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INVESTING AND DOING BUSINESS WITH CANADA



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Business Transformation Through Client/Server Computing

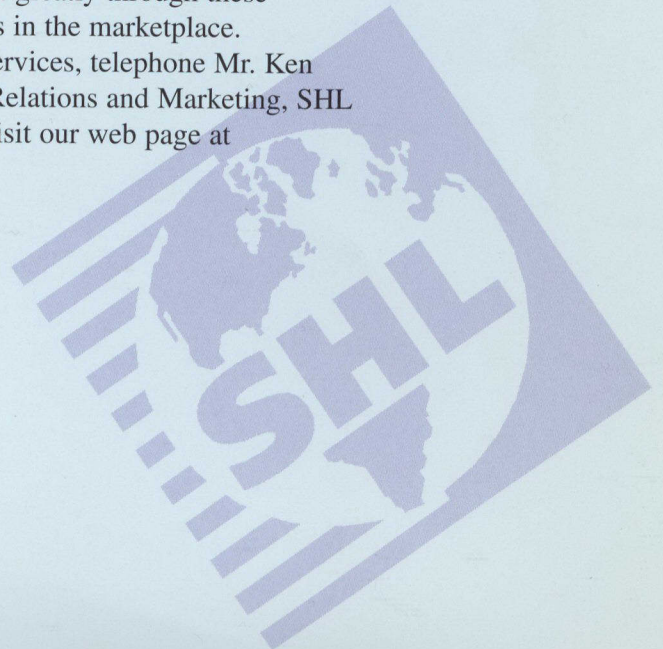
SHL Systemhouse, Inc. is the recognized global leader in delivering innovative transformational business solutions using leading-edge technology. With our client/server expertise, we seamlessly and cost-effectively manage the time-compressed implementation, deployment and operation of technology anywhere in the world. Based in Canada, we provide outstanding service and satisfaction to our clients worldwide.

SHL achieved \$1.169 billion in 1994 revenues through an extensive network of more than 5,000 professionals in 90 offices throughout the world. The company is firmly established in Canada, Europe, the United States, Asia/Pacific and Latin America.

On September 20, 1995 MCI Communications and SHL entered into an agreement for MCI to acquire SHL. SHL will continue to operate as a separate company, and global marketing activity will remain in Ottawa, Canada. Together, SHL and MCI will address customers' growing demand for the integration of multiple converging technologies and the need to translate these technologies into specific business applications.

SHL works closely with partners whose expertise or presence in a specific business area helps drive the decision in favour of a joint-proposed solution. We benefit greatly through these partnerships with major companies in the marketplace.

For more information on SHL services, telephone Mr. Ken Sinclair, Vice President Business Relations and Marketing, SHL International at (613) 236-9734. Visit our web page at <http://www.shl.com>.



Public Security and Safety Services

SHL Transerve™ Emergency Dispatch Services provide custom-designed solutions to maximize the accuracy, speed, efficiency and fault tolerance of safety agencies' command and control environments. We supply fully-integrated solutions combining such services as CAD, mapping, voice radio, mobile computing and ISDN telephone management. When integrated, these constitute a unique and seamless solution for our clients. Here is just one example.



The 911 operator automatically receives a caller's phone number and location without asking for it, and routes the emergency call to the appropriate police, fire, and emergency medical services.

En route to the scene, the computerized dispatch system instantly provides information to emergency personnel, including building floor plans and the quickest path to the location.

This technology helps emergency service agencies



more efficiently provide the law enforcement support, the fire fighting capability and the emergency medical assistance required to attack emergency situations.

The SHL Transerve services make a crucial difference in emergency situations. The technology is state-of-the-art. It's up and running.

For more information, call Rich Bohmer, Director of Strategic Alliances, International Public Safety Group, (609) 259-9400.

The Technology Network

SHL TechNet is a global, mobile network of strategists, architects and specialists that brings the expertise needed to successfully align business and technology in delivering complex cooperative solutions, anywhere in the world.

The Architecture Services unit defines model architectures which serve as a baseline for SHL projects. World-class architects and scientists work with individual clients to define enterprise-wide architecture strategies addressing the "islands of automation" prevalent throughout the 1980's. Additional services include network and systems management, client/server architecture delivery, messaging/groupware and enterprise application of Microsoft technology.

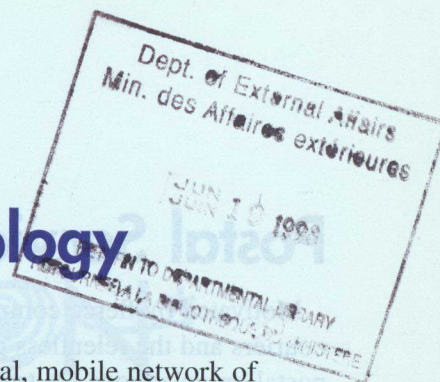
The Data Warehousing unit specializes in building enterprise-wide, client/server-based solutions for data warehousing - providing businesses with information for critical decision making. Service areas include decision support tools, meta data repositories, multi-dimensional modeling and data warehouse design.

The Object Technology Centre's software factories deliver cutting-edge object solutions. Drawing on the continuously growing Object Repository, they assemble applications using proven architectures and delivery approaches, reusable objects and application frameworks.

The BPR Unit combines forces with the Object Technology Centre in a practice named Convergent Engineering. Working with customers, they design new processes in business object models leveraging object models and objectware developed in other units. To more accurately define cost savings and benefits and help customers experience the benefits of a solution, they develop simulations of the streamlined business process.

The Imaging Centre focuses on high volume data capture and optical character recognition. This unit delivers tax systems worldwide using a specialized software development environment and a reusable application framework.

For more information, contact Colin Dalzell, Vice President, Technology Network at (310) 403-4908.



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Postal Services

Motivated by fierce competition from express couriers and the relentless pursuit of technology, postal organizations are trying to hang on to their traditional business while laying the groundwork for their future services in a world that is undergoing a communication revolution. SHL Postal Services (PS) operates internationally and has repeatedly proven its ability to successfully develop and implement information technology solutions for the postal industry.

We have established a strong reputation in mail tracking and tracing systems, and have now broadened our capabilities to include major outsourcing projects. These opportunities are of significant importance for all modern postal organizations.

SHL PS employs over 400 professionals with current postal experience across North and South America, Europe and Africa. Through our extensive postal experience and knowledge, we can offer innovative solutions and technology to allow postal organizations to re-engineer their business processes to face the continuing challenge of competition and profitability.

In addressing these future challenges, there is an opportunity to achieve greater benefits from a totally integrated business approach through taking a broader view of mailing systems than has been common within traditional postal organizations. This is particularly important in the case of large volume mailers of business letters, parcels and packages, which constitute the bulk of the postal business.

For more information telephone Terry Simms, Managing Director, Postal Services International, at 011-353-1-676-5866.

.....

A Strong Reputation in Track and Trace, and Major Outsourcing Project Capabilities

.....



Outsourcing Services

SHL is one of the world's top IT and business process outsourcing services providers*. Outsourcing Services' mission is to provide enterprise computing and communications services in the global transformational outsourcing marketplace. These include:

- enterprise help desk;
- host processing services;
- client/server processing services;
- LAN management services;
- network services, and
- network-enabled application services.

Our state-of-the-art outsourcing centers in Canada, the United States and England deliver various combinations of services in two distinct ways. Transformational Outsourcing™ focuses on migrating clients from mainframe computing to client/server. Networked Systems Management focuses on managing distributed computing environments (LANs, desktops and network infrastructure). As well, SHL offers Enterprise Management - a licensed package of the intellectual properties involved in delivering outsourcing services.

*(Gartner Group Strategic Analysis Report, October 13, 1994)

Telecom and Delivery Services

SHL's TeleCom and Delivery Services (TDS) Unit's delivery processes have been awarded ISO 9001:1994 registration. This award affirms our standing as a quality supplier of complete systems integration solutions to clients around the world.

Located in Ottawa, TDS provides complete systems solutions and is the flagship of SHL's software factory movement, through which the company's core competencies are applied to clients' complex system requirements, in any industry or location.

The factory model flows projects through a series of functional teams, following a proven, repeatable process. This model has much greater benefits for clients over the more traditional approach of building large project teams at client sites. Projects can be designed and delivered in less time and with fewer resources, and quality is more closely controlled, since processes and teams have been thoroughly proven in advance.

TDS has an excellent record of successfully delivering high-quality systems on budget and within time-compressed schedules. This is particularly important to clients looking to increase their competitive advantage by rapidly deploying high-quality information systems. These systems are often mission critical, embrace complex technologies and solutions, and require a wide range of third-party services.

Our clients come from many industries, including telecommunications, international banking and government agencies.

Representative projects include network applications for telecommunications providers, intelligent payphone management systems, financial debt management systems, and other business support systems.

For additional information, telephone Susan Ernst, Vice-President and Managing Director or David Blackburn, Director of Business Development, at (613) 236-9734.



ISO 9001: 1994
Certificate #003336

VISION*

Geographic Information Systems

Major telecommunications, utilities and municipalities have partnered with SHL VISION* Solutions to implement some of the world's most ambitious business re-engineering projects. These organizations use VISION*™ to manage infrastructure, improve service and increase productivity.

VISION* goes well beyond traditional geographic information systems (GIS). Gaining strategic advantage over competitors demands more than generating maps with digital technology - we add location and relationship data to the information that organizations use every day.

The unique VISION* architecture abandons the outdated concept of proprietary databases used by traditional GIS and uses an open commercial database (Oracle). This allows our clients to maximize their return from existing data with fully integrated spatial extensions. The result is a database foundation supporting multiple departments in even the most complex enterprise.

Deploying spatial data technology on an enterprise scale is an ambitious undertaking, often requiring an expanded team of specialists. VISION* has forged strategic partnerships to ensure successful project implementation. Our partners include Unisys, IBM, Bull Information Systems and M3i Systems.

If your organization is facing these challenges, contact us to find out more. We understand what it takes to deliver a total business solution.

SHL VISION* Solutions
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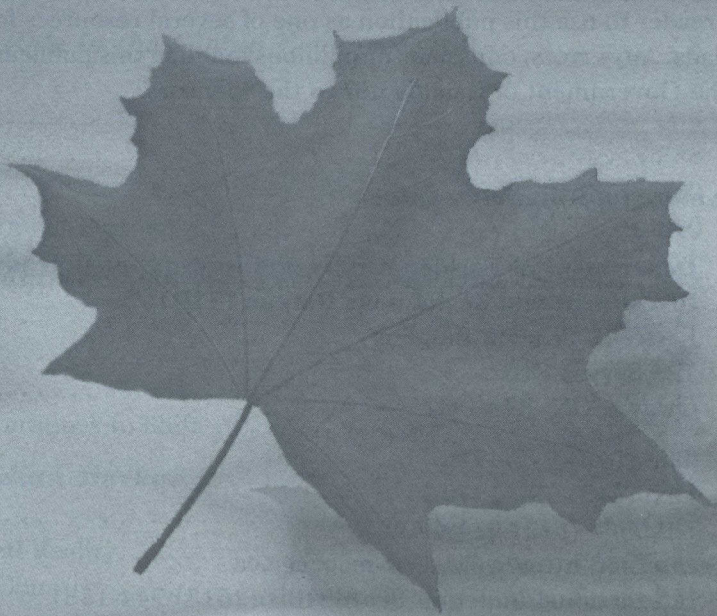
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Investing and Doing Business with Canada — 1996

This first edition of *Investing and Doing Business with Canada* was developed jointly by the Department of Foreign Affairs and International Trade (DFAIT) and Prospectus Inc. This handbook was made possible through the sponsorship of SHL Systemhouse and Stentor Communications, and the support of the cities of Mississauga, Brantford and London. The publisher would also like to acknowledge the contributions of John Hannigan, Dr. Jan Fedorowicz, Anne Phillips and Marvin Bedward in the development and production of this book.

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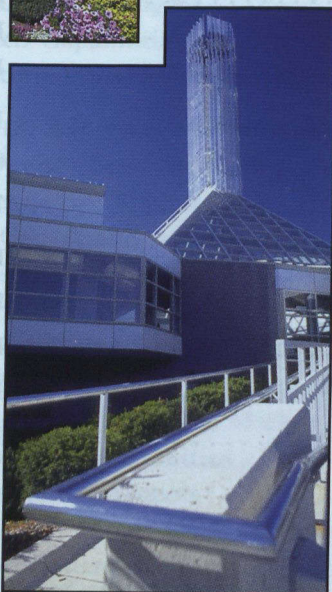


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Brantford, Ontario: A City for All Reasons.



Location, location, location.

Brantford is located less than 100 kilometers southwest of Toronto, Ontario. U.S. border points near Buffalo, New York are within the same radius. In addition, Brantford lies within 200 kilometers of the industrial areas near Detroit, Michigan.

The city is linked by major freeways and four-lane highways as well as national rail lines. The Brantford airport provides air access.

A history of industry.

Founded in the early nineteenth century, Brantford quickly grew to a thriving industrial city by 1877. Today, automotive and plastics dominate Brantford's industrial make-up. However, numerous industries, including food processing, household goods, pharmaceuticals and others now provide the city with a stable and diverse industrial base.

Staying ahead with technology and training.

With its close proximity to many of Canada's leading universities, Brantford can take advantage of higher learning opportunities. The Brantford campus of Mohawk College provides training at the community college level, with a variety of diploma and certificate programs.

The city has a number of secondary schools offering a wide range of courses. Continuing education programs round out the available opportunities.

Room to grow for business.

The diversity of Brantford's business make-up offers older facilities for smaller companies looking to start up, as well as abundant available land for larger enterprises. The Brantford Industrial Park, located right on the freeway, is a prime area of expansion. It offers a full range of services.

Now in its seventh development phase, the city-owned industrial park encompasses 1,500 acres of zoned land. A further 1,300 acre business park area is slated for development.

Brantford, Ontario, Canada offers a variety of compelling benefits for businesses looking to set up in North America: An ideal location, close to Canada's largest metropolitan area, as well as the U.S. border; full transportation availability; skilled workforce; all municipal amenities; and land costs considerably less than comparable areas.

With a population just over 80,000, Brantford offers the complete array of city services, while avoiding many of the traffic, pollution and crime problems of larger urban areas. Brantford has proven to be a successful site for a number of companies, from all over the world.

For all reasons, the place to be.

Brantford offers a unique set of benefits, including location in the middle of the largest industrial corridor in North America, skilled labour force, complete amenities and highly competitive land costs. For all reasons, Brantford is "the place to be".

Contact Mr. David Amos,
Director of Economic Development,
City Hall, 100 Wellington Square,
Brantford, Ontario, Canada N3T 2M3.
Tel: (519) 759-4150 Fax: (519) 752-6775

Brantford's got IT.

OUTSTANDING OPPORTUNITY.

Contemporary building offers stunning architecture, 60,000 sq. ft. on two floors. Designed as a telecommunication museum, with exhibit areas, office space, retail, restaurants and classrooms. Ceiling heights up to 35 ft. Additional 85,000 sq. ft. also available in adjacent 3-storey building.

CONSISTENT PERFORMANCE WINS FOR NICHIRIN.

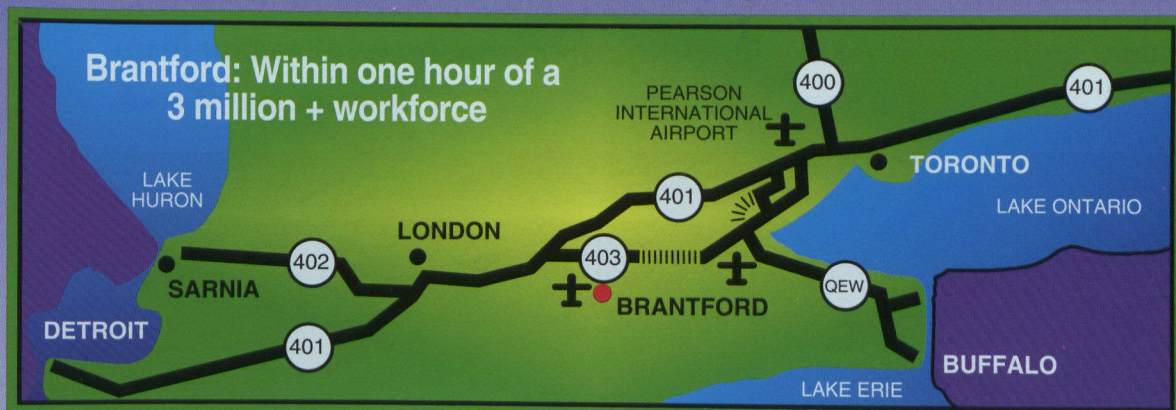
Brantford manufacturer Nichirin Inc. was proud to win a coveted quality performance award in 1994 from Honda of America Mfg. The company, a wholly-owned subsidiary of Nichirin Co. Ltd., Kobe, Japan, assembles high pressure hoses for the automobile industry in North America. Nichirin exports 85% of its product to the United States. Its main customers are Honda, Nissan, Cami and Kawasaki. According to Executive Vice-President Frank Johnson, "The most important thing has been the satisfaction with the quality of Nichirin, Inc.'s 200 employees."

EXPANSION FOR JAPANESE-BASED PLASTICS FIRM.

Kuriyama Corporation, based in Osaka, Japan began production of its plastic hoses and tubing in the fall of 1985. Its commercial and industrial products have uses in the food and beverage industry, agriculture and the home. Seventy-five per cent of the company's \$12 million annual sales are exported, mainly to the U.S. Company president Clement Matsumoto explains "Brantford is well known for its substantial labour force. It also has good highway access."

HAMILTON PORCELAINS EXPORTS AROUND THE WORLD.

Hamilton Porcelains is a manufacturer of quality ceramic products making its home in Brantford for the past 50 years. It has been owned by the French company Saint-Gobain since 1989. Hamilton Porcelains "imports our raw materials from the U.S. and exports 90% of our products around the world," according to Simon de Boer, Customer Service Manager. "Our Brantford location gives us the advantages needed to compete in the global marketplace".



SECTION 1:

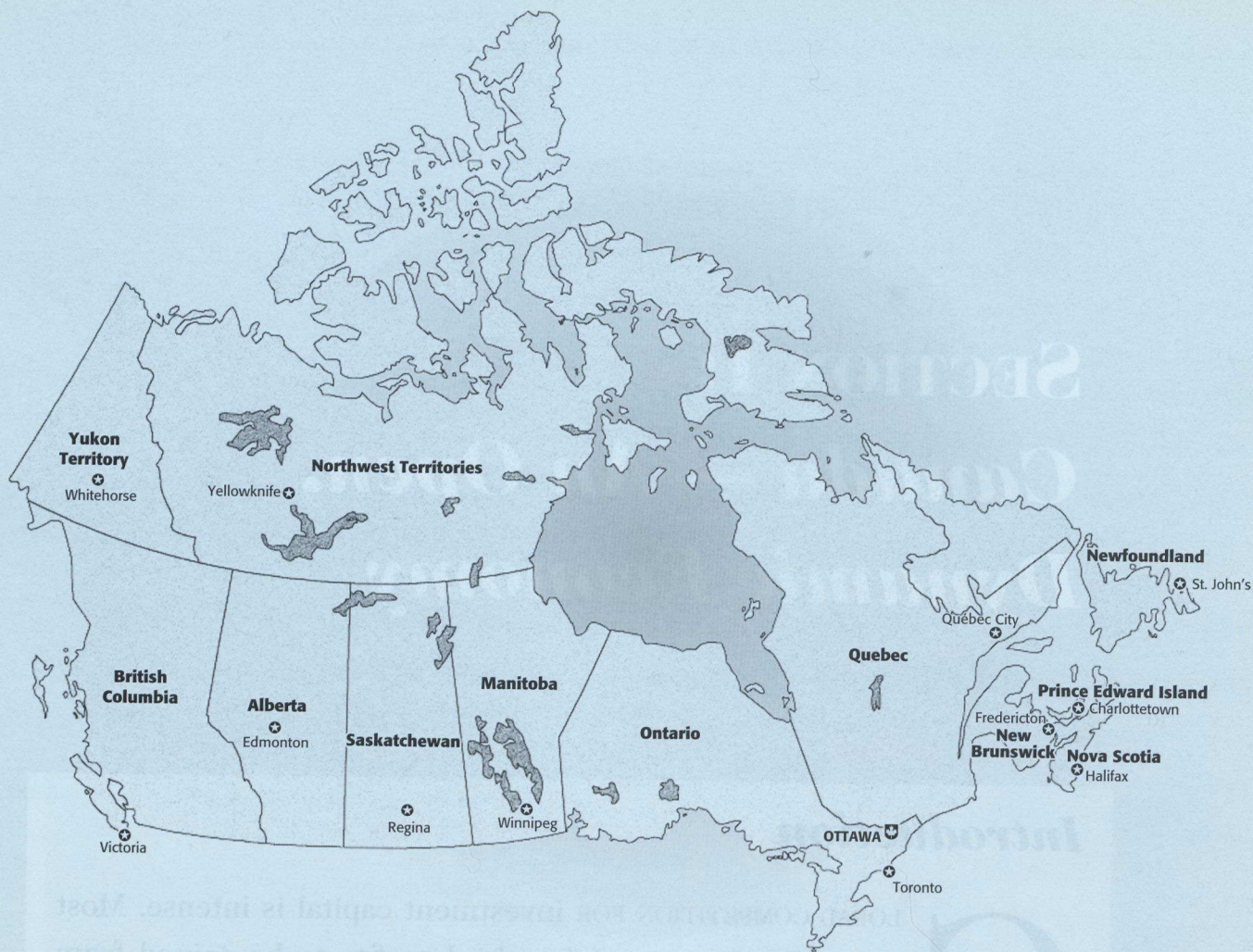
Canada — An Open, Dynamic Economy

Introduction

GLOBAL COMPETITION FOR investment capital is intense. Most countries now recognize the benefits to be gained from foreign investment and are devising strategies to promote their advantages and capture investor interest.

In this more competitive international environment, Canada has maintained and even enhanced its appeal as a destination for foreign capital. A growing number of international companies are discovering what firms in the United States have known for decades: it pays to invest in Canada.

The expanding number of international companies that are investing in Canada contribute to Canada's overall growth and development which, in turn, makes investment opportunities all the more appealing. Success does breed success.



- Location:** Occupies the territorial expanse of northern North America, bordered by the Atlantic Ocean on the east coast, the Pacific Ocean on the west coast, the Arctic Ocean on its northern coast and by the United States on its southern border. Most of the population lives within 160 km of the border shared with the U.S.
- Land Area:** 9.2 million square kilometres
- Population:** 29.2 million
- Growth Rate:** 1.3%/year (av. 1990-1994)
- Main Cities:**
- | | |
|--|--|
| Toronto , pop. 3.9 million | Victoria , pop. 288,000 |
| Montreal , pop. 3.1 million | Windsor , pop. 262,000 |
| Vancouver , pop. 1.6 million. | Oshawa , pop. 240,000 |
| Ottawa-Hull , pop. 921,000 | Saskatoon , pop. 210,000 |
| Edmonton , pop. 840,000 | Regina , pop. 192,000 |
| Calgary , pop. 754,000 | St. John's , pop. 172,000 |
| Winnipeg , pop. 652,000 | Chicoutimi-Jonquiere , pop. 161,000 |
| Quebec City , pop. 646,000 | Sudbury , pop. 158,000 |
| Hamilton , pop. 598,000 | Sherbrooke , pop. 139,000 |
| London , pop. 382,000 | Trois Rivieres , pop. 136,000 |
| St. Catharines - Niagara , pop. 365,000 | Saint John , pop. 125,000 |
| Kitchener , pop. 356,000 | Thunder Bay , pop. 124,000 |
| Halifax , pop. 321,000 | |
- Political Structure:** Constitutional monarchy; democratic government; federation of ten provinces and two northern territories.
- Prime Minister:** Hon. Jean Chretien
- Currency:** Canadian dollar.
- Climate:** A diverse climate, from Arctic in the north to temperate in the southwest; the 200-kilometre band along the southern border, where most Canadians live, varies from continental in the western Prairie provinces to Atlantic maritime in the east, but has four distinct seasons with winter lasting generally about four months.
- Languages:** Two official languages – English and French; English is the predominate language in every province except Quebec, where the majority speak French.
- Measures:** Metric
- Time:** Six time zones; the most easterly, Newfoundland standard time is 3 hours and 30 minutes behind Coordinated Universal Time (UTC); Pacific standard time, the most westerly, is 8 hours behind UTC.

CHAPTER 1: *Canada's Competitive Advantage — An Introduction*



FINANCIAL AND BUSINESS communities in Canada and abroad have reacted favourably to recent government initiatives that improve private-sector competitiveness. Such policies as privatization; tax reform; deregulation in the financial, transportation and telecommunications sectors; a reduced burden of government regulation on small- and medium-sized companies; and improved market access through the Canada-U.S. Free Trade Agreement (FTA) and the North American Free Trade Agreement (NAFTA) are making the environment for foreign investment in Canada even more attractive.

Canada is more than just a good place to do business. It is also one of the best countries in the world to live. By any measure, Canadians enjoy an excellent standard of living and overall quality of life.

Canada consistently comes at or near the top in international comparative measures of the quality of life. The 1994 *United Nations Human Development Report* ranked Canada number one in the world according to its "Human Development Index", an aggregate measure based on three composite indexes that rate life expectancy, education and income. The *World Competitiveness Report (1994)* calculates that Canada has the fifth highest level of income per capita in the world. In a new World Bank measure that compares countries' wealth — as opposed to income — Canada is ranked second.

The quality of life in Canadian cities is also among the highest of the major cities of the world. The Geneva-based Corporate Resources Group developed a quality of life indicator based on a composite of 42 factors including political and social environment, security, culture, health, education, public service, recreation, consumer goods, housing and natural environment. According to this measure, four Canadian cities — Vancouver, Toronto, Ottawa and Montreal — ranked among the top ten.

When considering an investment in Canada, foreign companies will find a cost-effective environment for wages, raw materials, energy and real estate. The research and development (R&D) community is world-class and the incentives for doing research in Canada are some of the most attractive in the world. Labour productivity is high and labour relations are healthy. Business services and the infrastructure for efficient business operations are exceptionally efficient. A snapshot of these advantages follows, which is expanded upon in subsequent pages.

SOLID RESEARCH AND DEVELOPMENT COMMUNITY

An ever increasing part of Canada's economy is based on R&D-intensive sectors such as telecommunications and health care. This is generating more investment in laboratories, research institutes, centres of excellence and research networks. Industry, universities and governments are forming alliances, strengthened by the latest data networking technology.

Through R&D tax incentives at the federal and provincial levels, especially the federal government's 20 percent investment tax credit for eligible R&D expenditures, Canada has one of the most advantageous R&D tax regimes among G7 countries.

...the Canadian tax system provides greater overall incentives for companies to engage in R&D than do the tax systems of nine other leading industrial countries, including the U.S. And its R&D tax credit regime is recognized as the best in the G7 countries today.

Bill Mclean, Vice President
Manufacturing and Development
IBM Canada

COMPETITIVE WAGES AND BENEFIT RATES

International corporations find the Canadian work-force to be highly cost-effective. On average, wages in Canada's business centres are lower than those in nearly all major business centres around the world. Annual salaries of employees at the managerial level in Toronto are roughly \$15,000 less than those of their New York counterparts.

In recent years, overall skilled labour costs have been found to be lower in Canada than in the U.S., several West European countries and Japan. Also, employer-paid taxes and benefits are lower in Canada than in the U.S. This is not only due to exchange rate fluctuations. In 1994, unit labour costs for all non-agricultural business sectors fell 0.7 percent, after a decline of 0.4 percent in 1993.

Volvo has, over 25 years, experienced success with the employees for the high quality of the product and the very good productivity, which has been competitive with the other Volvo plants around the world.

Gunnar K.G. Jennegren
Former Vice President and General Plant Manager
Volvo Canada

EDUCATED AND SKILLED WORK-FORCE

Canada's labour force is one of the most highly trained and adaptable in the world. According to the Organization for Economic Cooperation and Development (OECD), Canada is among the top four countries in the share of gross domestic product (GDP) devoted to public sector funding of education. Among G7 countries, Canada is near the top in terms of the number of people with an advanced education. About two thirds of its 20 to 24 year-olds are enrolled in post-secondary education.

HEALTHY LABOUR RELATIONS

Two important trends bear out Canada's claim to be one of the most productive labour-management environments in the G7 countries: strikes are on the downturn while employee-shared ownership plans are on the rise. Relative to other countries, Canadian operations experience low turnover and absenteeism rates.

WORLD'S RICHEST MARKET

The NAFTA, which came into force on January 1, 1994, gives Canadian-based companies unparalleled access to the entire North American market of 380 million people. The NAFTA forms the basis of a continent-wide economy equivalent to that of the European

Union (EU). In 1994, the GDP of this combined Canada-Mexico-U.S. market was in excess of \$10 trillion.

Under the FTA, which came into effect on January 1, 1989, Canadian-based companies increased their share of the combined Canada-U.S. market. Merchandise trade between the two countries continues to boom. Free trade has also fuelled net foreign direct investment (FDI) flows to Canada.

Our future manufacturing operations can include Canada in a way that we could not before. Free Trade allows us to make a risk free investment in Canada in a way we couldn't before.

James Leto, President
AT&T Canada

SOPHISTICATED AND EFFICIENT INFRASTRUCTURE

Because of its geography and demographics, Canada has developed a communications and transportation infrastructure that is highly effective and advanced. The country has invested heavily in fibre optics and high-speed transmission technology and deregulated the long-distance telecommunications market to maintain competitive costs. The country's transportation system of roads, rail, air transport and port access forms another pillar of its industrial strength.

