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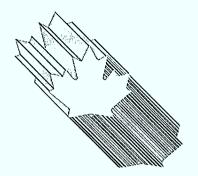




Industry, Science and Technology Canada Industrie, Sciences et Technologie Canada

**Commercial Printing** 

**Canadä** 



# I N D U SPARTMENTRE REGIONAL

## PROFILE

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1988

BIBLIOTHEQUE MINISTERE DE L'EXPANSION INDUSTRIELLE REGIONALE

## FOREWORD

In a rapidly changing global trade environment, the international competitiveness of Canadian industry is the key to survival and growth. This Industry Profile is one of a series of papers which assess, in a summary form, the current competitiveness of Canada's industrial sectors, taking into account technological and other key factors, and changes anticipated under the Canada-U.S. Free Trade Agreement. Industry participants were consulted in the preparation of the papers.

The series is being published as steps are being taken to create the new Department of Industry, Science and Technology from the consolidation of the Department of Regional Industrial Expansion and the Ministry of State for Science and Technology. It is my intention that the series will be updated on a regular basis and continue to be a product of the new department. I sincerely hope that these profiles will be informative to those interested in Canadian industrial development and serve as a basis for discussion of industrial trends, prospects and strategic directions.

Alobert Jac Patret

Minister

## **Canadä**

## 1. Structure and Performance

#### Structure

The industry is composed of establishments primarily engaged in the production of a wide variety of printed materials for all segments of the economy (e.g., advertising matter and business forms). Integrated printing facilities in organizations such as insurance companies and governments, commonly referred to as "in-house" printing plants, are excluded. While a certain degree of interdependence exists between printing and publishing, the two industries are distinct. Publishing is addressed in a separate Industry Profile.

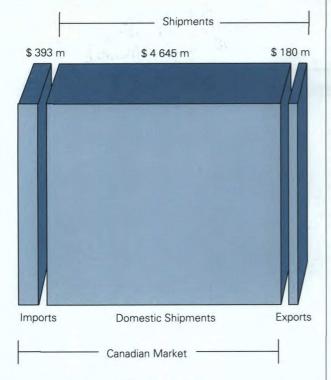
It is estimated that in 1986, the Canadian commercial printing industry comprised about 2900 companies that controlled some 3125 establishments, and which employed about 57 000 people. Industry shipments were valued at roughly \$4.8 billion. In contrast, the estimated value of in-house printing in Canada is over \$750 million. The industry is a major user of Canadian materials as inputs, notably various paper grades. For example, it purchases about 50 percent of the Canadian production of fine and printing papers.

Most of the industry's output involves custom work. Catalogues, circulars, price lists and other advertising matter represented the single largest product group in 1986, accounting for about one-fifth of the industry's output. Other important product groups are business forms (15 percent) and periodicals printed for publishers (nine percent). The rest consists of a variety of consumer and industrial products such as greeting cards, banknotes, stamps, calendars, tags and labels.

The industry is largely domestically oriented. Canadian exports of commercial printed matter totalled \$180 million in 1986, while imports into Canada reached \$393 million. Canada's trade in this field is primarily with the United States. In 1986, that nation took 89.1 percent of Canada's export shipments and supplied 79.7 percent of our import requirements. Foreign trade between the two countries is conducted predominantly by the larger printers and involves primarily large print-runs of a broad group of products of a non-time-sensitive nature.

Although plants can be found throughout the country, the industry is heavily concentrated in Ontario and Quebec. While the industry provides important employment opportunities in smaller communities, it tends to be concentrated in the areas of high population density. Plants located in the Toronto and Montréal metropolitan areas account for about one-half of the industry's shipments.

The industry is characterized by a large number of small, relatively labour-intensive production units. There are no major barriers to entry into the industry at the small-scale level. Roughly four-fifths of all plants employ fewer than 20 people each, but together they account for only 20 percent of total shipments. Large establishments employing 100 people and more, about three percent of the total, account for roughly one-half of the industry's shipments. The four largest firms account for about 30 percent of all shipments. Two of these firms are controlled by communications conglomerates.



