncertain pay-off from the projects, successful applicants have to submit to a certain interference in their decision-making. Grants under the Productivity Section, for example, oblige the benefiting firm to use the services of an outside expert or consulting firm. Indeed, one of the Program's aims is to show management and employees new ways of doing things. The Design Section requires the firm to undertake a marketing study, and, in Quebec, to retain the services of a member of l'Ordre des dessinateurs du Québec. In the case of the Innovation Section, departmental officials and members of the Enterprise Development Board judge whether or not the applicant firm's regular personnel has the expertise required to execute the project. Successful applicants also have to agree to allow technology developed with EDP assistance to be transferred to other firms in Canada.

Coincidence of Business and Government Goals

Many successful applicants, particularly among the smaller firms, are referred to EDP by their own professional advisers. While there could conceivably be a conflict of interest here, to the extent that some sections of the Program require firms to retain outside experts, it appears that in general the Program's aims correspond to many firms' needs. Yet many small business people object to any interference with their management decisions and do not consider the time spent defining a project and having it vetted by government worth the possibility of receiving assistance. EDP goals coincide with the ambitions of the most dynamic among the growth-oriented manufacturing small businesses, but they seem intuitively closer to the preoccupations and aspirations of the medium-sized manufacturing firms in Canada.

Utilization

Table 43A shows that small businesses are well represented in terms of numbers of projects, and are better represented in the Contributions than in the Guaranteed Loan section. However, they generally receive less than half of the value of total contributions and sometimes less than one-third of the value of loans.

We obtained disaggregated figures for small business applications and authorizations from April, 1979 to March, 1981 in Quebec, which show that the processing, electric and electronic, and textiles and consumer products industries received the largest share of grants. The electronic and electricity industries received 32 percent of all small business authorizations in the Innovation Section while the Textiles and Consumers Products received 44 percent of the small business authorizations in the Productivity Section.

The average size of grants and loans is high from a small business perspective, as Table 43B shows. But the Quebec breakdown shows that in the Design and Innovation Sections a majority of the applications processed at the regional office come from firms with annual sales below \$1 million, see Table 44.

The picture is not so bright when we look at the age of firms applying for EDP assistance. Table 45 shows that nearly 70 percent of them are firms that have been in existence for six years or more while only 9 percent are new businesses.

TABLE 43A
Small Business' Share of Projects and of Funds Committed Under
Enterprise Development Program
April, 1977 to September, 1982
(percentages)

	<u>1977/78</u>		<u>1978/79</u>		<u>1979/80</u>		<u>1980/81</u>		<u>1981/82</u>		<u>1982/83</u>	
	Projects	Funds	Projects	Funds	Projects	Funds	Projects	Funds	Projects	Funds	Projects	Funds
Contributions	77	45	77	35	86	59	88	50	88	37	86	39
Loans	54	1	73	32	81	48	73	16	75	36	66	10

TABLE 43B
Average Value of Enterprise Development Program Assistance to
Small Business
April, 1977 to September, 1982
(dollars)

Contributions	54,000	62,273	128,871	101,663	86,733	68,205
Loans	242,105	411,215	615,385	330,909	451,429	209,534

Source: Calculated from unpublished program information provided by the Department of Industry,
Trade and Commerce, Ottawa

TABLE 44

Applications for Assistance under the Enterprise DevelopmentProgram by Small Firms^{a/} in Quebec By Program Section

(number of firms, percentages of applications)

<u>Program Section</u>	<u>Firm Size</u> (value of annual sales, 000\$)				
	<u>Less than 100</u>	<u>100 to 500</u>	<u>500 to 1,000</u>	<u>1,000 to 3,000</u>	<u>3,000 to 5,000</u>
Productivity	8 (42%)	48 (53%)	44 (59%)	72 (63%)	40 (73%)
Innovation	7 (37%)	32 (36%)	19 (26%)	24 (20%)	9 (16%)
Design	4 (21%)	10 (11%)	11 (15%)	19 (17%)	6 (11%)
TOTAL	19 (100%)	90 (100%)	74 (100%)	115 (100%)	55 (100%)

^{a/} Applications by firms with \$5 million and more in annual sales are not usually processed by regional offices. Therefore the figures in this table on applications processed by the Montreal Regional Office most probably cover the small business population.

Source: Unpublished data, Department of Industry, Trade and Commerce, Regional Office, Montreal.

TABLE 45

Small Business Applicants for Enterprise Development Program
Assistance by Program Section and Age of Firm
 (Number of Projects)

<u>SECTION</u>	<u>AGE</u>	<u>Less than 2 Years</u>	<u>2 to 5 Years</u>	<u>6 Years & More</u>	<u>TOTAL</u>
Productivity		15 (7%)	40 (20%)	147 (73%)	202 (100%)
Innovation		8 (9%)	22 (25%)	57 (66%)	87 (100%)
Design		8 (11%)	18 (24%)	48 (65%)	74 (100%)
TOTAL		31 (9%)	80 (22%)	252 (69%)	363 (100%)

Source: Unpublished data, Department of Industry, Trade and Commerce, Regional Office
 Montreal.

Data was not available on rates of refusals or reasons why firms desisted from offers of assistance. Eighty-five percent of assistance funds committed are disbursed under EDP, which is regarded as a fairly satisfactory proportion.

These findings present few surprises. Although only a very small minority of all small manufacturing and processing firms apply for or receive EDP assistance, a large majority of all authorizations and a substantial share of funds go to small businesses. It is clear, however, from the nature of the Program and the average size of grants and loans, that it is relevant to larger, established, more ambitious small businesses which most often already employ professional advisers.

Regional Development Incentives Program

The Regional Development Incentives Program is intended to encourage industrial activity and job creation in designated regions of Canada. It provides grants to cover a certain percentage of the capital costs to be incurred in the construction, modernization or expansion of manufacturing or processing facilities linked to the creation of new jobs. It is administered by DREE, and, having been in operation since 1969, has one of the longest continuous histories of industrial policy programs in Canada.

Access

Only manufacturing and secondary transformation activities are eligible for RDIP grants. Projects have to be of a capital investment nature and DREE officers have to be convinced that the applying firm is viable and that the project has a good chance of paying off. They therefore require a firm to have assets on its books worth at least 25 percent of the cost of the proposed project, and they apply an effective threshold of \$25,000 for project eligibility. (In the Montreal Special Zone, the floor is \$200,000 or \$100,000 depending on whether the firm is in the city's industrial center or the surrounding area.)

RDIP projects are categorized according to their estimated costs -- A up to \$330,000, B \$330,000 to \$2 million and C \$2 million and over. C projects and those in the Montreal Special Zone have to be approved in Ottawa, but A and B class projects can be approved in regional DREE offices which are relatively accessible across the country.

Officials claim that a completed class A file can receive an answer within two weeks. There are, however, inevitable delays and constraints involved in obtaining Program funds. First of all, the existence of any contractual arrangement pertaining to the project prior to approval disqualifies the application. On reception of an offer of assistance, the applicant has 90 days in which to accept or refuse. He must have 50 percent of the value of the new assets on his books before payment begins and receives full payment when the new equipment is in place and production has started. The project must be completed within three years (two years in the Montreal area). Delays and reallocations can be negotiated under certain circumstances up to a value of 125 percent of the original offer. The capital equipment purchased with a RDIP grant is not eligible for Capital Cost Allowance.

From 1977 to September 1982, Quebec received between 49 and 70 percent of all authorizations and between 43 and 65 percent of funds, depending on the years. The Atlantic Provinces were the next most important users. It is estimated that most Quebec manufacturing firms have, at one time or another, applied for RDIP assistance. In general, 36 percent of those who apply are accepted, 14 percent withdraw their requests and 50 percent are refused.^{7/} This suggests an effective coverage of the Program's clientele. The Canadian Federation of Independent Business, however, polled its members and found respondents generally ignorant about the RDIP while very few had utilized a DREE Program, as Tables 46A and 46B show. But it must be remembered that manufacturers are a minority among CFIB members, and that the Federation is most strongly represented in Ontario, the most populous regions of which are not eligible for RDIP funds.

Coincidence of Government and Business Goals

Despite the fact that the RDIP appears to have assisted a wider range of business firms than has EDP, RDIP goals are less directly related to the interests of businesses, whatever their size. Its underlying objective of reducing regional economic disparities is only of secondary concern to most business people. Its immediate goal of creating manufacturing jobs in designated areas is also only of indirect interest to any one particular firm. Many business people, on the other hand, have expressed anxiety about the non-respect of the principle of incrementality

TABLE 46A

Awareness of Department of Regional Economic Expansion

By Firm Size

<u>SIZE OF FIRM</u> (No. of Employees)	<u>KNOW NAME</u>	<u>KNOW TYPE</u> <u>OF ASSISTANCE</u>	<u>RECEIVED FINANCIAL</u> <u>ASSISTANCE</u>
	(%)	(%)	(%)
1 - 4	42	17	0.5
5 - 9	42	20	1
10 - 14	46	24	1
15 - 49	53	32	1
50 - 99	61	40	3
100 plus	66	46	10
TOTAL	<u>47</u>	<u>24</u>	<u>2</u>

TABLE 46B

Awareness of Department of Regional Economic Expansion

By Age of Firm

<u>AGE OF FIRM</u> (Years in Business)	<u>KNOW NAME</u>	<u>KNOW TYPE</u> <u>OF ASSISTANCE</u>	<u>RECEIVED FINANCIAL</u> <u>ASSISTANCE</u>
	(%)	(%)	(%)
under 2 years	46	20	1
2 - 4 years	45	21	2
5 - 10 years	48	25	2
10 years plus	46	25	3
TOTAL	<u>47</u>	<u>24</u>	<u>2</u>

Source: Unpublished compilations from surveys of members undertaken by the Canadian Federation of Independent Business in the third quarter, 1980.

in the awarding of RDIP grants. They feel that RDIP grants may merely be relocating investment or adding more capacity than the market needs. But the incrementality criterion is difficult to apply. Efforts to make the Program more selective and to raise the threshold for project costs will most likely work to discourage small business applicants in favor of larger ones. It is clear, however, that the Program encourages manufacturers to become more capital-intensive and to invest in buildings and capital equipment rather than in non-capital assets, such as information networks, marketing, technology licensing, and so on. It will depend on the industry whether or not this is in the interests of small business.

Utilization

RDIP data is not broken down by firm size. Class A and B projects are usually proposed by firms with annual sales of, respectively, below \$1 million, and from \$1 to 5 million.^{8/} Over the period from 1977 to 1982, 93.4 percent of all projects and 44.6 percent of funds were allocated to projects in Class A and B, which we can consider as small business classes.^{9/}

If we look at the Quebec figures for the period from 1969 to 1982, we see from Table 47 that firms in particular industries have made the most use of RDIP assistance. These include industries in which small business is active, such as furniture, printing, and metal fabricating as well as those dominated by large firms such as food and beverages. For the Quebec designated region as a whole, a small majority of the offers made to applicants by the Montreal regional office from 1977 to 1983 were for grants of less than \$50,000. The average grant offered in this, the lowest size category, was \$25,251 in 1977-78 and \$26,930 in 1981-82. In the Montreal Special Zone, the largest number of offers of grants, usually around 50 percent of the total, was in the second size category -- \$50,000 to \$250,000. The average grant in this category was \$77,057 in 1977-78 and \$90,635 in 1981-82.^{10/} Evidence on average size of grants and industrial concentration suggest that RDIP assistance may be more widely utilized by small firms outside the Montreal area.

These findings do not allow us to draw a clear picture with regard to the interests of firms in particular size categories in RDIP. The Program has a wide coverage, particularly in Quebec and the Atlantic Provinces, but

TABLE 47

Regional Development Incentives Program Grants in Quebec, 1969-82
By Size of Investment Project

	<u>CLASS A</u>	<u>CLASS B</u>	<u>CLASS C</u>
<u>Number</u>	2063	1434	303
<u>Cost</u>	\$57.3 million	\$167.1 million	\$250.5 million
<u>(average)</u>	\$27,759	\$116,554	\$826,607
<u>Major Industries:</u>	Food, beverages, rubber and plastic products, wood products, furniture, printing, metal fabricating, non-electrical machinery and miscellaneous manufacturers		
<u>Number</u>	225	438	74
<u>Cost</u>	\$8.2 million	\$61.6 million	\$137.4 million
<u>(average)</u>	\$36,357	\$140,613	\$1,857,216
<u>Major Industries:</u>	Metal fabricating, non-electrical machinery, electrical products and miscellaneous manufacturers		
<u>OFFERS MADE^{a/}</u>	2267	1526	340
<u>OFFERS MADE^{b/}</u>	250	470	92

a/ Excluding Montreal Special Zone

b/ Montreal Special Zone

Source: Unpublished data from Department of Regional Economic Expansion, Regional Office, Montreal.

until a longitudinal impact study is done to follow the history of assisted and non-assisted firms it will not be possible to specify its differential effects by firm size.

Program for Export Market Development

The Program was introduced in 1971 to develop and increase the export of Canadian goods and services by providing different ways for the government to share in the financial risks businesses bear in entering new markets. There are eight sections to the Program -- participation in the cost of bidding on specific international projects (A), market identification trips (B), participation in trade fairs abroad (C), helping Canadian firms welcome foreign buyers to Canada (D), encouraging and supporting export consortia (E), assistance in sustaining export market efforts (F), assistance to agricultural, fish and other food producers to export (PEMD Food), and finally market-related support to non-profit organizations under certain circumstances (S).

Access

PEMD, unlike EDP and RDIP, covers services and agricultural products as well as manufacturers. Some of its sections, including A -- international tendering -- are centralized. Others are available across the country, but three-quarters of the Quebec PEMD clients are in the Montreal area.

Usually the applicant has to be willing to put up 50 percent of the costs of his project, although in some cases 90 percent can be contributed by the government. PEMD money is in the form of loans which are repayable if the Canadian firm concludes foreign sales. The minimum Program contribution has recently been raised from \$500 to \$1,000 to avoid requests which were likely to cost more to administer than they could promise the applicant in benefits. The relatively small sums involved, as shown in Table 48, mean that applications can be processed without great formality. An earlier requirement that an external auditor verify an applying company's internal costs has recently been dropped.

Coincidence of Government and Business Goals

The Program's goals of increasing and developing exports of all kinds corresponds to the needs and objectives of many small and medium businesses in Canada, which are interested in foreign markets but have

TABLE 48

Value of Average Loan Approval under the Export Market
Development Program by Program Section,
1979/80, 1980/81 and 1981/82
(dollars)

<u>Program Section</u> ^{a/}	<u>1979/80</u>	<u>1980/81</u>	<u>1981/82</u>
A	24,250	29,983	35,409
B	2,405	2,421	3,039
C	4,403	5,129	6,232
D	2,561	2,901	3,562
E	132,000	31,000	11,500
F	21,286	133,000	140,419
PEMD Food	11,760	11,217	20,452
S	12,333	20,000	12,722
Total	8,651	6,344	10,115

a/ See text for names of sections.

Source: Annual Review Program for Export Market Development 1981-82,
Office of Marketing, Planning and Evaluation, Department of
External Affairs, Ottawa.

little expertise in the field. It is perhaps of less interest to large, well-established exporters who are more concerned with export financing than with establishing contacts and developing markets.

Utilization

Small businesses have been well represented among successful PEMD applicants. From 1977 to 1982, they submitted 86 percent of the projects accepted and received 35 percent of the funds.^{11/} Table 49 shows a very great increase in activity under Section F and a significant increase under Sections A and C. Unfortunately data is not available on use of the different sections by firm size, but the nature of the services and the averages in Table 48 suggest that Sections B, C, and D, under which assistance can be awarded at the regional level, are probably of greatest use to small businesses. Table 50 shows however that PEMD recipients in Quebec were mostly in industries in which small business is not active, with the important exception of consumer goods and business services.

The Export Development Corporation

The Export Development Corporation was created to assist Canadian exporters in competing with their foreign competitors, to help to diversify exports away from excessive dependence on unprocessed natural resources, and to reinforce the benefits of exporting to national economic activity by promoting a high level of domestic content in Canadian exports. Export financing is almost always riskier and more expensive than domestic financing. The Corporation's role is to facilitate both risk and funding intermediation by means of its two major activities -- credit insurance and direct lending.

Access

The EDC is located in Ottawa and has traditionally been a centralized agency. It does, however, maintain regional offices whose staff includes Business Development Officers. Recently, the Corporation has organized export seminars across Canada to discuss utilization of its new services, particularly lines of credit and forfeiting.

The type of contract or loan offered by the EDC has traditionally been tailored to large scale exporters, but, in 1978, it started opening lines of credit with certain foreign countries with whom a bilateral agreement had been negotiated. Lines of credit -- twenty-eight of which

TABLE 49

Breakdown of Activities of the Program for Export Market Development by
Program Section and Applications, Approvals and Commitments,

1971-82 and Selected Years

<u>YEARS</u>	<u>SECTION</u>								<u>TOTAL</u>
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>FOOD</u>	<u>S</u>	
<u>Number of Applications</u>									
1981-82	492	1957	1332	134	2	86	157	16	4176
1980-81	434	1624	1071	115	4	26	31	7	3312
1979-80	853	1483	840	128	4	16	34	11	3369
Total 1971-82	5936	9589	5493	852	43	128	222	75	22338
<u>Number of Applications Approved</u>									
1981-82	313	1395	1079	89	2	43	104	18	3043
1980-81	235	1252	886	91	3	4	23	4	2498
1979-80	635	1089	653	107	1	7	25	9	2526
Total 1971-82	3771	6890	4263	587	29	54	152	70	15816
<u>Commitments Approved</u>									
(000s)									
1981-82	11083	4239	5724	317	23	6038	2127	229	30780
1980-81	7046	3031	4544	264	93	532	258	80	15848
1979-80	15399	2619	2875	274	132	149	294	111	21853
Total 1971-82	70117	20157	21382	1461	1168	6719	2679	739	124422

Source: Annual Review, op. cit.

TABLE 50

Industrial Breakdown of Assistance under the Program for Export
Market Development, Quebec, 1980 - 1982

	<u>1980-1981</u>		<u>1981-1982</u>		<u>Total</u>	
	<u>No.</u>	<u>(\$000)</u>	<u>No.</u>	<u>(\$000)</u>	<u>No.</u>	<u>(\$000)</u>
Agriculture, Fishing. and Food Products	19	60	28	147	47	207
Machinery	40	901	67	625	107	1,526
Chemical Products	21	72	15	68	36	140
Electrical & Electronic Products	55	872	55	1,214	110	2,086
Natural Resource Processing	57	501	70	546	127	1,047
Road and Rail Transportation	24	349	41	1,117	65	1,466
Air & Sea Transportation	27	291	12	83	39	374
Textile & Consumer Products	208	737	195	1,481	403	2,218
Construction and Consulting Services	77	995	138	2,879	215	3,874
Distribution	2	20	1	10	3	30
TOTAL	530	4,798	622	8,170	1,152	12,968

Source: Unpublished information from the Department of Industry, Trade and Commerce, Regional Office, Montreal.

were in existence at the end of 1982 -- dispense exporters from the need to negotiate credit as well as the actual sale with the foreign customer. This is of particular value to small and medium firms. In 1981, the Corporation introduced "forfeiture," which provides for the purchase of promissory notes issued to the order of a Canadian exporter by a foreign purchaser and guaranteed by the latter's bank. This allows the exporter to extend credit without having to tie up his own working capital and eliminates interest and exchange risk as well as other credit risks. Forfeiture may partly compensate Canadian exporters, particularly small and medium ones, for the absence of exchange risk coverage by the EDC in contrast to the situation in several other industrial countries. Large corporations can hedge against exchange rate movements while very few small firms can afford to do so.

Unlike export financing institutions in other countries, the EDC does not offer non-recourse guarantees to financial institutions for short-term export financing. Since small business exporters have a greater need than medium or large scale ones for credit for periods up to 180 days, they are more likely to suffer from this situation. Agencies in the United States seem to be moving to fill a similar gap which existed in that country.^{12/}

The EDC concentrates its insurance efforts in the fields of capital equipment and processed resources. In 1981, for example, 28 percent of the total \$3.2 billion worth of insurance contracts outstanding covered forest products, 17 percent minerals, metals and chemicals, and 16 percent transportation equipment. Only 6 percent covered sales of "other manufactured products," 3 percent textiles and related consumer goods, and 15 percent services.^{13/} Canada is one of the industrial countries with the lowest private sector participation in export financing.^{14/} Access to the Corporation's services is therefore important since alternative commercial services seem to be lacking.