WORLD-CLASS BUSINESS SERVICES

Canada's business service sector has expanded considerably over the past 20 years, and now provides highly specialized offerings to meet all of the needs of international investors. Canadian banks rank among the largest in North America and all of them maintain international offices in the U.S., Latin America, Europe and Asia. Trust companies, brokerage firms, investment analysts, insurance companies, venture capital firms and other financial institutions provide additional financial services. Stock exchanges in Toronto, Montreal and Vancouver place offerings for international firms.

International investors who prefer to deal with financial services firms based in their home country will find that many leading international banks, investment dealers and insurance companies have offices in Canada.

Top-quality professional services are available from globally active insurance, accounting, advertising, law and consulting firms. Canadian engineering and architectural firms are world-renowned for their expertise.

A LESS LITIGIOUS ENVIRONMENT

Perhaps because of its European traditions, Canada's legal environment and practices are less litigious than those in the United States. Canadians prefer to negotiate mutually-agreed-upon solutions rather than seek remedies and penalties through the courts. Every effort is made to provide business with the certainty and consistency it seeks. When environmental damage or product liability fines are handed down by Canadian courts, they are generally lower and are determined more quickly than in the United States.



INTERNATIONAL BUSINESS SKILLS

Canada is a land of immigrants. Employers will find pools of experienced workers who also offer fluency in foreign languages, knowledge of international cultures and business practices, and networks of business contacts in the key Asian, European and American markets. Canada is also an effective bridge between North America and Europe, as its business laws and practices are a blend of American and European cultures.

ABUNDANT RAW MATERIALS

Canada is a storehouse of natural resources. It extracts and harvests those resources in highly competitive and cost-effective ways. As a result, Canada is a leader in exports of both raw and processed commodities. It is a very competitive supplier of metals, paper, lumber, grains, oilseeds and meats that are internationally recognized for their quality. Canadian-based processors and manufacturers can enjoy reduced transportation costs by being close to these globally competitive sources of supply.

When I think of its wide territory and abundant natural resources, its well-educated people, and its high quality of life, my conviction for Canada's success in the 21st century remains unchanged. Canada deserves very serious consideration as a destination for investment.

Masao Ikeda, Executive Vice President
Mitsui & Co.

VAST, LOW-COST ENERGY SUPPLIES

Canada is endowed with huge deposits of oil and gas, coal and uranium, as well as virtually unlimited hydroelectric generating capacity. It is one of two G7 countries that are self-sufficient in oil supplies. It has the lowest electricity cost of all G7 countries, and is the only G7 member with enough natural gas to be a net exporter. The availability, reliability and low cost of Canada's energy supplies produce widespread benefits to industry, including those with low energy intensities.

ADVANTAGEOUS OCCUPANCY COSTS

Canadian cities and towns offer modern offices and industrial facilities at highly competitive rates. Office operating costs in major Canadian business centres are the lowest of the major cities in G7 countries.



CHAPTER 2: *Canada's Role in the Global Economy*



FEW NATIONS HAVE a greater stake in the global economy than Canada. The country has long been committed to an open international economy. It was one of the original signatories of the General Agreement on Tariffs and Trade (GATT) in 1947 and has remained a strong advocate of reducing trade barriers and adopting transparent trading practices through multilateral negotiations. Consistent with this position, Canada played a prominent role in the recent Uruguay Round of international trade negotiations and in the creation of the new World Trade Organization (WTO).

Canada has also pursued regional free trade arrangements. It entered into a bilateral free trade agreement with the United States in 1989. Three years later, Mexico joined in what became the North American Free Trade Agreement (NAFTA). Canada strongly supports the expansion of the NAFTA to other countries.

With a domestic market of just under 30 million people, Canada's long-standing interest in securing easy access to export markets is only natural. But its interest in international trade is not confined to exports. Canadian consumers and businesses have come to rely on imports to meet their need for a wide range of goods, services and technology.

Trade is not the only dimension of Canada's involvement in the global economy. Foreign investment has long played a pivotal role in the development of the Canadian economy, bringing not only capital, but also technology, expertise and innovation. Since the mid-1980s, the Canadian government has actively sought and encouraged the inflow of foreign direct investment (FDI) into Canada. As part of its undertakings to the WTO, the federal government recently implemented new legislation to ensure that investment from all member countries of the WTO will be treated in the same way as Canada treats investment from its partners in the NAFTA.

Although Canada has global economic interests, and is a member of a number of multilateral and regional economic organizations, its international economic relations are influenced first and foremost by the United States. Roughly three quarters of Canada's trade is with the U.S., and investment flows between the two countries account for the majority of capital moving into and out of Canada.

A TRADING NATION

Canada is among the most trade-oriented of all the world's major industrial countries. In 1994, Canada led the G7 countries in terms of total trade as a share of gross domestic product (GDP). Exports and imports of goods taken together were worth the equivalent of 66 percent of Canada's GDP. Three quarters of the country's output of natural resources is now exported, as is more than half of its manufacturing production.

Canada is the seventh largest exporter and eighth largest importer in the world. In 1993, it supplied about four percent of global merchandise exports and purchased a slightly smaller share of imports (see Table 1.1). With a population eleven times the size of Canada's, the U.S. exports only three times as much.

TABLE 1.1
Top Ten World Traders, 1993
 (share of world merchandise trade*)

Rank	IMPORTS		EXPORTS	
	Country	Percentage share	Country	Percentage share
1	United States	12.6	United States	15.9
2	Germany	9.8	Germany	8.6
3	Japan	9.8	Japan	6.3
4	France	5.7	Britain	5.5
5	Britain	5.0	France	5.3
6	Italy	4.6	Italy	3.9
7	Canada	3.9	Hong Kong	3.8
8	Hong Kong	3.7	Canada	3.7
9	Netherlands	3.6	Netherlands	3.3
10	Belgium**	3.1	Belgium**	3.1

* valued in US dollars

** includes Luxembourg

Source: GATT, 1994

Canadian merchandise exports reached a record high of \$219 billion¹ in 1994, up an impressive 21 percent from the previous year and 51 percent more than in 1990. Merchandise imports totalled \$202 billion, an 18 percent rise over 1993 and 48 percent higher than in 1990.

Trading Partners

In 1994, Canada's exports to the U.S. set a new record of almost \$180 billion, equivalent to 82 percent of the total. The European Union (EU) and Japan accounted for 5.2 and 4.3 percent, respectively. Thus, over 90 percent of exports go to the most advanced industrial economies.

A similar pattern emerges for imports. The U.S. supplied about 75 percent of all imports in 1994, followed by the EU at 8 percent, and Japan with 4 percent. China, a handful of other Asian countries, and Mexico have become increasingly significant sources for imports.

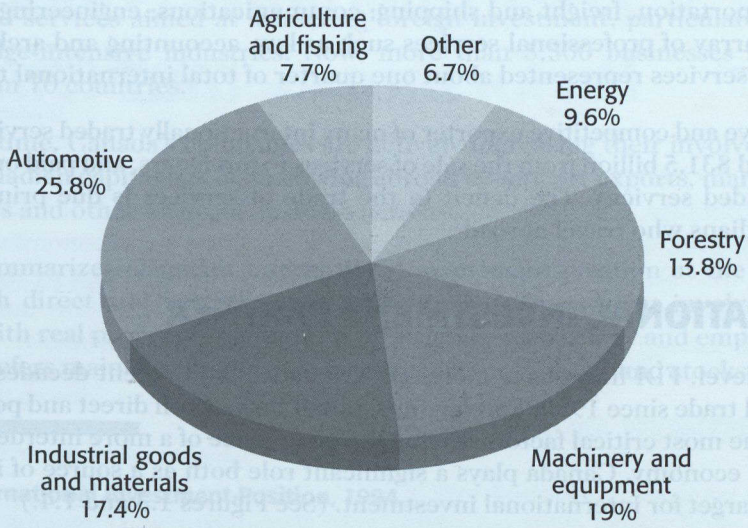
The Trade Structure

While the pattern of Canadian trade has remained fairly consistent, the composition has shifted considerably over the years. Manufactured goods and knowledge-intensive products have become much more prominent in Canada's export profile. Automotive products and machinery and equipment are now the two leading merchandise export categories. Together with consumer goods, they represent approximately half of Canada's exports. (See Figure 1.1.)

Turning to imports, automotive products and machinery and equipment again rank as the two biggest categories, together accounting for about 56 percent of merchandise imports in 1994. Canada also imports a large quantity of consumer goods such as apparel, footwear, sporting goods and toys. (See Figure 1.2.)

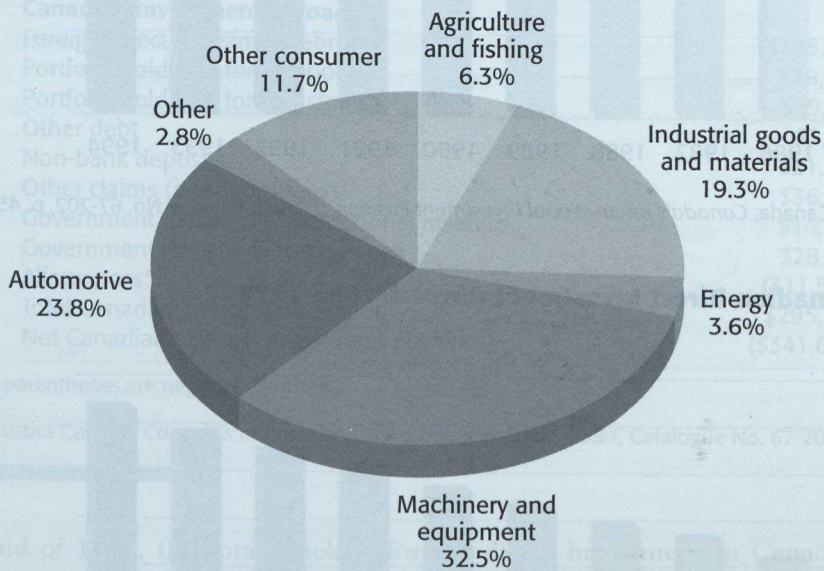
¹ Unless otherwise indicated, dollar figures refer to Canadian currency.

Figure 1.1: Canadian Merchandise Exports by Commodity Grouping
(percentage of 1994 exports)



Source: Statistics Canada, *Canadian International Merchandise Trade*, Catalogue 65-001 (December 1994), pp. 28-31.

Figure 1.2: Canadian Merchandise Imports by Commodity Grouping
(percentage of 1994 imports)



Source: Statistics Canada, *Canadian International Merchandise Trade*, Catalogue 65-001 (December 1994), pp. 40-43.



Trade in Services

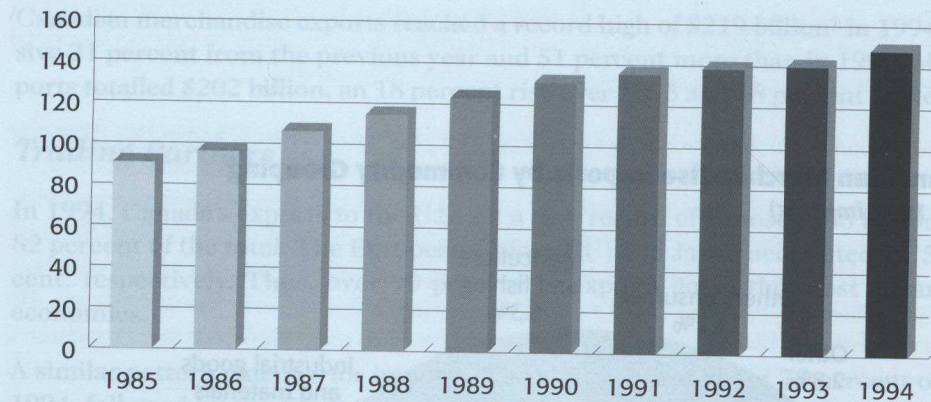
Service industries that trade their “outputs” internationally include banking and securities; insurance; transportation, freight and shipping; communications; engineering; consulting; and a widening array of professional services such as law, accounting and architecture. By the early 1990s, services represented about one quarter of total international trade.

Canada is an active and competitive exporter of many internationally traded services. In 1994, Canadians earned \$31.5 billion from the sale of services to foreigners, and paid out \$41 billion for foreign-provided services. The deficit in the trade of services is due primarily to the number of Canadians who travel abroad.

AN INTERNATIONAL INVESTMENT PARTNER

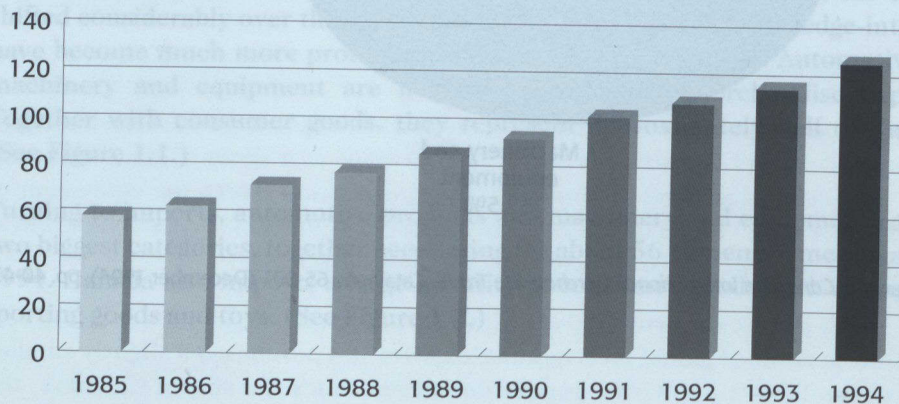
At the global level, FDI flows have increased dramatically in recent decades, faster than international trade since 1980. Foreign investment flows, both direct and portfolio, have become one of the most critical factors driving the emergence of a more interdependent and integrated world economy. Canada plays a significant role both as a source of international capital and as a target for international investment. (See Figures 1.3 and 1.4.)

Figure 1.3: Foreign Direct Investment in Canada, 1985-1994
(in \$ billions)



Source: Statistics Canada, *Canada's International Investment Position, 1994*, Catalogue No. 67-202, p. 45.

Figure 1.4: Canadian Direct Investment Abroad, 1985-1994
(in \$ billions)



Source: Statistics Canada, *Canada's International Investment Position, 1994*, Catalogue No. 67-202, p. 44.

Since the mid-1980s, Canada has liberalized its investment policies and introduced one of the most open and welcoming environments for FDI to be found anywhere in the world. The federal and provincial governments welcome foreign investment and maintain a number of programs and services aimed at attracting foreign investment, particularly in technology and knowledge-intensive industries. Now, more than 5,500 businesses are operated by investors from 70 countries.

At the same time, Canada's companies are actively increasing their involvement in foreign markets. Canadian capital has been flowing abroad to support exports, market penetration, joint ventures and other forms of business activity.

Table 1.2 summarizes Canada's international investment position at the end of 1994. It includes both direct and portfolio investment. Direct investment involves ownership of businesses with real property, equipment, proprietary technology and employees. Portfolio investment refers mainly to holdings of foreign currency, bonds and stocks.

TABLE 1.2
Canada's International Investment Position, 1994
 (in \$ millions)

Foreign investment in Canada	
Foreign direct investment in Canada	\$148,038
Portfolio holdings: Canadian bonds	\$300,797
Portfolio holdings: Canadian stocks	\$25,323
Portfolio holdings: Canadian money market	\$47,530
Other debt	\$35,025
Canadian banks: net foreign current liabilities	\$40,652
Other liabilities	\$40,217
Total foreign investment in Canada	\$637,581
Canadian investment abroad	
Foreign direct investment abroad	\$125,247
Portfolio holdings: foreign bonds	\$18,637
Portfolio holdings: foreign stocks	\$59,774
Other debt	\$2,701
Non-bank deposits	\$21,340
Other claims (inter-company)	\$36,319
Government of Canada international reserves	\$14,886
Government of Canada foreign loans	\$28,517
Allowances*	(\$11,518)
Total Canadian investment abroad	\$295,902
Net Canadian external investment position*	(\$341,679)

* Figures in parentheses are negative numbers.

Source: Statistics Canada, *Canada's International Investment Position, 1994*, Catalogue No. 67-202.

By the end of 1994, the total stock of foreign direct investment in Canada was almost \$150 billion, while Canadians have invested about \$125 billion abroad. Foreign direct investment has made a major contribution to Canada's industrial development, high standard of living, and excellent commercial ties to the U.S. and other foreign markets. For their part, Canadian firms have steadily increased their direct investments abroad over the past decade. This trend reflects the increasingly international orientation and global business strategies of Canadian companies.



CHAPTER 3: *The Canadian Economy — Performance and Outlook*

WITH A GDP OF CLOSE to \$800 billion, Canada is one of the world's largest economies, a fact that has been recognized by including Canada in the G7, a grouping of the world's largest advanced industrialized economies. In addition to size, however, Canada's economy is also characterized by dynamism and opportunity. The country has recently enjoyed strong output growth, low inflation, falling unit labour costs, soaring exports and a healthy level of business investment.

STRONG GROWTH IN 1994

The Canadian economy performed well in 1994. Aggregate growth, business investment and trade showed strong gains (see Table 1.3). Manufacturing shipments advanced by 12.9 percent in 1994 after increasing by almost 10 percent in 1993. Growth in exports was particularly notable. Merchandise exports, which stood at \$140 billion in 1991, reached \$218 billion in 1994, up more than 50 percent in just three years.

There has also been a marked acceleration in the rate of employment growth. In 1994, the number of full-time jobs increased by more than 400,000. Because the unemployment rate remains quite high, 9.5 percent in mid-1995, and the economy still has considerable spare capacity, forecasters expect the recent pattern of very low wage settlements to continue for the foreseeable future.

Despite its growing economy, inflation in Canada has been remarkably subdued, with the Consumer Price Index rising at an average annual rate of about 2 percent since 1991. Interest rates have declined to the 6 to 7 percent range (for the bank prime lending rate) over 1992 to 1994. The rate increased in 1995, but towards the end of the year was around 7.5 percent.

PRODUCTIVITY GAINS

Strong business investment, ongoing industrial restructuring, and Canada's increasing exposure to global markets have combined to bolster productivity in many sectors of the Canadian economy, notably manufacturing. Productivity gains, coupled with record-low wage increases, have had a positive impact on competitiveness. Over 1992 to 1994, the annual growth in productivity, measured by output per person employed, averaged 2 percent. Unit labour costs in the Canadian business sector were the same in 1994 as in 1991.

Apart from the improvements in competitiveness attributable to productivity growth and low wage increases, the decline in the value of the Canadian dollar vis-à-vis the U.S., Japanese and European currencies has also served to enhance the international cost competitiveness of many Canadian industries. Due to these positive productivity and cost trends, and to better access to the U.S. under free trade, Canadian businesses' share of the American import market has been rising.

Source: Statistics Canada, *Canada's International Investment Position, 1994*, Catalogue No. 67-202, p. 44.



TABLE 1.3
Canadian Economic Indicators
 (1994 compared to 1993)

Real (inflation-adjusted) indicators	Percentage
Economic growth	4.5
Disposable income	1.0
Business investment	6.0
Machinery and equipment investment	10.3
Other Indicators	Percentage
Consumer Price Index	0.2
Exports	21.0
Imports	17.7
Flows of foreign direct investment (FDI) into Canada	16.9
Employment growth	2.0
Unemployment rate*	10.4
Increase in average hourly earnings**	1.4
Productivity**	0.4
Corporate pre-tax profits	41.2
Prime lending rate*	6.9

* annual average

** total business sector

Sources: Conference Board of Canada, *Canadian Outlook* (Winter, 1995); Royal Bank of Canada, *Econoscope* (December, 1994); and Statistics Canada.

RECENT PERFORMANCE

In the first half of 1995, growth was not as robust as originally anticipated. The culprit was higher interest rates at the beginning of the year, the combined result of an anti-inflation rise in the U.S. rate and the nervousness of international financial markets in the wake of Mexico's liquidity crisis after the devaluation of the peso in December 1994.

With higher interest rates, total borrowing by consumers, business and government dropped. This dampened construction activity and consumer spending, especially on durables such as automobiles. The result has been a decline in year-over-year growth to 4.3 percent in the first quarter and 2.5 percent in the second. The higher interest rates in the U.S., which acted as a brake on economic activity, also contributed to a slowdown in the growth of Canadian exports.

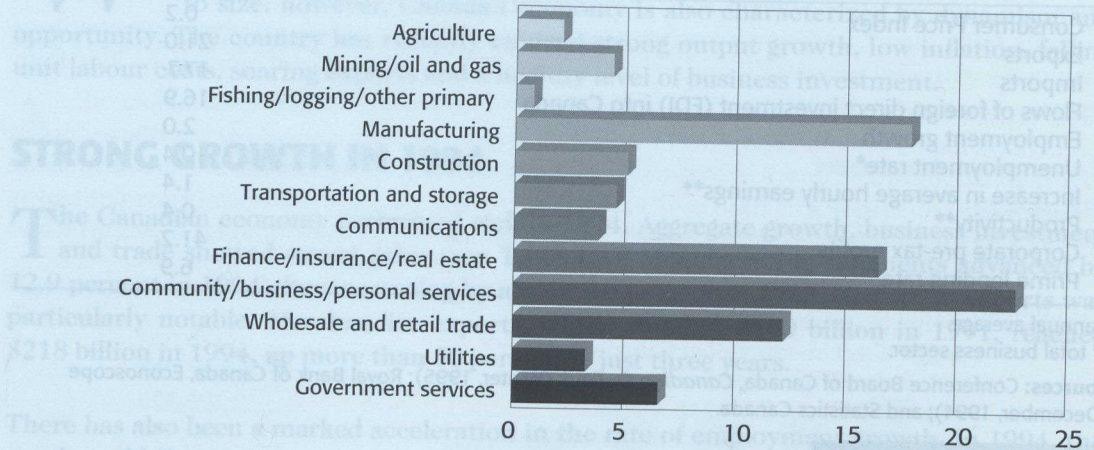
Nevertheless, the economy is showing continued fundamental strength. Inflation remains low — between 2 and 3 percent on an annual basis. The economy continues to create jobs. The unemployment rate, while still high at 9.5 percent, did not increase in 1995 and is almost a full percentage point lower than in mid-1994. Business investment in fixed capital continues to climb, especially for machinery and equipment. And while the value of exports and imports slipped in the second quarter, on an annualized basis merchandise trade is still showing solid growth, with the current dollar value of exports and imports running about 14 and 11 percent, respectively, above last year.

Another of Canada's distinguishing characteristics, which provides direct flux to many other parts of the world, is its ethnic diversity. Through continued immigration, the country is becoming increasingly multicultural. Between 1981 and 1991, more than 1.4 million immi-

ECONOMIC STRUCTURE CONTINUES TO SHIFT

Canada, in common with other advanced countries, has developed an economy in which service industries play an increasingly prominent role. Today, Canada is second only to the U.S. among the G7 countries in the relative size of its service sector. Services now make up 67 percent of Canadian economic output and account for approximately 70 percent of all jobs.

Figure 1.5: Canadian Output by Industry, 1993*
(Industry sector percentage of output)



* 1993 GDP at 1986 prices.

Source: Statistics Canada, *Canadian Economic Observer*, Catalogue 11-010 (January, 1995), Table 4.

For many years, natural resources have been critical to Canada's economic development. They remain important, but their share of overall output continues to fall. Agriculture, mining, logging and other primary extractive industries represent less than 8 percent of economic output, down from approximately 11 percent in the early 1970s.

Secondary and high-technology manufacturing are becoming more important sources of wealth creation, jobs and exports. Notable examples of knowledge-intensive manufacturing industries in which Canada is increasingly world-competitive include automobile assembly and parts, aerospace, mass-transit equipment, telecommunications products, machinery, computer software, medical instruments and pharmaceuticals. As one example of Canada's growing strengths in these industries, the value of Canada's machinery and equipment exports skyrocketed by almost 60 percent between 1991 and 1994.

Within the service subsectors, growth has been particularly robust in industries that trade their outputs internationally, for example, management consulting, engineering services, professional services, information technology and banking.



CHAPTER 4: *The Canadian Market*

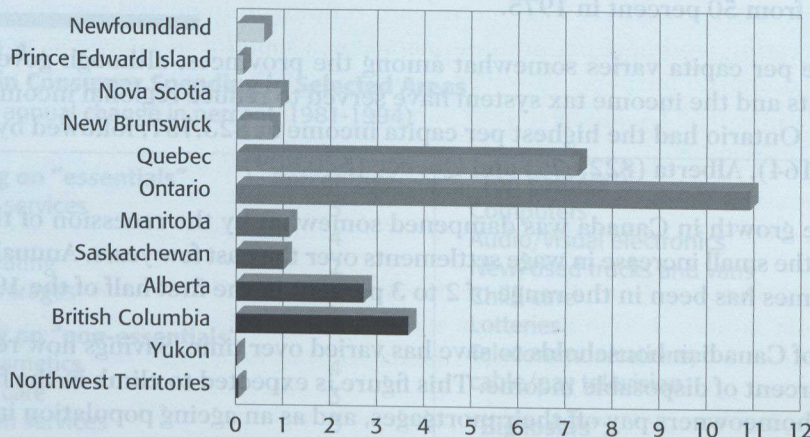
MANY FOREIGN INVESTORS are attracted to Canada because it is an excellent base from which to export to the U.S., Mexico and other markets. Others, however, have located in Canada because they wanted to secure access to the Canadian market. They have come to appreciate the many opportunities to be found in the country's rich, dynamic and receptive consumer and business markets.

POPULATION

Canada is composed of ten provinces and two northern territories, with a population fast approaching 30 million. The overwhelming majority of Canadians live within 100 kilometres of the U.S. border. Central Canada (Ontario and Quebec) account for over 60 percent of Canada's population, with the western provinces of British Columbia and Alberta having the highest population growth.

Over the past 15 years, Canada's population has been increasing, on average, by a little over 1 percent annually. Immigration has been the principal source of growth.

Figure 1.6: Population by Province and Territory, 1994
(millions of persons)



Source: Statistics Canada.

Canada's Multicultural Reality

Canada's history and two main cultures and languages, English and French, provide the country with important international links. For example, Canada is a predominant member of both the Commonwealth and the Francophonie.

Another of Canada's distinguishing characteristics, which provides direct ties to many other parts of the world, is its ethnic diversity. Through continued immigration, the country is becoming increasingly multicultural. Between 1981 and 1991, more than 1.4 million immi-

grants entered Canada. More recently, the number of immigrants arriving each year has averaged around 200,000.

More than 70 percent of today's immigrants come from Asia, Latin America, the Caribbean and Africa. Hong Kong alone has accounted for more than 11 percent of all immigrants in the 1990s. The proportion of immigrants in the population varies dramatically across the country, from 24 percent in Ontario and 23 percent in British Columbia, to between 1 and 4 percent in the Atlantic provinces. Most newcomers to Canada settle in Toronto, Montreal and Vancouver.

A Highly Urbanized Country

Canada is overwhelmingly and increasingly an urban nation. More than half of Canadians now live in the nine largest metropolitan census areas, with almost one third in Toronto (4 million), Montreal (more than 3 million) and Vancouver (just under 2 million). Other major urban centres include Ottawa-Hull (900,000), Edmonton (800,000), Calgary (740,000), Winnipeg (650,000) and Halifax (320,000).

CANADIAN INCOMES

Canadians enjoy healthy incomes and are among the world's most demanding and discriminating consumers. Average family income is about \$54,000. Most families obtain the bulk of their income through employment. However, the share of investment income has risen steadily and now comprises about 12 percent of personal income.

Increasingly, the typical Canadian family tends to have more than a single income-earner, as more and more working-age women have chosen to enter the labour market. Three quarters of Canadian women in the 25 to 54 year-old age group now participate in the labour market, a sharp increase from 50 percent in 1975.

Personal income per capita varies somewhat among the provinces, although government transfer payments and the income tax system have served to reduce regional income differentials. In 1993, Ontario had the highest per capita income at \$23,757, followed by British Columbia (\$23,164), Alberta (\$22,679) and Quebec (\$20,809).

Personal income growth in Canada was dampened somewhat by the recession of the early 1990s as well as the small increase in wage settlements over the past few years. Annual growth in personal incomes has been in the range of 2 to 3 percent in the first half of the 1990s.

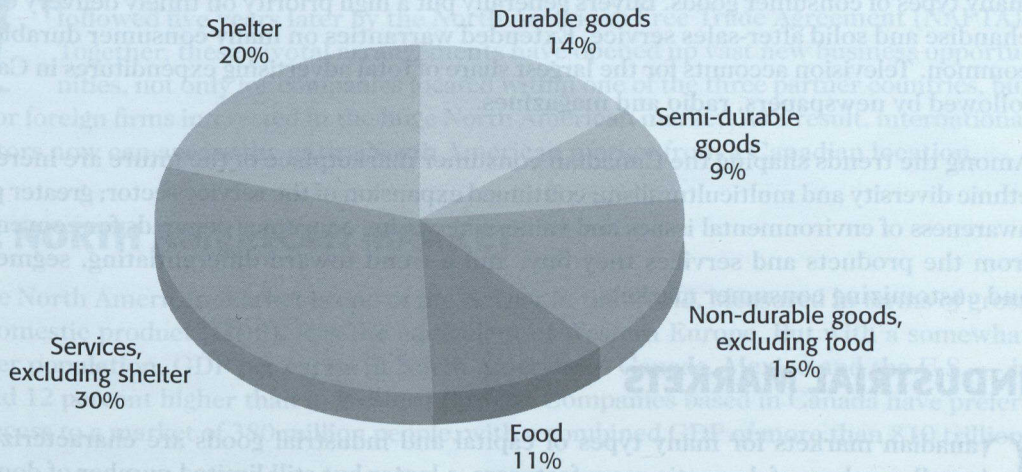
The propensity of Canadian households to save has varied over time. Savings now represent a little over 9 percent of disposable income. This figure is expected to climb in the future as more Canadian homeowners pay off their mortgages, and as an ageing population increases its saving to prepare for retirement.