Imports, Exports and Domestic Shipments 1986 (estimated)

The industry is primarily Canadian-owned with a strong tradition of family ownership. About four percent of the plants are foreign-controlled, primarily by U.S. interests. These companies account for about 15 percent of industry shipments. The foreignowned firms are found in the greeting card and business form fields. The major Canadian printers now have branch plants in the United States; however, their combined share of the U.S. market is small.

Most printing establishments produce a wide range of items. Relatively few plants specialize in certain types of products or clients. Product specialization is common among printers of business forms and greeting cards. Printers primarily involved in rapid delivery of small orders with less stringent quality requirements are an example of specialization by clients. These are commonly referred to as "instant printers". The typical printer tends to generate orders through personal contact with customers. Use of intermediaries, such as distributors, jobbers and brokers is limited primarily to specialist printers.

The general structure of the commercial printing industry in other developed countries tends to parallel that in Canada. For example, in the United States, 80 percent of the plants also employ fewer than 20 people each. As well, printing is concentrated in states with a large population and businessactivity base.

#### **Performance**

The industry manufactures a wide variety of products. Market demand for these products is influenced by a complex and inter-related mix of factors, including population, educational attainment, leisure time, discretionary income and general business activity.

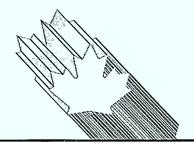
Historically, the commercial printing industry has performed better than the manufacturing sector as a whole and the economy. During the 1973-86 period, industry's employment expanded at an average annual growth rate of 2.3 percent. Industry shipments, in terms of current dollars, grew at a rate of 13.2 percent annually. The industry's share of all manufacturing shipments expanded from 1.5 percent in 1973 to 1.9 percent in 1986. Generally speaking, Canadian growth patterns in shipments and employment in the printing industry have parallelled those in the United States. Over the last decade, the potential market of the printing industry has been eroded increasingly by in-house printing plants.

Exports of commercial printing products during the 1973-86 period grew from \$17 million to \$180 million, increasing their share of the industry's total output from 1.7 percent to 3.7 percent. Gains in export shipments have been particularly significant in the last three years, reflecting primarily the effect of the favourable exchange rate on the Canadian dollar and increased marketing efforts. Imports during the 1973-86 period expanded from \$82 million to \$393 million. Imports grew at the same rate as domestic shipments, with their share of the apparent Canadian market remaining at 7.8 percent. Canada's trade deficit in commercial printed products increased from \$65 million in 1973 to \$213 million in 1986.

At one time, the printing industry in Canada and the United States employed primarily skilled craft workers. However, impressive strides have been made in the automation of commercial printing in the last few years, reducing the need for highly skilled craft workers. The new equipment can be operated by moderately skilled technicians.

The sources of financing for the majority of the smaller printers are internally generated funds and loans from established financial institutions such as chartered banks and trust companies, while the larger firms tend to use public financing. Generally, the industry has not encountered serious problems in meeting its capital needs.

Traditionally, before-tax profit on total income and after-tax profit on equity in this industry have outperformed all manufacturing. For example, the industry's after-tax profit on equity ratio stood at 21.7 percent in 1985, compared to 9.2 percent for the manufacturing sector. As a general rule, small and large printing operations have done better than medium-sized firms. Other key business ratios suggest that the industry is well managed financially.



## 2. Strengths and Weaknesses

#### **Structural Factors**

The majority of the industry's customers are small, placing orders intermittently for a variety of printed products. For small orders, good service in terms of quality and delivery tends to become more important than prices. As a result, small print-runs and small printers usually are not subject to international competition. In contrast, large print-runs are highly price-sensitive. Strong domestic and external competition exists among large and medium-sized firms for the larger print-runs, and tariffs are an important factor in limiting imports.

Raw materials and wages represent the two largest cost factors of printers, averaging about 30 percent and 23 percent of the sales dollar respectively. On an exchange rate-adjusted basis, prices for most raw materials used by printers tend to be somewhat lower in Canada than in the United States. No critical material sourcing difficulties have been experienced by the Canadian commercial printing industry in the past few years, although some grades and sizes of Canadian paper at times have been in tight supply. Such shortages have forced Canadian printers to import part of their requirements, primarily from the United States.