Coincidence of Business and Government Goals

In the long run, the Corporation's goals are clearly similar to those of all Canadian firms -- large, medium, or small -- which are interested in exporting. In the shorter term, however, the EDC is inevitably preoccupied with the problems of established exporters' claims for equal or better financial backing than that given their foreign competitors. The cost of admin-

istration for small exporters' sometimes irregular contracts is likely to be greater than that for larger recurrent contracts.

Utilization

The EDC is one of the diminishing number of federal government agencies which do not provide a small business breakdown. From the Corporation's 1981 Statistical Review we can see that of the more than 1,200 insurance policies in force in that year, 30 percent were for less than \$100,000. The Review also shows that sixty-nine of the 241 financing transactions concluded in 1981 were for sums of less than \$500,000 including twenty-one for less than \$100,000. Yet of these latter twenty-one, eight were with major corporations (Massey-Ferguson and Pratt & Whitney) and two were with a Quebec government-owned firm (Forano). It is clear from EDC documents that large corporations dominate its business in terms of numbers as well as dollars. Not only are large corporations taking a lion's share of the Corporation's assistance but, as the Economic Council has pointed out, "the names of the firms receiving assistance become more and more familiar. Sixteen companies received half of the 415 loans to 138 identified companies authorized by the EDC between 1969 and 1980, one of them received 40."^{15/} This should come as no surprise since Canada's export trade is largely in the hands of large corporations as noted in Chapter 5. The Corporation has made its services more relevant to small and medium manufacturing exporters but it does not appear to be serving this clientele at present.

Procurement

Federal government purchasing is done through the Department of Supply and Services (DSS). The Department attempts to apply three principles in purchasing -- encouraging tenders from Canadian-based firms, encouraging local procurement when possible, and, since 1977, targeting approximately 40 percent of value of procurement to small business.

Access

The target of 40 percent of procurement applies to a substantial share but not to all federal purchasing. Basically it applies to supply and administration contracts. These cover approximately 10 percent of total expenditure by all government agencies in Canada. They include most regular purchases by federal government departments and agencies, and purchases by certain crown corporations, such as the Bank of Canada and Canada Post. The total,

which is the denominator for the 40 percent, excludes purchases made overseas, major projects,^{16/} sub-contracting by prime contractors and most crown corporation purchasing.

DSS officers have successfully widened the network of small business recognized suppliers since the 40 percent target was introduced. The complementary policy of encouraging local procurement and the creation of the Source Development Fund, which is used to support and accelerate the development of Canadian supply capacity, can both be used to encourage small business suppliers.

Small businesses, however, still complain of the transaction costs involved in getting their names on the list of suppliers, of the fact that government specifications are drawn up by the customer departments which have a "big business" mentality, and, most of all, of delays in payments. Federal spokesmen have repeatedly declared the government's intention of speeding up payment, particularly to small businesses. However, at the time of writing, these seem to have had little effect.

The question of the coincidence of government and business objectives can be dealt with briefly in this context. In general there is a closer coincidence in the case of procurement than in some of the other measures we have examined. Non-coincidence is apparent in terms of the process of procurement. Government purchasers are obliged to follow strict procedures when spending public money and the resulting delays are far more burdensome to small than to medium and large firms.

Utilization

In the 1980-81 fiscal year, the Department of Supply and Services awarded contracts worth \$3,346 billion to Canadian-based firms. Table 51 breaks down the bulk of this purchasing (\$3,244 billion) by firm size and sector, and compares small business' share with that of the preceding year. Small business received 40 percent of this business in 1980-81. (Its share was exceptionally low in 1979-80 because of spending cuts which affected civilian but not military budgets.)^{17/}

The table also shows that small business did less business with the federal government in the manufacturing and transportation, communications, and utilities sectors than in other fields. Seventy-four percent of DSS'

TABLE 51

Department of Supply and Services Contracts by Value,
by Sector and by Size of Business
Fiscal Years 1979-80 and 1980-81

Sector		Small Business ^{a/}		Other Business		Total	
		Value \$000	% of Value	Value \$000	% of Value	Value \$000	% of Value
Primary Industry	FY 80-81	16,664	78.0	4,689	22.0	21,353	100.0
	FY 79-80	11,087	79.4	2,869	20.6	13,956	100.0
Manufacturing	FY 80-81	381,111	21.5	1,394,329	78.5	1,775,440	100.0
	FY 79-80	282,869	20.4	1,105,360	79.6	1,388,229	100.0
Construction	FY 80-81	35,681	85.1	6,224	14.9	41,905	100.0
	FY 79-80	26,107	81.7	5,841	18.3	31,948	100.0
Transportation, Communications & Utilities	FY 80-81	37,716	26.0	107,534	74.0	145,250	100.0
	FY 79-80	18,834	20.3	73,723	79.7	92,557	100.0
Trade	FY 80-81	496,167	67.2	242,118	32.8	738,285	100.0
	FY 79-80	264,863	57.7	194,551	42.3	459,414	100.0
Services	FY 80-81	314,163	60.3	207,148	39.7	521,311	100.0
	FY 79-80	178,379	39.2	276,622	60.8	455,001	100.0
TOTAL							
	FY 80-81	1,281,502	40.0	1,962,042	60.0	3,243,544	100.0
	FY 79-80	782,139	32.0	1,658,966	68.0	2,441,105	100.0
No. of contracts	FY 80-81	127,885	57.0	94,799	43.0	222,684	100.0
	FY 79-80	89,736	52.0	83,407	48.0	173,143	100.0

^{a/} Small business is defined as business with fewer than 100 employees in manufacturing and fewer than 50 in other sectors.

Source: "Small Business Report for FY 1980-81 with Previous Year Comparisons," Inter-Program Planning Branch, Corporate Planning Directorate, Department of Supply and Services, Ottawa, January, 1982.

manufacturing procurement is in twelve of the Standard Industrial Classification (SIC) classes. These classes are listed in Table 52 which compares small business' share of government purchasing with its overall performance in these same classes. This suggests that small business' share of DSS contracts is low in relation to its performance in Miscellaneous Chemical Industries, Scientific and Professional Equipment and Miscellaneous Paper Converters as well as in Flour and Breakfast Cereal Products. In some other classes, such as Shipbuilding and Repair and Electrical Industrial Equipment, small business' share of DSS contracts exceeds their performance in the economy. The particular pattern of government purchasing may partly explain small business' share of the value of Canadian manufacturing shipments in 1980-81. Further monitoring of this data and of small business' share of expenditures under the Source Development Fund will be necessary to evaluate the impact of procurement policy by firm size.

Review of Findings

The preceding examination of small business' access to, and utilization of five different industrial policy instruments has shown that small business is present and recognized in all five areas. Small businesses make up a large proportion of the clients of these programs and services, the EDC being the exception. These findings do not, however, take us very far. We have not established any criteria for deciding what small business' share of these programs should be nor do we know what impact financial assistance or government purchasing has on small firms and whether it is different from that on other firms. The required data for such an analysis is not available at present. The Department of Supply and Services, in establishing a 40 percent target for small business, one which is greater than small business' contribution to the Canadian economy, has provided us with a yardstick for commentary. Administrators of other programs obviously cannot do this so easily.

In reviewing the three targeted programs -- EDP, RDIP and PEMD -- we noted four possible obstacles to greater small business participation: lack of information, eligibility thresholds, transaction costs in terms of preparing projects and delays in receiving responses or payment, and perceived interference with management decisions. The federal government

TABLE 52

Small Business^{a/} Share of Department of Supply and Services Contracts in Twelve
Manufacturing Classes, and Its Performance in these Classes, 1980-81

Standard Industrial Classification Class Description	Small Business ^{a/} Share of DSS Contracts		Small Business Overall Performance, 1978					
	Value \$000	% of Total Con- tracts	Value of Shipments		Employment		Salaries & Wages	
			\$000	% of Total Industry	Number	% of Total Industry	\$000	% of Total Industry
Aircraft and aircraft parts	12,616	3.5	59,227	4.6	1,932	7.0	24,111	5.4
Communications equipment	27,694	8.7	213,108	13.9	6,024	15.9	62,505	11.1
Misc. vehicle manufacturers	4,410	2.0	CONFIDENTIAL		CONFIDENTIAL		CONFIDENTIAL	
Misc. chemical industries	5,443	7.1	679,423	60.3	7,229	45.7	106,223	45.1
Commercial printing	40,130	58.8	991,398	52.6	25,521	55.9	353,260	53.2
Miscellaneous machinery & equipment	14,196	25.8	1,113,472	63.7	23,133	36.3	321,339	33.4
Petroleum refineries	7,056	15.9	562,106	5.5	682	3.6	12,838	3.0
Shipbuilding and repair	9,449	25.9	60,685	11.2	1,649	12.3	26,922	11.4
Miscellaneous paper converters	4,503	13.7	273,018	71.4	4,780	30.9	59,823	28.3
Scientific and professional equip.	12,242	37.3	52,920	72.2	2,464	70.6	24,643	70.7
Manufacturers of electrical industrial equipment	8,084	26.6	229,282	20.1	4,578	16.7	55,400	13.8
Flour & breakfast cereal products	2,468	9.6	194,025	29.5	817	15.6	11,762	14.6
SUB-TOTAL 12 CLASSES	148,291	11.4	4,428,664	19.5	78,809	15.2	1,058,826	24.8
OTHER 98 CLASSES	232,820	49.3	25,753,081	24.2	446,957	34.5	5,428,752	24.3
 TOTAL 110 MANUFACTURING CLASSES	 381,111	 21.5	 30,181,745	 23.4	 525,766	 29.4	 6,487,578	 24.4

^{a/} Small business is defined as business with fewer than 100 employees in manufacturing and fewer than 50 in other sectors.

Source: "Small Business Report for FY 1980-81 with Previous Year Comparisons," Inter-Program Planning Branch, Corporate Planning Directorate, Department of Supply and Services, Ottawa, January, 1982.

is planning to improve information diffusion to small businesses. Changes in procedures could reduce the other obstacles marginally, but they are inherent in the implementation of targeted programs. However well-tailored a program appears to be to the needs of a particular group, the requirements of sound public administration will inevitably impose transaction costs on its beneficiaries. Such costs are likely to weigh more heavily on tightly-managed than on professionally-managed firms. This conclusion, provisional as it is, leads to questions about the allocation of resources for industrial policy. An increase in expenditure on information and support services at the expense of financial assistance, which is largely taken up by medium and large firms, would most likely be in small business' interest. Here again lack of data on the impact of information and support services prevents us from drawing a firm conclusion.

Footnotes to Chapter 11

- 1/ For a background discussion of this matter see Richard D. French, How Ottawa Decides, Planning and Industrial Policy-Making 1968-80, Canadian Institute for Economic Policy, Toronto, 1980, Chapters 4 and 5.
- 2/ This is a pilot project in the Hamilton area offering detailed, computerized market information, extracted from Census data, to small businesses in a form which they can access themselves locally.
- 3/ The FBDB is not, strictly speaking, a size-specific agency but 97.5 percent of its assistance is provided to firms with annual sales of less than \$5 million.
- 4/ The period covered by the data in the Report in general, and this chapter in particular, predates the merger of the Departments of Industry, Trade and Commerce (ITC) and of Regional Economic Expansion (DREE). We therefore continue to refer to the two separate departments although they have now been merged into a single department -- the Department of Regional and Industrial Expansion (DRIE).
- 5/ For a recent discussion of this principle, see Dan Usher, "The Benefits and Cost of Firm-Specific Investment Grants: A Study of Five Federal Programs," Discussion Paper No. 511, 1082, Queen's University, Institute for Economic Research, August, 1980.
- 6/ The federal government has other assistance programs for the fashion and footwear industries. High technology services or services linked closely to manufacturing are exceptionally eligible for EDP assistance.
- 7/ These are Quebec figures. We feel justified in arguing on the basis of Quebec data given the province's major share in RDIP activity.
- 8/ Class B projects could originate from firms with annual sales greater than \$5 million if they were for improvement of an already existing plant.
- 9/ From unpublished data from the Program Analysis Division, Department of Industry, Trade and Commerce.
- 10/ Figures from the Montreal Office of the Department of Regional Economic Expansion.
- 11/ See, Annual Review Program for Export Market Development 1981-82, Office of Marketing, Planning and Evaluation, Department of External Affairs, Ottawa.

- 12/ See, "Eximbank Introduces Guarantee Program for Export Trading Companies," Canadian Export Association, Paper No. 042, March 30, 1983. The new U.S. program has two important features -- short term financing and its extension to trading companies. Many small exporting firms in Canada believe that trading houses are given insufficient recognition and support in this country.
- 13/ See Export Development Corporation, Statistical Review 1981, Ottawa, p. 29.
- 14/ Economic Council of Canada, Intervention and Efficiency, Ottawa, 1982, Chapter 4.
- 15/ Ibid., p. 56.
- 16/ Major projects are generally defined as those estimated to cost over \$100 million. The Treasury Board sets up a Project Management Team for such major projects, which is responsible for promoting Canadian content and Canadian industrial capacity in the course of the particular project.
- 17/ See "Small Business Report for FY 1980-81 with Previous Year Comparisons," Inter-Program Planning Branch, Department of Supply and Services, Ottawa.

III. OUTLOOK, SUMMARY AND CONCLUSIONS

12. The Changing Economy and the Outlook for Small Business

The apparently uncertain future of small business has frequently given cause for concern. Indeed anxiety about its survival gave rise to much of the most valuable recent research into small business in the United States and in the United Kingdom.^{1/} The current recession, the most serious since the Depression of the 1930s, has battered small businesses severely and a Canadian Federation of Independent Business Survey estimates that there were 700,000 to 800,000 fewer people working in small businesses in February, 1983, than there had been in at the beginning of 1981.^{2/} Yet, at the same time, small business appears to be enjoying a new prestige in some parts of Canada, notably in Quebec, and many economic writers believe that the future prosperity of industrial economies depends on the break-up of those corporations of the 1950s and 1960s which had become organizational dinosaurs into profit-oriented, entrepreneurial, small firms. In this chapter, we can only present a few of the many questions that have been raised regarding the future of small business in a changing economy. We will first review small business' performance in the 1970s and the probable effects on it of changes in the patterns of supply and demand. We then look ahead to some of the changes which are expected to take place in the Canadian economy in the 1980s. Finally, we will discuss ways in which small business reacts to changes in its environment and the extent of its flexibility.

Small Business in the 1970s

Despite all the research that has recently been undertaken into small business in Canada, we cannot yet say with certainty whether or not it maintained its relative position in the economy during the 1970s. This is largely because the most widely used definition of a small business in Canada is one with annual sales of less than \$2 million. In a period of high inflation, firms can go through this ceiling without changing the nature of their management or their place in the market, although for statistical purposes their activities are classified as those of a medium-sized firm.

The Small Business Secretariat has recently completed a review of small business' performance from 1974 through 1978.^{3/} The review focuses

on the four major sectors in which small business is most active -- manufacturing, construction, trade, and services -- and examines the contribution of small, medium and large firms. It further examines the rate of growth of this contribution in terms of the number of businesses in the sector, the value of their sales, the employment they provide and their share of private sector gross national product.

Small business' contribution seems to have declined slightly over the five-year period in terms of all four indicators, as Table 53A illustrates. Section B of the table shows that it was the relatively much slower rate of growth of the smallest size class -- businesses with annual sales of less than \$50,000 -- which reduced small business' growth rates below those of medium and large businesses. The largest small business class -- firms with sales of \$250,000 to \$2 million -- had a growth rate much nearer that of medium and large business. Since these data are preliminary and only cover a short period, we do not know yet whether they represent a trend. The evolution of the largest small firms into medium businesses may have been exceptionally rapid due to inflation. At the other end of the scale, these figures include very small firms (incorporated firms with annual sales of less than \$10,000 are exceptionally included in this data). Most start-ups and most failures occur in this sales class. Those which succeed graduate quite rapidly in an inflationary period to become "medium-sized small businesses" with annual sales valued at between \$49,000 and \$249,000. Since an average of approximately 45,000 firms were being incorporated each year during this period, the relatively poor showing in the smallest sales class hides its vitality. The data only give a static snapshot of the respective size classes' aggregate contribution at any one moment in time.

A similar pattern of slight decline in small business' share of economic aggregates has been observed in the United States. Comparing investigations using four different sets of data, Lawrence J. White, concludes: "It is very likely the case that despite their increase in absolute numbers, small businesses have experienced a modest decrease in relative importance in the last two decades."^{4/}

TABLE 53

A

Small Business^{a/} Shares of Activities in
Four Major Sectors,^{b/} 1974, 1978
(percentages)

<u>Activity Indicator</u>	<u>1974</u>	<u>1978</u>
Number of businesses	97.01	96.08
Value of sales	27.02	23.40
Employment	45.6	42.3
GNP	30.3	28.5

a/ Businesses with annual sales of less than \$2 million.

b/ Manufacturing, trade, services and construction.

B

Change in Firm Size Classes' Share of Selected
Activity Indicators, 1974 through 1978
(percentage changes)

<u>Firm Size Class</u>	<u>Value of Sales</u>	<u>Employment</u>	<u>Number of Firms</u>
Small Business			
1. Sales under \$50,000	16.2	9.8	3.8
2. Sales \$50,000 to \$250,000	27.1	2.1	25.3
3. Sales \$250,000 to \$2 million	45.0	18.3	44.4
Total small business	n.a.	11.7	17.4
Medium and large business	67.5	28.3	49.8
Total	59.4	20.3	18.4

Source: "An Analysis of the Overall Contribution of Small Business to Economic Activity," Small Business Secretariat, November 15, 1982.

While indicating a fall in small business' aggregate contribution, available Canadian data also shows that small business' behavior differed from that of large and medium business in several significant respects. In manufacturing, the number of small businesses as a percentage of the total fell from 88.3 percent in 1974 to 87.0 percent in 1978 and the number of people employed by small businesses fell 13.4 percent, while the total number of people working in manufacturing rose by nearly 12.0 percent over the same period. A breakdown of the manufacturing sector by industry shows four different sets of experience. First, in industries in which employment grew faster than the manufacturing average -- including printing, metal fabricating, and machinery, small businesses created proportionately more new jobs than other-sized firms during the 1970s. Second, in industries experiencing a decline in total employment, such as leather, textiles, and electrical products, small businesses registered a proportionately lower decline than that of medium and large firms. In both these cases, small business' share of employment therefore increased. Third, in the food and beverage and wood products industries, small business' share of employment declined while total employment increased. Fourth, employment increased in industries such as paper and allied products, primary metals and chemicals, without any significant change in employment shares by firm size. Similar, although not identical, behavior by firm size and industrial group is observed in terms of changes in value added.

At first sight the data suggests that smaller establishments tend to retain their employees longer than their larger counterparts as an industry declines, while they may tend to hire proportionately more employees per dollar of sales than larger firms in growth industries.^{5/} Evidence from the tertiary sector points in the same direction. In transportation and construction -- industries experiencing declines in employment -- small business' share of total employment increased. It also increased very significantly in services which was by far the fastest growing branch of tertiary activity in the 1980s. An hypothesis as to why small business might exhibit different behavior patterns from those of medium and large firms will be mentioned later. We turn first to an investigation of the relationship between types of industrial activity and small business growth.

Sectoral Determinants of Small Business Success

We know that small business plays a greater role in some sectors than in others. Thus in all countries for which we have data, small businesses are proportionately more important in services than in manufacturing and mining. We could attempt to predict small business' future contribution to the economy by looking at forecast growth for Canadian mining, processing, manufacturing, service, construction and trade activities and extrapolating on the basis of small business' current shares of each of the respective sectors. The results would probably be misleading since the nature of these sectors and their respective weights in the economy are constantly evolving. At the same time, large firms, particularly those in manufacturing, are contracting out many of their former in-house activities to firms in other sectors such as services and transportation. If we could identify the nature of the economic activity and the kind of environment in which small business is likely to prosper, we would probably be better able to identify its opportunities, as well as the obstacles to its success, in the next decade.

Searching for the determinants of small business' success, Lawrence White investigated six possible determinants of a firm's minimum economic size -- capital intensity, labor specialization, the laws of nature and geometry, fixed transactions costs, advertising and promotion, and uncertainty. He used regression analysis to test the effect of these determinants on firm size in terms of the percentage of an industry's sales accounted for by firms with annual sales below \$5 million.