SPENDING PATTERNS

Canadians spend some \$450 billion each year on consumer goods and services. They have been spending relatively less on food and more on both durable goods such as furniture, appliances and consumer electronic products, and services such as travel, other leisure activities, restaurants and hotels. Services are the biggest and the fastest-growing component of personal spending.

A closer look at consumer spending patterns (Table 1.4) shows the variation in the growth rates of consumer spending for four broad groups of products and services since 1981. As consumer tastes evolve, new products and services develop, and the proportion of most households' income available to purchase "non-essentials" tends to rise.

Figure 1.7: Spending on Goods and Services
(percentage of total personal expenditures in 1993)



Source: Statistics Canada, *Canadian Economic Observer*, (February 1995), Table 2.

TABLE 1.4
Growth in Consumer Spending in Selected Areas
(average annual change in percent, 1981-1994)

Spending on "essentials"	Percentage	"Top gainers":	Percentage
Financial services	5	Computers	20
Housing	4	Audio/visual electronics	9
Home heating	2	New/used trucks and vans	9
Food/beverages	1	Child care	8
		Lotteries	8
Spending on "non-essentials"		Telecommunications, cable/pay television	8
Drugs/cosmetics	4		
Personal care	3	"Big losers":	
Recreation services	3	Pari-mutuel betting	-4
Home furnishings	2	Alcohol	-3
Clothing	1	Tobacco	-3
Restaurant meals	1	Movie theatres	-2
		New passenger cars	-1

Source: Statistics Canada, *Canadian Economic Observer* (February 1995).

CONSUMER MARKETS

Like other industrial countries, Canada's population base is gradually inverting. The proportion of older consumers is growing rapidly while that of younger consumers is declining. Both the senior (aged 65 and older) and middle-aged adult (45 to 64 years) groups are expanding. This trend is increasing demand for home maintenance, health services, financial services, travel and leisure activities.

Canadian consumers are demanding. Attractive styling and packaging is critical in selling many types of consumer goods. Buyers generally put a high priority on timely delivery of merchandise and solid after-sales service. Extended warranties on many consumer durables are common. Television accounts for the largest share of total advertising expenditures in Canada, followed by newspapers, radio and magazines.

Among the trends shaping the Canadian consumer marketplace of the future are increasing ethnic diversity and multiculturalism; continued expansion of the service sector; greater public awareness of environmental issues and values; increasing consumer demands for convenience from the products and services they buy; and a trend toward differentiating, segmenting and customizing consumer markets.

INDUSTRIAL MARKETS

Canadian markets for many types of capital and industrial goods are characterized by small numbers of domestic manufacturers, a larger but still limited number of domestic buyers, and strong import penetration. For example, most potential Canadian customers for a particular type of industrial machinery or equipment are likely to be clustered around two or three major cities.

Most Canadian industries, such as steel, petroleum refining, mining and metals, pulp and paper, food processing, and banking are dominated by a handful of Canadian producers. Competition for domestic business, however, tends to be stiff because of strong anti-trust laws, the impact of the NAFTA, falling import barriers, and high import penetration ratios in many sectors of the economy.

SPENDING PATTERNS

Category	Percentage
Resistant meals	1
Clothing	1
Home furnishings	2
Recreation services	3
Personal care	4
Drugs/cosmetics	4
Spending on "non-essentials"	4
Food/beverages	8
Home heating	8
Housing	10
Financial services	10
Spending on "essentials"	10
Computers	20

Canadian consumers spend more on services than on goods. The largest category of spending is on services, such as health care, education, recreation, and travel. Services are the biggest and the fastest-growing component of personal spending.

CHAPTER 5: *Market Access from Canada — The FTA and NAFTA*



THE IMPLEMENTATION OF THE Canada-U.S. Free Trade Agreement (FTA) in 1989 was followed five years later by the North American Free Trade Agreement (NAFTA). Together, these pivotal arrangements have opened up vast new business opportunities, not only for companies located within one of the three partner countries, but also for foreign firms interested in the huge North American market. As a result, international investors now can access the entire North American market from a Canadian location.

THE NORTH AMERICAN MARKET

The North American market is one of the richest in the world. Measured in terms of gross domestic product (GDP), it is the equivalent of Western Europe. But with a somewhat smaller population, GDP per capita in North America — Canada, Mexico and the U.S. — is around 12 percent higher than in Western Europe. Companies based in Canada have preferred access to a market of 380 million people, with a combined GDP of more than \$10 trillion.

Increasingly, North America will be viewed as a single market. The market opportunities for products and services produced by a Canadian-based company are as likely to be in Chicago, Houston, and Mexico City, as in Canadian cities. There are especially important regional market clusters along the Canada-U.S. border that can be served from a Canadian location.

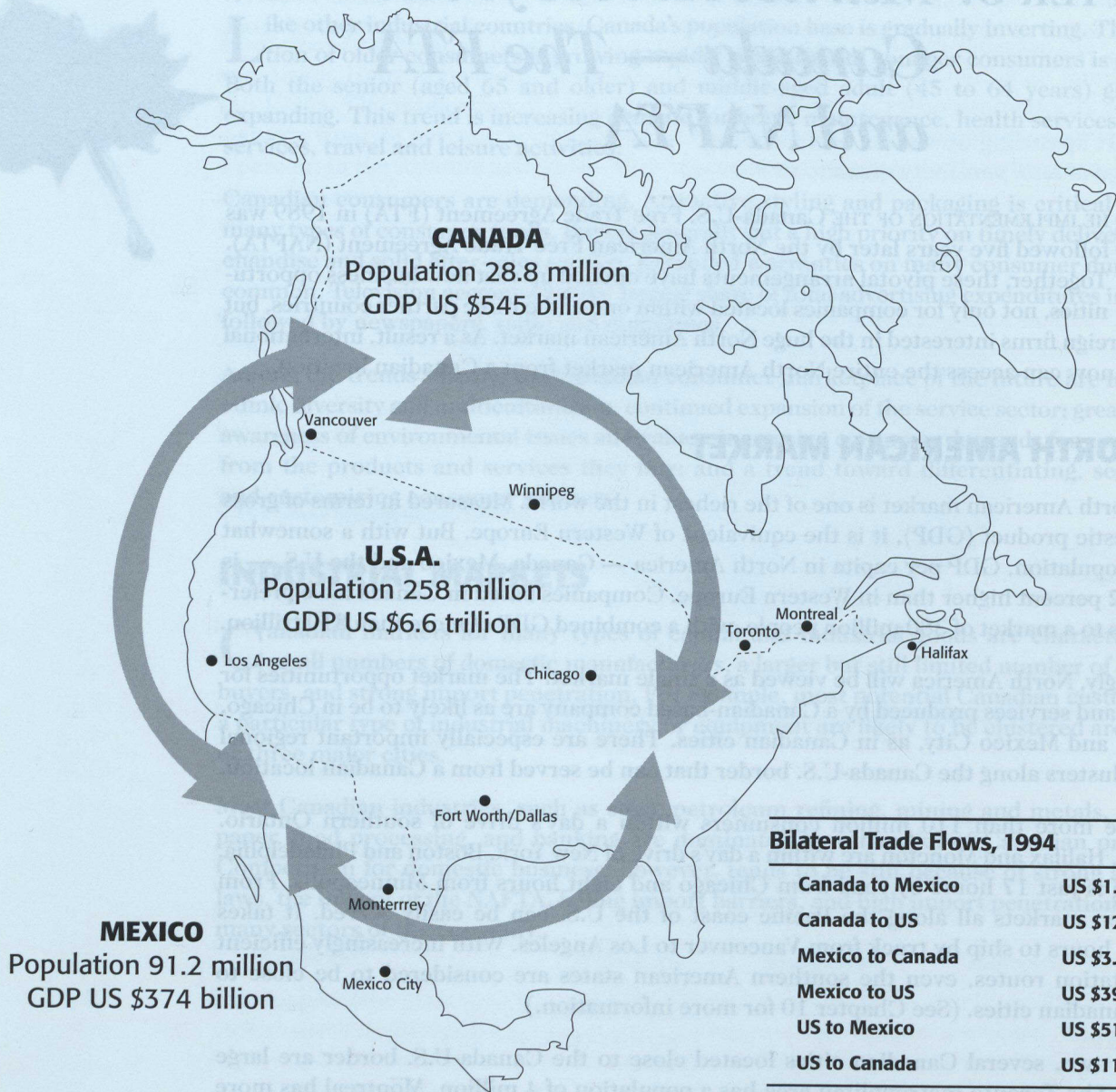
There are more than 110 million consumers within a day's drive of southern Ontario. Montreal, Halifax and Moncton are within a day's drive of New York, Boston and Philadelphia. Winnipeg is just 17 hours by road from Chicago and eight hours from Minneapolis. From Vancouver, markets all along the Pacific coast of the U.S. can be easily served. It takes about 48 hours to ship by truck from Vancouver to Los Angeles. With increasingly efficient transportation routes, even the southern American states are considered to be close to major Canadian cities. (See Chapter 10 for more information.)

On their own, several Canadian cities located close to the Canada-U.S. border are large markets. The Toronto metropolitan area has a population of 4 million, Montreal has more than 3 million, and Vancouver has just under 2 million.

North America is also an excellent base from which to develop and launch new products. From a Canadian location, companies can establish a solid market position throughout North America and then reach out to serve global markets.

NAFTA: AN IMPROVED AND EXTENDED FTA

When the FTA came into effect on January 1, 1989, the two countries already had the world's largest bilateral trading relationship. The FTA gave added impetus to two-way trade through the staged elimination of tariffs and other trade barriers. Most of Canada's exports now enter the U.S. free of duty. Tariffs will be completely removed by December 31, 1998.



Bilateral Trade Flows, 1994

Canada to Mexico	US \$1.4 billion
Canada to US	US \$128 billion
Mexico to Canada	US \$3.3 billion
Mexico to US	US \$39 billion
US to Mexico	US \$51 billion
US to Canada	US \$114 billion

Source: GeoFitt Mexico, Ottawa: Forum for International Trade Training, September 1995; U.S. Department of Commerce, *Business America*, September 1995, p.23.

The continent has shrunk to overnight delivery by air and three days by truck from all of the major industrial centres. We look at North America as one big country.

Max Persaud, Manager
Corporate Logistics, Customs and Traffic
Phillips Electronics Ltd.

Trade has boomed since the signing of the FTA. From 1989 to 1994, total trade between the two countries grew by an exceptional 66 percent to reach \$331 billion. Growth in sectors such as office, telecommunications and precision equipment; chemical products; and textile materials was even higher.

The NAFTA came into effect January 1, 1994. It improved on the FTA and added Mexico to this free trade zone. Under the NAFTA, products continue to trade between Canada and the U.S. under the schedule negotiated in the FTA.

The NAFTA is consistent with the World Trade Organization's goal of trade liberalization. The Uruguay Round of trade negotiations, which led to the creation of the WTO on January 1, 1995, has similar provisions to those of the FTA and NAFTA. In some cases — agricultural trade, subsidies, as well as dumping and countervailing duties — the Uruguay Round addressed some of the unfinished business of the FTA and NAFTA.

As a NAFTA signatory, Mexico now provides duty-free access in a number of sectors where Canada has export strengths, including telecommunications equipment, agricultural and fish products, minerals and metals, certain wood and paper products, and various types of machinery. Remaining Mexican tariffs and other non-tariff barriers such as import licences will be phased out over a period of ten years.

TABLE 1.5
NAFTA Tariff Elimination Schedule*

Eliminated January 1, 1994	Phased out by 1998	Phased out by 2003
Locomotive and rail cars	Hydraulic turbines	Other railway cars and coaches
Construction equipment	Air conditioners	Boats and drilling platforms
Telecommunications equipment	Many resins	Bicycles
Fertilizers	Most copper wire	Most flat-rolled stainless steel
Health and medical equipment	Laundry soaps	Automatic dishwashers
Many chemicals and plastics	Wood and paper	Furniture
		Pharmaceuticals

* Examples only. For further details, consult the *NAFTA Tariff Schedule of Canada*.

The NAFTA accomplished much more by:

- providing a standard of “national treatment” for foreign investors in other signatory countries;
- ensuring secure market access;
- improving the dispute settlement mechanism;
- opening up government procurement markets to companies located in other member countries;
- facilitating cross-border movement of business people and professionals among the signatory countries; and
- affording stronger protection to intellectual property rights.



National Treatment

The NAFTA provides for national treatment, most-favoured nation treatment, and the prohibition of trade distorting performance requirements. Canada, the U.S. and Mexico must treat each other's goods, services, and investors as they treat their own. Once goods, services or investments from one country enter the other, they cannot be discriminated against on the basis of origin.

Significantly, NAFTA coverage extends to investments made by any company incorporated in a NAFTA country, regardless of its country of origin.

Secure Market Access

The NAFTA ensures secure access for Canadian-based exporters to both the U.S. and Mexico. Clearer North American content rules, including those for autos, reduce the risk of unilateral interpretations by customs officials. In cases where North American content is an issue, exporters or producers can choose between two formulas and select the one which is most beneficial.

Improved Dispute Settlement Mechanism

Under the FTA, a system was established to review countervailing and anti-dumping decisions to make binding determinations on whether they were in accordance with domestic legislation. The NAFTA enhances the FTA rules and extends them to Mexico. The dispute settlement system has been strengthened and any uncertainty over its permanency has been removed.

Exporters and investors can be reassured that their interests will be effectively defended in this more transparent and enforceable system. Review panels, not domestic courts, settle or determine remedies regarding disputes over anti-dumping and countervailing duties. Disagreements between investors and NAFTA governments may be settled through international arbitration.

The new rules on dispute settlement agreed to in the Uruguay Round do not affect those in place under the NAFTA. The two agreements are complementary, with the WTO providing another avenue for settling disputes with the U.S. and Mexico.

Government Procurement

All three countries have agreed to provide substantially increased access to government procurement opportunities for the sale of goods and services, including construction services. (See Chapter 13 for more information.)

The Uruguay Round's Agreement on Government Procurement extends any incremental benefits to the NAFTA.

Facilitation of Business Travel

The NAFTA simplifies procedures for business travel. Eligible business people in over 60 professions can be granted temporary entry without prior approval procedures. To qualify, business travellers must prove Canadian, American or Mexican citizenship and must fall into one of four defined categories: business visitor, trader and investor, intra-company transferee, or professional.

Intellectual Property Protection

The NAFTA includes comprehensive coverage of intellectual property rights encompassing standards and rules of enforcement. Patents, trademarks, copyrights and trade secrets of Canadian-based companies and individuals are protected.

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), concluded as part of the Uruguay Round, does not require Canada to make significant changes to its laws dealing with intellectual property. (See Chapter 15 for more information.)

INVESTMENT THRESHOLDS

For investments in Canada, the NAFTA provides Mexican and American firms preferential review thresholds under the Investment Canada Act. Subject to certain exceptions such as cultural industries, financial and transportation services and uranium, the 1995 threshold for a direct acquisition by a NAFTA investor is \$160 million in assets of the business being acquired. Indirect acquisitions by U.S. and Mexican investors are not reviewable under the Investment Canada Act. (For more information see Chapter 12.)

As a result of new federal legislation, the NAFTA threshold levels are being extended to investors from WTO countries.

SECTOR-SPECIFIC PROVISIONS

There are a number of provisions under the NAFTA that relate to trade in products and services of specific sectors. In the auto trade, for example, the NAFTA carefully spells out North American content rules for vehicles and auto parts. For textiles and apparels, new and tighter rules of origin have been introduced that require greater sourcing in North America. With regard to telecommunications, Mexico eliminated tariffs on almost all communications equipment in 1994. The exceptions are central switching apparatuses and telephone sets, for which tariffs will be phased out over five years. The NAFTA limits Mexico's use of restrictive trade practices in the energy sector.

Important provisions also pertain to trade in services. Under the NAFTA, Mexico will provide substantial access to its market after a transition period. Canadian banks, trust companies, securities brokers and insurance companies will be able to open subsidiaries, invest in, and acquire ownership of financial institutions in Mexico. The Agreement also provides for more opportunities in developing cross-border services such as transportation, especially trucking; specialty air services, for example aerial mapping and surveying; and professional services, including management, engineering, advance data processing, accounting and legal services.

The opening up of trade in these services, combined with increased access to government procurement, means that Canadian-based companies are able to bid on contracts tendered by the American and Mexican governments and state-owned corporations. In the U.S., the services market is approximately \$30 billion per year. In Mexico, the state-owned petroleum and electricity corporations contract for more than \$8 billion per year in goods and services.

FUTURE DIRECTION

Partly as a result of access to the North American market, many multinationals are giving their Canadian subsidiaries North American, if not global, mandates to take advantage of economies of scale in their manufacturing processes. Companies adopting this strategy include 3M, Dow, DEC, IBM, Bell Helicopter-Textron, and Procter and Gamble.

This company's manufacturing has been integrated since 1972. We are now moving towards our vision of North American manufacturing mandates. The free trade agreement has facilitated this process.

Tony Marranca, Vice President
Human Resources and Administration Services
3M Canada Inc.

Because of the national treatment provisions, and the extension of NAFTA coverage to all companies incorporated in a NAFTA country, regardless of country of origin, foreign investors can locate in Canada with the assurance that they will have secure access to markets in the U.S. and Mexico.

Moreover, the NAFTA also has provisions for accession by other countries. Negotiations are currently under way with Chile, one of the most successful Latin American economies. Argentina and several other Latin American countries have also expressed interest in joining the NAFTA to create a wider free-trade area in the Western hemisphere.



SECTION 2: *A Solid, Efficient Infrastructure*

Introduction

CANADA OFFERS BUSINESS people a comprehensive infrastructure to support their ventures. Key among Canada's many advantages are its well-educated and highly skilled population, an expanding research and development (R&D) base with world-class facilities, plentiful supplies of every type of energy, an efficient transportation network and a communications infrastructure that is among the world's finest. At the same time, Canada enjoys a financial sector that offers a broad spectrum of services from an industry that is highly developed, stable and extremely sophisticated. Taken together, these factors form a firm foundation for business development in Canada. They are characterized by a combination of the highest quality standards and some of the lowest costs to be found among the advanced industrial economies. The Canadian industrial sectors that have created, maintain and expand on this infrastructure rank among the world's most competitive. Indeed, their expertise is eagerly sought for infrastructural projects around the globe.

CHAPTER 6: *Human Resources* — *Our People Make the Difference*



A SOLID PUBLIC EDUCATION system, an extensive network of post-secondary education and training institutions, and a strong belief in the value of hard work have won Canada high praise for the quality of its human resources. Companies doing business in Canada enjoy access to a highly qualified, well-educated, strongly motivated and flexible work-force. This is best exemplified by the country's productivity statistics. Labour productivity rose by 1.4 percent in 1993 and 2.8 percent in 1994.

EDUCATION

Canada's educational system guarantees industry a ready supply of top-quality graduates from a diverse range of disciplines. In addition to the formal educational system for young people, millions of adult Canadians are committed to ongoing education and upgrading skills throughout their working careers.

Most Canadian universities and colleges now offer cooperative education and training programs, as do an increasing number of high schools. Thousands of Canadian employers are taking part in programs that allow students to spend a portion of their school year or their training terms gaining practical experience in the workplace.

HP Canada has been favourably impressed by the high quality work-force in the country, particularly within the fields of business, computer science and engineering. These creative individuals are flexible and productive innovators and much more cost-effective than their U.S. counterparts. Our Panacom operation in Waterloo, Ontario, benefits greatly from this knowledge-based advantage, achieving world-wide success. In general, foreign companies are missing a great opportunity in the high quality knowledge-based workers readily available in Canada.

Dan Branda, President and CEO
Hewlett-Packard (Canada) Ltd.

Education Levels Rising

Canadians are becoming increasingly well-educated. Since 1961, the percentage of the population aged 15 and over that holds post-secondary diplomas has multiplied more than five-fold. Over the same period, the proportion of people with university degrees has increased more than four-fold. (See Table 2.1.) Today, about 3 million Canadians hold university degrees, while another 5 million possess other types of formal post-secondary qualifications. This expanding pool of increasingly well-educated Canadians ensures that industry can readily satisfy its need for scientists, engineers, researchers, technicians, financial analysts, accountants, systems analysts and other skilled workers.

¹ International Monetary Fund, *World Economic Outlook* (October 1994), p. 131; and the U.S. Department of Labor, *Monthly Labor Review* (November 1994), p. 48.

TABLE 2.1
Educational Attainment of Population Aged 15 and Over
 (in percent)

	1961	1977	1991	1995
University degree	2.5	7.5	12.0	13.0
Post-secondary diploma	3.5	10.0	23.0	25.0
Some post-secondary	4.5	8.5	9.0	9.0
High school	43.0	49.0	44.0	39.0
0-8 years of education	44.0	24.0	12.0	13.0

Sources: Statistics Canada, *Labour Force Survey* (February 1995); "1991 Census of Canada: Highlights", *The Daily* (May 11, 1993).

Canada has 53 universities as well as a large number of colleges and technical institutes. Thirty-two universities have undergraduate degree programs in engineering and applied sciences; 26 offer master's and doctoral degrees in these fields. Most also provide degree programs in business administration. The many post-secondary community colleges and technical schools throughout the country produce a steady stream of well-trained technicians and technologists as well as other skilled graduates.

Among Canadians who have graduated from universities, colleges and trade or technical schools, the two most popular broad areas of study are engineering, applied sciences, technologies and trades; and commerce, management and business administration.

Between 1986 and 1991, the number of Canadians with degrees in engineering and applied science grew by 30 percent, those holding degrees in mathematics and physical science increased by 26 percent, and the number of commerce and management degree-holders climbed by more than one third. Similarly, college, vocational, trade and other non-university post-secondary programs continue to turn out more graduates in fields as diverse as the social sciences, engineering, business, and health-related disciplines.

We hire more people from Waterloo, Ontario, than any other university. They are good people and the university has a great cooperative program.

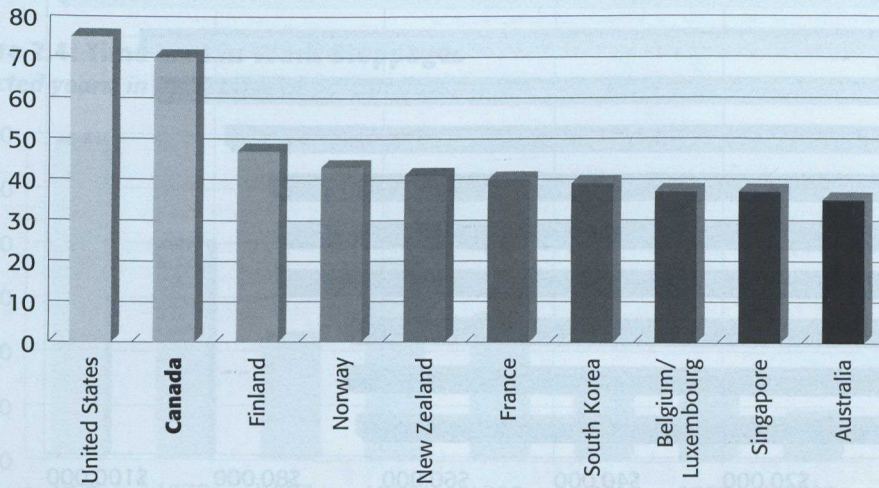
Bill Gates, Chairman
 Microsoft Corporation

International Comparisons

Canada is among the world leaders in the share of GDP it devotes to public education. It surpasses almost all other countries in its commitment to post-secondary education. The result is a skilled and adaptable labour force that is well-equipped to meet the needs of increasingly sophisticated and fast-changing business technologies and operations.

The 1994 *World Competitiveness Report* found that Canada ranked high on a number of key measures of educational effort and commitment. Canada is second only to the U.S. in the percentage of 20 to 24 year-olds enrolled in some form of higher education (see Figure 2.1), and has the fourth highest secondary school enrollment rate. Canada's per capita public expenditure on education stood fifth among the 43 countries reviewed in the Report, significantly above the eleventh place ranking of the U.S.

Figure 2.1: Higher Education Enrollment
(percentage of 20-24 year-old population enrolled in higher education*)



* Note that higher education is defined to encompass universities and all post-secondary schools including vocational schools, adult education programs, and two-year community colleges.

Source: World Competitiveness Report, 1994, p. 597.

THE COMPETITIVENESS OF CANADA'S HUMAN RESOURCES

The availability of skilled people is critical to the investment location decisions and growth potential of many firms and industries. Canada scores well in this area. Labour productivity is high and rising, notably in the manufacturing sector.

Competitive Compensation Costs

Canada's competitiveness in manufacturing has strengthened considerably in the 1990s. Underlying this improvement is a potent combination of rising productivity, very low wage increases, and a decline in the Canadian dollar vis-à-vis the American currency. Even if Canada's dollar should strengthen somewhat over the next few years, the wage and benefit costs facing Canadian industry will remain competitive with American levels.

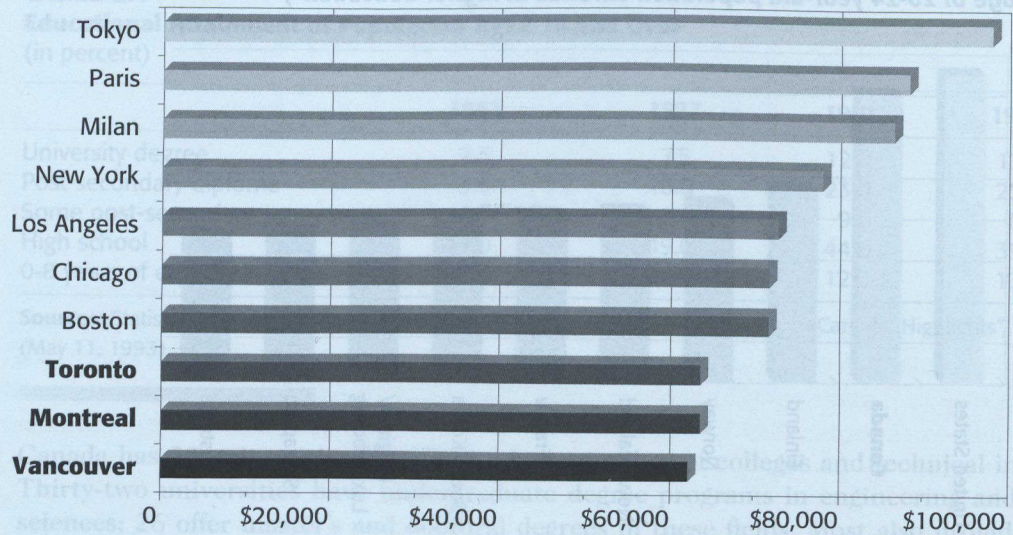
Canada's manufacturing unit labour costs have fallen steadily for the past three years. When measured in U.S. dollar terms, they have dropped even further — more than 10 percent since the beginning of the 1990s. Measured in U.S. dollars, hourly wages for Canadian manufacturing workers declined during the 1992 to 1994 period, compared to an average annual rise of almost 4 percent in the U.S. in the first half of the 1990s.²

On average, wages in Canada's major cities are lower than in most other major business centres around the world. Figures 2.2 and 2.3 give global comparisons for engineering managers and secretaries. Employer-paid taxes and fringe benefits are also lower in Canada than in the U.S., thanks to Canada's publicly funded health-care system and lower social security premiums.

² International Monetary Fund. *World Economic Outlook* (October 1994), p. 131; and the U.S. Department of Labor, *Monthly Labor Review* (November 1994), p. 48.



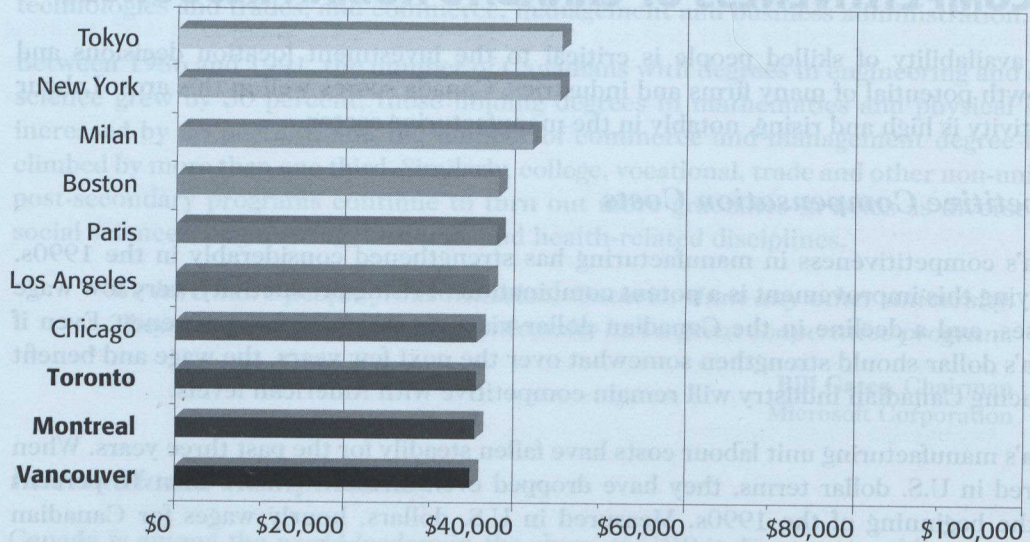
Figure 2.2: Average Salary for Engineering Managers*



* Salary includes base salary plus social benefits.