At present, average hourly earnings, after currency adjustment, are about 10 percent lower in the Canadian commercial printing industry than in the U.S. printing industry. However, labour productivity is running about 25 percent (currency-adjusted) higher in the United States. The difference in labour productivity levels reflects the following factors. As a group, the large U.S. printers are much larger than their Canadian counterparts, and achieve greater economies of scale. In addition, the shorter print runs in Canada due to the segmentation of an already small market into two linguistic groups militates against such economies. Finally, the much larger U.S. market can sustain a higher degree of specialization among printers.

While most large Canadian printers generally use state-of-the-art technologies, the Canadian commercial printing industry, as a group, has not fully kept pace with its American counterpart in modernizing its manufacturing facilities. Since the mid-seventies, capital expenditures in relation to sales levels have been lower in Canada than in the United States. For a number of reasons, the rate of implementation of technological innovations is much slower in smaller firms. This is true in Canada as well as in other developed countries.

Transportation is not a significant cost element for printers serving local markets only. However, for firms interested in serving larger market areas, distance can become a limiting cost factor. As a result, the bulk of Canada's trade in commercial printed products with the United States takes place between parties located relatively close to the border.

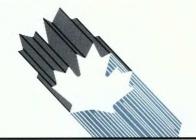
It is generally recognized that, on an equivalentsize basis, management characteristics in the Canadian and U.S. printing industries are similar. In most instances, larger firms tend to employ more effective management systems. Small firms tend to be owned by entrepreneurs with printing or direct-selling backgrounds and less expertise in other functions.

#### **Trade-related Factors**

Canada, like most developed nations, provides duty-free entry to periodicals, newspapers and books, as well as other printed matter which either describes foreign products or services, is to be used by educational institutions, or is of a religious nature. Roughly, 55 percent of all imports of commercial printed products enter Canada duty free. Where applicable, Canadian Most Favoured Nation (MFN) rates in 1988 range from a low of 6.8 percent to a high of 28.6 percent. In particular, advertising matter, the industry's largest and fastest-growing product line, is protected by tariff rates of 24.3 percent and 28.6 percent. Tariff rates on printed matter in the United States are much lower, extending from 0.4 percent to 5.8 percent. By way of comparison, tariff rates in the European Community (E.C.) range from 2.5 percent to 7.2 percent, while Japanese tariff rates do not exceed 4.2 percent.

Government procurement practices are the principal non-tariff barrier affecting trade in printed materials. Printing is not covered by the General Agreement on Tariffs and Trade (GATT) Code on Government Procurement. The GATT Code does not cover service industries and in this context. printing is treated as a service. In Canada, the Canadian government solicits bids only from Canadian printers while most provinces and municipalities grant some form of preferential treatment to their local printers. In addition, the federal assistance programs in Canada for the book and periodical publishing industries usually require publishers to source their printing requirements in Canada. Governments in the United States, the E.C. and Japan also have adopted print purchasing policies that give preferential treatment to domestic suppliers. In addition, the United States currently prohibits the importation of lottery tickets.

Under the Canada-U.S. Free Trade Agreement (FTA), the tariffs on printed matter would be eliminated in five equal annual stages starting on January 1, 1989. In addition, Canada would remove as of January 1, 1989 the "print in Canada" requirement. This is one of the criteria used to define Canadian newspapers and periodicals and, thus, eligibility for the deduction of advertising expenses for income tax purposes. The U.S. federal embargo on lottery materials would be removed on January 1, 1993; however, individual state restrictions would not be affected.



**Technological Factors** 

The world commercial printing industry generally relies on suppliers of machinery and equipment to originate technological developments in manufacturing processes. Because of the existence of several competing printing methods, extensive on-going research and development (R&D) programs are conducted by these suppliers in quest of a larger share of the market.

Most efforts in the last few years have been directed to the automation of printing processes and improvement in the speed and efficiency of machinery and equipment. These new, more sophisticated manufacturing technologies are available worldwide. Most of this R&D work is done outside Canada. As a result of these technologies, the printing industry, worldwide, is slowly shifting away from a relatively labour-intensive, craft-oriented activity toward a capital-intensive, technology-oriented sector.