White was not able to find quantifiable proxies for all of the six possible determinants. But his results show that in the United States, small business is relatively more prevalent in industries with low capital-labor ratios, with less than average vertical integration, with faster growth, with ~~more~~ localized markets, and with a greater share of shipments destined for other industries than for sale to consumers.^{6/}

The fact that small business lost relatively little ground, in a period during which capital-labor ratios increased substantially, transportation and communications costs fell relatively to other business costs so that markets widened, and growth slowed in the U.S. economy -- all of which

are changes predicted to work against small business -- is an indication to Lawrence White of the continuing strength of entrepreneurship in the United States. Since the Canadian economy went through a similar experience in the 1970s, we can tentatively draw the same conclusion.

Changes in the Canadian Economy in the 1980s

The experience of the last three years shows how difficult it is to predict even the most important features of Canada's economic configuration, let alone its details. Many key decisions were taken and policy orientations adopted in the expectation of continued increases in the real price of oil and gas. Canada's economic center of gravity was expected to continue to shift to the west and the evolution of the international economy was expected to continue favoring resource-rich countries. In this context, the weaknesses of Canada's secondary industry appeared to be relatively less serious than they had earlier seemed to be since, it was believed, Canadians would be able to build international competitiveness in key fields of resource extraction and management. The sudden slowdown and fall in oil prices has postponed, possibly indefinitely, the realization of these expectations.

Against this background of uncertainty, we are going to consider three major changes which we believe will most probably take place over the remainder of the decade. First, a restructuring of Canadian manufacturing, second a changed role for government in the economy, and third, far-reaching changes in communications techniques.

The need for a restructuring of Canada's secondary industry became apparent when the Tokyo Round set up a calendar for reducing tariff barriers between Canada and the United States, and U.S. federal and state governments accelerated the increase in "buy local" regulations. Firms which can choose their location are now less likely than before to set up manufacturing plants in Canada, and those that have such plants will only maintain them if they are more productive than the firm's plants elsewhere, or they make some particular contribution to its overall market strategy. Even Canadian-owned firms are increasingly tempted to move some of their activities south of the border to escape higher wage costs or satisfy buy-local requirements.

This particularly Canadian situation is occurring at a time when firms in traditionally strong industries all over North America and Britain are coming under very heavy pressure from German, Japanese, and other Asian competitors using newer equipment, but even more important, different organizational and management strategies.^{7/} One of the responses to this competition, as also to Canadian manufacturers' search for a new vocation, has to come from new, long-term investment. But tying up resources in capital equipment will not be effective unless management, particularly product development and human resource management, is also greatly improved.

A second foreseeable change affecting the business environment in Canada concerns the role of government in the economy. There are some forces working in favor of stronger government involvement. These include the perceived need to counter industrial policy protectionism abroad, particularly in the United States, and the widespread desire to prevent any resurgence of uncontrollable inflationary expectations, for the sake of which some sections of the public would welcome continued wage controls. On the other hand, worries about mounting deficits, refusal of higher levels of taxation, and disillusionment with many of the results of public sector spending suggest a reduced role for government.

The outcome of these opposing tendencies cannot be predicted, but a change in government's economic activity is likely. Growth of public service employment will be more tightly controlled, more services may be reduced and transfers made more selective. Any reduction in program support would hurt medium-sized firms more than small business since, as we explained in the preceding chapter, programs are often inaccessible or too costly to small firms. Changes in the 'protected society', which reduced rigidities and increased the reward to entrepreneurship would strengthen small business.

A third change of a different nature, and one which is already underway, is the accelerated development of communications technology. White's analysis tells us that small business prospers in industries serving local markets and, by implication, is threatened as the local market is assimilated into the national, and eventually, the international market. The negative effects on small business may, however, arise mainly from cost reductions in the physical transportation of national or international goods which replace local products.

Current and forthcoming changes are taking place in the communications, rather than the transportation, field. Large and medium firms have long had access to computerized data banks, marketing and quality control programs, and so on. As these instruments become available at relatively low cost to small businesses, they may be able to overcome some of their greatest weaknesses in marketing and networking.^{8/} Thus while it is true that current developments in communications technology will intensify competition for many small businesses, on balance they may solve more problems than they create.

Even such a selective survey of three of the most probable changes affecting business in the 1980s discourages us from firm predictions as to the impact of these and other expected changes on small business. Another way to appreciate small business' prospects in the slow-growth environment of the 1980s would be to see how it has been reacting to the difficult conditions with which it has recently been faced. We turn to this complementary exercise in the following section.

Adjustment by Small Business

The recent history of very rapid inflation, followed by drastic disinflation and an unexpectedly severe recession, has presented managers of all businesses, whatever their size, with some of the most challenging problems in their careers. Owner/managers are accustomed to operating under risky conditions, yet their firms' greater vulnerability to high and volatile interest rates made many of them victims of the recession.

Although bankruptcies and closures ran into thousands, the majority of small businesses did not close their doors. In order to further understanding of small business' behavior in the face of change and adversity we conducted a small-scale survey of firms' recent behavior and problems. Adaptation to the current market downturn was the primary subject of the interviews, but wider questions of adaptation to structural changes and the extent of a small firm's flexibility were also raised.^{9/} Weathering a recession and adapting to a new market environment are two different things for a professional manager. But they are not so clearly distinct for an owner/manager whose time horizon is shorter than that of the professional manager. A lower level of financial reserves and less

market power often oblige a small business to adapt in the short run, whereas a larger firm can put off adaptation, and hence treat it as a different management problem from that of getting through a downturn. We thus feel justified in using the recent experience of small businesses as partial evidence of their capacity (or incapacity) to adapt as well as to survive.

Small firms facing a contracting market and a drying-up of affordable funds have two basic options. They can give up some of their independence or they can radically revise their management strategy and operations.

Franchising and business associations are two ways of maintaining some independence while benefiting from the support of other firms, often former competitors. Franchising has spread from the well-established restaurant chains to many other lines of business and was seen by firms in our survey as a way of halting declining sales. One of the main benefits came from sharing in the quality image projected by the franchisor. This compensates the small business for its inability to copy large and medium firms' massive promotions to counter declining sales.

Business associations differ from franchising in that they are usually concluded between firms of comparable size and resources, and cover specific business activities such as purchasing, packaging and transportation, promotion and so on. Little research has been done on such associations but they clearly provide opportunities for owner/managers to overcome some of their longstanding problems.

As well as obliging some small businesses to become franchisees or to associate with others, the recent protracted uncertainty in the market has encouraged many owner/managers to engage in more systematic information sharing than they were previously accustomed to do.^{10/}

Owner/managers who take up the challenge of remaining independent in a declining market simultaneously face marketing, financing, and personnel problems. Our survey showed, however, that the greatest obstacles to adapting to a new environment were first, anticipating change, and second, accepting the need for change even when it seemed apparent.

Our interviews revealed a great anxiety among the small business people surveyed lest they lose the fruits of previous years' labor, accompanied by a reluctance to believe that permanent structural changes were taking place and a feeling of impotence when faced with unanticipated changes. Even when it was clear that internal changes had to be made to adapt to a changed environment, owner/managers, particularly those who felt they had previously succeeded in achieving their ambitions, were extremely reluctant to modify customary ways of doing things. Necessary changes were therefore frequently postponed thereby increasing their cost. This pattern of behavior is confirmed in the literature on small business management. Our limited survey also showed constancy in the different firms' respective business strategies. Despite the downturn, the owner/managers of the growth-oriented firms did not lower their sights but were the most aware of the need to adapt and the most concerned with the problem of anticipating change.

Small Business' Flexibility

How flexible are small businesses? This question follows from the preceding sections of this chapter and is an important policy issue. Virtually all Canadian economic policy analysts concur in believing that the economy must become more flexible in order to adapt to changes in the world market. They believe that greater interindustrial and interoccupational mobility will be required in the 1980s and 1990s. Small business is commonly thought of as a source of flexibility. In this section, we attempt to analyze this notion.

There are two requirements for a firm to be flexible. It must be able to acquire and assimilate new information and to take and implement strategic decisions rapidly.

We have already demonstrated that small businesses have a serious information problem. There is a problem in obtaining information and in assimilating it. The situation is sometimes described negatively, in terms of an owner/manager who cannot take a new perspective because he is overburdened by the consequences of his refusal to delegate routine operating decisions. Whatever the reason, small businesses do appear to suffer from a lack of 'organizational slack.' There is little or no management time available for examining new and different opportunities.

A small business could increase its organizational slack at least modestly by improving its management, particularly financial management. Our survey showed that the one firm which had planned long-term financing before interest rates rose steeply, was much better placed to adjust to other market problems than the other eleven which were scrambling to absorb unanticipated financing costs. A different and probably more significant way of increasing organizational slack is the use of an active board of directors. Many small business consultants advise owner/managers to establish such a board.^{11/} It can be particularly useful in planning the management transition when the founding owner has to face retirement but directors can also be antennae for new information, review the firm's situation from a different perspective from that of the owner/manager, and propose changes in a way which is not perceived as threatening.

Turning to the second requirement for flexibility, small businesses can act quickly. Their lower level of fixed assets, smaller work forces and personal management styles allow their owners to take rapid advantage of an opportunity once they have identified and accepted it. This may explain the observation that employment grew proportionately faster than that of larger firms in growth industries over a given time period.

The basic decision is, of course, that of starting up in business, and, once the business is operating, of whether to continue, to merge or to withdraw from the market. Future or actual owner/managers can obviously take this decision much more rapidly than can professional managers of medium and large firms. Indeed the crucial flexibility which small business gives to an economy may be that of starting up new, productive activities and shutting down old, unproductive ones.

Summary and Conclusions

~~we~~ We must conclude that the outlook for small business in the 1980s is mixed. It has certainly proved its vitality under adverse circumstances so that the evidence of a slight decline in its aggregate importance should not be taken as the sign of a trend, at least until further work has been done on the matter in Canada.

A look at some expected structural changes in the light of an analysis of features favoring small business prosperity, suggests that

small business may be able to benefit from developments in manufacturing, in the thrust of governmental activity, and from new communications technology. Evidence from small business' recent behavior, confirmed by observations elsewhere, also suggests, however, that small businesses have serious problems in adapting to changes in their environment. Their flexibility lies in the rapidity with which their owner/managers can implement decisions. Yet their difficulty in obtaining and assimilating the information required for radically different decisions suggests that much of small business' flexibility may be within its established market. Finally, in the light of the obstacles any one particular small business may encounter in adapting to a changing economic environment, we should perhaps think in terms of the flexibility of the small business population -- its ability to start up and close down operations -- rather than the flexibility of any one of its members.

Footnotes to Chapter 12

- 1/ Report of the Committee of Inquiry on Small Firms, J. E. Bolton, Chairman, HMSO, 1971, and the Interagency Task Force on Small Business Finance, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, Bureau of the Census, Small Business Administration, September, 1980.
- 2/ "The Hard Facts," Canadian Federation of Independent Business, Survey of Business Conditions, Toronto, March 17, 1983. This figure is equal to approximately half the number of unemployed people in the country. This does not mean to suggest that half the country's unemployment is a direct result of small business' closures and lay-offs. The difference in total employment in small businesses is partly due to normal attrition, movement into large and medium firms, etc. Nonetheless the significant decline in numbers is symptomatic of small business' vulnerability.
- 3/ Included in "An Analysis of the Overall Contribution of Small Business to Economic Activity," Small Business Secretariat, November 15, 1982.
- 4/ Lawrence J. White, "Role of Small Business in the American Economy," The Interagency Task Force on Small Business Finance, 1980, p. 40. The four sets of data are: Employment by Establishment -- County Business Patterns, Employment and Sales by Firm -- Enterprise Statistics, Sales by Firm -- Statistics of Income Data, and "Gross Product Originating in Small Business," data compiled by Joel Popkin and Company.
- 5/ Data and interpretation are from Small Business Secretariat, "An Analysis" op. cit.
- 6/ See White op. cit. Contrary to the author's expectations, advertising and promotion were not significant variables.
- 7/ On the subject of the threat to North American production of steel, automobiles, rubber, petrochemicals, consumer electronics, etc. see Robert B. Reich, "The Next American Frontier," in The Atlantic Monthly, April, 1983, and the forthcoming book with the same title published by Times Books, 1983.
- 8/ See, for example, Richard Bencin's article on computer-based marketing, "Space-Age Selling Guide," in The Magazine That's All About Small Business, March/April, 1983.

- 9/ The survey covered twelve owner/managed firms in Montreal and surrounding areas engaged in manufacturing, trade, service, and construction activities. On the basis of interviews, the firms' market strategies were classified as follows: three self-employment firms, six seeking a stable high pay-off, and three growth-oriented firms.
- 10/ This development of networking has not yet been documented, but it is clear that the chapters of Le groupement québécois d'entreprises, for example, aim at a higher level of exchange and mutual support than did traditional small business gatherings.
- 11/ See, for example, Léon A. Danco, Beyond Survival: A Business Owner's Guide for Success, The University Press Inc., Cleveland, 5th edition, 1979.

13. Summary and Conclusions

In this Report, we have examined small business in the context of national economic policy objectives. We have seen what small business does, how it works and how some of the main instruments of economic management impinge upon it. The analysis is inevitably incomplete, but it points the way to an interface between micro- and macroeconomic concerns which has been lacking in the past.

One of the original concepts behind the commissioning of the Report was concern that federal economic policies might be unintentionally discriminating against small business. Unintentional discrimination against certain sections of the population to which a policy applies would be nothing new. Almost all policy measures have some effects which are unintended, and indeed often unforeseen, by policy-makers and legislators. The question is, if such effects exist, how important are they?

There are three parts to the answer. What does the affected group do in the economy? Do the unintended effects hamper or facilitate it in making its contribution? Are the policies which have unintended effects otherwise efficient in promoting growth and development? If we had complete answers to these questions, we could weigh up the trade-offs arising from any unintended effects of national policies on small business, and recommend whether or not they should be corrected.

This Report has concentrated on two aspects of the issue -- small business' role in the Canadian economy, and the existence of unintended effects on it in terms of national policies which are ostensibly neutral by firm size, but which, in fact, have different effects on businesses according to their size. When we have found differential size effects we have discussed their direction -- whether they are likely to hamper or support small business. We have not examined the efficiency of the policies in question in carrying out their primary objectives. The greater a policy measure's efficiency in this respect, the more damaging any unintentional discrimination against small business would have to be before one could recommend that it be modified.

We have found, first, that small business does make a particular and significant contribution to the Canadian economy, and, second, that

certain policy measures do appear to have negative unintended effects on it. In the light of the preceding paragraph, it follows that more attention, in terms of sensitivity and of research, should be devoted to the unintended effects of public policy on small business.

In the following sections, we recall the major elements which support these findings. We look, first, at the specificity of small business, second, at its actual and potential contribution to the economy, and third, at public policies and their impact. Finally, we raise the question of modifying policy and indicate some broad areas for future analysis.

What is Special About Small Business?

Small business differs from medium and large business in terms of its management, its riskiness, its vulnerability and its heterogeneity. As a result it does different things in different ways from professionally managed business. We have seen that the owner/manager identity colors the whole spectrum of small business behavior. The origin and success of the business depends almost entirely on the owner/manager(s)' goals, talents, and information, as well as on his health and stamina.

Owner/managers are prepared to operate under conditions which would daunt most professional managers. Their firms are usually dependent on one line of business and on the local market. Their financial reserves are often insufficient to weather more than a very short downturn and they seldom have the time, inclination and information required to put their finances on a sounder basis. Management support services can assist in reducing the vulnerability of small businesses, but it is important to realize that many owner/managers commit themselves to a particular kind of risk/reward pattern. It is one in which the return is to initiative, independence and hard work, rather than to the degree of formal planning and prudence in bookkeeping. Risk and market vulnerability follow from the nature of small business and cannot be eliminated without it changing its nature.

There is such heterogeneity among small businesses that we cannot usefully talk about the small business sector or even the small business community. Owner/managership gives all small businesses certain common elements of behavior, but there are widely differing market strategies,

and thus interests, within the small business population. Self-employment strategies are more likely to be found in certain sectors and areas, and growth-oriented strategies in others, but their presence cannot be predicted. We only know that one part of the population will be searching for stability and security while another will be following a trial and error process.

Small Business' Contribution

The importance of the small business person's contribution to society had become an unanalyzed truism until quite recently. Small business' social role was emphasized the most often, usually in terms of the self-fulfillment of dynamic individuals and the contribution of small businesses to the comfort and cohesion of neighborhoods. Small business' presumed role in the maintenance of economic activity in slow-growth or declining regions was largely an extension of this social perspective.

David Birch's work on job creation in the United States shook up this rather static view of small business in the economy. He suggested that small businesses are responsible for the creation of 80 percent of all new jobs. More precise definition has reduced this estimate to between 40 and 50 percent, while reflection on the causes of this phenomenon suggests that it may depend at least partly on the relative growth of certain industrial sectors, rather than exclusively on the size of the firm or establishment. Birch's work was, however, a catalyst in making analysts think about what small business was doing in their respective economies.

We have found that small business does play a major role in job creation and also in innovation. Small businesses produce considerably more innovations per dollar spent than do medium and large firms. Their innovations are typically of a product rather than a process nature, and tend to be discontinuous, in the sense that they leap-frog from one product to another. This diversity opens up new fields for systematic development by larger, more capital-intensive firms.

Small business also plays a crucial role as a specialized supplier to large businesses. Large corporations are turning more and more frequently to the "lean, hungry and innovative" small firm to fill specialized needs at short notice. The existence of a relatively large number of specialized small suppliers contributes to the versatility and flexibility of the secondary

manufacturing sector so that it can respond more easily to changes in demand. In the absence of such small firms, the large corporate purchasers' production costs and turn around time would be considerably increased. The small firm suppliers share the risks as well as the profits arising from their relationship with major purchasers. Although the relationship is asymmetrical and sometimes becomes unprofitable for the supplier, the growing professionalization of corporate purchasing in Canada is leading to a greater appreciation of the mutually advantageous interdependence between the two parties.

There is a strong presumption that small business is a major actor in regional development but, at present, most of the evidence is of a negative kind. Development plans built on creating large-scale operations or enticing large plants to relocate have proved vulnerable to the fact that large firms' decisions are subject to changes in market conditions far removed from the given region. Small businesses are not only more committed to the area, but also readier to discover, by trial and error, which industrial activities correspond to the region's potential. Data is lacking for analysis at the subprovincial level, but at the broadest level of regional concern, we note that small business is relatively more important in the economies of Western and Eastern, than of Central, Canada. In the export field, Canadian small business' contribution is still largely potential. But it is responsible for at least 50 percent of foreign exchange earnings from the tourist industry.

In many respects, small business' economic role is interstitial -- it fills in gaps and adjusts supply to demand. This shows up in many different ways. Performance indicators suggest that small business increases its employment more quickly than medium and large firms in growth sectors, while it lets workers go more slowly in declining sectors. At the same time, some U.S. studies show that its job creation record is better in slow-growth than in fast-growth regions. It tends to recruit workers who do not fit easily into large firm employment, and to provide skilled training which is more general than that offered within large corporations. In this context, small business' integration of members of minority groups into the economic mainstream either as employees or as owner/managers is a necessary and useful function.

These different types of contribution are not peripheral to Canada's economic growth and development in the 1980s. Job creation, innovation and greater industrial efficiency are three of the country's major economic concerns. Regional development and exports are others. In a market economy, industrial restructuring can only come about by a process of trial and error, and only small business, taken as a whole, can afford to pursue such a process. Over the 1970s, the main adjustment mechanism in the distribution of resources between industries in the manufacturing sector was the variation in the rate of firm start-ups with a fairly constant death rate for slow, moderate, and fast growing industries.^{1/} Since the vast majority of start-ups are undertaken by small firms, we realize the importance of their vitality in the industrial restructuring process.

Reasoning along these lines has led some observers to suggest that small business creates positive externalities, or social goods which are greater than the private returns to their owners, and that this should be rewarded. Externalities are notoriously difficult to identify and measure. The most useful way of addressing this question seems to us to refer back to owner/managers' goals. It is apparent that many of them work for long periods for compensation which is below their opportunity cost in salaried occupations. They presumably do this because independence and the prospect of potentially high returns make it worthwhile. In the light of the inherent risks, it is not surprising that very many small businesses fail. Given the usefulness of the trial and error process, society may in some sense gain from these personal losses. For small business' survival it is important that successes can reap their expected rewards. If this is ensured, additional compensation should not be necessary.

A further issue is the question of small business' potential contribution. Is it very different from the contribution actually being made? This appears to be the case in exporting, and possibly in innovating and in supplying specialty products, but we have not found any other major untapped potential. Concern is focused rather on making sure that small businesses can carry out their current roles successfully rather than opening new avenues to them.