Source: Statistics Canada.

Figure 2.3: Average Salary for Secretaries*



* Salary includes base salary plus social benefits.

Source: Statistics Canada.

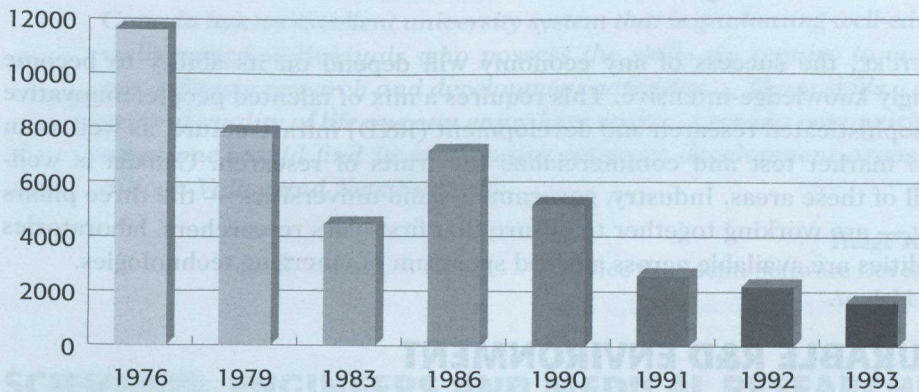
Positive Trends in Labour Relations

Labour-management relations have improved steadily over the past two decades. Unions and management are working together closely in many industries to bolster productivity, increase quality, upgrade employee skills, and successfully harness the tremendous potential of leading-edge process technologies. This cooperative spirit results in employee turnover rates that are generally lower than in the United States.



The incidence of strikes and lockouts has also dropped markedly. Time lost due to work stoppages has fallen steadily since the mid-1970s, and by almost 70 percent since 1990. (See Figure 2.4.)

Figure 2.4: Time Lost in Work Stoppages
(selected years, in thousands of person days)



Source: Department of Finance, *Economic and Fiscal Reference Tables* (September 1994), p. 72.

TRAINING

More than 70 percent of all Canadian firms provide some form of formal or structured on-the-job training for their employees. Among companies with 100 or more employees, almost all have such training programs. In any given year, about one third of Canadian workers receive some kind of structured on-the-job training, a level comparable to that found in other advanced industrial economies. Annual employer expenditures on formal worker training are estimated to be in the range of \$2 billion.

Cooperative Partnerships

Canada is among the world's leaders in integrating academic and vocational studies with work experience in employer organizations. At present, there are more than 120 post-secondary institutions and high schools offering such programs to an estimated 200,000 students.

Apprenticeship and Internship Training

The industry-driven apprenticeship training system has existed for a long time as an important part of human resource development in Canada. It meets the training requirements of industry in areas where skilled workers are either unavailable or need to learn the latest technological advances. Programs may run for up to four years, depending upon provincial requirements. The training is guided by standards, and examinations are required upon program completion.

Governments and industry recognize the benefits of the current apprenticeship training system and are working together to develop new apprenticeship and internship initiatives in growth industries such as information technology, telecommunications, computer services, environmental services, medicine and biotechnology.



CHAPTER 7: *The R&D Infrastructure*

IN THE FUTURE, the success of any economy will depend on its ability to become increasingly knowledge-intensive. This requires a mix of talented people, innovative ideas, a sophisticated research and development (R&D) infrastructure, as well as an ability to market test and commercialize the fruits of research. Canada is well-positioned in all of these areas. Industry, governments and universities — the three pillars of R&D activity — are working together to ensure that first-class researchers, laboratories and testing facilities are available across a broad spectrum of emerging technologies.

THE FAVOURABLE R&D ENVIRONMENT

The government of Canada has created one of the most supportive R&D environments to be found anywhere in the world. This is in part due to generous tax incentives and in part to highly competitive salary levels for skilled technical personnel.

Many foreign firms have already capitalized on Canada's very conducive R&D environment. In fact, among the major Organization for Economic Cooperation and Development (OECD) countries, Canada has had the highest share of total business R&D expenditures financed by foreign-owned firms. More than half of Canada's top 50 R&D performers are foreign-owned.

Increasingly, multinational enterprises are funding research and locating independent facilities in Canada. The following is a partial list of those with strong R&D capabilities in Canada.

- | | |
|-------------------------------------|------------------------------------|
| ✦ AT&T Global Information Solutions | ✦ Allied-Signal Canada Inc. |
| ✦ Astra Pharma | ✦ Canadian Marconi Co. |
| ✦ Connaught Laboratories | ✦ DuPont Canada |
| ✦ Ericsson Communications Inc. | ✦ General Motors of Canada |
| ✦ Glaxo Canada Ltd. | ✦ Hewlett-Packard (Canada) Ltd. |
| ✦ IBM Canada Ltd. | ✦ Marion Merrell Dow (Canada) Inc. |
| ✦ Xerox Canada | ✦ Siemens Group |

The key attractions of Canada's R&D environment are:

- generous R&D tax incentives allowing immediate write-offs for current and capital R&D expenditures plus tax credits of 20 percent or more;
- significantly lower after-tax costs of performing R&D in Canada compared to other advanced industrialized countries;
- a solid R&D infrastructure that links industry, government and universities in numerous industry-specific networks;
- a well-educated, innovative work-force that costs considerably less than the equivalent in the U.S.; and
- strong protection of intellectual property rights.

Together, these attributes create an inviting and cost-effective R&D environment wherein high-technology investments make good economic sense.

Canada's R&D advantage also stems from the availability of skilled researchers, high-quality labs and research institutes, linked together through dynamic research networks, R&D consortia and leading-edge centres of excellence.

Canada has an excellent university system that is graduating well-educated, well-trained individuals who possess the skills we require to carry out our software research and development activities.... Those skills...and the general quality of life one can enjoy here make...Canada competitive with what one would find in such major software development areas as the Silicon Valley and New England.

Helge Knudsen

Vice President, Software Development
Amdahl Canada

SCIENTISTS, ENGINEERS AND MEDICAL RESEARCHERS

Human resources are a critical underlying strength of the country's R&D infrastructure. Canada's pool of highly skilled scientists, engineers and medical research professionals is comparable to the world's other advanced industrialized countries. Despite its modest population relative to these other countries, Canada is eleventh in the world in the total number of R&D personnel working in industry, a number that has been growing at an annual average rate of about 3 percent over the past decade. The OECD has found that the proportion of research professionals in key Canadian metropolitan areas compares favourably to that in major American centres.

The universities provide a really strong base for our hiring in Canada. We have some of the best universities in the world in computer science and telecommunications, doing research work which stands on a par with anybody else's developmental work at the graduate school, Ph.D., or post graduate levels on the world scene.

Jim Mackie, Vice President
Newbridge Networks Corporation

Each year, Canadian universities and technical colleges graduate well over 40,000 engineers, scientists, health professionals, technologists and technicians. Many of these new graduates go directly into the labour force, others continue on at university, participating in leading-edge research. (See Tables 2.2 and 2.3.)

Major R&D-intensive multinational companies such as IBM Canada, Pratt & Whitney, LSI Logic, and Philips Electronics have stated publicly that one of Canada's most important competitive advantages is its pool of highly trained professional engineers, engineering technologists and technicians.

We can find world-class expertise on almost any type of technology within 25 miles of my office.

Ronald Morrison, President
Kodak Canada

TABLE 2.2
Number of Graduates, 1993

Field of Study	B.Sc. and college	M.Sc. and Ph.D.	Total
Engineering	9,097	2,698	11,795
Mathematics and computer science	7,349	1,976	9,325
Agriculture and biological sciences	8,070	1,430	9,500
Health professions	9,481	2,351	11,832
Total	33,997	8,455	42,452

Source: Statistics Canada, *Education Quarterly Review* (Spring 1995), Catalogue No. 81-003, Vol. 2, No. 1, p. 68.

TABLE 2.3
Community College Technical Graduates, 1991

Discipline	Number
Engineering technologies	4,830
Computer sciences and mathematics	2,949
Electrical/electronic technologies	2,909
Chemical technologies	635
Transportation technologies	246
Total	11,569

Source: Statistics Canada, *Education in Canada* (1992-93), Catalogue No. 81-229, pp. 134-135.

R&D SPENDING IN CANADA

Recognizing the essential role of R&D and innovation in the bid to stay globally competitive, private companies in Canada, including foreign-owned and public institutions, are spending more money on R&D, collaborating in networks and consortia within Canada, and developing global linkages.

In 1994, the private and public sectors spent \$10.9 billion in R&D in Canada. Funding of R&D from Canadian sources is about evenly split between the private and public sectors, each contributing about 45 percent. The remaining 10 percent comes from foreign sources.

Corporate R&D Spending

Total private sector spending on R&D in 1994 reached \$6.1 billion. The *Canadian Corporate R&D Database* calculates that in fiscal year 1994, the top 100 R&D companies in Canada collectively spent over \$5.1 billion on pre-tax R&D activity. A large number of foreign-owned firms are present on the list, showing how attractive Canada can be as an R&D centre for multinational companies. Table 2.4 profiles some of the major multinational firms taking advantage of Canada's R&D capabilities.

Canola was the first reason PGS decided to locate its North American base in Canada and Saskatoon. The second reason was the R&D-conducive atmosphere we found in Canada. Canadian technology development in this area is at the top in the world and Canada has many products in the pipeline to address the global market demands.

Dr. Henk Joos, President
Plant Genetic Systems (Canada) Inc.

TABLE 2.4
Selected Foreign-owned R&D Performers in Canada, 1994

Company name	R&D (\$ millions)	Revenue (\$ millions)	R&D as percentage of revenue	Industry
IBM Canada Ltd.	257.0	8,449.0	3.0	computers and software
Pratt & Whitney Canada Inc.	221.0	1,533.7	14.4	aircraft engines
Ericsson Communications Inc.	93.1	250.0	37.2	telecommunications equipment
Connaught Laboratories	79.0	408.0	19.4	pharmaceuticals
Allied-Signal Canada Inc.	35.5	367.1	9.7	avionics
Glaxo Canada Ltd.	33.0	281.0	11.7	pharmaceuticals
Canadian Marconi Co.	32.1	298.1	10.8	electronics and communications
Marion Merrell Dow (Canada) Inc.	31.8	225.0	14.1	pharmaceuticals
AT&T Global Information Solutions	29.7	322.4	9.2	business equipment

Source: Extracted from Canadian Corporate R&D Database, for publication in *Research Money*, June 14, 1995.

Public Sector R&D

The federal government channels most of its R&D funding through two granting councils, the Natural Sciences and Engineering Research Council (NSERC) (\$450 million per annum) and the Medical Research Council (\$258 million per annum). Funding from these two councils supports about 12,000 researchers every year, plus a much larger number of graduate students.

In the public sector, the system of organizations doing research includes the National Research Council (NRC), some 200 Government of Canada laboratories, 48 universities, Networks of Centres of Excellence, and Provincial Research Organizations. The federal government and universities perform roughly 15 and 25 percent of R&D, respectively. Public research facilities work closely with industry to enhance research efforts and identify objectives.

Government Support for R&D, Technology, Product and Market Development

There is a wide array of federal and provincial programs aimed at assisting high-technology companies in Canada with technology transfer, improved research capability, product development and export marketing.

At the federal level, the most extensive initiative is the Industrial Research Assistance Program (IRAP), which is administered by the NRC. It provides technical assistance to companies through a national technology network, the objective of which is to offer industry the means to commercialize the latest technical knowledge, inventions and scientific know-how.

Provincial funding is provided through various programs and mechanisms, most notably through initiatives such as the Alberta Technology Commercialization Program, the B.C. Science and Technology Fund, the Ontario Industry Research Program and Innovation Ontario Venture Fund, and the Quebec Industrial Development Fund and Innovatech Grand Montréal.

We have used our established position in Canada as a springboard into the North American market. Canadian government policy to encourage high technology and long-term industries continues to be an important factor in our plans. Such support could position us to compete globally.

Jim Lightfoot, Managing Director
Dowty Aerospace Division,
Dowty Group PLC

A WELL-NETWORKED RESEARCH COMMUNITY

A number of R&D consortia have been established in various industries by pooling resources among industry, government and the university community. The growth in these consortia has been particularly rapid since 1980.

The Networks of Centres of Excellence bring together over 500 of Canada's foremost researchers from all sectors, with the overall aim of increasing research excellence and improving Canadian industrial competitiveness. This cooperation heralds a new era of networking and interaction across the country, as laboratories and industry are brought together to boost research, develop scientists' skills and increase technical knowledge.

For example, through the University-Industry Program, the Natural Sciences and Engineering Research Council (NSERC) provides universities with research grants to conduct a wide range of R&D projects in collaboration with industry. The industrial partner must contribute an appropriate amount of its own resources to the project, consistent with the risk and reward involved. An example is a Collaborative Research and Development Grant shared by Abitibi-Price and two researchers at the University of Québec at Chicoutimi, which demonstrates how industry/university partnerships can help companies position themselves at the scientific forefront of their industry while benefitting the industry as a whole. The research partners expect to perfect efficient, low-cost regeneration methods that will minimize the impact of forest exploration on the environment. NSERC's contribution to the project was matched by Abitibi-Price through contribution of funds and research support.

Another example is the funding of Industrial Research Chairs at universities. This Chairs Program provides an overall and complete financial support of the research initiative including funding for infrastructure, equipment and general research expenses, in addition to a component of the salary of a distinguished researcher.

Threshold technologies are increasingly more complex and more integrated. This requires research across a wide range of disciplines. The critical components to success are a collaborative atmosphere among researchers in universities and industry and a supportive environment where government, industry and qualified personnel are willing to undertake high-risk ventures. Canada's technology infrastructure includes these components and forms an ideal base for R&D or manufacturing investment.

The importance of R&D to the country's economic prospects is highly appreciated. Thanks to the conducive tax environment for R&D activity and a growing number of graduates in the sciences, engineering and mathematics, Canada's R&D infrastructure is rapidly improving.

Section 4 provides more information on R&D opportunities and infrastructure as it relates to each sector.

Dr. Henk Jans, President
Plant Genetic Systems (Canada) Inc.

CHAPTER 8: *Energy Infrastructure — Reliable and Low-cost*



APLENTIFUL AND RELIABLE supply of affordable energy is an important consideration for any new capital investment or business venture. And for energy-intensive activities such as smelting or pulp and paper, the cost and availability of energy is absolutely critical to the investment decision.

Canada is abundantly supplied with most forms of energy. Plentiful and low-cost energy is guaranteed by a sophisticated extractive, processing and delivery capability that ensures reliable supplies to all regions of the country. In addition, Canada's achievements in exploration, production, transportation and R&D allow it to exceed domestic demand for energy. The country is a net exporter of all major types of energy. In fact, its overall energy exports are about three times greater than its energy imports.

In almost all instances, average Canadian energy prices are lower than those of other advanced industrial countries. In many cases, the difference is so large that it is clear Canada enjoys some of the most competitive energy prices in the world.

In terms of energy, international investors interested in Canada can count on choice, availability, reliability, attractive prices and, increasingly, a minimal impact on the environment. In all of these respects, Canada's energy sector is one of the most competitive in the world.

Electricity

Availability: Canada is one of the world's largest net exporters of electricity. At the end of 1993, Canada's installed generating capacity was 112,000 megawatts (MW), the seventh largest in the world. About 62 percent of this electricity is hydro-generated, 17 percent comes from nuclear plants, and 19 percent is produced by conventional thermal means, that is, coal, oil or gas. Table 2.5 shows installed generating capacity by province and territory.

In order to ensure uninterrupted electrical supplies to all customers, Canada has a 25 percent reserve margin, varying from 12 percent in British Columbia to 61 percent in Newfoundland. As an added guarantee of supply, if the generating capabilities in any region cannot meet local demand, interconnections with neighbouring utilities can assure consumers of uninterrupted energy supplies.

Reliability: Despite the remoteness of many transmission lines as well as inclement weather, the reliability of the electric power system, on a national scale, measures up to international standards. Most importantly, though, in more heavily populated regions it compares more than favourably when measured by average interruption time per customer per year.

For a utility that serves a large municipality, such as Edmonton Power, the average interruption time per customer per year is very low: 17 minutes in 1993. Ontario Hydro, which services rural and urban users throughout the entire province of Ontario, has an exceptionally high measure of reliability for such a large service area, averaging only about 25 minutes of interruption time per customer in 1993.

TABLE 2.5
Installed Generating Capacity by Province and Territory, 1993
 (in megawatts)

Province/Territory	Capacity (MW)
Newfoundland	7,447
Prince Edward Island	121
Nova Scotia	2,330
New Brunswick	4,478
Quebec	32,280
Ontario	35,951
Manitoba	4,910
Saskatchewan	2,778
Alberta	8,381
British Columbia	12,966
Yukon	134
N.W.T.	208
Canada	111,984

Source: Natural Resources Canada, *Electric Power in Canada 1993* (Ministry of Supply and Services Canada, 1994) p. v.

Prices: As calculated by the International Energy Agency, Canada's electricity rates are the lowest among the G7 countries. For industrial consumers, prices are less than half those in Germany and about one-fifth Japan's rates. (See Table 2.6.)

TABLE 2.6
Electricity Prices in Selected OECD Countries
 (in US \$/kWh; second quarter, 1994)

Country	Households	Industry
Canada	0.059	0.038
Mexico	0.068	0.042
United States	0.085	0.051
United Kingdom	0.113*	0.067*
Germany	0.174	0.089*
Italy	0.161	0.091
Japan	0.162*	0.231*

* price in 1993

Source: International Energy Agency, *Energy Prices and Taxes* (Second Quarter, 1994).

Oil

Availability: Canada is the world's tenth largest producer of oil (including natural gas liquids). In 1994, its output averaged 2.2 million barrels per day. Canada is self-sufficient in oil, although to reduce transportation costs, some crude oil is imported by eastern Canadian refineries that are located far from the oil producing regions of western Canada. Nevertheless, most of the oil refined in Canada is domestically produced.

The oil refining industry went through a major restructuring in the 1980s, shedding excess capacity and upgrading facilities to meet new environmental standards. In 1993, total refinery production in Canada amounted to 98.7 million cubic metres. Net exports amounted

to 6.6 million cubic metres. On average, Canada's refineries operate at a utilization rate of 80 percent, a rate that has remained constant since 1991.

There is an open market for the distribution of oil. From the refineries, oil products are transported by pipeline, rail and truck. In addition to the major integrated oil companies, there are numerous smaller, local distributors that also market oil products.

Reliability: Canadian refineries currently meet domestic demand, have adequate excess capacity margins, maintain good inventory levels and are net exporters of petroleum products. Demand for oil products throughout Canada can be easily met from domestic suppliers or, when logistically advantageous, from the United States.

Canadian refineries will continue to adapt to new challenges in the industry to meet the changing demand for oil products. At the same time, environmental concerns and regulations will result in further upgrading of facilities.

Prices: Canada's oil prices are low. Table 2.7 gives prices for light and heavy fuel oil for industry.

TABLE 2.7
Oil Product Prices in Selected OECD Countries
(US \$/ton of oil equivalent; second quarter, 1994)

Country	Light fuel oil	Heavy fuel oil
United States	154.6	91.9
Canada	163.9	101.1
United Kingdom	207.9*	113.0
Germany	261.7	119.7
Mexico	283.5	61.6
France	297.6	140.2
Japan	346.1*	180.6
Italy	756.1	161.3

* price in 1993

Source: International Energy Agency, Energy Prices and Taxes (Second Quarter, 1994).

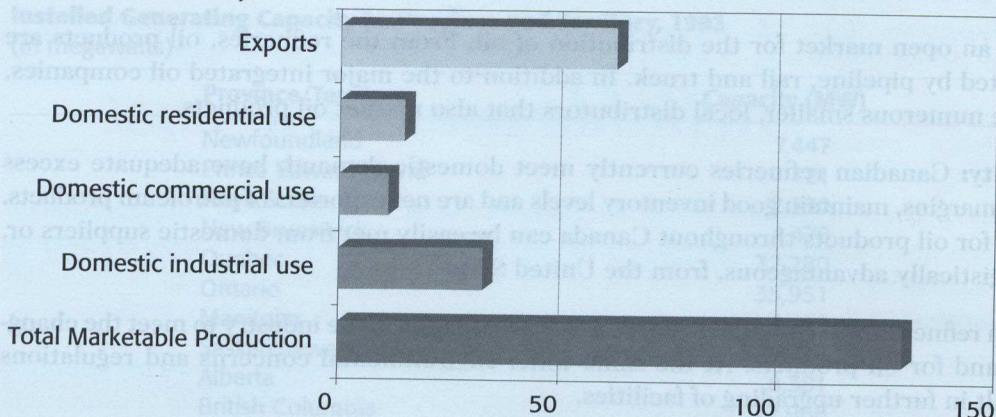
Natural Gas

Availability: With a large reserve base, Canada's natural gas production ranked third in the world in 1994. Marketable production of 138.7 billion cubic metres in 1994 was a new high. A little over 80 percent comes from Alberta.

Domestic consumption is increasing, which is mainly due to the rise in demand from industrial users. Since deregulation of the industry in 1985, exports of gas to the U.S. have also been rising steadily and now account for a little over 50 percent of total Canadian marketable production. (See Figure 2.5.)

An extensive pipeline system, about 320,000 kilometres of varying diameters, moves natural gas across the country, to points as far west as Vancouver Island, to Quebec City in the east, and to "export points" for onward transmission to the United States.

Figure 2.5: Domestic Use and Exports of Natural Gas, 1993
(billion cubic metres)



Source: Statistics Canada and Natural Resources Canada, *Energy Statistics Handbook* (January 1995), Catalogue 57-601.

Reliability: The Canadian gas system is highly reliable. The gas industry closely monitors supply and demand for gas in Canada and the United States to ensure that the anticipated peak daily demand can be met. An exacting test came during the winter of 1993/94, one of the coldest on record. Over this period, the transmission and distribution system functioned without interruption.

To upgrade its transmission capability, Trans Canada PipeLines Ltd. has roughly doubled its mainline capacity since 1989, adding parallel lines to existing pipelines. More storage facilities are being built, which helps to balance the fluctuations in day-to-day use and keeps overall operating costs down.

Prices: Canada's natural gas prices are significantly below those of other G7 countries. (See Table 2.8.)

TABLE 2.8
Natural Gas Prices in G7 Countries
(US \$/107 kcal, gross calorific basis, second quarter, 1994)

Country	Industry	Households
Canada	80.41	154.43
United States	118.63	256.25
France	127.01	436.10
United Kingdom	128.28	280.84*
Italy	152.65	636.13*
Germany	186.51*	423.55*
Japan	464.93*	1,204.14*

* 1993 prices

Source: International Energy Agency, *Energy Prices and Taxes* (Second Quarter, 1994).



CHAPTER 9: *Communications — A Competitive Edge*



CANADA'S COMMUNICATIONS INFRASTRUCTURE has evolved in response to the challenge of building a national community over vast distances. Over a century ago, the world's first long-distance telephone call was made in southwestern Ontario. To this day, Canada has remained at the forefront of advances in telecommunications.

Canada is a world leader in voice, text and data communications facilities, with a sophisticated infrastructure for high-speed, high-quality data transmission. Many regions have cable and optical fibre for digital communications. Canada also leads the world in applied videotext technology, and provides a centralized database service with online access to all major Canadian and American databanks. What is more, Canada's communications infrastructure is continuously being improved. At present, Canadian telecommunications carriers are investing \$5 to \$6 billion per year to maintain and upgrade their networks.

In terms of international comparisons, Canada consistently ranks at the top end in terms of the quality and sophistication of its telecommunications system. In a seven-country comparison conducted by the California-based MESA research group, Canada led in telecommunications quality and service penetration, and was second only to Singapore in terms of overall quality. Countries ranked below Canada in terms of telecommunications quality included France, Germany, Japan, the United Kingdom and the United States.

THE LIBERALIZED REGULATORY ENVIRONMENT

Canada's regulatory environment for telecommunications services is among the most liberalized in the world. Since 1992, the Canadian Radio-television and Telecommunications Commission (CRTC) — the federal regulatory body — has made several decisions that open up the telecommunications market to full competition in all areas. A current example is the heated competition between telephone and cable companies to provide interactive online services to households.

To a large extent, the regulatory reforms have been responses to the rapid technological changes in the sector. But they are also predicated on the principle that competition will provide the most efficient, accessible system at the lowest prices.

EXPANDING NETWORKS

Canada's communications infrastructure comprises 252 million kilometres of telephone and data networks, all of which are interconnected with satellite, cellular telephone and mobile radio networks. Despite the size of the country, telephone service in Canada is virtually universal, with 16 million access lines bringing service to 99 percent of all households.

Businesses and homes in Canada are served by three national telecommunications networks. Two major carriers, the Stentor Alliance of 10 telephone companies, and Unitel Communications Inc. provide telephone services, while Teleglobe Canada supplies the linkage for overseas telecommunication services. In addition to the big three, 50 smaller independent companies serve various regions of Canada. Telesat Canada operates Canada's

The Stentor alliance:

first for telecommunications in Canada

As businesses stake claims in foreign countries on an increasingly greater scale, telecommunications – fax, voice, e-mail, database access, and even more advanced applications such as videoconferencing – becomes the glue that bonds international branches and allows companies to capitalize on economies of scale. And that's good news for businesses setting up shop in Canada.



served by a state-of-the-art network that stretches some 7,500 kilometres from coast-to-coast and spans six time zones. The network, fully-redundant and fully-digital, is owned and maintained by the Stentor alliance of Canada's provincial telephone companies.

Cutting through vast stretches of Canadian Shield granite, traversing the interminable western prairies, snaking through the Rocky Mountains, this fibre optic infrastructure is an engineering marvel in its own right. The network, despite operating in some of Mother Nature's harshest corners, handles four billion calls a year, 99.99% of which get through on the first try.

"Canada represents an excellent opportunity for companies looking to expand beyond their own borders," says Dave Robertson of the Stentor telephone company alliance. "We've got a highly educated workforce, a healthy, growing economy, and a world-class network that provides businesses with a springboard to global markets."

Companies branching into Canada find their telecommunications requirements admirably

The Stentor Alliance

The network is the product of decades of cooperation among Canada's largest and most established telecommunications service providers, a group now known as the Stentor alliance. Stentor formed in 1992, but its members – Canada's provincial telephone companies – have shared circuits, markets, and know-how for more than 60 years. The alliance includes AGT, BC TEL, Bell Canada, Island Tel,

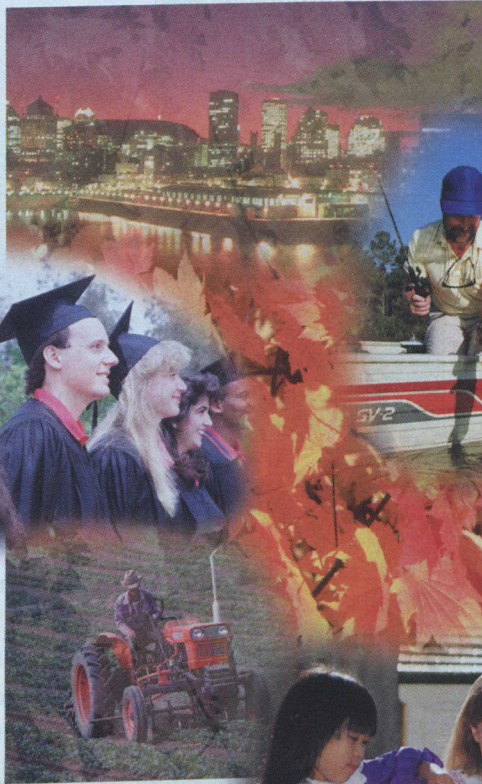
Manitoba Telephone System, Maritime Tel & Tel, NB Tel, Newfoundland Telephone, and SaskTel. Québec-Téléphone and NorthwesTel are associate members.

"The telephone companies recognized long ago that to provide Canada with a consistently high level of service, they'd have to team up," says Mr. Robertson. "The creation of a coast-to-coast digital network shows how successfully this collaboration has worked."

Three Stentor companies exist: Stentor Resource Centre Inc., the service development and marketing arm of the alliance; Stentor Canadian Network Management, the network operation arm; and Stentor Telecom Policy Inc., an organization that keeps the Canadian government and the country's telecommunications regulator attuned to Stentor's interests.

By concentrating resources in these three companies, the alliance is able to deliver products faster to the market, react more effectively to competition, and present a unified position to the country's political decision-makers.

Eight of Stentor's members are owned, wholly or partially, by two of North America's largest telecommunications companies. BC TEL is owned in part by GTE Corp. and Bell Canada is wholly owned



by BCE Inc., one of Canada's largest conglomerates. BCE, which earned revenues of \$21.67 billion (Cdn) in 1994, also has equity in three other Stentor companies along with a 52 per cent stake in Northern Telecom and a 58.5 per cent interest in Telesat Canada – the country's satellite carrier. Two of the Stentor alliance members are operated by

provincial governments. Stentor's thoroughbred lineage puts it on solid financial footing.