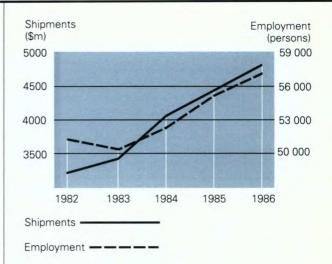
## **Other Factors**

Government departments and agencies at all levels, federal, provincial and municipal, are major users of print materials. For example, in 1985-86, the Department of Supply and Services purchased \$126 million worth of print materials on behalf of the federal government. On the other hand, the federal and several provincial governments are themselves engaged in printing activities. About 40 percent of the print needs of the federal government is met through in-house printing operations.

It is estimated that about one-quarter of the printing industry's output is ultimately distributed through the postal system. Consequently, changes in postal rates and regulations, as well as mail disruptions, have an important influence on several segments of the printing industry.

In the last decade, governments in Canada have moved on several fronts to promote the growth of periodical and book publishing. Commercial printers in Canada have benefited from the strengthening of the publishing industry.

Many of the products manufactured by the commercial printing industry are subject to provisions of the Canadian Copyright Act, which originally came into force in 1924. As the act had become obsolete and no longer provided adequate protection to those engaged in a creative process, a first series of major revisions was made in June 1988.



Total Shipments and Employment\*

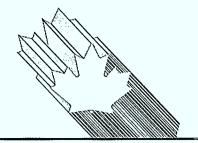
\* Data for 1986 are estimates.

## 3. Evolving Environment

Overall, it is projected that Canadian demand for commercial printed products over the medium term will grow at a more moderate rate, but at a rate higher than the country's gross national product. Factors such as the amount of leisure time and the level of educational attainment of the population will continue to have a strong positive influence. However, other factors such as the anticipated slower rate of population growth will have a negative impact. In addition, the next few years will bring to maturity a number of technological developments in non-print methods of transmitting and storing information, such as videotext and compact discs, which will affect some printed products adversely. Finally, the industry's potential market will continue to be eroded by in-house printing plants.

On the international front, the United States should continue to offer relatively good potential for efficient Canadian printers over the medium term if there are no significant changes in the value of the Canadian dollar in relation to the U.S. currency.

With the return of better market conditions after the 1982-83 recession in the printing industry, capital expenditures by the industry have picked up strongly, placing the industry in a good position to capitalize on increased market demand in Canada and abroad. On the other hand, there is growing concern within the industry that the number of large printing presses installed recently or that are planned, could result in overcapacity and price-cutting practices if the growth of the North American economy over the next few years is weaker than current projections indicate.



No critical shortages of paper or other raw materials are expected over the medium term. The industry should face no significant problems in attracting sufficient workers. It will continue to be a small energy consumer, so that moderate increases in energy prices will not affect its competitive position significantly. No dramatic developments in printing processes are expected during the next five years. Research and development will thus focus on refining existing technologies. In particular, electronics and computers will continue to make rapid inroads into printing plants of all sizes to improve speed, efficiency and economy.

The FTA is expected to have, on balance, some negative impact on the Canadian printing industry. The elimination of Canadian tariffs over a five-year period will enable the large U.S. printers, with their economies of scale, to increase their share of the Canadian market. In addition, the elimination of the "print in Canada" requirement as one of the criteria in defining Canadian newspapers and periodicals could lead some Canadian publishers to sub-contract their printing needs to U.S. printers, depending on market, cost and distribution factors. A number of Canadian printers, mostly medium-sized firms, may find it difficult to adjust to growing import competition under free trade. These negative effects may be partially offset through higher Canadian exports resulting from the removal of the U.S. tariffs on printed matter and the lifting of the trade embargo on lottery materials.