Policy Impact

The Policy Environment

In a democratic society, a country's fundamental economic management goals are normally shared by a majority of the economic agents although there may be discussion as to their ranking. Differences in terms of firm size may, however, arise when we look at the environment in which policy is made and at the policy-instruments adopted. Among its other features, Canadian economic policy in the 1960s and 1970s was characterized by the importance it gave to the "big" actors, its interventionism, and the complexity of its instruments.

The influential role of major corporations, labor federations, and provincial governments in economic policy is a legacy of Canada's geography and history. It is also a question of facility. It is easier to deal with large, identifiable actors, who can carry others along with them, than with the multitude of individuals with diverse interests who make up the small business population. This is of greater importance the more active the central government is in the economy. To be effective, policy-makers must develop their policies in consultation with the groups to whom they are directed; but it is difficult to consult meaningfully with more than a limited number of people.

Seen from a small business perspective, the thrust of federal policy over the last twenty years has often seemed to be in the hands of groups committed to activist industrial programs and ambitious social policies. One of the results has been a multiplication of the number of safety nets provided for individuals and firms, and a consequent obscuring of market signals. Administrative complexity is another result. The existence of three levels of government in Canada adds to the costs of doing business. The presence of very active governments at two, or even all three, of these levels makes utilization of services and compliance with laws and regulations even more onerous. Government did not deliberately neglect small business' interests but the approach and the priorities of the two often did not coincide.

Policy Orientations and Measures

Turning to particular policies, we first looked at taxation. Tax policy is of major significance for small as well as large business, despite the fact that in any one year a majority of small businesses do not pay tax,

since it shapes the risk/reward pattern within which they participate in the market or decide to leave it. Size differences in effective rates of taxation have been greatly reduced since 1973 and are now similar across firms. Large firms have much greater flexibility in using different fiscal measures while small businesses are more flexible in their compensation packages.

The complexity of the tax system, part of which is attributable to industrial development policies, undoubtedly imposes an additional cost on small business. The accumulation of different measures which discourage risk-taking militates against all risk-taking firms but weighs more heavily on small business. Payroll and other pre-profit taxes also have this effect. Finally the Small Business Deduction itself, which has led to a relative equalization of the tax burden, may have a disincentive effect on firms' graduation from small business status. These effects, presumably unintended, are likely to have a limited, but not insignificant, negative effect on small businesses.

In the field of monetary policy, the picture is less clear than many observers would expect. Small businesses are financially more fragile than medium and large ones. Hence more of them suffer, and more quickly, from tight monetary policy and volatile interest rates. There is, however, virtually no evidence to suggest that monetary policy as it works through the chartered banks and other financial institutions, is applied in a different way to firms of different sizes. The mechanism seems rather to be that in a period of tight money and weak aggregate demand, small business' balance sheets tend to be hit relatively harder than those of medium and large firms. As a result more of their loan requests, judged by the same criteria as before, are turned down or terminated. However, monetary policy can be used to curb inflation -- our recent preoccupation -- in different ways. A policy which permits a high level of interest rate volatility in order to maintain stability elsewhere, may well hurt small businesses more than a similar policy which allows for more exchange rate flexibility. If the choice is not clearly made, small businesses may suffer from an unnecessarily heavy burden.

The manpower policy measure we examined, General Industrial Training, is used more by small- than by other-sized business. Yet it only represents a small share of the large federal expenditure on manpower training. But

the kind of training many small firms need -- basic work skills in particular -- cannot easily be provided by the federal government since education is a provincial responsibility. Although small businesses may not benefit to the same extent as others from total federal training expenditures, it is not appropriate to treat this situation as a form of unintended discrimination.

The case is different for workplace legislation. Use of the firm as the instrument for policies of a largely social nature has led to minimum wage legislation, unemployment insurance, and complex procedures (which differ from one province to another) to regulate union/management relations. Equal opportunity guarantees for various groups and secured retirement income are other objectives which are, or are likely to be, pursued in the same manner. All such measures tend to impose a greater burden on the small than on the medium or large firm. The greater labor intensity of small firms, the greater importance of transaction costs to them, and their dependence on flexibility in the use of labor account for this. In the case of some of these policy measures equity requires legislation directed at the firm. The right to collective bargaining is an example. But in other instances, such as minimum wage legislation, alternative ways of attaining the same objective may be possible which do not impose a differential burden in terms of firm size.

The last policy field we examined was the pursuit of industrial development by means of targeted programs and public procurement. Small business has benefited from several of these programs, particularly the Regional Development Incentives Program and the Program for Export Market Development. The federal government buys about 40 percent of its routine purchases from small businesses, which is considerably more than the population's contribution to total private sector sales. Yet the transactions costs of acceding to targeted programs is proportionately much heavier for small business than for other firms. In many cases it is prohibitive. This is an inevitable feature of programs offering financial assistance. The firms have to demonstrate their eligibility while program officers have to safeguard public funds. In addition, the majority of small businesses are ineligible for the variety of programs directed toward

the manufacturing sector. Information and support services, from which small business is more likely to benefit, only receive a very small fraction of total expenditures on industrial policy.

Industrial policy, as represented by the measures we examined, does not, in any usual sense, discriminate against small business. Indeed procurement policy explicitly favors it to a certain extent. Yet the allocation of national resources to specific industrial assistance programs may not always be in the interest of small businesses. First, they are less likely to be able to use the programs but still have to finance them through taxation. Second, the effects of such assistance on the incentive system may discourage risk-taking in general, and spoil markets for non-assisted firms in particular. The net effect depends on the individual case. In some instances, small businesses may discover new markets in supplying firms which have made an incremental investment with program assistance. We raise the possibility of such unintended negative effects to draw attention to a different perspective on industrial policy -- one which is shared by many owner/managers.

The selected analyses we undertook did not show small business as a victim of Canadian economic policy. In many cases it benefits from policies which are intended to be neutral as to firm size. In other cases it appears to get less than its proportional share and in still others it bears a heavier burden. But we must remember that governments have introduced a variety of measures which deliberately direct assistance to small businesses but which are not within the terms of reference of this Report. Nonetheless, the overall picture suggests a certain lack of sensitivity to small business interests, not only in the choice of policy measures and the allocation of resources for them, but also in the overall interventionist thrust of policy.

Policy Modifications?

Many of the unintended effects, both demonstrated or presumed, probably result from ignorance. We have frequently referred to the unavailability of relevant data. But this is not the only problem. Definitions, procedures and specifications are drafted in forms corresponding to the experience and needs of government and large corporations. As a

result, it may be impossible to know what small businesses are doing. Training is one example and innovation another. More small businesses train and innovate than appears in official statistics or published reports because the activity within the business does not correspond to the standardized description. Much more work needs to be done on how small and large businesses interact, and how they are respectively affected by government policies before any firm conclusions can be drawn as to their relative shares of costs and benefits.

Even at this stage of our knowledge, however, it is clear that small business' major contribution to the Canadian economy stems from the unpredictable, risk-taking activity of its owner/managers. Although an individual small business may not be very flexible, the small business population is probably the greatest source of flexibility in the economy. Any correction of unintended policy effects, which research may show to be desirable, must respect this reserve of flexibility and not change the nature of small business in attempting to protect it.

Footnote to Chapter 13

- 1/ J. Baldwin and P. Gorecki, with J. McVey and J. Crysdale, Entry and Exit to the Canadian Manufacturing Sector: 1970-1979 (Ottawa: Economic Council of Canada), Discussion Paper No. 225, February, 1983.

APPENDIX 1

Relationships Between Large Canadian Firms
and Smaller Knowhow-Intensive Suppliers

Report to the C. D. Howe Institute
October 31, 1982

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H.T.C.S. Co. Ltd.
Montreal

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INTRODUCTION

This report considers the relationships between large Canadian industrial corporations and the smaller 'niche' firms that provide them with goods and services that have a significant impact on the large corporations' productivity and effectiveness.

The essential questions addressed are:

- 1) What niches do the senior procurement managers in the large corporations perceive to be important to the performance of their organizations?
- 2) Why do they choose to buy certain goods and services from 'outside' rather than 'making' them in-house?
- 3) What are the criteria and attitudes underlying these procurement policies and decisions?
- 4) What are the characteristics of the smaller niche firms and of their Founders?
- 5) How did these firms evolve, encounter and deal with crises, and diversify?
- 6) To what extent are they shaped by their chosen relationships with the large industrial corporations that constitute most of their market?

Each smaller firm described in this report meets the definition used by the C.D. Howe Institute:-

"A small specialized supplier is a business whose annual sales were usually below \$5 million (1982 Dollars) not earlier than 1965."

It has rightly been argued that every small business is somehow 'special' -- by virtue of its location, particular stock in trade, idiosyncracies of style and service, and so forth. Therefore, any definition of a special class of firms within small business will have its problems.

Though the process of definition may seem after the fact, the findings of the study described here provide a pragmatic definition of these 'small specialized suppliers':-

These are firms that provide goods or services of particular importance to major industries -- being sufficiently specialized in a sufficiently limited business niche to deter a proliferation of competitors, and hence making it risky and costly for their customers to deal with any firm that lacks their particular know-how and experience.

The operative factors then are intensity of know-how in a sharply focused niche that corresponds to a recognized significant need of one or more major industries -- the niche being so precisely defined that it inhibits competitors (including major firms that might otherwise choose to 'make' rather than 'buy').

PART ONE -- INDUSTRIAL PROCUREMENT POLICIES AND AIMS

INTRODUCTION

Formal procurement policies and practices are a recent development; even among large and sophisticated firms.

Such policies are intended to serve some aim of the organization; the translation of policies into practice affects the basis on which suppliers are selected, and the terms and conditions on which goods and services are purchased.

The six major Canadian industrial corporations interviewed in this study were purchasing, on average, \$500,000,000 a year -- exclusive of raw materials entering into their mainstream processes. (This is a per firm average, and not a total for all six firms).

Accordingly, purchases by major corporations are a significant force in the Canadian economy, and procurement is therefore a very powerful lever for promoting whatever it is that the major industrial organization's policies reflect.

THE NEW EMPHASIS ON PROFESSIONAL PROCUREMENT

There seems to be a correlation between the crisis history of an industrial sector and the adoption of formal procurement policies and practices by firms in that sector.

Other important factors are the extent to which Strategic Planning is formalized, and whether or not the firm is guided by a strong ideology or vision.

Capsule accounts of the crisis history and procurement status of the six major firms contacted follow:

- 1) In this firm the procurement (sourcing) system is very sophisticated and is closely aligned with a larger system of formal planning.
 - a) This planning framework is common in this firm's industrial sector, which was one of the first to develop modern industrial organization with formal planning, monitoring, and control.
 - b) The industry went through several crises of over-expansion, and individual firms had to give priority to productivity and cost-tightening.

Hence a top management recognition of the role of the procurement function came relatively early.

- 2) This firm has a centralized and computerized procurement system tied to a comprehensive inventory management approach. This state-of-the-art capability grew out of a shakeout in its industry sector; a traditionally stable business environment suddenly turned hostile and highly competitive.

It was no longer feasible to husband in-house capabilities. 'Buying' rather than 'Making' became the rule, and it was imperative that this be done in a cost-effective way.

THE NEW EMPHASIS (Continued)

- 3) This firm is in an industrial sector that has yet to face a major crisis. There is no coordinated sourcing, and computerization is proceeding slowly. Procurement is done through expertise groups, with a nominal division of effort between corporate and local Units.
- 4) This firm went through a radical organizational transformation some years ago. Since then it has pursued a consistent program of cost reduction; this has pervaded its working culture, and its policies and practices on all fronts.

While not engaging in formal strategic planning, this firm is dedicated to operational planning; Unit forecasts are used to prepare rolling supply plans looking ahead several years.

These plans were very useful to the firm and to its sources so long as the business climate was reasonably predictable. But in the past couple of years the outlook has become turbulent and uncertainties have become much greater.

Also, as part of its own diversification, the firm moved into foreign markets and in so doing took on new levels of risk. Its Cash Flow suffered and this led directly to a corporate-wide evaluation of 'make' or 'buy' and in turn to a more sophisticated procurement approach. There is a growing awareness of broader issues and possibilities, and of the need to establish secure supply bases for strategic materials and components.

- 5) Until very recently, each Unit of this firm operated almost totally on its own. Now a central procurement group is in place; to develop and promulgate policy, and to integrate purchasing activities in the interests of cost, efficiency, and security of supply. Computerization is proceeding rapidly and a full sourcing system will be on-stream soon.

The change-over in management attitude was influenced by two trends in the firm's business environment:

- a) The firm, on a trial basis, used an outside prime consultant to design and manage a major project. This was a radical departure from earlier projects which were handled in-house with some sub-contracts issued to outside consultants and contractors. The project proved very successful, and since then all major projects are led by 'outsiders.'

This decision to go the whole way probably relates to the growing large project know-how of consulting firms, to the increasing project costs and risks and hence to the costs of maintaining a broad in-house capacity for design and project management, and to an increased sense of Canadian (and provincial) nationalism with attendant pressures to contract out for the good of the nation or region.

THE NEW EMPHASIS (Continued)

- b) This firm was, for a time, not badly hit by the global economic slowdown. But now the pressure is felt and cost reduction is a necessity. Hence there is more contracting out as internal capacities are cut back.
- 6) This is the only firm of the six interviewed that is guided by a strong ideological vision. Its ideology shaped the firm's approach long before a crisis in its industry sector compelled formal declarations and action.

The declared corporate objective is to bring about Industrial Development in Canada in general and in its Industrial Sector regionally in particular, using purchasing decisions as a key instrument.

The firm is also unusual in the degree to which its top management attempts to implement its policy, and in the strength of its definition of what in fact constitutes an acceptable supplier.

THE GOVERNMENTS AND INDUSTRIAL PROCUREMENT POLICY

The Federal Government of Canada has had a profound impact on the well-being of various industrial sectors through its policy interventions. The National Energy Policy is just one instance.

For much of the past decade, as the Mega Projects were brought forward, a Buy Canadian policy has been evolving -- applying specifically to major projects involving Federal Government financing or other involvements. Although the Mega Projects seem to be quiescent at present, the same philosophy has spilled over to the provinces; this has become a 'warm' subject in the past few months.

Various provincial governments have taken active stances toward major industrial and resource-based projects within their jurisdictions; aiming to encourage use of local sources for goods and services.

Though these policies are dressed up as 'guidelines' that describe the ways in which various government ministries and agencies can assist major firms by facilitating their projects, the underlying message is clear; 'work with us or face substantial problems in getting approvals on environmental and other matters.'

It is no coincidence that these various provincial guidelines are emerging in this time of sharp economic decline and political danger; though the policies aim formally at Canadian sourcing and stress inter-provincial cooperation, there is an implicit but powerful tendency toward narrower protectionism.

Even though declining economic fortunes have reduced the leverage of the provincial governments in trying to enforce their aims, these provincial procurement policies could still have a strong impact:

- a) In general, there is a correspondence of intentions between the governments and the major industrial firms; all want to encourage development of Canadian sources of supply -- all want strong local supply bases.

THE GOVERNMENTS AND INDUSTRIAL PROCUREMENT POLICY (Continued)

- b) 'Major' projects are now defined as having \$50 - \$100 million capital value and up. There is a flow-through intent to procurement policy -- that the owner and prime contractor should ensure Canadian content by sourcing from small-to-medium size firms within the locality/region/province/nation.
- c) Large industrial corporations are very conscious that Canada is not one monolithic marketplace. Increasing provincialism -- parochialism-- heightens the imperative to align business policy with provincial policy, with an emphasis on local sources of goods and services. (This imperative operates independent of what government is in power).

This awareness is not unique to Canada. Multi-national Canadian firms report that wherever in the world they operate there are pressures to make more use of local suppliers -- in the United States and Europe as well as in less developed nations.

CORPORATE HEADQUARTERS MIGRATIONS WITHIN CANADA

For a variety of avowed reasons, a number of major industrial corporations have moved their head offices within Canada; the shift from Montreal to Toronto has been a fairly common occurrence.

Smaller firms that serve the major corporations, in general, cannot afford to spend much for the travel and living that is involved in marketing at a distance.

If a major industrial firm has centralized procurement, and moves its headquarters, then its ties with smaller suppliers in its former location tend to weaken and new relationships tend to be established with equivalent suppliers in the new locale.

But if procurement is non-centralized -- each corporate Unit continuing to do its own purchasing, then the local and regional patterns of sourcing remain largely unchanged and the head office shift has little impact.

CUSTOM VS STANDARD ITEMS -- POLICY UNCERTAINTY AFFECTING SOURCING

Niches sometimes imply custom and/or specialized production within a market dominated by multi-national manufacturers with broad standard product lines.

Since bought-up costs of standard components as a percent of total product cost are increasing, major Canadian industrial firms, if they hope to remain competitive internationally, must source many standard components from outside Canada. Yet Canadian industry also wants Canadian sources for special and custom goods, tailored to a quasi-customized market.

Hence, components can be loosely grouped into two categories -- Industry Standard devices, and Special Requirement devices.

CUSTOM VS STANDARD ITEMS (Continued)

Industry Standard devices are manufactured by very large-scale mass production firms with high-cost tooling and work-flow setups. Because of labor costs, most of this production is done outside of North America and Europe. This is capital-intensive high throughput manufacturing and is beyond any possibility of a Canadian-based firm -- of whatever size.

There is a need though for Canadian sources of Special devices; this means, at most, limited batch production.

The major industrial firms would like to see such Canadian sources established. But there is a countervailing fear -- that the Federal Government officials might not recognize the distinction between Industry Standard, and Special Requirement production, and might declare a condition of 'Made in Canada' that would raise the price in Canada of the Industry Standard devices.

Then a major Canadian firm with a high cost component of imported Industry Standard components (this is increasingly true of much of Canada's high technology industry) would have to pay a higher cost and its international competitiveness would be hurt.

Accordingly, there is ambivalence in wanting to encourage some kinds of Canadian sources; there could be a real danger if the smaller specialized firm succeeds too well.

This concern was only expressed by one industry, and thus far it is of limited significance. That the concern exists at all, and that it is perceived as a potential inhibitor to development of higher-order Canadian know-how, is interesting. If, and as, Canadian firms move toward the frontiers of technology and innovation, the issue could become much broader, and deeper across many industry sectors.

While in theory GATT should lead to a progressive removal of tariffs, there is evidence that other kinds of barriers to trade are rising. Accordingly, the issue is not likely to vanish.

INDUSTRIAL PROCUREMENT: MAKE OR BUY FACTORS

Introduction

The bought up content of sophisticated products has been increasing; large industrial firms are making less in-house and assembling more content from bought-up components and assemblies. There are several factors involved:

Intensity of Competition

Canada is more or less transparent to international competitive forces; there are few effective trade barriers. Increasingly tough competition, and hard times, have forced many firms to re-evaluate all their in-house activities. This kind of re-evaluation leads to on-going 'make or buy' decisions of great significance to the firm and to the national economic fabric.

The Cost of Maintaining Support Groups

Many forms of manufacturing require extensive support groups. For example, the manufacture of Castings depends upon mechanical engineering capabilities. A fairly common decision is to abandon in-house manufacture of Castings, to dissolve much of the engineering support capability, and to buy from suppliers that specialize in Castings.

This is not an absolute rule. Some firms have a large sunk investment in obsolescent plant and equipment and are maintaining large labor forces dedicated to products and processes that could be done more effectively elsewhere. Since workers cannot be easily abandoned and sunk costs do not pose a burden, a firm may choose a mix of make and buy -- with the in-house capacity taking on large standard production runs and with the more specialized and custom work being contracted out.

Strategic and Proprietary Needs

While some firms are cutting loose or discontinuing non-mainstream activities, there are sometimes ancillary processes or ventures that are perceived to have strategic potential. Then the firm may choose to hold on and develop that capability as an investment for the future.

Another situation in which a firm might decide to make rather than buy is where the particular item and/or process is both strategic and proprietary. Guarding the confidentiality of know-how would take precedence over cost-saving.

Encounters with Supply Squeezes and Price Escalations

The supply squeeze of the 1974 era made manufacturers and contractors quite conscious of the sometimes precarious and capricious behavior of suppliers in situations of economic uncertainty. Since one of the main responsibilities of top management is to reduce uncertainty for the organization, they want their organizations to develop secure 'Supply Communities.'