No matter what your needs, you have a single point of contact – from one coast to the other – for all your telecommunications requirements.

"Companies thinking of setting up in Canada can take comfort knowing that when they deal with Stentor, they're dealing with the largest and most established player in the Canadian telecommunications market," says Scott Sheard, Vice-President U.K. and Europe with the Stentor alliance.

One key benefit of dealing with the alliance is convenience. No matter what your requirements, whether they be multinational virtual networks, LAN server hardware, cabling, voice communications software, or multimedia, your local Stentor company has a solution. You have a single point of contact – from one

coast to the other – for all your telecommunications requirements. And you receive only one bill for everything. Need service? Call one number and it's done.

**Advantage 800
International
service will
help companies
promote products
or services and
gauge market
response before
they invest for the
long term.**

"For businesses accustomed to dealing with a slew of suppliers and vendors, each with different billing systems, business approaches, technical know-how and customer service commitments, the simplicity and ease of dealing with a one-stop shop such as the Stentor alliance is an administrative dream come true," says Mr. Sheard. "Stentor will look at their requirements, recommend solutions, install the service, and maintain it. Companies breaking into the Canadian market couldn't be in better hands."

And many of Stentor's services, both long distance and data, offer volume discounts. These discounts combine with low prices and Stentor's renowned service to give customers a high-value, versatile, and comprehensive telecommunications package that no other company in the country can match.

Going Global

In 1992 Stentor formed a strategic alliance with MCI Communications Corp., a U.S. telecommunications giant whose annual sales top \$13 billion. This partnership, created to provide U.S. and Canadian customers with seamless connectivity and standard features, has already spawned a series of cross-border voice and data services. These accomplishments foretell of good things to come as MCI and Stentor work together to bring

global services to customers on both sides of the border.

Through their partnership, MCI and the Stentor alliance offer customers world-class technology and a common network platform. That's important today because businesses with international offices and branches are learning that globalization involves more than maintaining a diverse foreign presence; it means linking databases, consolidating knowledge, and sharing applications across myriad borders. Sophisticated inter-networking is vital.

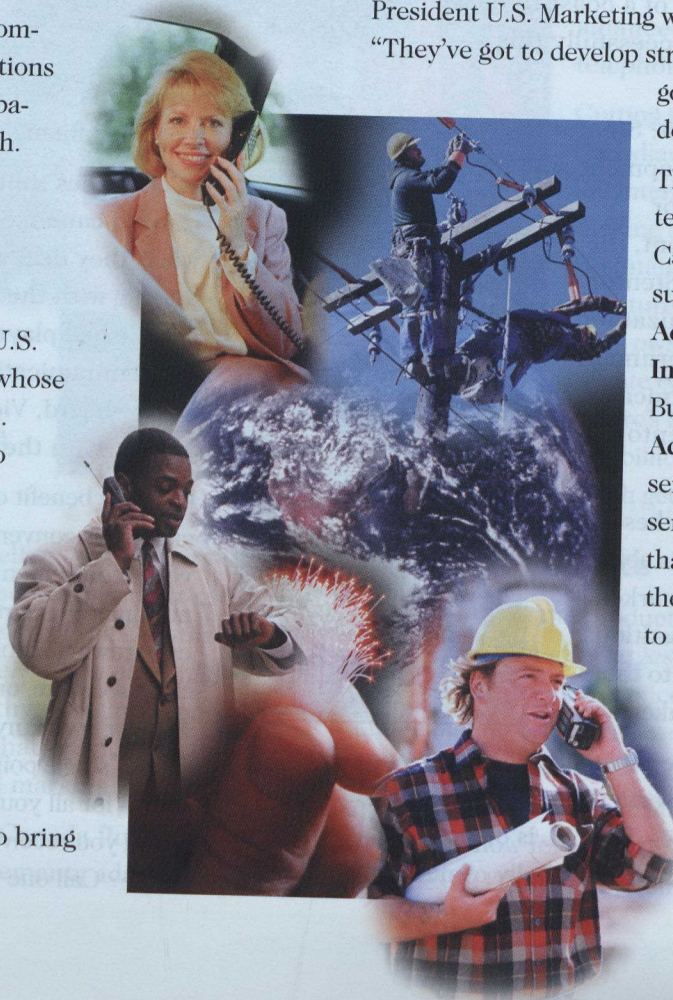
"Telecommunications companies can't go it alone today internationally," says Keith Teelucksingh, Vice-President U.S. Marketing with the Stentor alliance.

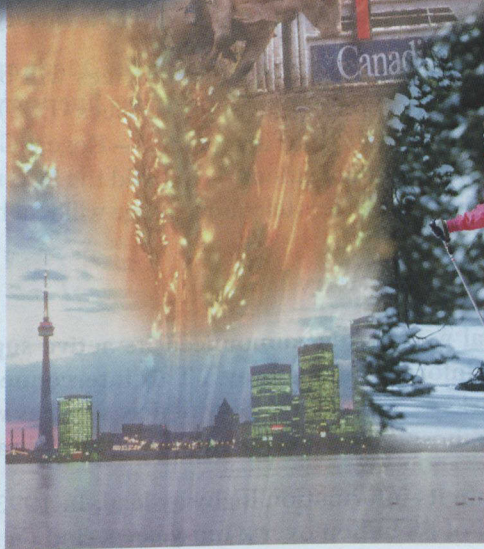
"They've got to develop strong partnerships if they're going to succeed, and we've done that with MCI."

The Stentor alliance has also teamed up with Teleglobe Canada to provide solutions such as that offered by **Advantage 800 International™** service.

Businesses can use **Advantage 800 International** service to set up toll-free service to Canada from more than 50 countries around the world. This allows them to test a product or service in a foreign market

before they lease an office, hire staff, and tend to the raft of other logistical details part and parcel of





expansion. Subscribing to **Advantage 800**

International service will help companies promote products or services and gauge market response before they invest for the long term.

Call centres are centre of attraction

Advantage 800 International service would be of potential interest to Canadian call centres – business units that market products and services, streamline order processing, speed up collections, renew warranties, handle reservations, and answer those frequently asked questions. In recent years, Canada, not surprisingly, has become a favoured international call centre destination.

Why? First, the country has a motivated, educated, and committed workforce. Second, the Stentor alliance's telecommunications network allows customers to take advantage of advanced call centre management features. By 1997, 100 per cent of Canadians will have access to CCS-7 or Common Channel Signaling, the North American standard which permits call line identification among other efficiency enhancing applications.

Third, call centres and direct marketing firms in Canada are largely self-governed and self-regulated. Consequently, companies can set up call centres in Canada without red tape or regulatory handcuffs. Even the climate – free from the typhoons, hurricanes, earthquakes, and floods that afflict more southerly areas – is tailor-made for call centres.

Operating an effective call centre, however, takes more than installing a few phone lines and waiting for orders to pour in. You've got to hire and train staff, install the right equipment, and select the proper service features. The prospect can be daunting. Where do you start?

The Stentor alliance, through its Phone Power group, offers call centre consulting services that can save you money and headaches. They'll determine what you need and recommend the steps to get there. This extra service is one more reason to deal with the Stentor alliance; it's truly a one-stop-shop.

Companies tackling foreign markets always face challenges. Those coming to Canada are no exception. It's how you approach those challenges, however, that determines your success. If you treat telecommunications as a strategic tool to help you succeed in international markets, you'll want to make the Stentor alliance one of your key Canadian business partners.

You can get more information on the telecommunications solutions offered by the Stentor alliance by calling the following numbers:

- United Kingdom and Europe: 171-493-3394
- United States: (201) 301-2400
- Canada: (613) 785-6250

satellite communications networks. As of 1994, forty “reseller” companies were providing competitive network services on lines leased from the carriers.

Canada is also a good place to do business. Banking, communications and transportation services are as good here as anywhere in the world.

George Peapples, former President
General Motors of Canada

Cellular telephone services are provided by two national carriers, Rogers Cantel Inc. and Mobility Canada. Recently, voice and data services to mobile radio users outside major metropolitan areas have been expanded as a result of the launch of the MSAT satellite, which provides mobile satellite services. Private voice and data networks, including local area networks (LANs), link personal computers in a variety of settings.

In the near future, an increasing number of services will be offered by wireless communications, known as personal communications services (PCS). In December 1995, the federal government awarded licences to four companies — Rogers Cantel, Mobility Canada, Clearnet PCS, and Microcell Telecommunications — to build the PCS networks. Some forecasts suggest that market penetration for wireless telephone usage will reach 30 percent in the next ten years.

The “Information Highway”

In 1994, the federal government announced its active support for the building of a high speed, interactive “information highway”. This interconnected and interactive highway — a network of networks — will put a variety of new services within reach of Canadian homes, businesses, schools, hospitals, government offices and libraries.

Canada will maintain its information highway lead. In 1993, the Stentor Group announced it will spend a total of \$8 billion over a ten-year period on its Beacon Initiative, a program to upgrade Canada’s local and long-distance networks to an interactive, two-way, broad-band capability. When complete, 80 to 90 percent of all businesses and homes in Canada will have access to the multimedia traffic lanes and technologies of the information highway.

The Beacon program includes replacing copper wire with fibre optic cable to bring services to neighbourhoods and coaxial cables to cover the last lap to the home. About \$500 million of the Beacon investment will be spent on the installation of advanced switches and other equipment needed for delivery of broad-band audio, video and data services.

Stentor is also developing innovative new services to meet business needs. As part of the Beacon Initiative, the Stentor Alliance has announced that it will set up a venture capital fund of \$50 million to help software and other companies develop multimedia applications and products for use on the information highway.

Canadian Network for the Advancement of Research, Industry and Education

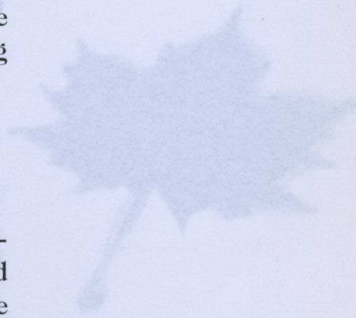
In 1993, the federal government and Canadian industry launched a \$1.2 billion cooperative communications infrastructure project called the Canadian Network for the Advancement of Research, Industry and Education (CANARIE). Financed mainly by the private sector, CANARIE will link existing regional computer networks in each of Canada’s 10 provinces. It will bring researchers and educational communities into an interconnected, interactive network, and will provide the gateway to international networks.

The first \$100 million phase of the CANARIE project involves upgrading of CA*Net, Canada's existing national R&D and educational network. As one of its main elements, this first phase calls for establishment of a high-speed test-bed network for development of new networking products and services in Canada.

OUTLOOK

Industries such as those involved in telecommunications, microelectronics and computer-telephone integration continue to push out technological frontiers and provide products and services at prices that are affordable for businesses and households. And consumers continue to demand sophisticated, user-friendly products. The anticipated demand in the Canadian market for new telecommunications products and services is usually underestimated.

These push and pull factors mean that Canada's communications infrastructure will remain among the most advanced, efficient and reliable in the world.



CHAPTER 10: *Transportation — Continental Integration*



THE SHEER SIZE OF their country challenged Canadians to develop a world-class transportation infrastructure capable of maintaining linkages across vast distances. Canadians rose to the challenge and today, Canada's transportation infrastructure serves as a cornerstone of the country's industrial strength and competitiveness. The 1994 World Competitiveness Report gave Canada consistently high scores in those categories that measured the adequacy and flexibility of roads, railways, air transport and ports of access relative to business requirements.

We ship all over North America using highway and intermodal carriers. Overall, I would rate the distribution network as excellent.

Charlie Connors, Deployment Coordinator
Michelin Tires (Canada) Ltd.

A FLEXIBLE AND DEREGULATED SECTOR

The National Transportation Act of 1987 sharply reduced regulation of Canadian transportation companies. It provides for more flexibility in pricing, routing, market entry and exit, as well as the right to enter into confidential service contracts. As a result, competition between Canadian and American carriers is increasingly stiff. To survive in this environment, transportation companies must offer service at very competitive rates.

Civil aviation services between Canada and the United States were dramatically liberalized under the terms of the Open Skies Agreement signed in February, 1995. Under the Agreement, Canadian carriers will have unlimited rights to fly from anywhere in Canada to any point in the United States. American airlines will enjoy similar rights to destinations other than Toronto, Montreal and Vancouver. Equal access for U.S. carriers will be phased-in over three years. The arrangement will mean better connections and more competitive pricing for both passengers and cargo. In the six months following the implementation of Open Skies, it is estimated that transborder passenger traffic rose by 16 percent.

COMPETITIVE RATES AND SERVICES

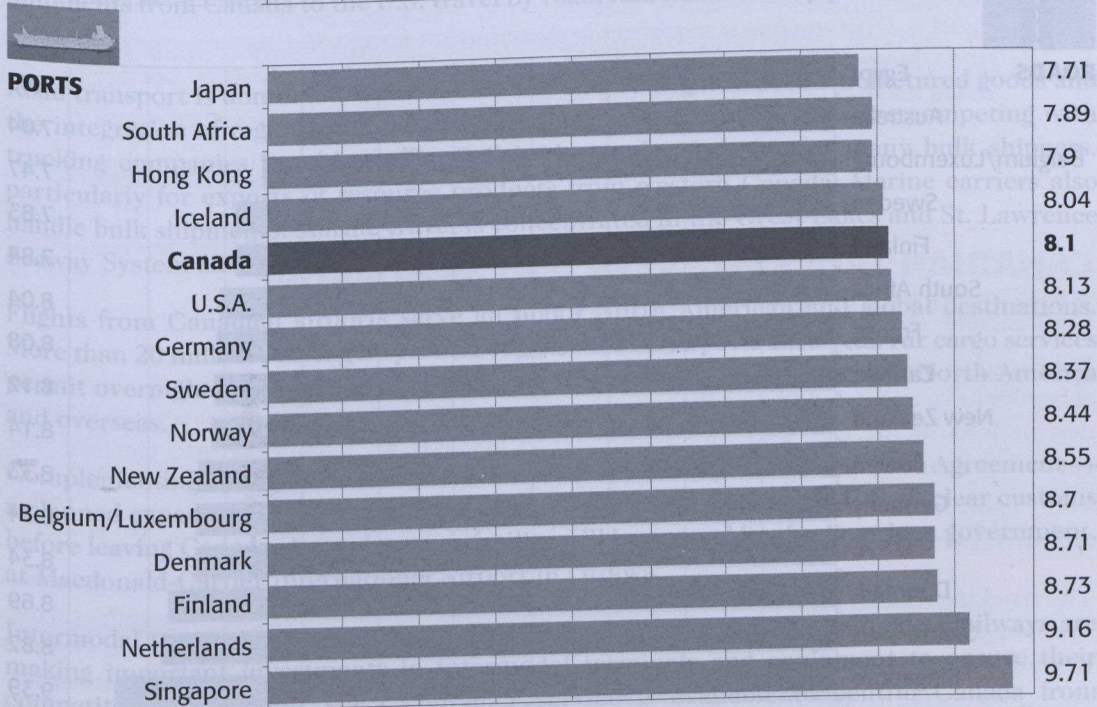
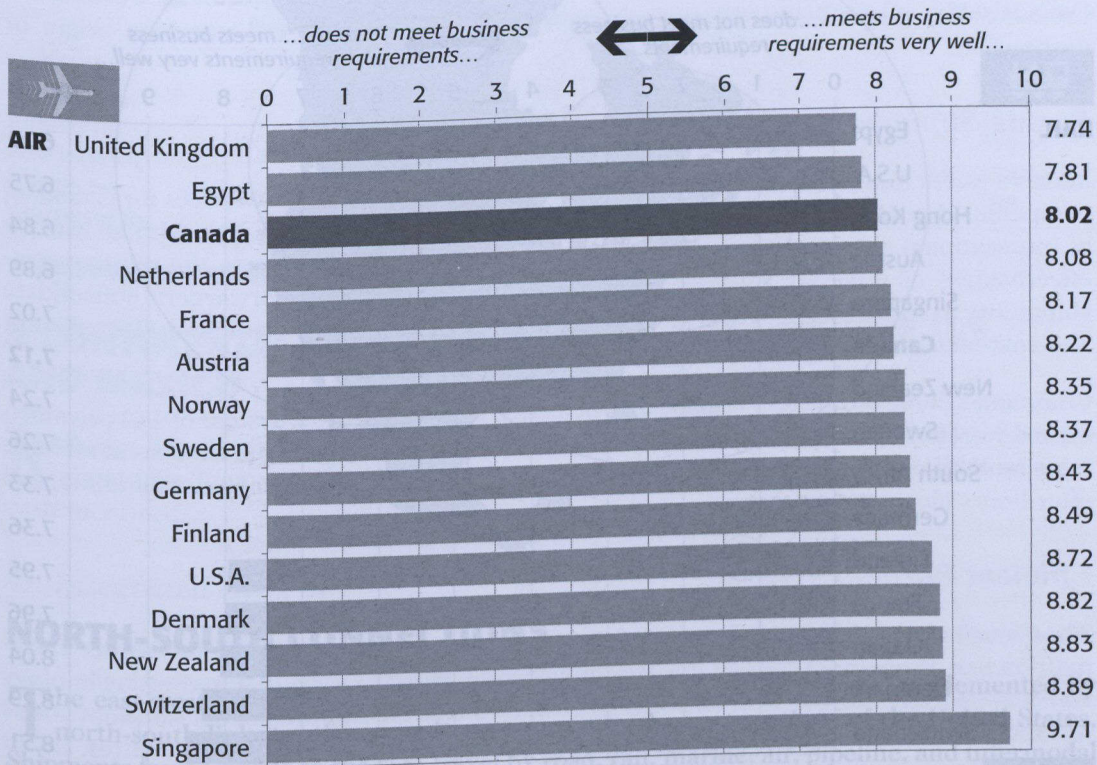
Quality service is one half of the equation for transportation efficiency. The other half is competitive pricing. Canadian transportation companies offer both, in all modes.

Strong competition has kept trucking rates low, particularly in the transborder sector, where the number of carriers has increased dramatically. In many cases, rates have fallen over the past few years.

Under the pressure of fierce global and North American competition, Canadian airlines offer highly competitive passenger and cargo rates.

In the domestic market, Canadian railways also face new competition as a result of the National Transportation Act. Average revenue per tonne-kilometre, an indicator of overall rail rates, has fallen since the mid-1980s.

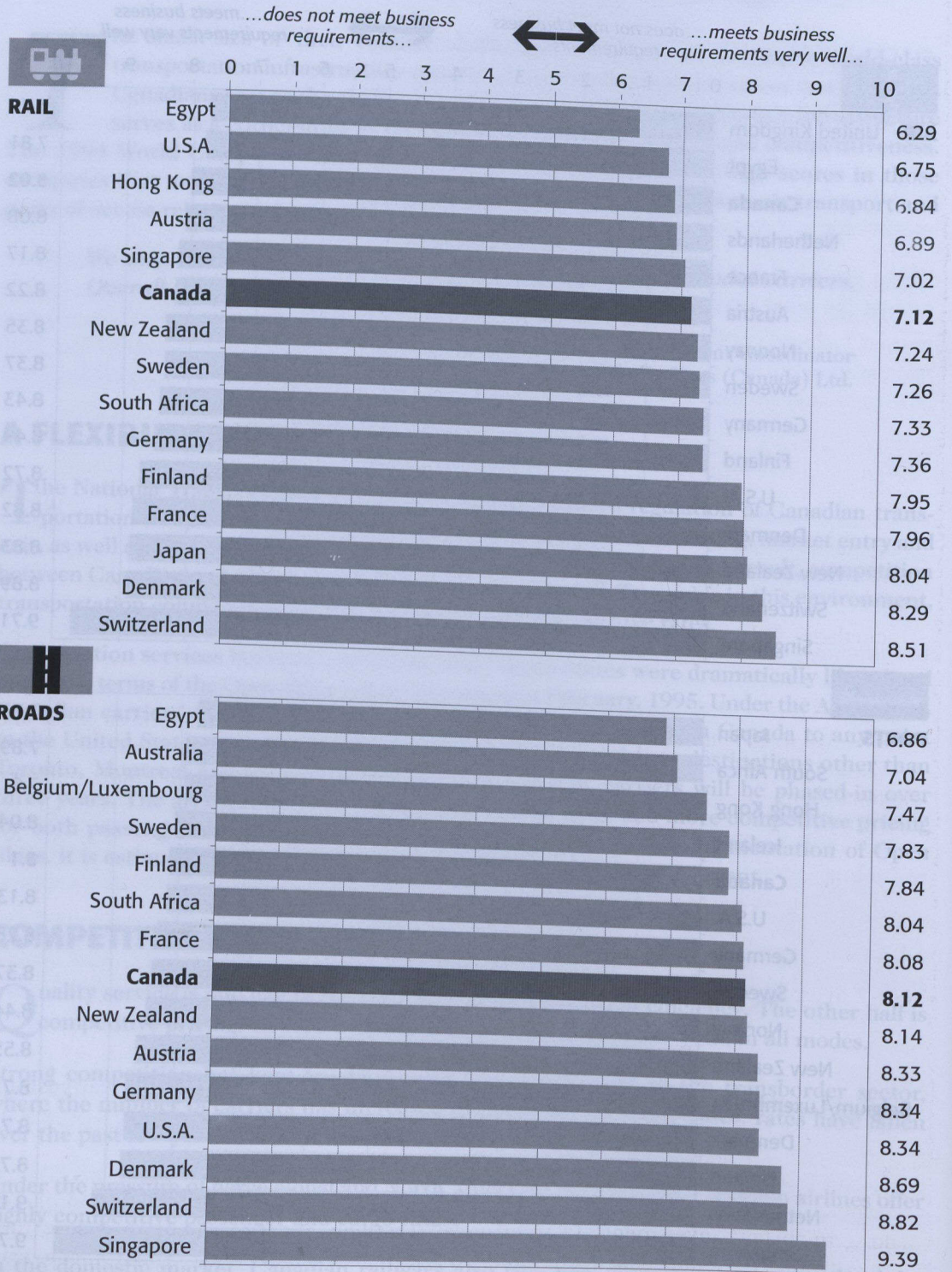
NATIONAL TRANSPORT INFRASTRUCTURES RANKED BY USER SURVEY RESULTS



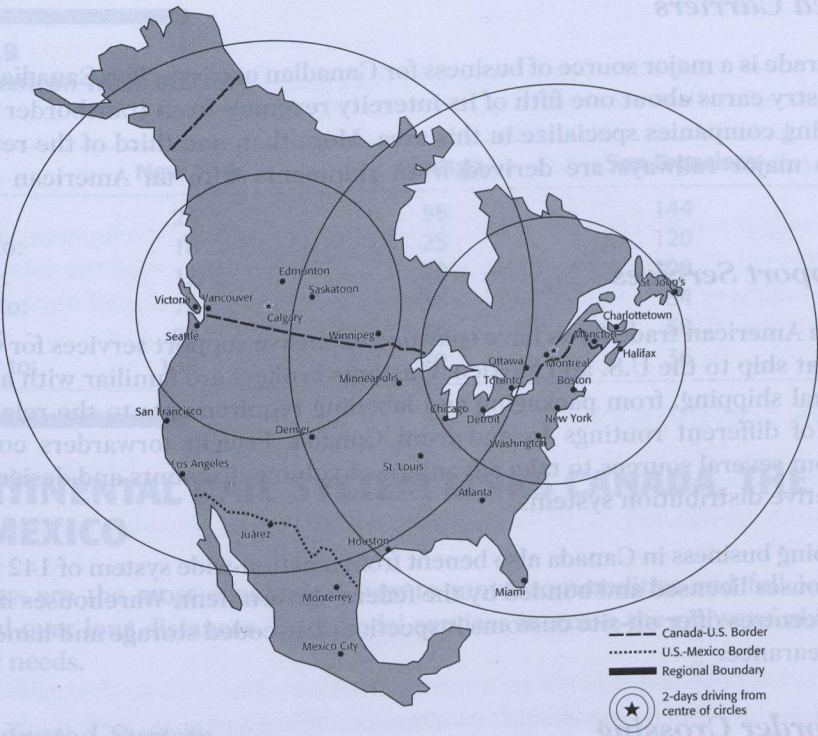
Source: World Competitiveness Report, World Economic Forum and IMD International, 1995.

CHAPTER 10: Transport

NATIONAL TRANSPORT INFRASTRUCTURES RANKED BY USER SURVEY RESULTS



Source: World Competitiveness Report, World Economic Forum and IMD International, 1995.



NORTH-SOUTH CONNECTIONS

The east-west linkages that bind the Canadian economy together are supplemented by north-south linkages that permit easy access to the vast markets of the United States. Shipments from Canada to the U.S. travel by road, rail, marine, air, pipeline, and intermodal services.

Road transport is dominant, a fact which reflects the large flow of manufactured goods and the integration of regional markets. Increasingly, intermodal services are competing with trucking companies for this traffic. Rail is the mode of choice for many bulk shippers, particularly for exports of resource products from western Canada. Marine carriers also handle bulk shipments. Marine travel is concentrated in the Great Lakes and St. Lawrence Seaway System and on the east and west coasts of North America.

Flights from Canadian airports serve all major North American and global destinations. More than 20 million passengers pass through Canadian airports each year. Air cargo services permit overnight delivery from Canadian centres to customers throughout North America and overseas.

Complementing the Open Skies agreement is the Air Transport Preclearance Agreement — a planned expansion of preclearing facilities to allow travellers to the U.S. to clear customs before leaving Canada. A preclearance facility will be opened by the American government, at Macdonald-Cartier International Airport in Ottawa.

Intermodal transportation combines the attributes of more than one mode. Railways are making important investments in intermodal terminals and equipment to ensure their competitiveness. Double stack container service is available to central Canada from Vancouver and Halifax. Specialized container trains provide timely, high-quality service to Canadian and American cities. CP Rail has direct access to the port of Philadelphia via one of its American subsidiaries. Access to other American ports is available through interchanges with American carriers.

Experienced Carriers

Canada-U.S. trade is a major source of business for Canadian carriers. The Canadian for-hire trucking industry earns about one fifth of its intercity revenues from transborder business. Several trucking companies specialize in this area. More than one third of the revenues of Canada's two major railways are derived from shipments with an American origin or destination.

Strong Support Services

Massive North American trade flows have spawned extensive support services for Canadian companies that ship to the U.S. and Mexico. Customs brokers are familiar with all aspects of international shipping, from packaging and labelling requirements to the relative cost-effectiveness of different routings to and from Canada. Freight forwarders consolidate shipments from several sources to take advantage of volume discounts and design efficient and cost-effective distribution systems.

Companies doing business in Canada also benefit from a nation-wide system of 142 privately-owned warehouses licensed and bonded by the federal government. Warehouses in all large metropolitan centres offer on-site customs inspection, bar-coded storage and handling, and after-hours clearance.

Efficient Border Crossing

The Canadian and U.S. governments are actively cooperating to streamline the border crossing process. Programs that use electronic data interchange (EDI), bar-coding technology and pre-clearance of goods are speeding up the release of shipments. These innovations make it even easier for companies located in Canada to export to the United States.

Pratt & Whitney has a world-wide distribution network. Customs operations have been streamlined to the point that the Canada-U.S. border plays no role in our distribution system...

Brian McGill, Director of Transportation
Pratt & Whitney Canada Inc.

CANADIAN TRUCKING: EFFICIENT, INNOVATIVE AND CONTINENTAL IN SCOPE

In response to market demands and deregulation, trucking companies on both sides of the border have expanded their networks. Many Canadian carriers offer direct service to major destinations in the U.S. and American carriers are actively expanding into Canada. The result has been significant competition in the trans-border sector.

Advanced Technology

The trucking industry has adapted well to the demands of just-in-time (JIT) manufacturing. Trucking companies have invested in communications equipment and information systems to track shipment progress from origin to destination. Canadian and American authorities are co-operating in the use of automatic vehicle identification (AVI) technology to speed the movement of truck traffic between the two countries.

TABLE 2.9
North American Truck Delivery
(in hours)

	New York	Chicago	San Francisco	Mexico City
Halifax to:	24	56	144	120
Montréal to:	18	25	120	110
Toronto to:	12	20	108	115
Winnipeg to:	72	36	84	70
Calgary to:	82	46	58	78
Vancouver to:	108	70	36	88

A CONTINENTAL RAIL SYSTEM LINKS CANADA, THE U.S. AND MEXICO

Railways are the most economical way to move commodities and full loads of freight inland over long distances. Intermodal services increase the railways' abilities to meet customer needs.

An Integrated System

Two carriers dominate the Canadian system: Canadian National (CN) and Canadian Pacific (CP Rail). In preparation for expanded traffic throughout North America, CN and CP Rail have expanded their networks on a continental scale, with networks of specialized intermodal services, as well as partnerships with and acquisitions of American rail carriers. Strategic alliances between Canadian and American railways speed the flow of goods to market, expedite border crossings, and provide quality intermodal services. They have coordinated Canada-Mexico freight services through agreements with the Mexican state railway and with American railways and barge lines.

TABLE 2.10
North American Rail Delivery
(in hours)

	New York	Chicago	San Francisco	Mexico City
Halifax to:	96	77	180	205
Montreal to:	48	36	144	169
Toronto to:	48	24	130	155
Winnipeg to:	72	36	120	191
Calgary to:	102	66	96	215
Vancouver to:	120	96	72	250

Source: CN North America.



Advantage Canada

A partnership called Advantage Canada, involving Canada Ports Corporation, CP Rail and CN North America, has been established to facilitate cargo transportation throughout Canada, the U.S. and Mexico. It provides lower costs, reliable delivery times, and damage-free handling of goods.