## 4. Competitiveness Assessment

International competition in this industry applies primarily to the larger print-runs. In this area, a few large, efficient Canadian companies are internationally competitive. However, overall the Canadian printing industry is not considered competitive. While the Canadian industry enjoys cost advantages in the areas of raw materials and labour over its U.S. counterpart, this is offset by the much higher productivity levels of the larger, more-specialized U.S. industry. The major part of the industry relies on the high Canadian tariffs to inhibit stronger penetration by imports of large print-runs from the United States. The large number of small firms serving local markets with small print-runs, however, is not generally affected by imports.

Overall, the Canada-U.S. Free Trade Agreement is expected to have some negative effects on Canadian industry, particularly on medium-sized firms in Canada.

For further information concerning the subject matter contained in this profile, contact:

Service Industries and Consumer Goods Branch Industry, Science and Technology Canada Attention: Commercial Printing 235 Queen Street Ottawa, Ontario K1A 0H5

(613) 954-3100

PRINCIPAL STATISTICS		SIC(s) COVERED: 2811 & 2819 (1980)					
		1973	1982	1983	1984	1985	1986
Establishm	ents	2 183	2 702	2 882	2 920	3 049	3 125(e)
Employme	nt	42 894	51 463	50 145	52 102	55 241	57 000(e)
Shipments	(\$ millions)	988	3 227	3 430	4 049	4 482	4 825(e)
	estic product t 1981 \$ millions)	N/A	1 315	1 301	1 483	1 603	1 681(e)
Investmen	t (\$ millions)	57.7	129.0	133.7	209.4	217.5	235.6
Profits after (% of inc	er taxes (\$ millions) come)	63.2 8.5	267.1 7.9	219.4 6.2	287.7 6.8	311.7 6.8	N/A N/A
TRADE STATISTICS							
		1973	1982	1983	1984	1985	1986
Exports (\$	millions)*	17	63	76	111	149	180
Domestic	shipments (\$ millions)	971	3 164	3 354	3 938	4 333	4 645
Imports (\$	millions)	82	254	279	332	336	393
Canadian r	market (\$ millions)	1 053	3 418	3 633	4 270	4 669	5 038
Exports as	% of shipments	1.7	2.0	2.2	2.7	3.3	3.7
Imports as	% of domestic market	7.8	7.4	7.7	7.8	7.2	7.8
Source of (% of total				U.S.	E.C.	Asia	Others
			1981 1982 1983 1984 1985 1986	84.2 85.2 81.3 82.7 82.4 79.7	10.0 9.2 12.0 11.0 11.0 13.0	3.9 3.8 5.2 4.6 4.7 5.9	1.7 1.9 1.5 1.7 1.9
	n of exports			U.S.	E.C.	Asia	Others
(% of tota	value)		1981 1982 1983 1984 1985 1986	75.6 76.0 83.7 86.5 88.9 89.1	9.0 9.2 6.3 4.2 4.6 4.9	2.3 2.8 1.5 1.3 1.0	13.1 12.1 8.5 8.0 5.4 4.9

(continued)

## REGIONAL DISTRIBUTION — Average over the last 3 years

	Atlantic	Quebec	Ontario	Prairies	B.C.
Establishments – % of total	4.2	27.7	43.3	14.4	10.4
Employment – % of total	1.9	28.6	51.3	11.7	6.5
Shipments – % of total	1.3	29.9	51.9	10.7	6.1

## **MAJOR FIRMS**

Ownership	Location of Major Plants	
Canadian	Montréal, Toronto, London, Winnipeg	
Canadian	Candiac (Quebec), Montréal, Toronto, Burnaby	
Canadian	Montréal, Toronto, Calgary Vancouver	
Canadian	Beauceville (Quebec), Trenton (Ontario), Toronto, Vancouver	
	Canadian  Canadian  Canadian	

<sup>\*</sup> The export statistics quoted in this report understate the actual level of export orientation of the Canadian commercial printing industry. For statistical purposes, Canada's international trade in newspapers, periodicals and books is usually assigned to the publishing industry. However, it is believed that a good portion of Canadian exports of these commodities originates from companies classified to the commercial printing industry. Unfortunately, it is not possible to estimate the value of these export shipments at this time. In contrast, it is believed that the bulk of Canada's imports of newspapers, periodicals and books originates from foreign publishers as opposed to commercial printers.

(e) Estimated

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