INDUSTRIAL PROCUREMENT: MAKE OR BUY (Continued)

Even where a firm with a very special requirement may only be able to source from an in-house Unit or Affiliate, there is an increasing insistence on developing parallel in-house capabilities -- if one source is closed off because of a strike or due to some natural disaster, then there would be a backup source.

More generally, no firm wants to have to rely completely on a single source -- whether internal or external. Accordingly, most large firms try to build a multiple-source supply base in each locale in which the firm has an Operating Unit, as well as for its corporate needs.

Costs of stocking Supplies for Maintenance, Repair, and Operations

Many* firms use smaller, local, suppliers as their 'warehouses' -- the supplier meets the continuing need for parts and services in small quantities.

This cuts down the extent to which the major firm has to stockpile parts and maintain technicians at its various plants.

(However, on exceptional and long lead-time items the major firm would probably carry its own inventory. This would also be true for recognized high priority parts that are in limited demand but that could cause bottlenecks in plant throughput if not immediately available -- it would not be fair to force a small local supplier to stock costly and rare items).

Given this extensive reliance on local suppliers, the large firm will then usually tie its choice of major capital equipment to the availability of local maintenance services and parts stocks.

Anti-Combines Concerns

This is not yet a major concern, but uncertainty about eventual legislation is prompting some major firms to consider inviting more outside bids, rather than 'automatically' buying from in-house divisions and affiliates.

* Though only six major industrial firms were visited, comments strongly suggested that this was general industry practice.

IN-HOUSE ENGINEERING VS. USE OF OUTSIDE CONSULTANTS

When an industry sector is doing well, the in-house engineering capabilities of firms in that sector tend to be substantial in numbers and in the scope of work performed by in-house forces.

As an industry sector becomes more competitive, and firms are forced to become more cost-effective, they tend to cut back local in-house engineering groups (at plants and mills) in favor of more contracting out to local, smaller, consulting firms and contractors -- for local plant extensions and modifications, etc. However, a strong central -- or corporate engineering department is usually maintained to handle major projects.

In periods of rapid capital expansion -- in boom times -- the corporate engineering department becomes fully occupied and there is even more work to be done; hence, major projects tend to be farmed out to large outside consulting firms, or shared between in-house and outside groups.

(Large industrial firms have been sponsoring major capital projects for many years, and they have an on-going familiarity with certain large contracting and consulting organizations and tend to favor them for the major projects. Smaller projects are handled by the plants or mills directly involved).

Typically, local engineering groups would be responsible for projects up to say \$100,000 capital cost. The corporate engineering department would look after projects ranging in capital cost from \$100,000 to say \$50,000,000, and anything larger would be contracted out.

But when an industry falls into recession, even relatively large projects will be done in-house; to maintain a bare-bones cadre of know-how intact. The capital cost 'breakpoint' -- the threshold above which a project is contracted out -- rises in hard times. (Note that \$50,000,000 capital cost is no longer considered to be a very large project).

Keeping some kind of a core engineering capability intact in-house becomes a high priority. That essential group is needed; for planning and monitoring projects, and, depending on the nature of the industry, for selecting specialist consultants and suppliers and for keeping the firm in touch with what is happening in its technology around the world.

Engineering and contracting in an operating plant or mill presents some unusual challenges. The over-riding Objective Function of the Plant or Mill Managers is to maintain throughput. Any modifications or changes have to be done while the equipment and processes are in full operation. Engineers and technicians have to be able to work around, and sometimes through, in-place equipment and structures. This requires industry-specific know-how. And this would not normally be available in the small towns and rural locations where many plants and mills are established; other than in the firm's own in-plant engineering groups.

But when in-plant engineering groups were cut back or eliminated -- in response to competitive pressures -- some of the people involved chose to stay in the community. Former plant engineers and technicians set up small consulting and contracting businesses, or joined existing ones. Relevant know-how stayed in the region, but under different sponsorship. This made it easier to make the transition from reliance on in-plant capabilities to reliance on outside resources.

IN-HOUSE ENGINEERING VS. USE OF OUTSIDE CONSULTANTS (Continued)

Another factor favoring local contracting out has been the increased emphasis on higher technical education -- reaching into non-urban areas as well as into the major population centers.

Students can now see some opportunity for a technical career outside of the major cities, and more younger people are taking up business and technical roles in engineering and construction.

Accordingly, there is an increasing correspondence between the local needs of major firms and the abilities of local firms to meet those needs.

This does not mean that smaller local consultants, contractors, and suppliers have an automatic 'in';

- 1) Throughput is the basis of plants and mills, and will not be put at risk. A small firm will be brought in very gradually -- allowed to work on very minor projects at first and as performance is proven, graduated progressively to more important work.

(However, a small local firm will almost never be allowed to bid on a major project; major capital projects are still the domain of the central engineering department and/or the major consulting firms).

- 2) The major industrial firms will from time to time introduce competition from outside the locale or region; to sharpen the awareness of the need to be cost-effective.

CAPITAL EQUIPMENT AND FACILITIES

Capital Investment is usually the largest component of industrial procurement, though in harsh economic times capital investment is sharply cut back and other components of the budget loom larger in proportion -- as the industry becomes concerned with survival rather than with growth. But even when survival is the main issue, there is some capital investment, and the criteria used in selecting suppliers remain much the same:

- 1) The prime consideration in buying equipment is the supplier's technical reputation and performance in relation to very special needs.
- 2) Hence, 'Technology' is bought wherever it can be found -- size and location of a firm are not primary factors:
 - many smaller, specialized, firms can design and fabricate very sophisticated capital items and can also install and integrate their equipment into larger systems

CAPITAL EQUIPMENT AND FACILITIES (Continued)

- however some basic lines of products that are the building-blocks of modern processes -- pumps, compressors, and so on -- 'can only come from very large suppliers that have the financial strength and scale to do Research and Development..'

The smaller firms then tend to find important niches in customized design and fabrication, while standard 'special' products tend to be bought from very large manufacturers.

- 3) Competition is encouraged among the relatively few firms that can provide the desired equipment or facility -- competition among technical 'peers.'
- 4) The criteria used in selecting a supplier then, in order of importance, are:
 - a) Technical Qualifications (Quality, Reliability, etc)
 - b) Competitiveness on Price and Delivery

TABLE 2

HISTORY OF THE BUSINESS

	1	2	3	4	5	6	7	8	9	10	11	12
<u>HISTORY PRIOR TO THE FOUNDER</u>												
- originally founded -- years prior			11							20		7
- sold due to death of founder												x
- went into receivership			x							x		
- continuity in the family					x							
- completely new venture	x	x		x		x	x	x	x		x	
<u>HISTORY AFTER FOUNDER TOOK OVER OR ESTABLISHED THE BUSINESS</u>												
- CAPITAL INVESTMENT IN YEAR __ OF FIRM*	-	-	0	3	0 ²	7	0	1-	-	1	9	4
- CUSTOMER SECTOR DEMAND IN YEARS JUST PRIOR TO FIRM'S CAPITAL INVESTMENT (RISING/STEADY/DOWN)	-	-	R	R	-	R	R	S	-	R	S	S
- CAPITAL INVESTMENT COVERED BY GOVERNMENT GRANTS			x				x					
- MEGA PROJECTS AS INVESTMENT RATIONALE			x	x		x						
- PERCENT CANADIAN OWNED (1982)	100	100	100	0 ¹	100	100	51	100	100	100	100	100
- YEAR AFTER FOUNDING IN WHICH SMALL BUSINESS LEVEL REACHED ³	3	-	-	7	9	-	-	-	-	1	10	-
- FINANCIAL CRISIS __ YEAR OF FIRM	-	-	-	9	-	9	0	-	-	6	5	4
- TECHNICAL CRISIS __ YEAR OF FIRM	-	-	1	-	-	-	0	-	-	3	-	-

Notes: 1. buyout offer was accepted a few years ago, with Founder running firm under a long-term contract and with full autonomy to decide policy.
 2. a long-established firm in which all assets costs are sunk costs.
 3. a 'small' business is defined here as having less than \$5 million yearly sales, 1982 dollars, within the last 15 years.

* this is the first significant investment by the firm in facilities, and usually involves buying land and constructing a plant with headquarters offices.

TABLE 1

CHARACTERISTICS OF 'FOUNDERS' OF FIRMS STUDIED

	1	2	3	4	5	6	7	8	9	10	11	12
<u>EDUCATION</u>												
- Graduate Engineer			x	x	x	x		x	x			x
- Other Graduate Professional		x								x		
- B Comm												
- MBA												
- Non-university graduate	x						x				x	
<u>YEARS PRIOR RELEVANT EXPERIENCE</u>	16	15	0	20	12	3	0	20	10	0	15	3
<u>PRIOR SENIOR MANAGEMENT EXPERIENCE</u>	x		x	x	x	x	x	x	x	x		x
<u>PRIOR ENTREPRENEURING</u>			x				x					x
<u>SIZE OF PREVIOUS EMPLOYER (S/M/L)</u>	M	M	M	L	S	L	S	M	M	L	L	S
<u>REASON FOR LEAVING PREVIOUS POSITION</u>												
- Foreign Owner sold firm	x		x									
- Family firm; family member moved in										x		x
- Saw an unoccupied niche				x				x	x			
- Strong desire to be on own		x				x			x		x	
- Grew into family business					x							
- Potentially attractive deal with low risk							x					
<u>AGE AT TIME OF FOUNDING THE BUSINESS</u>	35	38	35	40	32 ¹	38		53	40	40	35	37
<u>FOUNDED TOGETHER WITH PARTNER(S)</u>	x	x		x ²			x	x	x	x		
<u>PARTNER(S) STILL INVOLVED TODAY</u>	x	x					o ³	o ⁴	x			
<u>NET WORTH AT TIME OF FOUNDING (L/M/H)</u>	L	L	M	L	H	L	H	M	M	H	L	M

- Notes: 1. Took over well-established family business and transformed it by bringing in new technology.
 2. Later split with partner and set up own firm.
 3. Business failed soon after its establishment.
 4. Sold after a few years as a going concern because of ill-health. New owner is also an Engineer, with prior Entrepreneurship and relevant experience.

S/M/L -- Small, Medium, Large

L/M/H -- Low, Medium, High

TABLE 3

	NATURE OF THE BUSINESS											
	1	2	3	4	5	6	7	8	9	10	11	12
<u>HOW FIRST MAJOR CONTRACT OBTAINED</u>												
- contacts from previous work	x	x		x				x	x			x
- continuity from previous owners			x									
- intensive new marketing	x				x	x	x			x	x	
<u>TYPE OF BUSINESS</u>												
- Sourcing/Distribution/Wholesaling	x								x		x	
- Design		x	x	x		x	x	x	x	x	x	x
- Custom Fabricate			x	x	x	x	x	x	x		x	x
- Batch Manufacturing									x	x		
<u>PERCENT PROFESSIONALS ON STAFF</u>	50%	50%	10%	10%	2%	11%	?	11%	10%	5%	10%	10%
<u>CAPITAL INVESTMENT PER EMPLOYEE¹*,000</u>	-	-	\$150	\$60	0 ²	\$30	\$150	\$60	-	\$35	\$30	\$25
<u>REVENUE PER EMPLOYEE¹*,000</u>	\$500	?	\$125	\$140	\$120	\$60	0 ³	\$90	\$110	\$125	\$50	\$75
<u>BEST YEAR 19-- SALES & PROFITS</u>	82	80	82	81	81	81	0 ³	81	82	81	79	82
<u>OUTLOOK FOR 1983 (UP/SAME/DOWN/?)</u>	S	S	D	D	D	S	-	D	U	D	D	?
<u>COMPRESSION RATIO⁴</u>	1.5		3.5		1.8	1.8	-	1.1	low	1.3	1.5	1.2
<u>CURRENT WORKING CAPITAL POSITION (STRONG/FAIR/WEAK)</u>	S	S	F	S	S	F	-	F	S	W	F	F
<u>USE OF COMPUTERS/PROGRAMMABLE CALC.⁵</u>												
- Technical Design		x	x	x				x	x		x	x
- Data Bank	x											
- Office/Administration			x	x		x						

Notes: 1. At maximum plant use (in best year so far)

2. long-established business in which all assets costs are sunk costs

3. went into receivership before revenue pattern formed

4. recent Maximum/Minimum revenues from one year to the next

5. All firms plan much broader use of computers in the next year or so

*. See Attachment for summary statistics for Manufacturing firms as basis of comparison.

All dollar values are in 1982 Canadian dollars.

TABLE 4

OFFERINGS, CUSTOMERS, AND COMPETITORS

	1	2	3	4	5	6	7	8	9	10	11	12
<u>PRODUCT OR SERVICE BASE</u>												
- Broad/Average/Narrow	B	B	N	A	N	B	N	N	B	N	N	N
- Value/added (High/Avg/Low)	H	H	H	H	A	H	H	H	H	H	H	A
- Rigorous Quality Documentation?	X		X	X			X	X		X		X
<u>EQUIPMENT & TOOLING BASE</u>												
- Product Potential (Broad/Narrow)	B	B	N	B	B	B	N	N	B	N	N	B
- Status (State-of-the-Art/Adequate)	S		A	S	A	S	S	A	A	S	A	A
<u>KNOW-HOW (Outstanding/Average)</u>												
- Skills & Trades		A	O	O	A	A	A	A	A	O	A	A
- Design		O	A	O		O	A	O	A	O	O	A
- Business Strategic Insight	O	O	A	O	A	O	A	A	O	O	O	A
- Equipment & Tooling Significance			A	O	A	A	O	A	A	O	A	O
<u>CUSTOMERS</u>												
- Formal Marketing?	X	X	X	X	X	X	X	X	X	X	X	X
- Selling direct to End Users	X	X	X	X	X	X	X		X	X	X	X
- Selling to Packager/OEM		X			X		X	X	X			
- Dependent on one major customer							X			X		
- Dependence increasing/decreasing										-		
- Dealing with one/several Industries	S	S	O	S	S	S	O	S	S	O	O	S
- Customer Sophistication (High/Medium)	H	M	H	H	H	H	H	H	M	H	H	H
<u>SALES COVERAGE</u>												
- Regional					X							X
- National across Canada	X	X	X	X		X	X	X	X	X	X	
- International ex U.S.		X		X	X			X			X	
- U.S.			X	X		X		X	X	X	X	
<u>COMPETITORS</u>												
- Size relative to Competitors (Very Large, Large, Average, Small)	A	L	A	L	L	A	VL	A	L	L	L	A
- Number of Competitors (Many/Some/Few)	S	F	F	F	M	F	F	F	M	S	F	M

TABLE 5

BUSINESS PHILOSOPHY

	1	2	3	4	5	6	7	8	9	10	11	12
<u>USE OF GOVERNMENT INCENTIVES</u>												
- Research & Development											X	
- Marketing & Market Research											X	
- Ministerial & Trade Missions		X									X	
- Capital Grants			X				X			X		
- Mortgage												X
- Direct Equity Investment							X	X				
- Export Credit				X								
<u>FOUNDER'S REASONS FOR 'SUCCESS'</u>												
- Special Expertise	X	X	X	X		X		X		X	X	
- Reliable Performance/Competence	X	X	X	X	X	X		X	X	X	X	X
- Ability to Respond Quickly/Delivery	X		X	X				X	X	X	X	X
- Continuity of Key People	X								X	X		
- Market Research	X											
- Sales/Profits Incentives	X		X	X								
- Designing/Producing 'the best'		X	X							X	X	
- Cost-Effective Outcomes		X				X					X	X
- Innovativeness		X	X			X				X	X	
- Luck in hitting Boom Markets		X						X		X		
- High Product Visibility		X										
- Price			X	X		X		X			X	X
- Business sized appropriate to its Niche				X								
- Multi-faceted workers				X								
- Cost edge on Materials					X							
- Careful selection of Customers						X						X
- Service (Product Support)						X			X		X	
<u>DESIRE FOR FURTHER GROWTH IN SIZE</u>												
	X			X		X		X	X	X		X
<u>GROWTH STRATEGY</u>												
- Geographic expansion	X			X		X		X	X	X		
- Product Diversification	X		X			X		X				X
- Aggressive Marketing				X		X		X				
- Capital Investment								X				
- Customer Diversification										X		

TABLE 5 -2-

BUSINESS PHILOSOPHY

[illegible]

ATTACHMENT:
SUMMARY STATISTICS FOR MANUFACTURING FIRMS AND COMPARISONS WITH FINDINGS

1. For all¹ businesses in various size categories -- 1978 Data:

	Size Categories by Annual Sales		
	<u>\$250,000 - \$2M</u>	<u>\$2M - \$20M</u>	<u>\$20M and up</u>
Total Number of Firms	97,000	21,000	2,340
Total Sales \$ Billions	\$66 B	\$108 B	\$271 B
Average Sales ,000	\$680,	\$5,150,	\$115,800,
Percent Canadian-owned ²	98%	84%	45%
Exports as Percent of Sales (1979)	4.5%	12.4%	27.5%
Average Sales by Province:			
Alberta	\$652,	\$5,100,	\$119,000,
Ontario	\$650,	\$5,300,	\$125,000,
Quebec	\$645,	\$5,100,	\$107,000,

2. For Manufacturing Businesses Only -- 1978 Data:

Total Number of Firms	12,600	5,000	921
Average Sales ,000	\$770,	\$5,800,	\$125,000,
Average Number of Employees	23	123	1,520
Average Sales per Employee ,000	\$33.5	\$47.2	\$82.2

NOTES: 1. does not include self-employed.

2. the percentages of Canadian ownership are almost identical using Number of Firms and Total Sales of Firms.

Source: Ministry of State for Small Business & Tourism, Canada.

"Small Business in Canada -- 1981: A Statistical Profile."

3. Of the 12 Firms studied, 9 were in Manufacturing and still in business: -- average peak year data (1981)

Total Number of Firms	9
Total Number of Employees	913
Total Sales	\$91.6 Million
Average Sales/Employee	\$100,000

These firms can be split into two distinct categories:

	<u>Over \$10 Million Sales</u>	<u>Under \$5M Sales</u>
Total Number of Firms	5	4
Total Number of Employees	765	148
Total Sales	\$79.6M	\$12M
Average Sales/Employee	\$104,000	\$81,000
Average Number of Employees	150	37

4. Even allowing for industrial inflation from 1978 to 1981, the Firms studied -- smaller, and larger-smaller, are clearly well ahead of the average manufacturing firm in Canada in Sales per Employee -- by a factor of 2 or more. This factor seems to be more or less independent of where in Canada a firm is located.

PART THREE -- OBSERVATIONS

WHY FOUNDERS EMERGE AT AROUND 40 YEARS OF AGE

In one third of the cases, the Founder was displaced from his prior career after having reached the level of senior management:

- a) The Founder was employed by a family-owned business in which a member of the family was brought into the firm; blocking the Founder's career possibilities.
- b) The Founder was employed by a subsidiary of a foreign corporation. The subsidiary was sold and the new owners shuffled top management; displacing the Founder.

Accordingly, the Founder was suddenly cut off from what had seemed to be a promising career. For the first time in his life, perhaps, considerations of alternatives became essential and one alternative was to set up on his own.

This happened because of the combination of the Founder being in senior management -- implying maturity, know-how, and business contacts -- and this typically meant coming of age (35 to 40 or so), and a sudden imposed change in the employing organization.

The Founder, typically, had few tangible assets at that point in his career --aside from house and car perhaps. He did not hold equity in the employing company. Accordingly, there was not much to lose by going on his own, and the only way of building a business starting from scratch was to proceed from a very small beginning and to build gradually. So the only thing at risk was time, and at age 40 there is still a perception of time enough to try entrepreneuring.

The Founder did have an advantage; he had an established track record in a particular field of enterprise, and this included a measure of credibility with prospective customers in that field. This tended to reduce his risk -- the first customer was accessible from the start.

Only two of the Founders fit the classical image of an entrepreneur; emerging from a varied working background -- with several firms and in several countries -- with no particular experience relevant to what they eventually choose to do and no clear career opportunity. The key ingredient here seems to be an intense desire of each to run his own show (both set up as sole owners), and the exact niche they ended up in seems to have been more a matter of chance than of deliberate choice; both went into ventures in fields dictated by their very recent work experience and exposure.

The remaining Founders were not compelled to leave their employment but chose to do so after acquiring a great deal of relevant business experience. They simply set up smaller replicas of the larger firms they had left.

WHY FOUNDERS EMERGE AT AROUND 40 YEARS OF AGE (Continued)

They had the established contacts -- having been active in marketing as well as the technical aspects of the business -- and must also have had an inclination to go their own way. Notably, most went into business with partners who came from the same background and usually from the same firm.