Advantage Canada promotes the use of intermodal systems and the development of systems for the exchange of electronic data among carriers. It has also supported the establishment of Gateway Councils at most major ports in Canada to work on continued improvement of intermodal transportation.

MARITIME GATEWAYS

Ports and marine activity have become increasingly coordinated with the total Canadian transportation system and continue to be an essential part of Canada's intermodal transportation network.

Market Access

Several of Canada's deep-water ports are strategically located near large U.S. markets. Many of these facilities are open year-round. Modern container ports at Halifax, Saint John, Montreal and Vancouver, combined with inland container trains, make Canada an efficient and cost-effective location for supplying North American and world markets.

The St. Lawrence Seaway serves an area containing some 61 million people in much of the industrial heartland of North America. Ports along the Seaway handle bulk and general cargoes, including grain, iron ore, coal and manufactured goods.

Modern Technology

Canada continues to be a world leader in the use of self-unloading technology, which minimizes unloading time and costs for bulk goods. In the forest products sector, for example, highly automated, specialized vessels deliver Canadian newsprint to U.S. destinations using innovative handling techniques to reduce crew size.

EFFICIENT AIR SERVICES LINK CANADA WITH THE WORLD

Canada has nine international airports. The country's two largest airlines, Air Canada and Canadian Airlines International, account for more than 85 percent of the industry's operating revenues. Four major regional airlines and some 370 other carriers account for the remainder. Frequent flights and short transit times make it easy to travel to U.S. destinations.

Delivery times are critical in our business, and shipping by air is one way we have of meeting the needs of our customers. From our Canadian locations we have next-day delivery to major North American centres.

Bruce Richards
Director, Logistics Strategy
Northern Telecom Canada Ltd.

TABLE 2.11
Direct, Convenient Flights Link Canada to the World
 (in hours/minutes)

	New York	Chicago	Los Angeles	Mexico City	London	Tokyo
Halifax to:	2:15	2:54	6:01	7:15	6:01	15:46
Montreal to:	1:17	2:18	6:24	6:40	6:30	15:05
Toronto to:	1:26	1:40	5:16	4:50	6:25	13:30
Winnipeg to:	3:35	1:50	5:45	6:15	8:40	12:45
Calgary to:	5:05	3:05	3:00	6:29	9:05	11:05
Vancouver to:	5:53	3:52	2:45	6:19	9:10	9:45

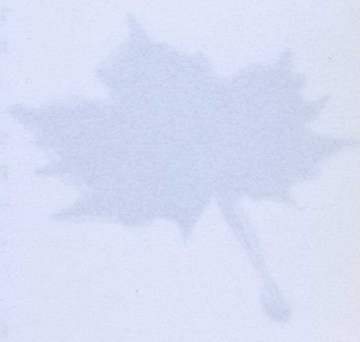
Passenger Services

Excellent passenger services and accessible airports make it easy for executives, researchers and sales people to meet with North American clients. And Canada's airports are readily accessible. A taxi ride of 20 minutes will get a traveller from downtown to the airport in the majority of cases.

Frequent flights from Canada's major airports serve European, American and Asian destinations. About 50 carriers serve Toronto and Montreal, and 19 serve Vancouver, offering frequent, convenient services for business travellers and their families.

Air Cargo

Major airlines offer special services for moving cargo including premium express services to American and Mexican destinations. Services provide door-to-door delivery on the next business day with pick-up and delivery included in the cost. A sea-air traffic service is available, which permits transfer of cargo at ports for transshipment to continental destinations. Computerized tracking and tracing systems link the cargo operations of major airlines directly with customers, post offices and freight forwarders.



(Note: This table is partially obscured and contains faint text. It appears to be a table of insurance companies with columns for Name and Assets (in 2000\$).)

Name	Assets (in 2000\$)
Royal Bank of Canada	177,528,619
Canadian Imperial Bank of Commerce	124,544,453
Bank of Montreal	147,750,812
The Bank of Nova Scotia	137,942,810
The Toronto-Dominion Bank	124,544,453
Western Bank of Canada	124,544,453
Manulife Bank of Canada	124,544,453
Canadian Western Bank	124,544,453



CHAPTER 11: *Stable and Efficient Financial Services*

CANADA'S FINANCIAL SERVICES infrastructure is stable, sophisticated and internationally competitive. Chartered banks, trust and mortgage loan companies, insurance companies and securities firms provide clients with comprehensive, reliable and secure services comparable to the best in the world.

Over the past decade, Canada's financial services sector has undergone significant change. No longer are strict distinctions drawn among the traditional four branches of the financial service sector. Banks, trust companies, securities dealers and insurance companies are now allowed to move across traditional boundaries and develop new types of business. For example, as a result of the reforms introduced in 1992, banks and trust companies can now serve the market for securities and other types of investment. At the same time, restrictions on foreign banks have been eased and their participation in the Canadian market is growing.

Deregulation of the financial services sector has led to greater flexibility and enhanced competitiveness. Financial institutions have diversified the services and products they offer customers. And competition has led to the proliferation of new products and services, a greater sensitivity to customer needs, and an overall strengthening of the sector.

CHARTERED BANKS

Canada's banking system is among the largest and most stable in the world, with about 7,000 branches throughout the country and more than 300 branches in 30 foreign countries. The country's three largest banks — the Royal Bank of Canada, the Canadian Imperial Bank of Commerce, and the Bank of Montreal — rank among the top 60 banks world-wide. The total assets of Canada's 10 domestic banks are in the vicinity of \$800 billion.

TABLE 2.12
Canada's Domestic Banks

Name	Assets (in \$000s)
Royal Bank of Canada	177,228,619
Canadian Imperial Bank of Commerce	154,544,459
Bank of Montreal	147,750,815
The Bank of Nova Scotia	137,972,870
The Toronto-Dominion Bank	104,079,031
National Bank of Canada	48,832,203
Laurentian Bank of Canada	10,599,589
Manulife Bank of Canada	266,393
Canadian Western Bank	75,000
Total	781,348,979

Source: Supplement, *Canada Gazette*, Part 1, April 22, 1995, Chartered Banks, Assets & Liabilities.



The banking system is regulated by the federal Bank Act, which assigns oversight of the sector to the Superintendent of Financial Institutions. Bank deposits are insured by the Canada Deposit Insurance Corporation, up to a specified limit.

The Bank Act permits two types of banks: Schedule I and Schedule II. The former are subject to ownership restrictions. No individual shareholder is allowed to own more than 10 percent of the voting shares, and total foreign ownership cannot exceed 25 percent — the 10/25 rule. Under the Canada-U.S. Free Trade Agreement (FTA), Canada exempted U.S. financial institutions from the 10/25 rule.

Schedule II banks, on the other hand, can be closely held. Many of these are Canadian branches of foreign banks.

More than 50 foreign banks headquartered in the U.S., the European Union (EU), the Middle East and Pacific Rim have established branches in Canada. They provide the same range of services as the domestic banks. With combined assets in early 1995 of about \$70 billion, foreign-owned banks in Canada have stimulated competition, in particular for middle-market customers.

Competition and efficiency are hallmarks of the Canadian financial market. There is intense competition among banks and other financial institutions to attract deposits and make loans. The Canadian Payments Association, which is responsible for clearing cheques and settling accounts among deposit-taking institutions, is highly efficient.

Canada's largest banks have now begun offering access to personal banking services from home on a limited basis. And because the public response to automated teller machines (ATMs) has been so positive, electronic funds transfer (EFT) is beginning to play a greater role in consumer and commercial banking.

TRUST AND MORTGAGE LOAN COMPANIES

The more than 30 trust companies in Canada are deposit-taking institutions with many similarities to chartered banks. Mortgages represent the largest segment of their lending services. Trust companies, however, are the only type of institution permitted to offer fiduciary services.

Mortgage loan companies are mainly involved in taking deposits and issuing loans secured by mortgages. Most of the major mortgage loan companies are affiliated with banks or trust companies.

INSURANCE COMPANIES

Life insurance companies underwrite insurance and sell annuities. They are not permitted to take deposits, although they issue deferred annuities that are close substitutes for term deposits. These companies are also permitted to manage segregated funds, including pension funds, on behalf of customers. Life insurers tend to concentrate on longer-term financing in proportion to their liabilities.

Businesses requiring financing over the intermediate (five to ten years) or long term (more than ten years) can use the financial resources of insurance companies. Financing of real estate transactions, for example, might require terms of up to 40 years. Under such circumstances, insurance companies compete with other financial institutions, such as chartered banks, trust companies and mortgage loan companies.

Property and casualty insurance companies underwrite property, liability and various other kinds of non-life insurance. As the liabilities of these companies are relatively short-term, their investments are for the most part restricted to readily marketable government and corporate securities.

SECURITIES FIRMS

Securities firms or investment dealers in Canada bring together those with capital to invest and those in search of capital. This matching-up process can be accomplished in two ways. The investment dealer underwrites new public issues of corporate or government securities, or offers new issues to the Canadian public on a “best efforts” or agency basis. The second way is through the placement of corporate securities with private individuals or corporations. Securities legislation is less stringent with respect to private placements, as opposed to public issues.

There are about 100 major Canadian securities firms. In addition, more than 20 foreign securities dealers operate subsidiaries in Canada. (See Table 2.13.) The Investment Dealers Association of Canada (IDA) is the national association of the Canadian securities industry. Its members account for more than 95 percent of all securities transactions for both the private and public sectors in Canada.

TABLE 2.13

Major International Securities Firms with Offices in Canada

ABN AMRO Capital Markets Canada Ltd.	BNP (Canada) Valeurs Mobilières Inc.
Bunting Warburg Inc.	BZW Canada Ltd.
Citibank Canada Securities Ltd.	CS First Boston (Canada) Inc.
Daiwa Securities Canada Ltd.	Dominick & Dominick Securities Inc.
Goldman Sachs Canada	Hong Kong Bank Discount Trading Inc.
HSBC Capital Canada Inc.	Lehman Brothers Canada Inc.
McLean McCarthy Inc.	Merrill Lynch Canada Inc.
Mirabaud Canada Inc.	J.P. Morgan Securities Canada Ltd.
Morgan Stanley Canada Ltd.	The Nikko Securities Co. Canada Ltd.
Nomura Canada Inc.	Refco Futures (Canada) Ltd.
Salomon Brothers Canada Ltd.	Smith Barney Canada Inc.
Yamaichai International (Canada) Ltd.	

Source: Investment Dealers Association of Canada.

Both Ontario and British Columbia permit unlimited foreign ownership of their securities firms. These measures were introduced in 1987 to enhance Canada’s capital markets through increased competition, innovation and efficiency. Canadian issuers benefit from deregulation by having increased access to international markets and capital. Canadian investors also benefit from increased access to capital, outside expertise, technology, and the possibility to deal more effectively in international markets. These policies also reflect the growing internationalization of securities markets around the world.

SECURITIES MARKETS

Canada has stock exchanges in Toronto, Montreal, Vancouver and Calgary, and one commodity exchange in Winnipeg. Toronto, Montreal and Vancouver are the most significant exchanges in Canada, with Toronto accounting for 80 percent of total dollar trading volume. All stock exchanges are regulated by the province in which the exchange is located. There are some differences in regulations among provinces.

As a general rule, the listing of a corporate stock on one of Canada's stock exchanges is not complicated and can occur with little difficulty. Each new listing must meet certain minimum listing requirements established by each stock exchange. Canadian listing requirements are often similar to those of the stock exchanges in the United States.

Canada's bond market is also well-developed. Major corporations regularly raise capital by issuing bonds and debentures. Securities dealers usually handle the underwriting and distribution of these securities. An "over-the-counter" secondary market ensures liquidity for the purchasers.

Canada's money markets are similarly well-developed and deal with instruments such as treasury bills and commercial papers. The mutual funds market is a rapidly expanding financial sector and provides a useful vehicle for retailers to transact in stocks, bonds and money markets.

OTHER FINANCIAL INSTITUTIONS

In addition to the institutions in the four major sectors of Canada's financial system are sales finance companies, credit unions and government financial institutions. Sales finance companies primarily provide small loans to the consumer for purchases or for the consolidation of personal debts.

Credit unions, or caisses populaires, are cooperative associations which primarily accept deposits and offer mortgage and personal loans. Many provide loans to small businesses. Some, such as the Mouvement Desjardins, have assets larger than domestic banks and provide insurance, trust and investment services in addition to accepting deposits and making loans.

In the public sector, federal and provincial financial agencies provide direct loans or loan guarantees to small- and medium-sized companies. These agencies are usually designed to complement, rather than compete with, private-sector institutions.

SECURITIES MARKETS

Canada has stock exchanges in Toronto, Montreal and Vancouver, and one commodity exchange in Winnipeg. Toronto, Montreal and Vancouver are the most significant exchanges in Canada, with Toronto accounting for 80 percent of total dollar trading volume. All stock exchanges are regulated by the province in which the exchange is located. There are some differences in regulations among provinces.

Its regulatory framework, the listing of a corporate stock on one of Canada's stock exchanges is not complicated and can occur within a few days. Each new listing must first obtain minimum listing requirements established by each stock exchange. Canadian listing requirements are taken similar to those of the stock exchanges in the United States.

Investors or individuals starting their own stock exchange, or other organizations, regulate their capital by Canada's bond market is also well developed. Major organizations regularly issue equity, issuing bonds and debentures. Securities dealers usually handle the underwriting and distribution of these securities. An "over-the-counter" secondary market ensures liquidity for the purchaser from the issuer of securities in some cases.

Canada's money market is similarly well developed and deal with instruments such as Treasury bills and commercial paper. The money market is a rapidly expanding financial sector and provides a useful vehicle for lenders to transfer in stocks, bonds and money markets.

OTHER FINANCIAL INSTITUTIONS

In addition to the institutions in the four major sectors of Canada's financial system are finance companies, credit unions and government financial institutions. Finance companies provide small loans to the consumer for purchases or for the consolidation of personal debts.

Credit unions, or co-ops, are cooperative associations which primarily accept deposits and offer mortgage and personal loans. Many provide loans to small business, such as the Movement Development, have assets larger than domestic banks and provide insurance, trust and investment services in addition to accepting deposits and making loans.

In the public sector, federal and provincial financial agencies provide direct loans or loan guarantees to small- and medium-sized companies. These agencies are usually designed to complement, rather than compete with, private sector institutions.

Both Canada and the United States have benefited from their securities markets through deregulation. Canada's capital markets through deregulation in 1987 increased competition and efficiency. Canadian investors also benefit from increased access to capital, outside of Canada, and the possibility to deal more effectively with international markets. The growing internationalization of securities markets around the world.

SECTION 3:

Canada's Attractive Business and Investment Environment

Introduction

A COUNTRY'S BUSINESS AND investment environment is a composite of numerous factors. Canada's sound economic fundamentals and solid, efficient infrastructure — examined in the two previous sections — form the base upon which successful businesses can be built. Supplementing this are the country's internationally recognized high quality of life, and talented, innovative people.

Attracted by these factors, the prospective investor will find that Canada offers an attractive legal and political environment within which to carry on their business activities. Government policies are geared to creating a stable, welcoming environment in which international investment can flourish.

The reason for this is to be found in Canada's long history of reliance on foreign investment for economic development. The tradition extends back to the country's earliest days when external investment nourished the fur trade and then the transcontinental railway construction of the 19th century. It continues today. Indeed, over the past decade, the importance of foreign capital for Canada's future has, if anything, increased.

Successive governments, at both the federal and provincial levels, have introduced policies to favour business activity and investment. Most restrictions on foreign investments have been eliminated and the rules governing such investment have been liberalized. At the same time, the tax regime for businesses has been improved. Key sectors such as transportation, energy, communications and financial services have been deregulated. And many government-owned corporations have been privatized. The government believes that such policies offer the best way of encouraging business to invest, generate jobs, improve productivity and create a competitive economy.

The government has not lost sight of its many other responsibilities. For example, it is still committed to creating the conditions for a safe, healthy and fair society as well as a clean environment. But it carries out these commitments in ways that are aligned with the operations of market forces and respect the concerns of business.

SECTION 2 Canada's Attractive Business and Investment Environment

Introduction

A COUNTRY'S BUSINESS AND INVESTMENT environment is a composite of numerous factors. Canada's sound economic fundamentals and solid, efficient infrastructure — examined in the two previous sections — form the base upon which successful business can be built. Implementing this are the country's internationally recognized high quality of life, and talented, innovative people.

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CHAPTER 12: *International Investment Policy*



THE CANADIAN GOVERNMENT is committed to stimulating and attracting business investment from both domestic and international sources. More than merely focusing on capital, it also seeks to encourage the transfer of ideas and technology. In addition, it works to foster a climate supportive of entrepreneurial initiative as the most effective way of stimulating economic activity and creating employment. In shaping and implementing its investment-related policies, Canada's federal government consults continuously with the private sector as well as with the provincial and territorial governments.

INVESTMENT CANADA ACT

For the past decade, successive federal governments have based investment policies on the fundamental principle of being "open for business". This principle is enshrined in the 1985 Investment Canada Act, the purpose of which is to encourage and facilitate investment from domestic and international sources.

Regulatory Aspects

In keeping with its open-for-business philosophy, the threshold for the review of foreign investments has been raised and the range of transactions exempted from review has been increased. Portfolio investments, the acquisition of assets that do not constitute a business, and investments in related businesses are neither reviewable nor notifiable. Most investments to establish new Canadian businesses are not subject to review.

For acquisitions of Canadian businesses, thresholds have been established to determine whether a transaction has to be reviewed. For an acquisition below these thresholds, non-Canadian investors need only notify the federal Department of Industry of the investment within 30 days of the transaction.

For the direct, controlling acquisition of a Canadian business whose assets are less than \$5 million, there is no review. In cases of an indirect, controlling acquisition of a Canadian business — through the acquisition of its foreign parent — there is also no review provided the assets do not exceed \$50 million or 50 percent of the global value of the assets of the transaction.

Transactions that fall above these thresholds are reviewable, unless the investor comes from a World Trade Organization (WTO) signatory country. For a WTO investor, the thresholds have been raised considerably to match the levels accorded North American Free Trade Agreement (NAFTA) member-countries. In these instances, the 1995 review threshold for a direct acquisition is \$160 million. There is no review for an indirect acquisition; the company need only notify the government. These changes were made by amendment to the Investment Canada Act as part of Canada's commitments under the WTO.

There are, however, four sectors that for all foreign investors continue to be subject to review at the lower thresholds. Acquisitions of businesses engaged in the financial services, transportation, uranium and cultural industries are subject to the \$5 million threshold for direct acquisitions and \$50 million for indirect acquisitions. Acquisitions in the cultural industries are the most sensitive. Transactions below these thresholds, and the establishment of new businesses in this sector, may be reviewable if the government so decides.

For WTO investors, the review threshold is adjusted annually to reflect economic growth and inflation in Canada. For non-WTO investors, the review thresholds are fixed.

In cases requiring a review process, the investment is judged on the basis of its "net benefit" to Canada. The Minister of Industry makes the final decision, after receiving a recommendation from the department. The Act provides for an initial review period of 45 days.

Trade-Related Investment Measures

The Agreement on Trade-Related Investment Measures (TRIMS) deals with investment measures that have an adverse effect on trade. This agreement reaffirms that foreign governments cannot require enterprises to operate in a way that restricts or distorts trade as a condition of investment (for example, requiring them to use products of domestic origin in their production). Such measures must be eliminated within a defined time frame.

TABLE 3.1
Sectoral Limitations on Foreign Investment

Sector/activity	Description of limitations
Banking	No single entity can own more than 10 percent of shares in a Schedule I bank.
Broadcasting	Foreign ownership in broadcasting facilities, including television stations, radio stations, cable systems and networks is limited to 20 percent.
Fishing	Canadian fish processing companies with more than 49 percent foreign ownership are not permitted to hold commercial fishing licences.
Uranium	Foreign ownership of uranium mining and processing projects is limited to 49 percent. Exceptions are permitted if effective control is Canadian.
Telecommunications	Direct foreign ownership is limited to 33 1/3 percent (for holding companies which control subsidiaries that are common carriers). For common carriers, which are firms that provide telecommunication services on facilities they own (e.g., a firm that provides basic telecommunications such as local telephone service on its own facilities), the limit is 20 percent. There are no restrictions on foreign ownership for firms providing "value-added" or "enhanced" services on leased facilities (e.g., electronic data transfer or long distance telephone services by a firm that is leasing facilities).
Transportation	Foreign ownership is limited to 25 percent in air transportation. Maritime cabotage is restricted to Canadian flag vessels, although there is no foreign ownership restriction on such vessels. Cabotage for bus and truck transport is reserved for Canadian drivers. However, foreign-owned companies can and do operate in Canada by hiring such drivers.

Limitations

Certain activities regulated by federal legislation have limits on the level of foreign ownership. These restrictions do not apply to nationals of NAFTA countries. Table 3.1 provides a summary of the main limitations.

Like the federal government, all provincial governments welcome foreign investment, but they too have some limitations: a special tax, for example, on the acquisition of agricultural land, or specific legislation in areas such as book publishing in Ontario and Quebec.

Investors from NAFTA Countries

The NAFTA provides for national treatment of investors from the U.S. and Mexico. NAFTA coverage extends to investments made by any company incorporated in a NAFTA country, regardless of its country of origin.

REMITTANCE OF FUNDS

There are no restrictions on the foreign investor's ability to repatriate investment or profits. Canada has no exchange controls and the Canadian currency is freely convertible to American or other currencies. There are, however, withholding taxes on the payment to non-residents of certain dividends, interest, salaries, bonuses, commissions, or other amounts for services rendered. (See Chapter 14.)

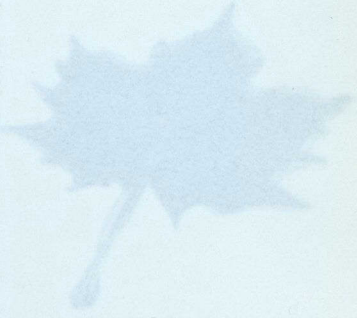
DOING BUSINESS

The day-to-day operations of a business involve countless activities. The day-to-day operations of a business involve countless activities. The day-to-day operations of a business involve countless activities. The day-to-day operations of a business involve countless activities.

The articles of incorporation must include, among other information, details on the rights, restrictions, privileges and conditions attached to each class of shares. Corporations may have one or more classes of shares, but at least one class should have full voting rights.

The corporation's articles must also name the officers and directors of whom the Canadian. The corporation's directors, elected by the shareholders, are charged with the overall management of company operations. It is possible, however, to restrict the powers of the directors through a unanimous shareholders' agreement.

The federal charter and incorporation are usually preferable when a company intends to conduct its activities in one province. Provincially incorporated companies must be registered in each province or territory in which they wish to conduct business outside the incorporating jurisdiction.





CHAPTER 13: *Operating a Business*

IT IS EASY TO ESTABLISH, operate, or expand a business in Canada. Business can be conducted using any one of several different legal structures, depending on the nature of the enterprise, the size and scope of operations and the number of people employed. The main types of business recognized under Canadian law are sole proprietorships, partnerships and limited liability corporations.

CORPORATIONS

A corporation — a separate legal entity made up of shareholders — is the most common form of business organization in Canada. Foreign companies establishing an operation in Canada usually choose this form.

A company can be incorporated in one of four ways: federally, under the Canada Business Corporations Act (CBCA); pursuant to the provisions of another federal act, such as the Trust and Loan Companies Act; under one of the provincial acts respecting corporations; or by a special act of incorporation by the federal Parliament or one of the provincial legislatures.

Corporations in Canada can be either public or private. The shareholders of a private corporation are restricted in their ability to transfer and offer shares, and may have no more than 50 shareholders. Public corporations are those which issue securities to the public.

Federal Incorporation

Federally incorporated companies are entitled to carry on business throughout Canada, but are subject to provincial laws of general application. Under federal incorporation, the CBCA makes provision for individuals or corporations to file articles of incorporation and receive a certificate of incorporation. There is a \$500 flat fee for federal incorporation.

The articles of incorporation must include, among other information, details on the rights, restrictions, privileges and conditions attached to each class of shares. Corporations may have any number of shares of one or more classes, but at least one class should have full voting rights.

The corporation's articles must also name the directors, a majority of whom must be Canadian. The corporation's directors, elected by the shareholders, are charged with the overall management of company operations. It is possible, however, to restrict the powers of the directors through a unanimous shareholders' agreement. Directors can be personally liable to the company, to shareholders or to third parties under certain provisions of federal and provincial statutes, or for damages resulting from negligence.

Provincial Incorporation

A provincial charter and incorporation are usually preferable when a company intends to restrict its activities to one province. Provincially incorporated companies must be registered or licensed in other provinces if they wish to conduct business outside the incorporating jurisdiction.



Although the provincial acts governing companies vary according to the history and local requirements of each province, they are generally similar in substance to the provisions of the CBCA. Foreign investors should be aware, though, that the legal system in Quebec differs from that in the other provinces insofar as its traditions are in the civil code as opposed to common law. Information can be obtained from the Palais de Justice in Montreal. (See Appendix A for contact information.)

Capital Structure

In capitalizing a corporation through equity shares, there is considerable scope for design of the capital structure. In general, no minimum capital requirement is set, but the company must maintain a separate capital account for each class of shares issued, to indicate the amount of consideration received in return for the shares.

Generally, no restrictions are placed on the payment of dividends by corporations, except that a withholding tax must be deducted from payments to non-residents. Also, dividends cannot be paid when doing so would impair the working capital of the corporation.

Branches of Foreign Corporations

Although most non-resident investors choose to incorporate a subsidiary, a foreign company can also carry on business in Canada directly, through a branch operation. The branch must be licensed or registered in each of the provinces in which it proposes to carry on business. There are several differences in the treatment of a subsidiary and a branch, including tax considerations and the extent of the parent company's liability. Specialists in taxation and corporate law should be consulted on these issues.

DOING BUSINESS

The day-to-day operations of a business involve countless activities: producing, labelling, packaging, insuring, selling, exporting, importing, advertising, warehousing, and so on. As practised in Canada, many of these activities will be very familiar to the foreign investor. There will, however, be variations, owing to specific Canadian customs and laws. To help the prospective investor, there are many individuals, companies and government departments with in-depth expertise of Canadian business practices.

Some of the questions that may be raised initially by the prospective foreign investor concern exporting and importing, standards and codes, accounting and audit practices, and government procurement. Tax issues, intellectual property, the regulatory framework, and government support services are also of primary interest and will be addressed in separate sections below.

Exporting and Importing

A foreign company that establishes an operation in Canada will undoubtedly be importing and exporting goods. There are a number of domestic acts and regulations at the federal level, plus international agreements, that pertain to this activity.

Investors in Canada are attracted by the ready access to the North American market. The Canada-U.S. Free Trade Agreement (FTA) and North American Free Trade Agreement (NAFTA) are, therefore, of the greatest relevance to trading from a Canadian base of operations. With the elimination or phased-in reduction of duties and other restrictions on the movement of almost all goods traded between Canada, the U.S., and now Mexico,

exporting and importing throughout North America will become increasingly barrier and duty-free.

As a member of the World Trade Organization (WTO) and a strong proponent of free trade, Canada's trade policy will continue to emphasize the elimination of trade barriers at the global level.

Duty Remission

Even in instances where duties or taxes are payable on imported goods, the federal government has programs to provide full or partial relief from payment. Many of the programs are designed to assist Canadian companies using dutiable materials and components in the production of goods for export. There are also several conditional remission programs available to manufacturers for the duty-free import of materials. (See Chapter 17.)

Customs Regulations

Customs regulations, relief from injury caused by imports, and special permits are three important components of Canada's foreign trade system. Under the Customs Act and Customs Tariff, duties are levied on goods imported into Canada. The applicable rate will be assessed by determining the tariff classification of the imported goods and their country of origin. To ensure a fair, uniform and neutral system of valuation, Canada uses the transaction-based international Customs Valuation System. If the value for duty cannot be determined on the basis of the transaction value, the Customs Act provides five alternative valuation methods.

Anti-Dumping and Countervailing Duties

Canada's Special Import Measures Act protects Canadian manufacturers from unfair competition from abroad. Canadian producers may file a complaint with Revenue Canada to the effect that the dumping or subsidizing of imported goods is injuring Canadian production. If it is concluded, after investigation, that the goods were dumped or subsidized, the case goes to the Canadian International Trade Tribunal for a final decision. If the Tribunal rule injury, an anti-dumping or countervailing duty is assessed.

Permits

Certain types of goods require permits before they can be exported or imported. Export permits are required for strategic goods — as identified in the Export Control List — destined for countries other than the United States. Exporters must also obtain permits for all exports to destinations identified in an Area Control List. Up-to-date information should be sought from Revenue Canada. (See Appendix A.)

Standards and Codes

Standards for product performance or safety can be mandated by the federal or provincial governments, or they may be voluntary. Numerous associations set voluntary standards for their industries or for a certain aspect of their business.

Some of the more important pieces of federal legislation that set mandatory standards include: the Consumer Packaging and Labelling Act, the Food and Drugs Act, the Hazardous Products Act, and the Motor Vehicle Safety Act.

The independent Standards Council of Canada (STC) is responsible for testing and certifying products and services. Certification to ISO standards is done through its wholly owned, non-profit subsidiary, the Quality Management Institute. Increasingly, meeting ISO standards

is becoming important to doing business internationally. STC also administers the National Standards System and has created the Standards Information Service.

For companies producing products in Canada, it is best to have a product certified by one of five accredited certification organizations. Once certified, the product bears a certification mark, and regular checks are performed to ensure that the product meets the standards of the relevant organization. (See Appendix A for contact information.)