Of these Founders who left one firm to set up another in much the same line of business, two were notable in seeing something beyond the existing practice and products. They identified a need for a narrowing of scope -- this meant a higher level of specialization.

The risk here was higher, since there were investments implied in equipment beyond the ordinary, and there had to be a Learning Curve which went along with the development of credibility with a limited number of very demanding customers.

FINANCIAL CRISES IN SMALLER SPECIALIST FIRMS

These firms do most of their financing through the Cash Flow they generate. They have little choice; the banks are usually not supportive of new and smaller ventures.

Accordingly, financial crises, if they occur, are more likely to come in times of rapid expansion with the accompanying need for capital investment. The most likely time for this to happen is when the firm buys its own land and puts up its own plant for the first time.

Rapid growth drains working capital. A Major contract, often presenting unusual technical challenges, can put a small firm into the red without much warning.

Since these firms are owned by one or two persons, who usually do not have much net worth beyond what is plowed back into the business, who lack credibility with the banks, and who do not usually have any silent investors or other angels waiting with a large reservoir of capital, even a financial crisis of short duration can force the firm out of business.

In nearly every case the financial crisis was of short duration; typically a matter of just a few weeks. Once the crisis was passed, the firm quickly surpassed its previous profitable performance. But getting through the crisis required the Founder to innovate rapidly in ways of accessing additional funds:

- a) selling out to a major technical backer
- b) finding, through third parties, a private investor willing to buy in temporarily; the Founder buying the investor out in a year or two
- c) re-capitalizing because the scale of growth was beyond any cash generation possibilities; in effect creating a new venture with new partners

FINANCIAL CRISES IN SMALLER SPECIALIST FIRMS (Continued)

- d) being particularly ingenious in finding a way to impress the bank with the Founder's technical and business credibility
- e) approaching a provincial government agency that held a mortgage and asking for postponement of mortgage payments for a few months
- f) running out of working capital, despite hefty government capital grants, and going out of business; rich in plant and equipment, and poor in cash

FOUNDER'S PERCEPTIONS OF THE CANADIAN BANKS

A local Bank Branch Manager or a contact in a regional Commercial Center may prove to be understanding, competent, helpful, and flexible. The local Manager or higher-level contact may just as well turn out to be obstructive and rule-bound in all respects. Dealing with the Canadian banking system is much like rolling the dice. This is independent of which bank a firm chooses to deal with, at what level in the bank, and where in Canada the firm and the bank are located.

The banking system is so large that it contains a broad spectrum of types and talents. Any notion that the banks are consistent in their dealings and judgements, that their employees meet some consistent standard, and that there is a considerable measure of control over local decisions are all illusions.

This can work to the advantage of a smaller firm, because contact with a bank is largely personal and arbitrary in what can be the best sense of that word. The issue is credibility, because credibility is the basis of Line of Credit and extent of flexibility in all dealings.

Accordingly the smaller firm must, somehow, become credible in the eyes of some individual or individuals within a bank, and that determination of credibility will probably be made on the basis of introduction, of personableness, of previous contact, of timing, luck, etc. and will not have much to do with formal checklists and criteria or the actual merits of the case.

At least two of the Founders did set out deliberately, in their previous employment, to cultivate good relationships with their Bank Managers. This made it fairly easy for them to establish credibility for their new ventures.

This does not equate with a blank cheque for unlimited credit. Personal guarantrees will probably be called for, and performance will have to be proven by results over time. That is normal business practice. What credibility provides is access to that initial line of credit, and some flexibility later on if there is a need to bridge across a more difficult cash flow period.

FOUNDERS' PERCEPTIONS OF THE CANADIAN BANKS (Continued)

Credibility can also serve as a defense against usually broad-brush application of policies intended to protect the bank against a specific and limited kind of situation and having no bearing on the immediate problem or prospects of the smaller firm. In short, credibility enables the bank official to exercise informed judgement (if he or she wishes to do so).

Some of these smaller specialist firms grow and become the largest account at their local bank branch. Also, many of these firms become cash rich -- the banking relationship tends to become one of term deposits rather than drawings. The upper reaches of the banking system do not seem to be aware of the extent of this phenomenon.

The Founders tend to be conservative in their financial dealings. Capital investment is done in stages, in periods of evident market expansion and in accordance with in-hand or pending major contracts. This conservatism extends to a shunning of long-term debt; mortgages are paid back rapidly using profits. Cash on hand is used as a downpayment. Provincial government agencies play a significant role in providing mortgage funds, and seem to be generally more understanding of the nature of these firms and of their problems.

The banking system, however, does have a substantial impact on the rate of growth of such firms and on their rate of survival. Bank policies and decisions -- however generated -- can inhibit or enable growth, and even a short-term refusal to provide funds can put a firm out of business.

This growth inhibition or enabling by the banks does not seem to have a catastrophic impact on smaller specialist firms. Their conservatism helps to shield them -- their growth tends to be incremental and careful. It is only in times of sudden crisis that these firms are vulnerable. Even though the firms studied have shown a remarkable ability to find alternative backing in a hurry, there must be many others who have had to shut their doors.

Since these kinds of sudden financial crises seem to be of short duration, it could be that many more smaller specialist firms might survive to go on to viability and growth -- given the working capital to bridge over a critical period of say three months. If some enlightened, or daring, financial agency would be willing to swap short-term bridge financing for short-term equity, the business scene might be brighter overall.

WHY DON'T MORE OF THESE FIRMS MAKE USE OF GOVERNMENT INCENTIVE PROGRAMS?

These are all state-of-the-art firms (in their own niches). Hence, they must do some development work. How is this paid for, and why do they not attempt to recover some of the costs from available government programs?

- a) Most Research and Development is done on the job -- from contract to contract -- incrementally. Small improvements are made to existing designs, so that the outcomes become more cost-effective with each contract. This evolutionary approach is so intimately a part of the day-to-day work that it is hard to document as compared with a stand-apart development of a totally new product or process.

Research and Development costs then are 'at the margin' -- as extensions to precedent -- and are covered within the usual firm price contracts through which custom design and fabrication is done.

The in-house perception seems to be that R & D is continuing and is a current expense integral to everything else. There is no separate R & D effort and certainly no distinct R & D Department or Manager, even though the costs, in the long run, might warrant the separate identity.

The one firm that did make extensive use of Government R & D subsidies was notable for its extensive patenting of proprietary products and processes, which it marketed world-wide. Here use of R & D subsidies was in line with an attitude of broader use of Government help in marketing.

Another firm was considering making use of R & D incentives, but thought the paperwork involved would outweigh the possible gains. Here too R & D was incremental and integral to the normal work routine.

Perhaps there is much more R & D going on in Canada, particularly among smaller firms, than Government has identified and cares to recognize?

- b) Nearly all Founders have a quite vocal dislike of government (at all levels) to the point of this being a strong emotional bias against any contact with officialdom. This may result in an apparently irrational rejection of what governments have to offer. (The Founders would probably argue though that irrationality is a matter of who is doing the assessment; the Founders generally believe that less government would be much more rational for the well-being of the nation and for their own business and private interests).
- c) Where these firms do make use of government subsidies and incentives, including Trade Missions, they are overwhelmingly more likely to deal with a provincial government agency or ministry; the Federal Government is perceived to be remote and hostile. The provincial agencies come across as being more human and more willing to negotiate a realistic result -- more person to person.

- d) The peculiarities of DREE and FIRA emerge noticeably in the affairs of these firms. One of the firms was set up with extensive foreign ownership (with government grants and equity) to enter a niche already occupied by several smaller firms including a fully Canadian venture. Another similar case was mentioned by another firm in another industry sector.

The common ingredients to both these DREE/FIRA situations were:

1. allowing entry of a very large venture into a niche with an already established wholly Canadian firm
2. on a scale of capital investment and labor force many times larger than anything else in the field
3. with inadequate attention to the requisites of business survival:
 - experienced top management
 - growing in the niche from small to medium to large
 - working capital
 - familiarity with North American design and quality standards
 - geographic location favorable to marketing and to finding enough skilled labor for a venture of the proposed size

Both cases that came to notice failed in short order; with loss of jobs, waste of plant and equipment on a large scale (in both cases the equipment was extensive and first-rate -- in fact, most of the know-how was built into the equipment), weakening of Canadian competitors at least temporarily by taking away business in a largely non-elastic niche, and further erosion of government credibility among business.

One of the Founders proposes that DREE might adopt a different grant basis; to abolish starting up capital grants, and to base grants on track record.

For example, if a firm could show say 200 manyears of successful existence it would be granted the equivalent say of 1 year of federal tax deducted at source from employees -- on condition that the grant would be re-invested in the business.

APPENDIX A --

CASE HISTORIES OF THE SMALLER SPECIALIST FIRMS ←

September 15 1982.

FIRM NO. 1

SOURCING/DISTRIBUTION

1. FOUNDER(S)

Had worked for a Canadian subsidiary of a foreign firm, also in Sourcing/Distribution/Warehousing of the same kinds of products.

Its parent firm sold the Canadian subsidiary -- this happened more than once -- and the accompanying management shakeups and uncertainties persuaded the Founders to leave and set up their own venture.

Each partner set up an office in a major city in parallel -- this was a conscious strategy; to present the image of something beyond a two-person business.

2. DEVELOPMENT OF THE BUSINESS

The venture was started strictly on the savings of the two principals. The ownership was divided 50/50, (and is still held solely by the two founders in the same proportion).

Working Capital was the limiting factor on expansion for the first couple of years. The business involves buying and selling, and dealing on consignment is not usual.

However, they were fortunate in their local bank manager -- they chose to deal with a small branch so they would get attention, and in this case it worked well.* (Now they are that branch's largest account).

They now have the capital to make choices -- for example to go into limited manufacturing, or expanding geographically, etc.

Growth has been rapid, but the firm is larger now and rate of growth will be harder to sustain.

3. NATURE OF THE BUSINESS

The firm serves as a useful middleman between distant Producers and Canadian customers; acting as an Agent for producers, and as a Supplier to end users.

It has established its niche as an intermediate-size firm -- between the very large distribution firms and the very small firms that find it difficult to provide a reliable service. It has also developed special know-how in how to carry on international trading -- as a complete approach.

Sourcing is the dominant function, and one key to the firm's success has been the amount of effort and resources put into tracking products and sources, and analyzing performance -- market research in the interests of increasing profitability.

The firm prices from the market side rather than in terms of its cost. Hence, market research is essential to identifying items on which a good profit can be realized. The founders are bottom-line conscious.

*Firm No. 6 dealt with another small branch of the same bank and had a totally different experience that nearly put it out of business.

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FIRM NO. 1

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The competition is mainly foreign-owned. The founders believe that being Canadian gives them an edge over the larger firms -- they can make their own decisions on the spot, while the large competitors have to go back to their foreign parent for ratification. Also, it is easier for a non-subsidiary firm to maintain continuity of key people; subsidiaries are subject to frequent changes of assignment of managers and specialists in the interests of the parent firm. Since much of the selling is based on personal credibility, customers like to know the principals in a service firm; continuity of management helps.

The firm is still small enough to be able to reach quickly in situations where a customer's plant throughput is threatened by a shortage of a critical material.

Quick responsiveness to customers' needs, and profits, are dominant goals. There is an emphasis on innovating in how business is done -- including an incentive approach that interacts Sales with Profits; this accelerated profit-sharing is seen as a major factor in the firm's growth and profits.

Customers are technically sophisticated, and one of the two founders and most of the people doing the selling have industry-specific technical backgrounds.

September 15 1982.

FIRM NO. 2

PROFESSIONAL DESIGN

1. FOUNDER(S)

Had individually worked for several professional design firms and for fabricators for many years. Since each professional firm tended to specialize in a particular group of clients (market sectors), each of the future partners built up useful connections.

2. DEVELOPMENT OF THE BUSINESS

A particular client sector experienced boom times just as the new firm was established. One client knew one of the partners, and commissioned a new design -- looking for a breakthrough in performance and safety.

The firm produced a new design that met all expectations; moreover, it looked like a winner and had high visibility in its business sector. As a result, many more designs of the same type were commissioned. The firm was unique in its interest in this field, and enjoyed a monopoly market for five years.

This particular market dried up , but by then the firm had made use of industrial contacts and obtained a succession of increasingly large and sophisticated contracts. These led directly into product designs for operation in hostile environments. With each point of departure into new design capabilities, the firm broadened its reputation and skills.

While most of the work has been for clients in the region in which the firm is based, it has also done considerable work overseas through the World Bank and other international agencies. It has also done direct selling in Latin America as a direct result of participating in a provincial government trade mission.

The firm recently made a serious effort to obtain Federal Government contracts for large and specialized designs, and obtained the work; this is the start of a strategy of challenging the very large-scale domestic and foreign competition.

The firm has been approached by several world-scale foreign firms that want to buy in or joint venture. The foreign interest stems from the need to have a Canadian identity in order to obtain large fabrication contracts from Canadian governments and industries. But the firm is not interested in selling even a part of the equity.

3. NATURE OF THE BUSINESS

The firm's scope of work includes Conceptual Design to the point of developing Design Packages just sufficient for skilled fabricators to take over. A typical project might take a month to complete a Design Estimate (estimate of cost to complete the end product) while the complete Design Package would take up to 3 months to complete.

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FIRM NO. 2

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Competition is mainly local, though on major projects the firm faces broader competition including international design firms. Also, some major industrial clients do some design work in-house.

Marketing has been low key, with almost no direct solicitation. The firm's designs receive wide publicity in trade journals and in use, and the two principals travel extensively. But basically, because of high visibility and highly successful and attractive designs, the firm's work more or less develops its own market.

The computer is used extensively for design. The cost-effectiveness is obvious -- cutting down time and effort by a factor of ten, but only on 10% of the work. The firm does not use computer-aided drafting though; the capital cost is still too high for a small firm. But since a large component of the firm's activity is drafting, if the computer ever did take over more completely, the firm's size would drop dramatically to just a handful of people while coping with the same volume or more of work.

The principals of the firm do not want to expand beyond the present numbers of employees. A larger organization would imply management problems and formalization. Accordingly, anything involving larger numbers of people is sub-contracted -- all electrical design, much of the structural analysis, etc. Also, some freelancers are hired strictly by the project.

September 15 1982.

FIRM NO. 3

CUSTOM DESIGNER & FABRICATOR

1. FOUNDER

Had a strong background in senior management of a high-technology service firm -- unrelated in any way to the Subject Firm -- but was displaced by an ownership shuffle.

Despite lacking any substantial assets of his own, he was able to take over, turn around, and build up a very successful know-how based service firm drawing on his prior training and experience.

This provided him with the cash flow to move into other ventures, including the Subject Firm.

2. DEVELOPMENT OF THE BUSINESS.

In the course of other entrepreneurial ventures, the Founder had encountered a provincial government agency seeking to promote new businesses. That agency approached him with a situation -- a custom design and fabrication firm that was close to bankruptcy.

After some period of time, the Founder agreed to take over the firm but only if the provincial agency assumed all existing debt and provided capital to upgrade the size and technical equipment of the business. The government agreed and the deal went ahead.

Though the Founder knew almost nothing about the nature of this business, he assumed that much of the risk had been taken out by the terms of the agreement with the government. Also, existing management remained in place and he assumed that it could carry on adequately.

However, it turned out that the business had to be totally rebuilt-- including management.

Even with substantial government grants the venture was only viable in its first few years because the depreciation on the extensive capital expansion could be offset against profits from other ventures in a consolidated statement.

Revenues rose spectacularly at the start of the 1980's, but today business is shrinking -- the backlog is evaporating. The peak plant size was based on the assumption that the Mega projects would go ahead. The Founder no longer believes that the Megas will go through; they are just not viable financially. Hence, while intending to stay in business, a planned and staged reduction in size and numbers of employees has begun.

→ The firm has marketed in the U.S. as well as in Canada, but conditions are slow everywhere. Also, now that times are hard, some U.S. competitors are attempting to buy their way in as suppliers to major Canadian industries -- despite a higher value U.S. dollar and tariffs, they are quoting well below their cost just to become established here. Everyone is bidding for cash flow now -- just to keep cash coming in at the margin.

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FIRM NO. 3

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3. NATURE OF THE BUSINESS

Custom fabrication is strictly one-off. Each product is designed as well as fabricated, and the extent of in-house design depends upon the sophistication of the customer; most tend to be very capable and know what to specify.

Generally, orders come in 6 to 9 months in advance of when the customer needs the product on-site. But there are some orders with high urgency -- when the customer needs the product built and installed in order to get throughput following again. In these cases, the firm works around the clock.

In all cases before anything is built formal customer approval of drawings is obtained. All materials are coded and closely tracked through the fabrication stages. Quality Assurance is stringent, and all drawings are 'As Built.' Safety Factors in the markets served are very large. What the firm supplies only accounts for 1% or so of the customer's total capital cost, and the customer is willing to pay more to ensure that that part of the facility will work safely and reliably.

The firm has chosen to use a specific technology related to its choice of materials. This establishes it in a distinct niche, but a quite narrow one.

The materials involved are special. Canadian suppliers have been too occupied with major orders to worry about meeting relatively small needs. Hence, the firm has been buying from the U.S. This lowers the competitive edge that might be expected to result from the lower value of the Canadian dollar. But value-added is high.

The main competitors are American firms or Canadian subsidiaries of U.S. parent firms.

There is not much advantage to being Canadian. Quality has to be there as a precondition of staying in business. Then the main criteria are Price and Delivery.

In its first days under the new ownership, Quality was a problem. One of the first contracts was with a major customer; the customer's technical specialists worked closely with the firm -- leaning hard on it to enforce and ensure high product standards. This was a harsh process -- sink or swim -- with no formal guarantee of follow-on orders. It was, however, an essential step in the firm's development (so long as it survived the treatment). Today the firm has an image of being highly competent.

The customer base has been narrow -- more or less confined to one industry sector. The firm is now trying to diversify to another sector as well, with a somewhat different product that can be made using the same equipment and techniques.

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FIRM NO. 4.

CUSTOM DESIGNER & FABRICATOR

1. FOUNDER(S)

Both founders had many years experience in heavy industrial firms. One also was assigned to a senior marketing position and was able to identify a particular niche suited to a smaller venture, and the most suitable location in Canada for it.

Both founders left their employer and set up a new firm, with some backing from a third party who was not otherwise involved. (Neither founder had much money).

After a few years, the two founders split; each went on to form a new firm that grew into a successful business.

2. DEVELOPMENT OF THE BUSINESS

Starting again without any substantial capital, the founder had to rent factory space year by year. Design & Fabrication work was done for many of the major heavy engineering projects in Canada.

Eventually it proved feasible to buy land and build a basic plant; with time the venture expanded by acquiring additional land adjacent to the original site and by building new factory bays.

The venture had always been profitable, but as it grew larger -- going from a 'small' business to a medium-size enterprise -- cash flow became tight (as often happens in periods of expansion).

The founder had worked with and had built equipment under license from a large foreign firm. In fact, this foreign firm had provided early backing for the new venture, and later on when a cash squeeze developed, the founder approached his backers for broader investment.

As a result, the foreign firm took over control while the founder stayed on as Chief Executive under a long-term contract with broad autonomy to pursue his own customers and to control his own profit-sharing.

The firm has continued to prosper since. More land has been acquired and serviced. Expansion was planned in anticipation of some work resulting from the Mega projects, but now any plant expansion has been put on hold -- a building can always be put up in a hurry as needed. Backlog is being worked through, and there is not much on the horizon; 1983 looks like a rough year.

3. NATURE OF THE BUSINESS

The firm features a special kind of engineered product, designed and built one-off. The customer base is relatively broad -- across several industrial sectors, and the firm sells world-wide (via Canadian and American Consulting Engineering firms acting as prime on major capital projects, with some EDC support, and through some direct selling).

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FIRM NO. 4

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It is almost impossible to obtain work in the U.S., Europe, or Japan because protectionism is very effective in those countries. But as a subsidiary of a foreign firm it is sometimes possible to penetrate apparently closed markets through the parent's connections.

There are serious competitors in Canada but most competition comes from foreign-based firms.

The technology the firm is based upon was first developed by the very big U.S. fabricators. But in the longer-run these firms proved to be too big for that kind of product. One very large Canadian competitor also dropped out of the business; these examples tend to reinforce the concept that this is a medium-size niche firm that should not grow unduly.

While the business is not highly capital-intensive, it does require high-level skills and trades. Value-added is high.

The firm does both design and fabrication; design covers both process and mechanical aspects. The customer usually specifies the materials to be used, and the designers work out the sizing to suit the process.

The in-house engineers make extensive use of computer programs in design. Some of the software has been developed in-house, while the rest derives from an international association to which the firm belongs.

Cost and Time are both tightly monitored. Price is very important, and the firm's work has to fit within the customer's construction and operations time-table.

All Drawings have to be certified and approved as part of a larger Quality Assurance emphasis. All work is built 'As Drawn.'

Inventories of raw materials are kept small -- in an era of rapid obsolescence of processes and materials, it is important not to get caught with large stocks of unwanted materials.

The firm is organized informally, but with very tight controls. The top management is involved in everything that is going on, and can and does move in 'instantly' -- the management deals in 'real-time.'

Given a carefully assembled grouping of highly skilled people, the firm makes it a policy to keep people and not to lay off. People are encouraged to develop as multi-faceted -- able to cover several roles rather than to remain narrowly specialized.

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FIRM NO. 5

CUSTOM FABRICATOR

1. FOUNDER (SUCCESSOR)

The firm was long-established and the second generation duly guided and trained to eventually take over -- working summers in the plant, technical education, etc.

In taking over in due course, the successor dramatically altered the technology involved, and in so doing opened up new growth possibilities -- shifting the firm from light industrial work to process industry related products.

The successor had known a senior purchasing person in one of the major process industries; this was strictly a social relationship but it led the successor to an awareness and then an appreciation of the potential of a different technology.

He went on to study that technology in depth and eventually implemented it in the firm. This meant hiring new kinds of trades and crafts and developing a new quality assurance emphasis.

The land and buildings had long been paid for and could be considered as a sunk cost. This made it easier to carry out changes and expansions. Also, the buildings were more than large enough to handle many years of growth, so it was not necessary to change to another site or to split work among several sites.

2. NATURE OF THE BUSINESS

By choice the firm does not do any engineering design. It strictly builds from shop drawings supplied by the customer. It also installs on-site.

Initially, its new technology made it the only firm in its region of its kind. Later on other firms followed and competition grew.

The initial niche was quite narrow -- specific to one industry sector. This narrowness persists to an extent, although the firm does cover many other industrial sectors through extensive sub-contracts from larger custom fabrication firms which do not try to cover all possible specializations.

The firm outgrew the 'small' business category some years ago, and is now a fair sized organization. Its President views it as being at a crossroads; though growth has never been an objective ('it just happened'), if it grows much larger it will be necessary to move from an essentially informal organization to a more professional management. This also implies continuity and perhaps bringing in a younger top management team who might gradually buy in.

But the current economic conditions are unfavorable to growth; 1981 was the peak year, and though the firm is still making money, both sales and profits are down in 1982 and 1983 looks bleak. There have been layoffs.

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FIRM NO. 5

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Marketing tends to be low key. There are no salesmen as such; the Estimators act as salesmen and are in continuing contact with major customers. Because the firm has been around for many years, it is well known and has a good reputation -- for high quality work, but not necessarily for low price.

Material is a considerable component in the firm's cost. Sourcing has always been from the U.S. and Europe, etc. because this gave a real cost advantage over Canadian sourcing.

While the firm was large enough to import its stock, its smaller competitors were forced to buy in Canada from distributors, and the distributors set a higher price than the foreign mills they represent. So the firm had a substantial price advantage.

But with a world steel glut, the foreign mills have been dumping to reduce inventories. Distributors in Canada are selling at bargain prices and the firm and its smaller competitors all pay the same price today. This removes a competitive advantage, and this hurts. More firms can now attack the same markets. The firm is losing orders to small firms that may not survive to complete even one order for demanding and sophisticated customers. It looks as though everyone will suffer.

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FIRM NO. 6

CUSTOM DESIGNER-FABRICATOR

1. FOUNDER

The founder had a strong technical working experience but in unrelated areas of technology. However he did set up a couple of new subsidiaries for a foreign-owned firm in his present line of business and gained a few years of directly applicable experience.

One of these subsidiary ventures which he set up and operated for a foreign owner was based in Canada. The strategy of the parent was to start up by assembling rather than fabricating. While this seemed simpler and involved less initial cost, it meant low value-added and assuming a lot of risk and trouble-shooting ensuring that suppliers' equipments worked as warranted.

The founder judged this to be too costly a way of doing business, and soon decided to set up his own firm.

2. DEVELOPMENT OF THE BUSINESS

At its start the firm was one person essentially looking for whatever work he could get. His starting assets were minimal. While there was a concept of what broad field the firm would enter, there was no clear idea of just what product to make; other than to emphasize quality and to build a good reputation.

The first stage was to seek re-building contracts; this kind of work necessarily was one-of-a-kind, and it established a pattern of doing custom work.

The first design-fabricate order was for a special prototype for a major industrial customer. The size of the order was small -- \$25,000 -- but the implications for reputation were large.

The first employees hired were; a Foreman/Worker, and some Welders. Next a key employee was hired from a major custom machinery fabricator -- he was an Engineer.

About the same time, the firm bought land and built facilities. This allowed the firm to grow, and to develop a solid product identity. But in growing, the firm was hit by serious cash flow problems. A slight loss in one year was followed soon after by a major deficit. And the firm was unfortunate in its bank dealings; the local branch manager blocked access to higher levels in the bank, and was unsupportive.

The firm's Line of Credit was abruptly cut off and it faced failure. The founder was able, through mutual friends, to find a local businessman who agreed to buy a portion of the equity temporarily. (Since then the founder has bought back those shares and holds 100%).

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FIRM NO. 7

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This financial squeeze forced the venture into a day-to-day mode. Materials had to be bought from distributors in smaller quantities, rather than directly from the mills. This meant paying a premium and suffering a cost disadvantage.

After a relatively short time, the venture closed down.

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FIRM NO. 8

CUSTOM (ON DEMAND) DESIGNER/FABRICATOR

1. FOUNDER(S)

They had worked for many years in related firms, dealing with highly specialized customer sectors. Over time they identified a niche for a Canadian firm specializing in a product line built to unusually high technical standards and from special materials requiring particular fabrication techniques.

Accordingly, they set up the venture at a time when activity in the customer sectors they chose to sell to was at its peak -- not only in Canada, but in many parts of the world.

Their age at the time of founding the firm was considerably older than that of the founders of other niche ventures; they were, on average, in their early 50's.

2. DEVELOPMENT OF THE BUSINESS

Given a very strong market, the firm grew rapidly for several years. But as those customer sectors reduced their capital expansion, the rate of growth of the firm slowed down. Also, foreign competitors, sensing the prior market strength, had moved in aggressively and this cut into the firm's market share.

It was evident that the firm, in order to maintain share, would have to improve its cost-effectiveness. Facilities were rented, and equipment was beginning to age. New capital investment was required, but the founders were thinking more about conserving their success to-date, and to explore ways of retiring rather than taking new risks on a larger scale. The firm went into a conservative holding pattern.

Health problems experienced by the firm's leader forced the issue, and the partners agreed to sell out.

Even before the firm was established, the founders had worked with another firm and with its founder -- serving the same customer sectors though in a different role. Hence, there was a successful entrepreneur, also a professional, who knew the founders and their work and who had kept in touch over the years.

Keeping his existing company operating, this other party bought out the founders.

3. NATURE OF THE BUSINESS

The firm builds to rigorous specifications using special materials. Value added is high. Most materials used are sourced in Canada.

The firm is diversifying by expanding its know-how and techniques to work with other types of materials. This gives it a unique capability as a Canadian firm.

The firms Limiting Factor is facilities; by renting space, the firm was inhibited from installing newer and larger equipment,-- facilities alterations and preparations for heavy equipment are costly and to put that much money into rented plant seems out of order.

The firm has to expand, and must give emphasis to exports. It used to export a sizeable portion of its output to Europe, but recently the Canadian dollar moved up against the European currencies and Canadian firms can no longer compete on price.

Price is the dominant issue.

The firm makes a standard line:

- a) Larger sizes are made on demand -- being too costly too stockpile.
- b) Smaller sizes are made in limited runs of say 20-30 at a time.

Marketing is done through Distribution firms:

- a) What the firm produces is only one component of a larger system, and each type of component in that system is made by another kind of specialist firm
- b) But many major customers want a total bid package, and the Distributor firms assemble such packages
- c) Accordingly, the subject firm deals with these Distributors and this lowers its marketing and collection costs

Increasingly though, the firm promotes its image and its products directly to end users.

1. FOUNDERS

One a professional engineer and the other with extensive practical engineering design experience. Both had worked for some years for the same firm -- a leader in its field in its region.

The business they set up was in the same line as the firm they left. Starting off in design and fabrication of custom components, they evolved into design and fabrication of custom systems using bought up components which they assembled.

As their in-house stocks of components entering into systems grew, they became informally and then formally a wholesaler. So the firm now has two main business areas -- Manufacturing, and Wholesaling.

Having started the business and having developed it for many years, the founders were conscious of their age. They embarked on a program to ensure an orderly succession to a group of younger employees. This worked well, and the 'successors' were able to buy the business and the founders were able to stay on for a time to ensure continuity and to continue to provide their know-how and contacts. While the successors represented a range of backgrounds with some technical training, their main emphasis had been in marketing and sales.

2. NATURE OF THE BUSINESS

The firm tries for high value-added, using its own parts. This is not always possible, since some customers may specify parts and components from other sources.

When making components of its own, the firm does set up for limited batch runs for economy of materials and time.

Design and innovation are conservative, taking the form of upgrading of previous designs. The firm's manufacturing niche is quite stable; there is no fast obsolescence of technology.

The facilities are leased, and there is no capital equipment -- strictly hand tools and work benches.

The emphasis of the management is on continuity of reputation and image. The image is of a firm turning out highly reliable products and providing very good support service. Price is important, and the firm is competitive, but customers are willing to pay more for high reliability and good service.

Marketing is formal and active, and the firm has a good and growing network of representatives in Canada and the United States. By continuing to move into new geographic regions, the business keeps growing and is expected to show further growth even in 1983.

Also, because of the stability of the technology, there is always a replacement market for components; the firm is not completely dependent on new capital investment by its customers.

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FIRM NO. 9

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2. NATURE OF THE BUSINESS (Continued)

The Customer Base is broad -- OEMs, End Users -- and cuts across many industry sectors.

The firm does have one major OEM customer that incorporates its components in their systems. This does not seem to be a harmful dependence in the context of the other customers and activities of the firm.

The management intends to maintain the firm in a healthy state and to pursue the same kind of conservative growth that has marked its history.

BATCH MANUFACTURINGFIRM NO. 101. FOUNDER

The firm had been in existence for some years -- set up to design and manufacture a specialized line of industrial measuring devices. With the passage of time the firm had gradually shifted its emphasis to the manufacture of replacement parts for consumer appliances.

One aspect of the manufacturing sequence involved a specialized treatment process, and this ultimately formed the basis of a new business built on the collapse of the original firm.

The collapse resulted from the large-scale intrusion of foreign-built appliances into the Canadian market. The foreign manufacturers had a different product philosophy -- centering around high product quality. This eliminated much of the replacement and repair market and struck directly and swiftly at the firm's sales and profits.

The firm went into receivership, and the Founder was brought in by the receivers; initially to keep the firm operating, but then, when its turnaround seemed feasible, to take it over.

The Founder had no direct background in the technology of the firm. He had some experience as a Research & Development Manager, though he did not have a technical degree. This background did give him an appreciation of the importance of systematic quality control, but he was stepping into very unfamiliar territory.

However, the business had continued through the receivership phase, and there was a very competent middle management and technical supervisory cadre in place who were well able to run the operations.

2. DEVELOPMENT OF THE BUSINESS

The Founder did not have any substantial personal net worth. Though land and buildings and inventories were bought for relatively little, there was virtually no equipment. Very large amounts of Capital Investment were needed. Some support came through government grants. Bank support was largely backed by receivables, which meant that sales had to come through almost immediately. And Capital Investment was made year-by-year, taking up Cash Flow (profit and debt financing).

The Bank proved to be unpredictable and arbitrary in its dealings -- suddenly enforcing blanket policies which severely hindered the firm's growth strategy. This was done at a relatively high level in the Bank, and the firm went along with it at first -- assuming, incorrectly, that the higher-ups in the Bank actually knew what they were doing. When the full extent of the damage became apparent, the firm resumed its strategy, but in the interim a full year of growth had been lost.

Post-receivership, the firm's first major contract was obtained from a very substantial corporation -- one of the leaders in Canada (and internationally). The relationship flourished -- explosively rather than gradually -- and within a year the firm had expanded dramatically based upon this one customer (which still accounts for a major share of the firm's sales).

The relationship with this major customer has been intense, and risky as well as useful:

- a) The major corporation has used its technical and commercial leverage to shape the firm according to its own vision of what an 'ideal' division would look like.

Accordingly, the firm has been 'encouraged' to invest heavily in equipment, facilities, and processes -- to become a truly state-of-the-art organization in all respects. (At its own risk however).

- b) While the major corporation can and does implicitly suggest that the relationship will continue and that the volume of business will be substantial, that is not a firm contract and has of course been contingent on the larger economic environment in which the major corporation does its marketing. As its sales fall, so does its need for suppliers.

In the event, the firm has been squeezed by its continuing large-scale investment in machinery, etc. and its dependence on one major customer whose own sales have not kept pace.

- c) In its pursuit of product quality at the frontiers of the technology, the major customer makes demands on the firm that are not technically feasible. However, the firm has little option but to try, since the customer looms so large in their operations.

In fact, the firm's specialists and the customer's specialists enjoy a very close rapport and there is strong mutual respect. But what emerges in the specifications to be met, and the terms and conditions that the firm must accept, has little recognition of the state-of-the-art developmental nature of the demands.

The situation is made worse because the customer's own operations, which provide an input into the firm as well as receiving its output as a later stage input, do not meet the quality standards being dictated contractually. This forces the firm to work through from a deficient starting point, and generally to swallow the costs entailed in rejection rates resulting from the customer's own in-house problems.

The firm wants very much to reduce the dependency on this one customer and is striving to diversify geographically as well as broadening its sales base. But this is a costly and gradual process. In the meanwhile, the continued high level of capital investment -- year by year -- has brought the firm to the point where a recapitalization will be needed.

Its technology and reputation are well established; in Canada and internationally. Its plant and equipment are first rate, and its know-how is generally superior to that of the sophisticated customers it serves. Its people are first rate and constitute a solid team. But its financial endurance is in doubt, and therefore the firm is to an extent at the mercy of larger market conditions and the ethics and understanding of its customers.

CUSTOM DESIGN AND FABRICATION

FIRM NO. 11

1. FOUNDER

The Founder went through a traditional apprenticeship as a Machinist, and then worked for several international corporations in various countries around the world. He finally settled in a major city in Canada, being newly married, and with a net worth of less than \$2,000.

In the course of his varied career, he had become familiar with a particular industry sector, and had become a sales representative (agent) for a few product lines -- all specialized within that industry sector.

Business was slow at first, but he did make a few sales of equipment and that replenished his still limited capital and he set up on his own -- picking a market niche specialized within a single industry sector, and deciding to design and build special equipment and to provide the system concept and related machinery as a total package; combining his inventiveness with his agency lines.

2. DEVELOPMENT OF THE BUSINESS

Given his net worth of \$2,000 or so, and his inventive genius and his business plan, he worked from home initially and then rented some factory space (not much larger than a house).

He approached a bank, and was allowed a line of credit of \$5,000. This despite having brought in a major project (\$100,000). Working through a project of this size with that amount of credit, and lacking a Performance Bond, was something of a miracle.

Despite that first bank, the project was successful. He dealt successively then with several other banks but found them all more or less inept and useless. He was even forced to deal with a Factor, because his business was growing nicely but the banks would not provide an adequate line of credit. Finally, he was able to arrange an introduction (through a middleman) to the higherups in one of the banks and that established his credibility. Since then the relationship has been smooth. He does comment however "I would like to serve on the Board of this bank because they have no idea of smaller industry, and they come up with strange and useless requests."

Some nine years after founding the firm he bought land and had a plant built and equipped. Since then there have been additions, and considerable investment in machinery.

The business has succeeded because of his own inventive nature, and because he sells hard and is on the road much of the time. The firm is recognized as top in its niche, world-wide; he travels globally and often, and the extent of identification between the firm and him as an individual must be high.

He has made good use of government marketing incentives (PEMD) and Trade Missions.

3. NATURE OF THE BUSINESS

The firm is near-unique in its ability to offer a complete package within its niche; dealing in major projects with a capital value of several millions of dollars.

The firm's services include master planning for customer facilities looking ahead a number of years; this allows the firm to 'front-end' much of the capital investment in its industry sector.

The firm's know-how is substantial and includes a number of patents for processes and equipments. In addition to custom design and fabrication the firm has a standard product line of special equipments -- these are built in small batch runs -- a typical equipment costing say \$100,000.

While the firm's niche is very narrow and specialized, its overall market is substantial; because it is world-wide -- the vast majority of its work is for export.

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CUSTOM FABRICATOR

FIRM NO. 12

1. FOUNDER

The Founder is an Engineer with considerable prior technical and senior managerial experience with a smaller firm engaged in work related to his present activities.

Typical of many smaller firms, this one was owned by a family and in due course one of the relatives came into the business and the Founder saw his career path blocked. So he left, took a managerial position with a firm in a related line of business, but started to keep an eye open for opportunities to set up on his own.

He started his own firm -- strictly a small venture -- and soon after saw an ad in the newspaper for a business for sale in the same line. This was also a small venture; its founder had died at a relatively early age and his widow had carried the business on for a time. It had a few employees, a few thousand square feet of factory, and some basic machinery.

The Founder took over the business by buying it outright. His previous career experience had given him strong technical credibility in the region, and he had also taken pains to establish a good rapport with his bank manager. This established reputation allowed him to borrow the investment needed (taking an additional mortgage on his home as a further guarantee).

2. DEVELOPMENT OF THE BUSINESS

The business he acquired dealt in light industrial fabrication, and had little of the capability needed for producing a larger product. Accordingly, he had to gradually acquire additional trades and much larger equipment.

A few years after acquiring the business, he obtained a mortgage from a government agency and had a new plant built and equipped. The timing of this investment proved to be something short of ideal; following several years of expansion in the firm's customer sectors, the year the new plant was completed coincided with a poor business year.

Working Capital suffered, and the firm went through a short but sharp financial squeeze. But the provincial government agency proved helpful -- postponing mortgage payments for a few months until the cash flow recovered. (It only required a few months, but some lenders are unwilling to allow that much leeway).

The business continued to grow, and became well established as a heavy engineering custom fabricator; serving customers in a number of industrial sectors.

Marketing is directly to end users. By choice the firm stays away from dealing through Packagers/OEMs; end users constitute a surer business base.

There are many competitors within the region in which the firm works, and customers shop around for prices. Hence, the first step is to be placed on the Short Lists. The firm has a reputation for doing competent work with reasonably good quality for the price, and reliable delivery. Accordingly, it is on many short lists, and because it works on a relatively low margin, it is generally price competitive.

The Founder has also invested in several small process equipment firms; these are still embryonic in terms of sales and profits. The longer-term strategy is to offer a range of products including some 'standard' product lines.

These process firms, so far, are little more than some starting know-how. Part of the task is to broaden the equipment concepts, which have been specific to a particular industry, to cover several sectors. This, in effect, means developing specific products into generic product lines. Then both custom fabrication and standard products can be sold to the same customer base.

However, for now, the mainstream remains the custom fabrication business. This has continued to grow year by year, although 1983 is an unknown. There is plant and equipment capacity for further revenue growth, and the firm seems in good shape to survive, and then grow when the economic conditions in its region improve.

APPENDIX B --

NICHE FIRM INTERVIEW GUIDE

david a h newman
june 28 1982

NICHE FIRM INTERVIEW GUIDE

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1. Mainstream Business(es): present and past
2. Clients/Customers:
 - a) markets served
 - b) geographic distribution (rough idea of revenues by region)
 - Canada overall
 - ..West .. Central .. Atlantic
 - U.S.
 - Overseas
3. Perceived Image and Reputation:
 - a) what you try to project in your sales literature
 - b) why clients/customers come to you
4. Perceived Environmental Impacts on Goals and Product/Service performance standards of:
 - a) Customers
 - b) Regulatory Agencies
 - c) Government Policies (as incentives or disincentives)
5. Perceptions of the past and future:
 - a) market stability or change and how expressed
 - b) what constitutes 'success'
 - c) historical turning points, times of crisis
 - e.g. cash flow
 - e.g. entering new fields/markets: how done? how often?
 - d) differential views of risk: how risky is your business
 - what risk do you take on each project
 - how do you lay off risk
 - e) why is the firm located where it is
 - e.g. regional distinctiveness
 - e.g. resource concentration and focus
 - e.g. happenstance or predilection
6. Historical Data:
 - a) Growth -- revenue pattern over time
 - b) Ownership
 - e.g. any significant changes -- acquired, went public
 - e.g. financing as related to opportunities and crises
 - c) Key Actors -- founder(s), innovators, backers, marketers, etc.etc.