Generally, laws governing the service industry are enforced at the provincial level. Information concerning licensing and certification can be obtained from the relevant provincial ministry.

Accounting and Audit Practices

Public corporations must conform to the disclosure requirements established by the federal and provincial securities authorities. In general, the financial statements of a private corporation are not disclosed to the public. However, the Canadian Business Corporations Act (CBCA) requires private corporations with gross revenues exceeding \$10 million, or with assets greater than \$5 million, to make public disclosure of financial statements, unless an exemption under the Act is obtained. Currently, there is a bill before Parliament which proposes to remove the disclosure requirement for private corporations.

All corporations incorporated under the CBCA must file financial statements with the federal Department of Industry's Director of Consumer and Corporate Affairs. Private companies are also required to file an annual report within 140 days of the corporate year-end. Further information may be obtained from Canada Corporations Branch at (613) 941-5753.

Audit and accounting standards are contained in the Canadian Institute of Chartered Accountants (CICA) handbook. The standards and practices listed in the handbook were derived from procedures used in the United States and the United Kingdom.

Accounting Standards

Accounting practices require that several basic financial statements be included in the company's annual report: the balance sheet, the income statement, the statement of retained earnings, the statement of changes in financial position, and all notes. Financial statements must be prepared in accordance with the generally accepted accounting principles found in the CICA handbook.

Audit Practices

The CBCA and most provincial Corporations Acts require that corporate records be maintained. These include shareholders' records, minutes from meetings, resolutions of shareholders, articles of incorporation, and accounting records.

The CBCA stipulates that the shareholders of an incorporated corporation appoint an auditor at each annual meeting of the shareholders. The auditor and its affiliates must be independent of the corporation they are auditing. The auditor is required to state whether it feels the financial statements fairly represent the business' financial position, and whether the financial statements are in accordance with generally accepted accounting principles.

Income greater than \$10,000,000 used for large business rate.

Source: Deloitte & Touche.

Information on the tax system, comparisons and incentives has been prepared by the firm Deloitte & Touche. It is reprinted here with their permission.

Procurement Opportunities

The federal government, through its Open Bidding Service (OBS), lists more than \$5 billion in bid opportunities each year. The federal purchasing department is Public Works and Government Services Canada, which advertises nationally most competitive procurement opportunities for goods and services valued between \$20,000 to \$25,000. Contracts valued at \$25,000 or greater, including NAFTA contracts, must be listed on the OBS. These are listed in the OBS, an electronic bulletin board, and in the Government Business Opportunities magazine.

The OBS permits any supplier to access information on federal government procurement and match its capabilities against requirements. This makes the system fair and accessible to all suppliers.

Standards and Codes

The CICA stipulates that the shareholders of an incorporated corporation appoint an auditor at each annual meeting of the shareholders. The auditor and its affiliates must be independent of the corporation they are auditing. The auditor is required to state whether it feels the financial statements fairly represent the business' financial position, and whether the financial statements are prepared in accordance with generally accepted accounting principles. In addition, the Consumer Packaging and Labeling Act, the Food and Drugs Act, the Hazardous Products Act, and the Motor Vehicle Safety Act.

The Independent Standards Council of Canada (ISCC) is responsible for testing and certifying products and services. Certification to ISO standards is through its wholly owned subsidiary, the Quality Management Institute. Increasingly, meeting ISO standards



CHAPTER 14: Tax Issues³



CANADA'S TAX SYSTEM is both competitive and stable. On average, corporate taxes in Canada, especially for small businesses, are lower than in the U.S. There are also numerous programs at the federal and provincial levels that offer attractive tax incentives for businesses. For example, the investment tax credit for spending on research and development is especially advantageous. In addition, business can count on the government to keep the tax system stable and predictable over the longer term. Despite the need to reduce budgetary deficits, the federal and provincial governments have opted for a strategy of cutting spending instead of raising taxes.

A COMPETITIVE CORPORATE TAX ENVIRONMENT

The majority of manufacturing firms pay lower tax rates in Canada than in the U.S. Table 3.2 compares the combined federal and state tax burden in several U.S. states with Canada's largest provinces, for both large and small manufacturing corporations.

In the case of large corporations, Canada offers a competitive tax regime that compares favourably to that of the United States. In the case of smaller corporations, Canada offers a much more accommodating tax environment, and small business pays lower marginal tax

TABLE 3.2
Large and Small Business* Tax Rate Comparison: United States & Canada

	Percentage tax rate	
	Large business	Small business**
CANADA		
Quebec	31	19
Ontario	35	23
British Columbia	38	23
Alberta	36	19
UNITED STATES***		
California	41	37
Michigan	37	32
New York	41	36
Ohio	41	37
Washington	35	31
Massachusetts	41	37
Illinois	38	34
Wisconsin	40	36
New Jersey	41	37

* Manufacturing firms only.

** Small business rates on \$200,000 of taxable income.

***U.S. Tax Rates Effective as at December 31, 1994. Maximum rate of 35 percent for companies with taxable income greater than \$10,000,000 used for large business rate.

Source: Deloitte & Touche.

³ Information on the tax system, comparisons and incentives has been prepared by the firm Deloitte & Touche. It is reprinted here with their permission.

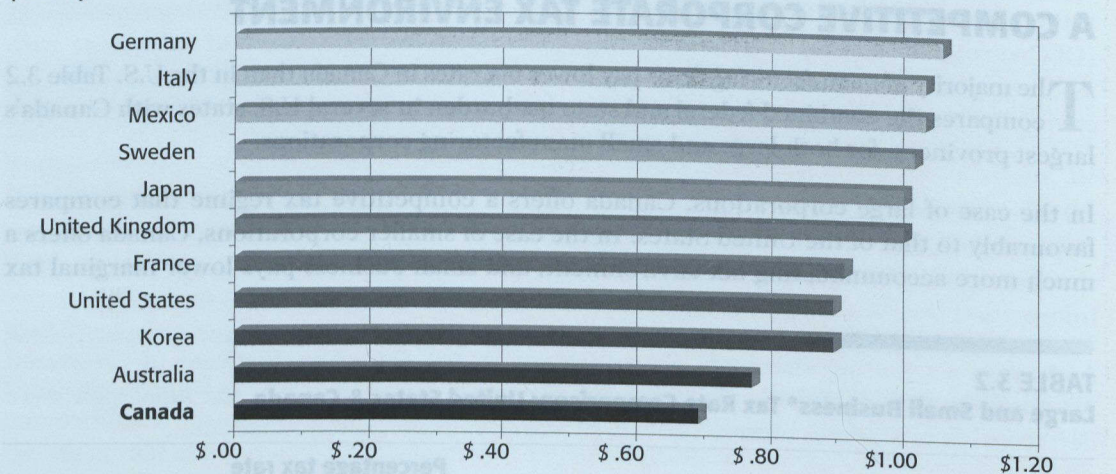
rates in every province across the country, when compared to combined American federal and state taxes.

R&D Tax Incentive: An Invitation to Invest

Technology-intensive manufacturers performing research and development (R&D) in Canada can realize significant cost savings as a result of the favourable tax treatment of R&D.

Canada's R&D tax incentives are among the most generous available. A 1994 study by the Conference Board of Canada calculated that among eleven major industrialized countries, including all G7 countries, the after-tax cost of R&D expenditures in 1993 to 1994 was the lowest in Canada. (See Figure 3.1.)

Figure 3.1: Cost of Doing \$1.00 Worth of Research, 1993-1994 (\$ Cdn)



Source: The Conference Board of Canada, June 1994.

This advantage flows from enhanced tax treatment of R&D and strong federal and provincial tax incentives. Assuming maximum use of available tax credits, the federal corporate tax (coupled with provincial manufacturing and processing taxes) produces tax rates generally in the range of 18 to 23 percent for small companies and 35 to 41 percent for large companies.

Companies can either write off immediately, or defer at their discretion, current and capital R&D expenditures made in Canada.

The federal Scientific Research and Experimental Development investment tax credit is 20 percent of all qualifying current and capital expenditures. For small Canadian-controlled private corporations,⁴ the tax credit is raised to 35 percent of the first \$2 million of qualifying R&D expenditures. The tax credit is available for both incremental and non-incremental R&D expenditures and is refundable, within limits and provided it is not used to offset taxes payable.

In 1991, a total of \$1 billion was claimed in R&D investment tax credits by corporations conducting R&D in Canada.

⁴ Canadian-controlled private corporations are companies with a minimum of 50 percent Canadian ownership whose shares are not traded on a stock exchange and who are not controlled by any combination of non-resident or public corporations. A small corporation is one which has taxable income, together with the taxable incomes of all its associated corporations, less than or equal to \$200,000 in the preceding taxation years.

Basically, for every \$1 you invest in R&D for eligible expenses you get a 35 percent refund. So you invest \$2 million in R&D you could get \$700,000 back. In addition to which, of course, your R&D expenses go under your expense line, reducing your taxable earnings. I am not aware of anything comparable in the United States or elsewhere.

Dr. R.D. Samuel Stevens

President, Solarchem Environmental Systems

In addition to the federal government R&D tax incentive, many Canadian provinces offer generous tax incentives for incremental and non-incremental R&D activity.

In a March 1995 study, the accounting firm Deloitte & Touche calculated that for a large, foreign- or Canadian-controlled manufacturing company eligible for the 20 percent tax credit, the after-tax cost of performing \$1,000 worth of R&D would be \$471 in Quebec, \$493 in Ontario and an average of \$520 in the other provinces. The after-tax cost for a small, Canadian-controlled manufacturing company would be even less: \$392, \$429 and \$501, respectively.

The substantial cost advantages of performing R&D in Canada are available to Canadian subsidiaries of foreign-based firms. Additionally, corporations can benefit from the lower R&D costs in Canada by contracting to a Canadian firm or by entering into joint-venture relationships.

Canadian R&D Costs Lower than in the U.S.

The preferential treatment of R&D in Canada means lower costs than in the United States. The extent of the advantage is considerable.

With the Canadian R&D tax incentives, we estimate that we can get three engineers for the price of two in U.S. high-tech areas.

Richard Peabody

President and Director General
Harris Farinon Canada

The March 1995 Deloitte & Touche study showed that a large, Canadian-based subsidiary of a foreign manufacturing company would realize large after-tax cost savings by performing non-incremental R&D in Canada rather than in the U.S. The additional savings in Quebec and Ontario were the equivalent of 20.1 and 16.4 percent, respectively, of the after-tax cost of R&D performed in the United States. The average cost savings for the other provinces was 11.9 percent, but higher in Manitoba, Nova Scotia and New Brunswick where tax credits are also available. Small company savings are even greater, at 37.8 and 31.9 percent, respectively, in Quebec and Ontario, and an average of 20.5 percent in the other Canadian provinces excluding Manitoba, Nova Scotia and New Brunswick.

The Canadian tax regime can significantly reduce a foreign corporation's R&D cost if R&D is conducted in Canada, either through direct investment or indirectly, through a sub-contracting arrangement. By sub-contracting R&D to a small Canadian-controlled private corporation, a foreign contractor can benefit from a higher investment tax credit (ITC) offered to smaller R&D performers in Canada, as well as more generous tax incentives in some provinces.

TAXATION IN CANADA: AN OVERVIEW

In Canada, all three levels of government — federal, provincial or territorial, and municipal — levy taxes on both individuals and businesses. The federal government levies an income tax, capital tax, excise tax, customs duties and a consumption tax. The provincial and terri-



torial governments impose income tax, retail sales tax, capital tax, payroll taxes and taxes or royalties on natural resources. At the municipal level, there are property taxes and school taxes.

TABLE 3.3
Canada-U.S. Comparison of R&D Tax Credits

Canada	United States
Option to defer claim	Only immediate write-offs
Total cost of arms length contracted R&D eligible	Only 65 percent of contracted R&D eligible
Equipment costs qualify	Equipment costs do not qualify
Canadian travel costs qualify	Travel costs do not qualify
Employee benefits eligible in certain circumstances	Only direct salary eligible
Option to claim tax credits on proxy amount instead of overhead	No proxy amount available

Corporate Income Tax

In general, all corporations resident in Canada are subject to income tax. Companies residing within Canada are taxed on income earned world-wide, subject to the provision of various income tax treaties. For corporations residing outside of Canada, taxable income is derived from all income earned from carrying on business in Canada and in respect of the disposition of taxable Canadian property, for example, Canadian real estate.

Canada does not have a net wealth or net worth tax. There are no inheritance or gift taxes in Canada, but gifts may give rise to an income tax charge on a deemed disposition, and there are special rules that apply in respect of transfers of property within a family and upon the death of a taxpayer.

Federal Corporate Income Tax

Generally, the federal tax rate is 28 percent. The tax rate on Canadian manufacturing and processing (M&P) profits is generally 21 percent. For most small Canadian-controlled private companies, the federal tax rate on the first \$200,000 of taxable income is 12 percent, regardless of whether it is a manufacturing company. There is also a surtax of 4 percent of the basic federal income tax before the M&P and small business tax rate deductions.

DEDUCTIONS

As a general rule, any reasonable expenditure incurred to produce income from a business or property is fully deductible from income. Depreciation for tax purposes, called Capital Cost Allowance (CCA), is generally calculated on a pooled basis, with fixed assets being grouped together into a relatively small number of CCA classes, each with a separate rate that can vary from 4 percent for buildings to 100 percent for moulds and tools. In the year in which a depreciable asset is acquired, the maximum allowance is generally limited to 50 percent of the normal rate.

Generally, where a corporation incurs an operating loss, that is, a non-capital loss, for tax purposes, the loss may be used to reduce the corporation's income from other sources in the year. Unused non-capital losses for a year may be carried back up to three years, and carried forward up to seven years.



THE LARGE CORPORATIONS TAX

A federal tax called the Large Corporations Tax (LCT) is applied at a rate of 0.225 percent on the amount by which a corporation's Canadian taxable capital exceeds \$10 million. A corporation may reduce its LCT payable by the amount of federal surtax payable in the year. The amount by which the surtax exceeds the LCT otherwise payable becomes a surtax credit which can be carried forward seven years and back three years. Non-resident owned investment corporations and corporations that are neither resident in Canada at any time in the year nor carrying on business from a permanent establishment in Canada at any time in the year are exempt from the LCT.

TAX INCENTIVES AND SPECIAL TAX MEASURES

In addition to the Scientific Research and Experimental Development investment tax credit, the federal tax system offers the Atlantic Investment Tax Credit (AITC). This is calculated as a specified percentage of eligible expenditures on buildings, machinery and equipment employed in farming, fishing, logging, mining, oil and gas, and manufacturing and processing in the four Atlantic Provinces, the Gaspé region, or their associated offshore areas. The rate is 10 percent for expenditures made after 1994, and is claimed as a tax credit against federal income tax otherwise payable.

Provincial Corporate Income Tax

Provincial income tax is calculated on the basis of taxable income allocated to each province in which a corporation has a permanent establishment. The allocation is usually made on the basis of the average of two ratios: the ratio of gross revenues earned in each province to total gross revenues and the ratio of wages and salaries paid in each province to total wages and salaries paid. The appropriate provincial income tax rate (or rates) is then applied to the resulting amount of taxable income to calculate provincial tax payable. (See Table 3.4.)

Taxation of Individual Income

Individuals resident in Canada are taxed on their world-wide income. An individual is normally deemed to be a resident of Canada after residing in Canada for 183 days or more during a year.

Income subject to tax includes salary, wages, commissions, gratuities, director's and other types of fees, and any other remuneration or taxable benefit received by the individual from an office or employment during the year.

Income from property is the return on invested capital and includes interest, dividends, rents and royalties. Currently, 75 percent of capital gains must be included in income for tax purposes. Similarly, 75 percent of capital losses can be used to offset capital gains realized in the year. Net capital losses may be carried back three years and forwarded indefinitely, but can only be deducted from taxable capital gains in the carry-over period.

For employees, both federal and provincial income tax on salaries and wages are deducted by the employer at source. Tax credits are deducted from taxes payable rather than from income. Some major personal income tax credits include a basic personal credit of \$1,098 and a married credit of up to \$915.

The federal government also levies a surtax on the basic tax liability of taxpayers. On basic federal tax of 0 — \$12,500, the rate is 3 percent. The rate increases to 8 percent on basic federal tax of \$12,501 and over.



TABLE 3.4
Provincial and Territorial Corporate Income Tax Rates, July 1995
 (percent of taxable income)

Province	General rate	Manufacturing and processing rate	Small business rate
Newfoundland	14.0	5.0	5.0
Prince Edward Island	15.0	7.5	7.0
Nova Scotia	16.0	16.0	5.0
New Brunswick	17.0	17.0	9.0
Quebec	16.25	8.9	5.75
Ontario	15.5	13.5	9.5
Manitoba	17.0	17.0	9.0
Saskatchewan	17.0	10.0	8.0
Alberta	15.5	14.5	6.0
British Columbia	16.5	16.5	10.0
Northwest Territories	14.0	14.0	5.0
Yukon	15.0	2.5	6.0

Provincial personal income tax is calculated as a percentage of basic federal tax in all provinces except Quebec, which levies its own income tax. Basic personal income tax rates range from 45.5 percent to 69 percent of basic federal tax, except in Quebec where income tax rates range from 16 percent to 24 percent of taxable income. Various provinces also levy flat taxes and surtaxes and provide provincial tax credits.

TABLE 3.5
Federal Personal Income Tax Rates, 1995
 (in percent)

Taxable Income	Federal Tax Rate
0 – \$29,590	17
29,591 – \$59,180	26
\$59,181 and over	29

Taxation of Non-resident Corporations and Individuals

Canada has entered into tax treaties with other countries to avoid double taxation on the same income and to prevent tax evasion. The provinces are not party to the formal tax treaties, but normally adhere to the provisions of the treaties. See Table 3.6 for a list of the countries with which Canada has concluded a tax treaty as of 1994.

Withholding Tax

In the case of payments to a non-resident individual, corporation or partnership, a withholding tax is applied to payments of dividends, interest, salaries, bonuses, commissions, royalties, or other amounts for services rendered, as well as payments of pension benefits and retiring allowances.

The statutory rate of Canadian withholding tax on payment to non-residents is 25 percent. This is generally reduced to 5, 10 or 15 percent by Canadian tax treaties. Certain types of income, such as interest on government bonds and certain corporate bonds, are exempt from the withholding tax.

Management fees paid by a Canadian company to a non-resident head office are subject to withholding tax at normal rates. However, where the fee is for a specific cost or service, or



TABLE 3.6
List of Countries with which Canada has a Tax Treaty
 (as of 1994)

Australia	Austria	Bangladesh	Barbados	Belarus
Belgium	Brazil	Cameroon	Peoples Republic of China	Cyprus
Czech Federal Republic	Denmark	Dominican Republic	Egypt	Finland
France	Federal Republic of Germany	Guyana	Hungary	India
Indonesia	Ireland	Israel	Italy	Ivory Coast
Jamaica	Japan	Kenya	Republic of Korea	Luxembourg
Malaysia	Malta	Mexico	Morocco	Netherlands
New Zealand	Norway	Pakistan	Papua New Guinea	Philippines
Poland	Romania	Russian Federation	Singapore	Slovak Federal Republic
Spain	Sri Lanka	Sweden	Switzerland	Thailand
Trinidad and Tobago	Tunisia	United Kingdom	United States	Zambia

for indirect expenses that can reasonably be considered as having been incurred on behalf of the Canadian company, there is no withholding tax. The tax authorities will disallow a deduction from income for excessive charges and will also impose the withholding tax on excessive fees.

Non-resident Corporations and Branch Operations

A non-resident corporation is subject to tax on the income the business earns in Canada and on the gains from the sale or disposition of taxable Canadian property. The tax is computed on the same basis and at the same rates as for a resident corporation, except that the non-resident corporation would not be eligible for certain tax provisions such as the lower tax rate for certain Canadian-controlled private corporations that are small businesses.

The taxable income of a branch is treated in the same manner as if the branch were a foreign-controlled subsidiary carrying on business in Canada. An additional tax of 25 percent applies to that part of a non-resident's taxable income from branch operations in Canada that is not reinvested in the Canadian business. This rate may be reduced by treaty. Consultation with specialists in tax accounting may avail a company of this rate reduction.

This additional tax also applies to corporations resident in Canada that are not Canadian corporations, and to non-resident or non-Canadian corporations carrying on business in Canada as members of partnerships.

Non-resident Members of a Partnership

A non-resident partner is subject to tax on that share of the partnership's business income which is derived from business activity carried out in Canada. If the partnership's income

includes amounts earned outside Canada, the non-resident partner can exclude that portion of such income from Canadian taxable income.

Non-resident Individuals

Employment income, business income and taxable capital gains on Canadian property derived in Canada by a non-resident individual are subject to income tax in generally the same manner and at the same rates as income of a resident. Certain other amounts, such as dividends, interest and rents paid or credited to non-residents by residents of Canada are subject to a withholding tax of 25 percent. In many cases, this rate is reduced by treaty. This withholding tax is applied only on amounts that are not taxed as income of a resident.

Federal Goods and Services Tax

The Goods and Services Tax (GST) is a broadly based consumption tax similar to the value-added taxes levied in other countries, and is charged at a rate of 7 percent. The GST is collected at every step in the production and distribution chain with appropriate input credits given to producers to avoid tax cascading. The GST is charged on most of the goods and services in the economy.

There are two significant categories of goods and services which do not attract the GST: tax-exempt supplies, and zero-rated supplies. Supplies defined as tax-exempt, for example, financial services, are not subject to GST. The tax paid on inputs to tax-exempt supplies cannot be claimed as a GST input tax credit. Zero-rated supplies are similar to tax-exempt supplies in that no tax is charged on sales. However, the registrant may claim the GST input tax credit on inputs for these supplies, for example, on basic groceries.

All supplies delivered in or outside of Canada to a GST registrant if the property is for use or benefit in Canada, are subject to the GST regardless of whether they are domestically produced or imported.

Imported and Exported Supplies

Since the GST is a tax on consumption in Canada, it applies to imports of both goods and services. For goods crossing the border, the GST is paid at Canadian Customs upon entering the country along with any other custom duties. For registrants importing services or intangible property which are intended for use exclusively in a commercial activity, GST is neither paid nor is an input tax credit received. Where the imported service is not for use in a commercial activity — that is, it is supplied to a financial institution — the importer is required to self-assess the tax payable.

Exports are zero-rated under the GST: no tax is charged by the exporter, and all GST paid on inputs to the exported supply is refunded to the exporter through the input tax credit system.

Excise Duties and Taxes

The federal government also levies excise duties and taxes on a number of specific goods and services including: gasoline, aviation gasoline, diesel fuel, beer, spirits, wine, cigarettes and tobacco, and jewellery. Excise duties and taxes are levied as either a specific amount per item or as a percent of value.

Provincial Retail Sales Tax

Retail sales tax is levied by nine of the ten provinces. Alberta and the two territories, Yukon and the Northwest Territories, do not levy a sales tax. Provincial tax rates range from 6.5 to 12 percent. Input tax credits are available for producers.

CHAPTER 15: *Protection of Intellectual Property*



A LONG-ACCEPTED PRINCIPLE of fair business practice is that innovators should be allowed to reap a return from inventions, formulas, processes and other types of intellectual property. Canadian law recognizes this principle. It reflects the fact that Canada is a co-signatory to all major international conventions on the protection of intellectual property. It has carried out these commitments by passing and enforcing an effective body of domestic legislation designed to define and protect patents, trademarks, copyrights, and industrial designs as well as newer forms of intellectual property such as genetic innovations and integrated circuits.

Intellectual property in Canada is protected by six pieces of federal legislation: the Patent Act; Trademarks Act; Copyright Act; Industrial Design Act; Canadian Plant Breeders' Rights Act; and the Integrated Circuit Topography Act. These Acts are administered by the Canadian Intellectual Property Office of the federal Department of Industry, with the exception of the Plant Breeders' Rights Act, which is administered by Agriculture and Agri-Food Canada.

PATENTS

A patent is a grant from the Government of Canada giving the inventor the right to exclude others from making, using or selling an invention in Canada for 20 years. An invention is any new and useful process, machine, manufacture or composition of matter, or a new and useful improvement of these. You may apply for a patent at the Canadian Intellectual Property Office. (See Appendix A for contact information.)

In Canada, patents are issued on a "first-to-file" basis. Patent protection is covered by the Paris Convention for the Protection of Industrial Property. The Convention ensures that the filing date in one member country is recognized by all the others, provided that the filing is made in the other countries within a year of first filing.

An applicant who is not a resident of Canada, or who does not maintain an address in Canada, must appoint a Canadian resident to be the representative for service. The application must include a letter from the representative stating willingness to take on this role. All notices of proceedings will be presented to the representative, once the patent has been issued.

TRADEMARKS

A trademark is a word, symbol, or picture, or a combination of these that is used to distinguish the goods or services of one person or organization from the goods or services of others. Although registration is not necessary, it does simplify the protection of ownership.

Trademarks are registered for a term of 15 years, and can be renewed without limitation. Registration of a trademark gives the owner exclusive right to use the trademark throughout Canada.

Applicants who do not reside in Canada, or who do not have an office or place of business in Canada, must nominate an individual or firm to whom any notice concerning a trademark

and its application can be sent. Before registration of a trademark is granted, the applicant must confirm that use of the trademark in Canada has commenced.

COPYRIGHT

Copyrights can be granted for literary, artistic, dramatic and musical works, giving the creator the sole right to make and sell copies, and to profit monetarily from developing the copyrighted material. A copyright is granted for the expression of an idea, not for the idea itself. It is not a requirement to register the copyright in Canada, but it is advisable to provide proof of ownership.

As a member of the International Copyright Convention (Berne Convention), Canada automatically grants copyright to authors' works upon creation or first publication, provided the author is a citizen or subject of a Commonwealth or Berne Convention country. Canada also extends this copyright privilege to U.S. citizens, provided they are the first to publish in the United States. Generally, copyright in Canada lasts for the life of the author and 50 years following death.

The Canadian Copyright Act now provides for improved protection of computer programs, choreographic work, certain artistic works used in character licensing, and exhibition rights for artistic work including stricter penalties for commercial piracy.

INDUSTRIAL DESIGN

An industrial design is any original shape, pattern, or ornamentation applied to an article of manufacture. It is necessary that the article be made through an industrial process. In Canada, a design patent is valid for 10 years subject to a maintenance fee.

A design application must be filed within one year of its first publication. An application can only be filed by the proprietor of the design. Any industrial design may be registered by filing an application with the Commissioner of Patents.

PLANT BREEDERS' RIGHTS

Plant breeders are provided with an exclusive right to new, distinct, uniform and stable varieties of plants they formulated. This right extends over a period of 18 years. The holder of the right can produce and sell reproductive material, use the patented variety to produce other varieties, use ornamental plants or parts thereof as commercial publicity, and provide to others the licence to do the same. Current regulations protect 23 plant categories, including grain, fruit, vegetables and flowers.

PROTECTION OF INTEGRATED CIRCUITS

Individuals can apply for the exclusive right to the design or "topography" of integrated circuits. These rights protect the design for a ten-year period. Applications must be filed in Canada within two years of the first commercial exploitation of the circuit anywhere in the world. The design can be used by others for the purpose of analysis, evaluation, research or teaching, but may not be used for commercial purposes.

CHAPTER 16: *The Regulatory Framework*

MARKET ECONOMIES THRIVE on free and open competition. However, that competition must be fair. To ensure that it is, governments around the world pass and enforce laws and regulations designed to protect businesses from monopolies, price fixing, insider trading, and other forms of anti-competitive behaviour. At the same time, governments pass laws to protect workers, consumers and the environment. In this regard, Canada follows the examples, precedents and practices found in other advanced industrialized societies.

COMPETITION

The Competition Act is the principal competition legislation in Canada. As its name implies, the Act aims to encourage competition among Canadian businesses. To do so, the government has to enforce regulations that eliminate restrictive trade practices of a criminal nature, such as conspiracy, bid-rigging, price discrimination, resale price maintenance and misleading advertising. The Act also governs civil matters such as mergers and restrictive trade practices.

Criminal charges are handled in the regular criminal courts, while civil aspects are determined by the Competition Tribunal, an administrative body. In matters concerning competition, Canada has a lower incidence of civil litigation and government prosecutions than in the United States. This is in keeping with Canada's generally less litigious legal environment.

Mergers

Mergers that substantially lessen competition may be prohibited by order of the Competition Tribunal. Several factors determine this:

- its effect on foreign competition;
- failure, or the likely failure, of one of the companies;
- present and future availability of substitutes of the product;
- the existence of entry barriers into the relevant market and the effect the merger will have on these barriers;
- post-merger competition; and
- the likelihood of a competitor being removed.

There are two exceptions or defences to prohibiting a merger. One is when it can be shown that efficiency gains will offset the effects resulting from a decrease in competition. The other is when a joint venture is formed for specific research and development programs. In these two cases, mergers will be permitted.

Abuse of Dominant Position

This provision of the Competition Act was established to define the boundary between productive and anti-competitive behaviour for firms with considerable market power. Abuse of a dominant position occurs when one or more persons wielding significant market power commits anti-competitive acts, such as vertically integrating scarce facilities or resources



required by competitors, buying products to prevent a reduction in price, or specifying that a supplier can only sell to certain customers. The Competition Tribunal can levy a variety of corrective remedies.

LABOUR LAWS AND REGULATIONS

Employment law falls primarily within the jurisdiction of provinces. Canada's Labour Code is limited to activities that are deemed to be for the general advantage of Canada or two or more provinces, including navigation, rail and air transportation, and broadcasting.