NICHE FIRM INTERVIEW GUIDE -2-

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june 28 1982

6. Historical Data (Continued)

- d) Size -- pattern over time
 - ..number of 'professionals'
 - ..total number of employees and managers
 - ..turnover
 - ..make or buy key people?

7. Nature of the Business (Strategy):

- a) Dominant Function
 - e.g. R & D, Marketing, Production, After-Sales Service, Finance, etc.
 - b) Value-Added in relation to Cost of Materials: High -- Low
 - c) Extent of emphasis on Know-how as a competitive weapon
 - d) Extent of emphasis on Special Equipment/Facilities as a competitive weapon
 - e) Working to a Firm Initial Specification, or Spec Evolving as a contract proceeds
 - f) Form of Production
 - ..Custom ..Small Batch ..Large Batch ..Mass ..Continuous Process
 - g) Degree of Flexibility of Production Facilities
 - h) Sequential or Iterative projects
 - i) Length of a typical project
 - j) How is project success judged
8. Organization and Structure:
- a) Hierarchic and/or Project form
 - b) Coordination/Integration
 - .. verbal or written
 - .. line/staff?
 - .. use of committees
 - .. use of task forces
 - c) Management Style: formal -- informal
 - d) Basis of internal Recognition and Reward e.g. promotion, bonuses
 - e) People co-located on a project or remain in functional groupings
 - f) Extent of use of computers and word processors, etc.

9. What firm, if any, do you take as your model? And why?

APPENDIX 2

Impact of Tax Policy on Firms of Different Sizes:

Methodological Notes and Supplementary Information

This appendix contains methodological notes provided by ERA Consulting Economist Inc. for their special study of the impact of corporate taxation by firm size, in 1973, 1976, and 1979 discussed in Chapter 8. It also includes supplementary information on two topics. First, divergences from the averages reported in the main text, and second, a discussion of dividend distribution by firm size.

METHODOLOGICAL NOTES

Background: The study determines the cash flow value of selected tax measures to the corporation. In a world without fiscal measures other than a basic corporate tax rate firms would be allowed to deduct business expenses and depreciation which corresponds to the expected life of assets. Any amount left, which we have named net cash revenue (NCR) would be subject to a flat corporate rate. This is, therefore, the maximum amount of tax that could be paid by a corporation. In today's fiscal environment, almost no corporation pays this nominal amount. The difference between a nominal rate applied to the net cash revenue (NCR) and the effective tax rate is due to various fiscal measures introduced to provide balance in the fiscal system or to stimulate the economy in certain directions. Each fiscal measure which the corporation makes use of allows it to reduce its tax rate. This study identifies the particular differential in the cash flow of the corporation which relates to a specific tax measure. The data used provides a statement of how individual sectors of industry and size classes have improved their cash flow by using specific tax measures.

Data Source: The taxation data used in this study is the Statistics Canada sample of T-2 Corporate Taxation returns for 1973, 1976, and 1979. The data files were constructed in aggregated matrix formats within the constraints imposed by Statistics Canada confidentiality regulations. The T-2 Sample file was processed through a series of programs written by E.R.A. Consulting Economists Inc. to produce data files for analysis.

1. The Sample

Statistics Canada T-2 (STC) data includes all corporations reporting total assets of \$5 million or more. Below the \$5 million threshold corporations are selected using the "Neyman" allocation technique on both sales and assets, where strata contained 15 or less observations the total population was included in the sample. No quantifiable reliability measures are available at this time, a more detailed discussion of the sampling techniques may be found in Statistics Canada report, Corporation Financial Statistics, Catalogue 61-207. Sample sizes by sector and size classes are given in the attached tables.

2. Data

The programs used to access the STC sample excluded certain industry groups. In general the data included:

- i) all federal, provincial and municipal corporations
- ii) public utilities.

The data accessed from the T-2 file were income and expense items as recorded on the profit and loss statement, including current and deferred tax provisions; items required to reconcile from book profits to taxable income (i.e. capital cost allowance, 3% inventory allowance etc.) and tax deductions such as the Small Business Deduction, the Manufacturing and Processing Deduction and Investment Tax Credits. From the profit and loss items the Net Cash Revenue figure (NCR) was derived. Although this figure is not altogether a cash summary for the year, the major non-cash items (i.e., depreciation and capital gains and losses) were excluded from its calculation). Net Cash Revenue (NCR) is the basic item of data from which all ratios have been calculated.

The basic assumptions underlying all data in this study is that the basic corporate tax rate in Canada in 1979 was 48%. (The 48% rate is an estimated average rate based on a federal rate of 46% less 10% federal tax abatement, plus, a provincial rate ranging from 9% in New Brunswick and Ontario, applicable to eligible businesses, to 15% in Manitoba and British Columbia applicable to corporations not eligible for the small business tax rate.) Tax rates lower than 48% are the results of either differing provincial tax rates or one or more tax measures operating to lower the tax payable by the corporation, as for example, the Small Business Deduction or the Manufacturing and Processing Deduction.

SIC	RANGE						
	H30 01	H30 02	H30 03	H30 04	H30 05	H30 06	H30 TOTAL
	COUNT						
IND 01	7,329	3,370	1,776	630	289	150	12,504
IND 02	585	330	571	510	342	161	2,519
IND 03	12	7	16	27	22	19	10
IND 04	57	31	73	89	44	11	30
IND 05	575	400	726	594	230	37	2,622
IND 06	917	501	862	643	347	126	3,476
IND 07	1,339	617	606	266	101	29	2,958
IND 08	2,327	1,399	1,965	1,344	730	300	7,985
IND 09	115	61	130	176	155	83	72
IND 10	1,091	430	601	360	169	27	2,608
IND 11	4,547	1,759	1,963	822	252	23	9,366
IND 12	737	323	394	256	149	27	1,886
IND 13	6,823	3,230	2,971	1,009	184	16	16,223
IND 14	606	115	160	103	54	30	94
IND 15	2,720	900	909	400	133	20	5,162
IND 16	1,481	390	395	170	56	15	2,507
IND 17	523	216	209	165	69	36	1,338
IND 18	6,170	2,945	5,260	3,073	1,552	373	20,183
IND 19	3,631	1,102	1,314	796	271	49	7,223

SEE FOOTNOTES AT END OF TABLE.

SAMPLE COUNTS: BY SECTOR, BY SIZE.

1973, 1976, 1979

No. of Corporations

SP495 YEAR = 1979 COUNTS BY IND SIZE

ERA CONSULTING ECONOMISTS, INC., AUGUST, 1982

SIC	INDIA						
	IND 01	IND 02	IND 03	IND 04	IND 05	IND 06	IND TOTAL
	COUNT						
IND 20	1,231	1,060	1,307	710	106	27	4,421
IND 21	314	261	411	159	77	8	1,277
IND 22	500	450	512	231	62	1	1,892
IND 23	1,133	979	1,303	132	17	5	3,569
IND 24	710	322	835	1,300	833	55	4,655
IND 25	1,039	773	403	83	10	-	2,988
IND 26	2,093	1,335	914	252	66	20	5,228
IND 27	1,097	1,060	1,167	201	46	7	4,466
IND 28	3,207	2,097	1,701	457	70	49	7,561
IND 29	2,079	1,504	1,174	381	58	-	7,076
IND 30	42,832	4,833	3,413	1,347	561	153	53,109
IND 31	10,990	2,200	1,820	516	144	16	15,836
IND 32	5,390	2,430	1,910	454	86	22	10,302
IND 33	13,701	1,950	1,544	520	173	21	19,957
IND 34	135,577	30,493	39,749	19,100	7,522	1,918	242,439

- DATA NOT AVAILABLE -

SAMPLE COUNTS: BY SECTOR, BY SIZE
1973, 1976, 1979
No. of Corporations

SIC	RANGE						
	P20 01	P30 02	H30 03	P20 04	H30 05	H30 06	P30 TOTAL
	COUNT						
IND 01	5,611	11,200	1,711	286	190	01	07,574
IND 02	590	322	524	430	297	132	2,303
IND 03	14	6	20	17	17	12	95
IND 04	63	35	92	71	29	2	280
IND 05	405	347	656	470	196	17	2,190
IND 06	822	422	652	523	207	76	2,712
IND 07	1,127	832	404	189	89	15	2,256
IND 08	2,210	1,015	1,501	1,051	552	206	6,243
IND 09	135	08	143	151	126	52	697
IND 10	837	347	421	246	97	15	1,973
IND 11	3,692	1,502	1,665	741	201	14	7,925
IND 12	647	281	344	249	121	30	1,672
IND 14	6,469	2,634	2,386	715	170	7	12,384
IND 15	381	85	140	70	40	14	732
IND 16	2,353	648	610	254	67	11	3,664
IND 17	1,059	253	270	100	37	13	1,729
IND 18	585	246	300	160	91	42	1,422
IND 19	5,124	2,574	4,373	2,939	1,122	212	16,745
	2,012	929	1,140	575	194	17	5,565

SEE FOOTNOTES AT END OF TABLE.

SAMPLE COUNTS: BY SECTOR, BY SIZE

1973, 1976, 1979

No. of Corporations.

ERA CONSULTING ECONOMISTS, INC., AUGUST, 1982

SIC	RANGE						COUNT
	1-20 01	1-20 02	1-20 03	1-20 04	1-20 05	1-20 06	
IND. 20	1.052	760	571	429	69	12	3,301
IND. 21	355	273	170	164	56	4	1,250
IND. 22	529	357	330	157	24		1,374
IND. 23	1.025	707	515	51	6	3	2,360
IND. 24	627	317	775	580	447	19	3,166
IND. 25	1.123	445	254	32	7	-	1,062
IND. 26	2.320	1.050	711	169	51	17	4,319
IND. 27	1.353	914	615	156	29	5	3,216
IND. 28	5.003	1.731	1,107	251	66	43	2,346
IND. 29	2.742	1.117	930	226	27	1	5,051
IND. 30	15.620	3.365	2,455	548	455	100	42,947
IND. 31	7.995	1.631	1,170	400	53	15	11,312
IND. 32	4,424	1,859	1,160	215	55	14	7,666
IND. 33	6.591	1.112	591	333	101	11	11,040
IND. 34	105.266	20,948	20,238	13,878	5,267	1,290	183,804

DATA NOT AVAILABLE.

SAMPLE COUNTS: BY SECTOR, BY SIZE

1973, 1976, 1979

No. of Corporations

	H30						H30 TOTAL
	H30 01	H30 02	H30 03	H30 04	H30 05	H30 06	
	COUNT						
IC							
ND 01	6,490	123	118	05	45	22	6,891
ND 02	1,087	120	104	67	31	2	2,211
ND 03	64	6	10	11	6	1	98
ND 04	242	0	10	1	-	-	261
ND 05	1,059	101	76	21	5	1	2,065
ND 06	2,173	126	155	04	44	7	2,509
ND 07	1,060	32	45	10	6	2	1,971
ND 08	4,029	305	303	147	60	12	5,651
ND 09	470	50	79	42	26	9	680
ND 10	1,452	50	49	21	1	1	1,582
ND 11	5,726	64	42	10	1	-	5,851
ND 12	1,251	53	45	19	3	-	1,371
ND 13	9,193	46	27	3	1	-	9,270
ND 14	676	25	26	12	0	1	748
ND 15	2,007	32	35	10	-	-	2,964
ND 16	1,272	20	11	13	6	3	1,325
ND 17	060	41	54	31	10	4	1,016
ND 18	13,922	417	337	95	24	1	14,796
ND 19	4,507	71	53	7	1	-	4,641

A. COUNTS AT END OF TABLE.

SAMPLE COUNTS: BY SECTOR, BY SIZE
1973, 1976, 1979
No. of Corporations

SIC	1930						1930 TOTAL
	1930 01	1930 02	1930 03	1930 04	1930 05	1930 06	
	COUNT						
IND 20	2,491	9	5	5	5	-	2,515
IND 21	1,200	11	2	1	1	-	1,215
IND 22	1,063	-	2	1	-	-	1,066
IND 23	2,163	4	2	2	-	-	2,171
IND 24	3,136	65	5	2	-	-	3,180
IND 25	1,434	2	2	-	-	-	1,438
IND 26	3,616	20	16	9	1	-	3,662
IND 27	2,624	5	9	4	-	-	2,642
IND 28	4,748	24	20	23	7	1	4,823
IND 29	3,660	11	10	3	-	-	3,684
IND 30	36,639	606	525	208	89	7	38,274
IND 31	8,297	65	53	17	4	1	8,437
IND 32	5,954	39	24	8	4	-	6,029
IND 33	6,517	60	31	12	3	1	6,624
IND 34	145,386	2,600	2,287	1,000	400	76	151,749

- DATA NOT AVAILABLE -

SAMPLE COUNTS: BY SECTOR, BY SIZE
1973, 1976, 1979
No. of Corporations

Divergences from Average Effective Tax Rates

- An individual examination of the overall effective tax rates prevalent among industries indicates that within the averages that were discussed in the main text there are some major divergences and often some notable perversities within individual industrial classifications.
- . In approximately 40% of the observed cases the largest size class had an effective tax rate below, after significantly so, its nearest size class.
- . The lowest effective tax rates observed were in the 10-15% range. Although some size and industrial groupings were below that range, often the size of the sample in that particular matrix box made the observation somewhat suspect. Over the period examined, there are some consistent patterns as we see, for example, that the largest size category in "Finance, Insurance and Real Estate" has recorded the lowest average effective rate since 1973. Although there are no details available on the composition of that particular sample, it should be statistically significant as it contains over 150 respondents.
- . The other categories which have low effective tax rates are "petroleum and chemicals" where the smallest size category pays an effective rate of 17% while the largest size remits at the rate of 28%. "Miscellaneous transport", which excludes truck transport exhibits a peculiar pattern with the largest size sector recording an effective tax rate of 11 and 14% in 1976 and 1975 while the next smaller size in the same industrial classification pays significantly more of its revenues in taxes, namely 35% and 32% respectively in 1979 and 1976.

- . Perhaps the greatest contrast in effective taxes within the same industrial classification exists in "miscellaneous manufacturing" where the largest size category paid in 1976 on effective tax rate of 53% and the lowest size category paid 16%. There are numerous other examples of similar discrepancies within an industrial classification, particularly "Services to Business", "Transportation" and "General Merchandising Stores". The discrepancies there may be attributable to some degree to the divergence in the nature of business of the firms which are lumped within the same industrial classification.
- .. The highest effective rates were paid by the largest size classes in the "miscellaneous manufacturing", "food stores", "motor vehicle repair shop", "clothing and shoe stores" and in the service classifications such as services to business management as well as community, business and personal services (excluding motels and hotels).
- . The only classification where the tax rate is flat for all sizes up to the second largest (there were no observations in the largest size category) was the "special trade contractor". There from a total sample of more than 16,000 in 1979, there was little more than a one percent deviation from an average effective tax rate of 19.56%. Another, such as the "primary industries" has its average at 16.05% in 1979 with variations by size ranging from 12.50 to 18.72. These patterns appear to have been fairly steady over the past ten years.

Dividend Distribution by Firm SizeDividend Distribution:

The net cash revenue available to the firm after it has met its ordinary business expenses will go to pay corporate taxes, dividends to shareholders and the balance of the cash flow will be used internally, most likely to be invested into plant, equipment, inventory and other assets.

Two questions come to mind which may be answered by the data: firstly, with a drop in effective tax rates as has been experienced, does the money flow back into the company to upgrade assets or does it get paid out in dividends to the shareholders for them to do as they please. Secondly, are there noticeable differences among different size firms and possibly among sectors.

Table A enables us to compare the pattern of distribution with that of taxation. Evidently, distribution of earnings can be achieved either by a cash remittance or through the issue of treasury shares. The latter method, known as a stock dividend enables the shareholder either to keep the additional shares and increase his proportionate holdings or transform them into cash by selling them.

The first observation which should be made is that the stock dividend method of distribution amounts to a very small percentage of total distribution effected, except for the largest size group. In the size group with firms having revenues of \$25 million or more, the stock dividend method of distribution only became popular after 1973 when it was inexistent. In 1976, it accounted for more than 30% of the cash value equivalent distributed. By 1979 it had moved down to less than 25%.

TABLE A

Dividend Distribution, Effective Tax
Rate & Net Cash Revenue Available for Internal Use

<u>1979</u>	(% NCR)	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>Avg.</u>
a)	Effective Tax Rate	17.90	17.75	17.94	20.32	22.95	19.14	19.54
b)	Cash Div.	43.60	36.02	30.58	27.61	23.66	16.47	33.12
c)	Cash & Stock Div.	43.64	36.19	30.74	27.78	24.55	20.72	33.36
d)	NCR Employed Internally ⁽¹⁾	38.40	46.23	51.48	52.07	53.39	64.39	47.34
<u>1976</u>	(% NCR)							
a)	Effective Tax Rate	20.99	21.43	21.67	24.37	25.85	26.07	24.92
b)	Cash Div.	12.89	10.49	10.00	9.98	7.24	10.46	9.36
c)	Cash & Stock Div.	13.12	10.63	10.06	9.98	7.25	17.92	9.85
d)	NCR Employed Internally	66.12	68.08	68.33	65.65	66.91	63.47	65.72
<u>1973</u>	(% NCR)							
a)	Effective Tax Rate	25.62	28.11	28.04	27.32	22.20	21.15	24.22
b)	Cash Div.	39.26	18.79	16.58	22.22	25.18	29.31	27.45
c)	Cash & Stock Div.	39.79	18.99	16.72	22.40	25.30	29.31	27.63
d)	NCR Employed Internally	35.12	53.10	55.38	50.46	52.62	49.54	48.33

(1) (Cash Used Internally = 100 - (a+b))

The firm's cash flow, however, and its ability to reinvest from its own sources in any one year is affected only by the cash paid out, either through taxes or cash dividends, thus the more pertinent analysis will examine cash dividends more closely: since 1976 the effective tax rate, on the average has diminished from about 25% to just under 20%. That means that approximately \$50 dollars per thousand dollars of net cash revenue was made available to the firm through a reduction in taxation. Over the same period, and again for the overall average, firms have increased their cash dividends by approximately \$55 dollars per thousand of net cash revenue. The parallel, while interesting does not hold for all size groups and we see, for example, that the largest firms have reduced their distribution significantly more than what they have gained from the drop in effective taxes. The cash which the firm in the largest size group retains for reinvestment rose from just under \$50/thousand in 1973 to \$63 in 1976 and to nearly \$65 in 1979. The effective rate for this group dropped by 2% over the same period and their cash distribution dropped from \$30 to less than \$17.

The lower size groups exhibit a different pattern, the smallest group increased its cash dividend but by slightly less than it gained from the drop in effective taxes, thus resulting in a small increase in the amount of cash flow available for reinvestment. On the other hand, the next three size groups, with sales of 250 to 5,000,000 increased their dividends between 40 and 100% while the cash retained for reinvestment increased in the 1976 period only, and by 1979 fell back almost to the 1973 level.

Dividend patterns are dictated by the fiscal structure and by the fortunes of the industry. Thus, while there may be overall fluctuations for the economy as a whole, industry sectors within the economy are expected to vary from the average somewhat more dramatically. For example, in 1979 most of the industry sectors paid out dividends in cash and stock at a cash equivalent rate ranging from 25 to 35% of their net cash revenue. Certain sectors are traditionally outside this range: on the low end of the scale, one finds general contractors and gasoline service stations. These two sectors from 1973 to 1979 paid in dividends anywhere from zero to 12% of their net cash revenue. On the high end of the scale, we find finance, real estate and insurance companies, services to business management, and printing and publishing. These sectors paid out in dividends between 39 to 47% of their net cash revenues. It should also be noted that the first two of these sectors are coincidentally the ones whose effective tax rates are among the lowest.

Other than the exceptions noted above, the rate of dividend payment by individual sectors is remarkably clustered around the mean, even though the latter fluctuates from one period to the next.

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