Human Rights, Fair Employment and Labour Codes

Human rights provisions, fair employment practices, equal pay and anti-discrimination laws are embodied in the Canadian federal and provincial labour codes and in various human rights codes. Discrimination by race, religion, colour, creed, sex, age or other factors is prohibited. All jurisdictions have laws requiring employers to pay men and women equally for the same work.

Statutory Employment Standards

The minimum wage, minimum working age, hours of work, vacation pay, maternity and parental leave, and notification of termination of employment are governed by provincial statute.

Minimum Wage

All jurisdictions have enacted minimum wage legislation. Rates for experienced adult workers vary according to jurisdiction, and currently range between \$4.00 and \$7.00 per hour. (See Table 3.7.) Some jurisdictions establish special rates which apply to students, young workers, trainees, farm workers, domestics and various other classes of employees.

TABLE 3.7
Minimum Wage Rates by Jurisdiction, 1995
(\$/hour)

Jurisdiction	Rate
Federal	4.00
Newfoundland	4.75
Prince Edward Island	4.75
Nova Scotia	5.15
New Brunswick	5.00
Quebec	6.00
Ontario	6.85
Manitoba	5.25
Saskatchewan	5.35
Alberta	5.00
British Columbia	7.00
Northwest Territories	6.50*
Yukon	6.72

* \$7.00 in areas distant from the NWT highway system.

Minimum Working Age

The Canada Labour Code and various provincial employment standards acts, safety acts, education acts and welfare acts establish minimum working ages according to the type of work to be performed.

Hours of Work

Provisions for standard hours of work per day and per week are legislated in each of the provinces and territories as well as in the Canada Labour Code. Standards governing the work day and work week set out the maximum hours for which regular wages can be paid. With some exceptions, additional work must be paid as overtime at stated rates. At least one rest day must be scheduled per week.

Annual Vacations and Statutory Holidays

Legislative provisions in most of the provinces and territories as well as in the Canada Labour Code provide a minimum of two weeks for annual vacation. Vacation pay is generally set at a minimum of 4 percent of annual earnings, rising by 2 percent per additional week of vacation entitlement.

In addition, federal, provincial and territorial legislation establishes a minimum number of statutory holidays, ranging in number from five to nine, depending on the jurisdiction. (See Appendix E.)

Maternity and Parental Leave

Legislation in all jurisdictions provides maternity and parental leave varying from 17 to 41 weeks. In most provinces, an employee is entitled both to leave and job security if he or she has been continuously employed by the employer for at least one year. Six provinces — Alberta, Manitoba, Nova Scotia, Prince Edward Island, Quebec and Saskatchewan — also have legislation dealing with paternity and adoption leave.

Notification of Employment Termination

Employees may be terminated for cause, such as incompetence or incapacity. As well, layoffs can occur due to lack of business, reorganization or redundancy. Termination may be subject to legal interpretation and argument.

The Canada Labour Code and labour codes in all provinces and territories require that the employer give notice of termination to individuals. In many provinces, the employee is under an equal obligation to notify the employer before quitting. Advance notice of projected layoffs of groups is required in all Canadian jurisdictions except Alberta, Prince Edward Island and Saskatchewan.

Pensions

Enacted in 1966, the Canada Pension Plan provides workers and their families with a basic level of income protection in the event of retirement, disability or death. Paid workers between the ages of 18 and 70 have access to the plan regardless of location or occupation. Quebec has a separate, comparable plan.

The plan works by a system of contributions and benefits. Employers and employees contribute equal amounts, based on the employee's salary and capped by a maximum amount, determined annually. At age 65, the employee is eligible to receive benefits, but may opt to defer benefits to age 70 and continue to contribute. After age 70, no further contributions can be made.

Employment Insurance

The federal government is in the process of introducing a new Employment Insurance program that will replace the previous income protection system. The income benefits under the new system are being redesigned to align benefits more closely with the number of hours worked.

Among the many proposed changes, the benefits to be paid out under the program would be reduced in 1996. The payout to people insured under the program would drop mainly as the result of a significant cut — from \$815 to \$750 per week — in the maximum level of insurable earnings. This is estimated to lead to potential savings to employers and employees of around \$900 million per year. There would be additional savings of about \$350 million per year resulting from a small reduction in the premium rate.

The proposals also introduce new “employment benefits” to help the unemployed get jobs. These include such programs as self-employment assistance and job creation partnerships. The National Employment Service is also being improved with online job matching services and an automated job market information system.

Some of the proposed Employment Insurance changes, such as the legislation for the lower premium rate, are expected to be introduced early in 1996, with a starting date of January 1, 1996. Other changes are expected to be made gradually, beginning in July 1996.

Workers Compensation

All jurisdictions have a workers’ compensation program and funds to provide benefits for workers suffering job-related injuries and diseases. These funds are supported by the employer at compulsory rates set for each industry and situation by the various provincial Workers’ Compensation Boards.

Occupational Safety and Health

Like the federal jurisdiction, each province has legislation, procedures and measures to promote and ensure occupational safety and health. Provincial authorities conduct inspections of potentially hazardous sites to ensure that safety and health standards are being met.

Fringe Benefits

Canadian businesses commonly provide non-legislated fringe benefits to their employees. These could include insurance plans, supplementary health and dental care plans, as well as salary continuation plans such as long-term disability.

Foreign Personnel

Non-residents may commence temporary work assignments once they have obtained an employment authorization. The prospective Canadian employer is responsible for acquiring this. For a temporary offer to be approved, employers must demonstrate that they are unable to locate a qualified, available Canadian citizen or landed immigrant to do the job.

PACKAGING AND LABELLING

The Consumer Packaging and Labelling Act protects consumers from misrepresentation in packaging and labelling, and helps to distinguish products. The Act applies to importers, retailers, manufacturers, processors and producers. It prohibits dealers from selling, advertising or importing pre-packaged goods into Canada unless the affixed label complies with Canadian labelling standards.

General Labelling Conditions

With certain exceptions, bilingual labelling is mandatory on pre-packaged goods in Canada. Quebec law requires that items distributed in that province have French-language labels or be accompanied by a French-language version. The quantity must be stated in metric units, the common name of the product and its net weight must be indicated, and the principal place of business of the individual by whom or for whom the product was manufactured must also be shown. The Act also regulates standard container sizes and shapes.

The Customs Act requires 60 categories of goods to have the country of origin of the goods clearly and legibly marked on them. If the goods are not properly labelled, they must be so marked on their arrival in Canada. Examples of these categories are: goods for personal and household use; hardware; novelty and sporting goods; paper and printed products; and clothing apparel.

Food Products

Labels on food products must display the common name and net quantity of the food as well as the name and address of the company. Most pre-packaged food products also must contain a list of ingredients; a "best before" date, at which time the food is no longer top quality; storage instructions; presence of artificial flavouring; and, if the number of servings is indicated, the size of each serving. Nutritional labelling may or may not be mandatory, but is recommended due to consumer preferences and the possibility of government regulation. Information can be obtained from Agriculture and Agri-Food Canada's Food Inspection Branch. (See Appendix A for contact information.)

ENVIRONMENTAL LAW

Concern for the environment continues to grow. In response, governments are regulating the disposal, generation and storage of waste materials, and establishing limits on the emission or discharge of contaminants. Many provinces require a permit for waste disposal and transport. As well, guidelines are established for the clean-up of sites. The directors and officers of a company can be held personally liable for any contravention of environmental protection legislation.

LAND AND REAL ESTATE

The development of land for commercial, industrial, residential, public recreational or cultural uses is regulated. Typically, land development is regulated provincially and governed by local municipalities.

All land developers are required to obtain an official plan, a document that contains the objectives and policies for physical development in the affected municipality. The plan, initially prepared by the municipality but approved at the provincial level, considers all relevant social, economic and environmental matters pertaining to land development. It also includes regulatory devices for land division such as by-laws and systems controls. One public meeting is held to discuss the plan.

Zoning by-laws regulate the type of construction, height, bulk, location, size, floor area, spacing, character and use of buildings or structures that can be built in that area, as well as the density of development. Prior to enacting a zoning by-law, at least one public meeting must be held. The municipality's zoning decision can be appealed.

Other considerations for land use are whether the area has been designated for community improvement projects, site plan control, or demolition control.

Workers Compensation

All employers with a workforce of more than one employee are required to provide workers compensation insurance for their employees. The employer is responsible for paying the premiums. The insurance covers the cost of medical care, rehabilitation, and replacement of lost wages if the employee is unable to work due to a work-related injury or illness. The amount of compensation is based on the employee's earnings and the duration of the disability. Employers must also provide information about the insurance to their employees.

Environmental Law

Concern for the environment continues to grow. In response, governments are regulating the construction and storage of waste materials, and establishing limits on the emission of pollutants. Many provinces require a permit for waste disposal and transport. As well, guidelines are established for the clean-up of sites. The director and officers of a company can be held personally liable for any contravention of environmental protection legislation.

Foreign Personnel

Non-residents may commence temporary work assignments only upon obtaining an employment authorization. The prospective Canadian employer must demonstrate that they are in need of foreign personnel. For a temporary offer to be approved, employers must demonstrate that they are unable to hire Canadians for the position. Typically, land development is regulated provincially and governed by local municipalities.

CHAPTER 17: *Government Support Programs*



IN SEEKING TO PROVIDE an attractive and welcoming business environment, governments primarily focus on sound policies that allow companies to develop and flourish within a stable economic climate and reasonable regulatory environment. In addition, however, governments can also provide direct assistance to business through incentives and support programs. Foreign companies investing in Canada can take advantage of many of these. They tend to focus on regional development, trade and investment promotion, or human resource development. In most cases, this assistance takes the form of repayable or non-repayable contributions up to a specified amount.

REGIONAL DEVELOPMENT PROGRAMS

There are four federally funded regional development programs to encourage economic development in Western Canada, Northern Ontario, Quebec and Atlantic Canada. In implementing these programs, the federal government works in close co-operation with provincial counterparts, often on a cost-shared basis. (See Appendix A for more information.)

Within regions, a broad range of investment incentives are offered by provincial, regional and local governments. These vary greatly and may take the form of repayable contributions, interest-free or interest-reduced loans, training, tax incentives and business consulting.

TRADE AND INVESTMENT PROMOTION

The federal government, mainly through its Department of Foreign Affairs and International Trade (DFAIT), offers a number of programs to promote international trade and investment. DFAIT officers can provide potential investors with information on investment opportunities and advise on the range of government programs available to companies establishing in Canada. (See Appendix A for contacts.)

Duties Relief Program

Within its overall tariff and trade policy, the federal government offers Canadian-based industry various programs to relieve duties. These provide either full or partial relief from customs duties and taxes paid or payable on imported goods. The programs cover a wide range of situations and categories of goods.

The duties relief programs of most interest to potential foreign investors are the Inward Processing Program, the Duty Drawback Program and the Machinery Program. The latter provides for relief of customs duties on certain machinery and equipment that are not available from Canadian manufacturers. Other programs assist Canadian-based companies when otherwise dutiable materials and components are used in the production of goods intended for export.



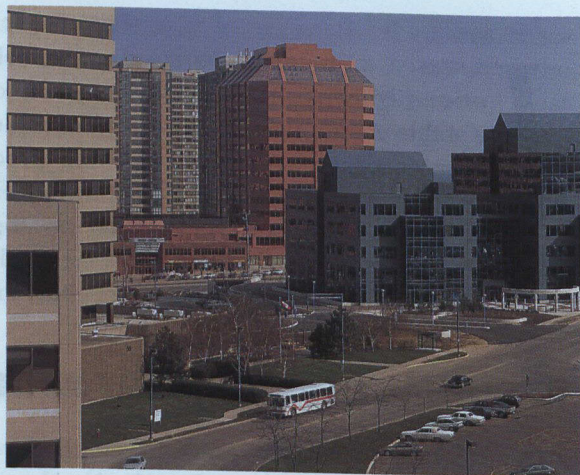
Mississauga - City of Excellence in the Greater Toronto Area

Mississauga is located on the western edge of Metropolitan Toronto, 90 minutes from the USA border at Niagara and just 20 minutes from downtown Toronto. With the North American Free Trade Agreement in place, many companies take advantage of the smart work force and lower overall costs to manufacture in Mississauga for North American and European markets.

Mississauga's current population of 540,000 is expected to grow to 740,000 at maturity. With its neighbouring communities, more than 1.4 million people live within 25 km (15 miles) of downtown Mississauga.

Lifestyle amenities are everything you would expect in a large urban area, with the added advantage of personal safety. Per capita crime statistics are a fraction of those experienced in most cities of this size.

Seven scenic waterfront parks and outstanding marina facilities are located along the 14 km (9 miles) of shoreline on Lake Ontario. Residents and visitors can enjoy boating and water sports, including "big game" charter boat fishing for giant salmon and trout on Lake Ontario. The Living Arts Centre, to be opened in 1997, will explore new frontiers in integrating electronics with visual and performing arts. As well, there are the world class sports and cultural attractions in Toronto, just minutes away.



Mississauga City Centre comprises more than 3 million sq. ft. (300,000 sq. metres) of office space, eastern Canada's largest shopping centre, many restaurants, a hotel and a substantial high-rise residential community. Plans call for office space to increase to 20 million sq. ft. (2 million sq. metres) along with commensurate growth in residential, retail and amenities.

Accessibility is one of Mississauga's greatest assets. Pearson International Airport, Canada's busiest, is located right in the City, not more than 15 minutes from any Mississauga business location. Five expressways and two major rail lines serve the City. In fact, 164 million consumers in two countries are within two days' trucking distance of Mississauga.

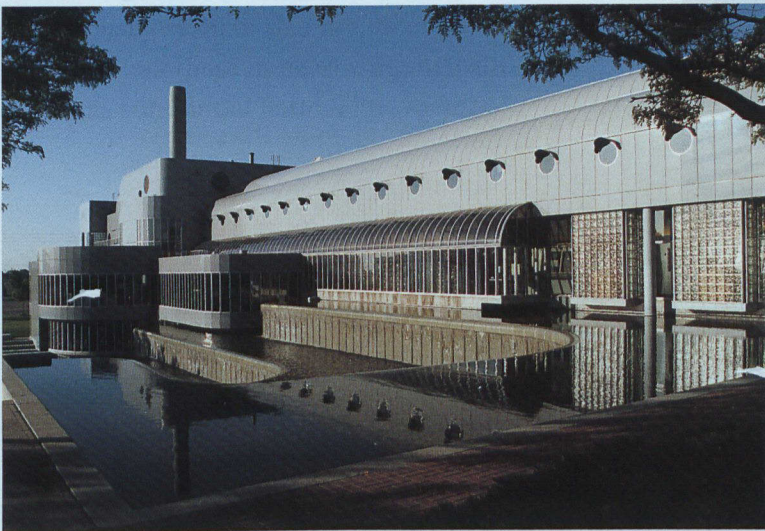
TECHNOLOGY COMMUNITY

With Mississauga's accessibility and brainpower pool, it follows that the City would have a substantial community of companies in advanced technology fields. The 1995 Mississauga Business Directory lists 656 infotech companies who manufacture hardware or software, undertake research and development or maintain head offices, distribution, training or consulting operations in Mississauga. Similarly, there are 286 companies in the biomedical sector. Of course there are other strong sectors that thrive on Mississauga's locational advantages and brainpower resources, sectors that include auto parts manufacture, plastics extrusion, optics and imaging, and aerospace. Complementing the technological environment is the Mississauga Technology Association, with more than 100 members and growing rapidly.

UTILITIES

Mississauga's electric power rates are the lowest in the Greater Toronto Area. Hydro Mississauga has done more than avoid rate increases, actually reducing rates in recent years and improving power quality to the extent that it now ranks among the best in North America. Natural gas is readily available at very attractive prices. The City's abundant water supply is drawn from Lake Ontario and is carried by an infrastructure built in anticipation of future expansion.

Mississauga's telecommunications infrastructure is very sophisticated, surpassing that offered by many competing jurisdictions. With 100% digital switching, fibre cable facilities available in all business parks and fully diverse/restorable fibre ring cabling in 14 of them, the most demanding requirements can be met.



Located within Mississauga's Sheridan Science and Technology Park is Xerox Research Centre of Canada. Imaging research conducted in this facility resulted in the breakthrough product "Verdi Film", the first high quality film for printing processes that is free of silver, a major pollutant.

ROOM TO GROW

More than 8,000 acres (3,300 hectares) of land remain to be developed for business purposes. And this land is in an urban area, easily accessible to the highway system and the airport. Starting from the City's incorporation in 1974, high development standards have been the rule. Today, more than 50 modern, private sector business parks offer choice locations that provide efficiency and quality. Many existing woodlots, streams and valleys have been carefully integrated into business park design to provide pleasant and attractive workplaces.



As well as large office and industrial buildings, Mississauga has many business parks, many offering campus-style environments very conducive to knowledge-based industries or head office/sales/distribution facilities where image and employee amenities are important.

SMART WORK FORCE

Today's streamlined organizations and empowered workforces require high levels of employee competence. In Mississauga, nearly 70% of the workforce has some post-secondary education and, in fact, eight of the country's largest and most respected universities and ten technical colleges lie within commuting distance.

Since Mississauga has some of the most attractive residential districts in the Greater Toronto Area, a large share of the alumni from these colleges and universities have chosen Mississauga as their home. Small wonder then that companies have no difficulty in hiring the brainpower they need to succeed.

Here, companies have access to all levels of scholastic achievement, from Ph.D.s, those with postgraduate and undergraduate university degrees, to technologists and high school graduates with well-developed numeracy, literacy and computer skills. And for international companies, Mississauga's multicultural population ensures that staff with facility in European and Eastern languages are readily available.

TAXES AND FINANCIAL MANAGEMENT

Unique among North America's large cities, Mississauga is debt-free! Not only debt-free, but it has low taxes and substantial reserves set aside for future infrastructure requirements.

The City has followed a pay-as-you-go philosophy for many years, setting aside funds for future needs in a rolling 10 year capital program. So instead of borrowing for major capital projects, Mississauga does it the old-fashioned way, by saving up for them. The City earns interest on the invested reserves, instead of paying out interest on money borrowed.

Mississauga takes pride in running itself like a business. Not just any business, but an innovative leader in the highly competitive service sector. For Mississauga's City administration, the word "excellence" has special meaning.

What does this mean for companies located in Mississauga? First class municipal services and realty/business taxes that are, in many cases, less than half those in nearby municipalities. It means substantial bottom line savings.

YOUR COMPANY'S FUTURE

Because of its unique advantages that no other North American location can match, Mississauga is home to more than 15,000 successful companies of all sizes, from major head offices and manufacturing facilities to prosperous corner stores.

Come and be part of our community of business leaders. Build your company's future in the "CITY OF EXCELLENCE".

For a detailed information package, call the Mississauga Economic Development Office at (905) 896-5016. In North America, 1-800-456-2181. Fax (905) 896-5931. Or E-mail karen.campbell@city.mississauga.on.ca.



Mississauga City Hall, opened in 1987, is an architectural landmark attracting visitors from every country in the world. In keeping with Mississauga's pay-as-you-go philosophy, the \$64 million building was fully paid for at move-in.

JOB TRAINING PROGRAMS

Canada's federal and provincial governments place a high priority on training as part of an all-out effort to build a highly skilled work-force. A number of successful job training and cooperative training programs are in place to help achieve a match between the needs of industry and the supply of skills. These programs offer significant financial assistance to Canadian-based companies to train and retrain Canadian workers.

Programs are developed in consultation with the private sector. Employers who participate in cooperative training programs, in which students spend part of their school year working with companies, have been especially pleased with the results.

INFORMATION AND SERVICE

Part from administering specific programs that offer direct assistance to business, government officers at all levels throughout the country are available to provide information and answer questions about doing business in Canada. Government officials are an invaluable resource for general information, explanations of policies and programs, and advice. It is another example of Canada's open-for-business ethos. (See Appendix A for contacts.)



As well as large office and industrial buildings, Mississauga has many business parks, many offering campus-style environments very conducive to high-tech industries or head offices where image and employee amenities are important.

SMART WORK FORCE

Today's streamlined organizations and entered workforces require high levels of employee competence. In Mississauga, nearly 70% of workforce has some post-secondary education. The city is home to several universities and colleges, and is one of the most educated cities in the world. In fact, the city's workforce is one of the most educated in the world.



SECTION 4:

Sectors of Opportunity

Introduction

THE PREVIOUS THREE sections highlighted the numerous advantages of investing in Canada. These accrue to all investors, regardless of their type of business. This section focusses on six industrial sectors where there is a potential for especially high growth from investments made in Canada. These sectors include information technologies and telecommunications; health care, including biotechnology; agribusiness; and the environmental industries sectors. Information is provided on ten specific industries within these sectors.

These ten industries exhibit strong growth potential, are positioned to serve global markets, and involve a high level of R&D intensity. It is this last which makes them especially attractive inasmuch as it allows investors to take advantage of Canada's generous R&D incentives. It should be remembered, however, that this selection offers only a representative sample of opportunities to be found in Canada: it is by no means exhaustive. Attractive opportunities can be found in many other areas of the Canadian economy.

Section 4: Sectors of Opportunity

Introduction

THE PREVIOUS THREE sections highlighted the numerous advantages of investing in Canada. These sectors are available to all investors, regardless of their type of business. This section focuses on six industrial sectors where there is a potential for especially high growth from investments made in Canada. These sectors include information technologies and telecommunications; health care, including biotechnology; agribusiness; and the environmental industries sectors. Information is provided on ten specific industries within these sectors.

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CHAPTER 18: *The Information Technologies and Telecommunications Sector*



INFORMATION TECHNOLOGIES AND telecommunications (IT&T) constitute one of the most dynamic and competitive industrial sectors in Canada. Four of the fastest-growing industries within it are telecommunications products, computer software, computer-telephone integration (CTI), and geomatics.

TELECOMMUNICATIONS PRODUCTS: ESTABLISHED AND GROWING

The telecommunications products industry includes companies that manufacture equipment used for the switching and transmission of telecommunications voice, data, and video information — anything from telephone sets to fibre optic transmission systems and digital multiplexing equipment. The value of shipments by the Canadian telecommunications products industry was about \$10 billion in 1994. Annual growth over the past five years has averaged around 5 percent.

An Export-oriented Industry

The Canadian market is highly receptive to new telecommunications products. With one of the highest telephone penetration rates in the world, Canadian telecommunications service providers and their customers are among the first to demand and adopt new technologies and services.

But the market for Canadian manufacturers of telecommunications products is not just Canada. The industry is highly trade-oriented. In 1994, exports accounted for over half of all shipments. The integration of the North American market under the North American Free Trade Agreement (NAFTA) has opened up more export opportunities in the United States and Mexico.

Globally, the market for telecommunications products was US \$120 billion in 1993 and growth over the next decade is expected to be very strong. Countries in Asia, Africa and Latin America are undertaking major upgrades of their communications infrastructure. More developed markets plan large capital expenditures in advanced telecommunications networks to ensure competitiveness in the increasingly information-based economy. The opportunities for new products in expanding markets are vast.

Canadian Producers Offer World-renowned Products

There are more than 300 telecommunications products manufacturers employing over 45,500 people across the country. The greatest concentration is in Ontario, Quebec and British Columbia. The industry is comprised of Canadian-based multinationals, specialized

small- and medium-sized firms, as well as subsidiaries of large international suppliers. The top 30 companies account for 90 percent of the industry's revenues.

By far the largest Canadian company is Ontario-based Northern Telecom Ltd., which produces all types of equipment ranging from digital switches and fibre optics transmission systems to telephone sets, multimedia terminals and wireless personal communications systems. With world-wide revenues of US \$8.9 billion in 1994, and 57,000 employees globally, Northern Telecom is one of the largest telecommunications manufacturing companies in the world.

A second tier of 30 smaller, established firms are known in markets throughout the globe. Among these are Newbridge Networks Corporation, Mitel Corporation, MPR Teltech, Glenayre, Gandalf Data Ltd., CYCNUS Technologies Inc., NBTel and NCA Microelectronics. Rounding out the industry are more than 250 small firms with specialized capabilities and niche products sold domestically and abroad.

Canada's telecommunications industry is recognized as a leader in the development and application of new products. Areas identified with high growth potential include: fibre optic transmissions systems; data communications, networking and multiplexing; personal communications and wireless technologies; customer premises equipment and multimedia applications; advanced satellite communications systems; and the national "information highway".

Canada's Most Intensive R&D Sector

The telecommunications industry can only remain competitive by building on its technological strengths and continuing to push out the R&D frontier. The industry spends close to \$2 billion on R&D, representing around one third of total R&D expenditures by all Canadian industries. Leading the way is Northern Telecom Ltd., with \$1.5 billion in R&D expenditures. It is the single largest spender on R&D in Canada. On average, smaller firms in the industry devote about 10 to 12 percent of their annual revenues to R&D.

Networks of Centres of Excellence

Networks of Centres of Excellence bring together more than 500 of Canada's foremost researchers from universities, industry and government, with the overall aim of increasing research excellence and improving Canada's industrial competitiveness. Two of the selected 15 networks are conducting research pertaining to advanced communications: the Canadian Institute for Telecommunications Research (CITR), located in Montreal, Quebec; and the Microelectronic Devices, Circuits and Systems for Ultra Large Scale Integration (MICRONET), of Toronto, Ontario.

R&D Alliances to Advance Communications Research

Several R&D alliances have also been established among university, industrial and government researchers. These include: British Columbia's Advanced Systems Institute; Telecommunications Research Laboratories in Alberta and Saskatchewan; and the Canadian Centre for Marine Communications in Newfoundland. A number of universities are deeply involved in research in telecommunications and related areas and have established Industrial Research Chairs in specialized fields.

Government Support to R&D Alliances

The federal and provincial governments are actively involved in establishing and funding telecommunications equipment research initiatives with universities and the industry.



Assistance is provided through the federal Department of Industry (DI), the National Research Council (NRC) and the Natural Sciences and Engineering Research Council of Canada (NSERC). The telecommunications industry and DI have created the Canadian Telecommunications Action Committee (CTAC) to promote effective industry-government consultation and cooperation.

The federal and provincial governments are also directly involved in research in telecommunications. Research is carried out at various government laboratories in areas such as broadband and wireless communications, digital networks, fibre optics, satellites, software and artificial intelligence.

THE COMPUTER SOFTWARE INDUSTRY

The computer software industry is undergoing dramatic changes. As the result of new developments in operating systems, programming paradigms and the convergence of computer and communications technologies, the market for software products is shifting. New market opportunities are being opened that will challenge today's leading software product developers.

Market Access to North America

Projected to reach over \$70 billion in 1996, North America accounts for more than 50 percent of the world-wide market for software products. Market access under the Canada-U.S. Free Trade Agreement (FTA) as well as the NAFTA has been critical for Canadian-based companies because more than two thirds of the top 100 companies generate at least half of their revenue from exports.

Canada's market for software products is approximately \$2 billion. Financial institutions remain the principal customers, but with the growth in computer-telephone integration, the telecommunications industry is rapidly expanding its demand for new software products and may soon be the leading client. Canada is often at the vanguard of new market trends. Canada is moving at a faster pace than the U.S. in the movement away from mainframes toward work-stations and PC-based client-server systems.

Canadian Companies: Small, but Dynamic

Canada is home to more than 4,000 companies that are developing software products. While most are small, a number have emerged as world leaders in niche markets. These include Corel, Cognos, Delrina, Alias, Logo and Softimage, each of which has earned international recognition for its products.

In 1993, Canadian-based software producers earned revenues of \$1.6 billion. The top 100 firms accounted for two-thirds of this, having posted a 30 percent increase in revenues over the previous year.

Some of the strengths of the Canadian industry lie in computer graphics and animation, advanced programming tools and languages, geographic information systems, education and training, and forms processing.

A Highly Talented Research Community

A number of Canadian universities are recognized for their exceptionally high standards in mathematics and computer science. According to leading software companies, such as Microsoft Corporation, they produce some of the most talented software developers in the

world. Cooperative programs between industry and universities have been especially rewarding for students and companies alike.

Tapping into the high-calibre pool of mathematicians, programmers, engineers and technicians, and working within a highly developed R&D infrastructure, a number of research organizations have developed specific expertise in advanced software development. (See Table 4.1.)

TABLE 4.1
A Selection of Canadian Research Organizations in Advanced Software Development

Alberta Research Council	Real-time artificial intelligence, machine learning, robotics
BC Advanced Systems Institute	Expert systems for natural languages, communications protocols, machine vision, robotics
Centre de recherche informatique de Montréal	Computer-assisted training and user interface, knowledge-based systems, parallel architectures, process control and machine vision, speech recognition, communications and networks
Information Technology Research Centre	Knowledge-based systems, computational vision, neural networks, software engineering, communications and networks
Institute for Robotics and Intelligent Systems	Robotics, knowledge-based systems, computational perception
PRECARN Associates Inc.	Robotics, expert systems for process analysis and control, graphic interface, knowledge-aided design, machine vision
Volvox	Interactive decision support systems, satellite imaging, mapping

Source: Department of Industry.

Foreign Companies Capitalize on Canadian Expertise

Because of Canada's excellent reputation in the field of software development, a number of multinational enterprises have chosen to locate software development projects in Canada.

The IBM Canada Laboratory has a global mandate to develop commercial software products across IBM's entire product line, including programming languages, CASE tools and relational database products.

Because of its technological lead in geographic information systems, Oracle chose Canada to launch a new research centre dedicated to developing 4-D imaging and mapping applications.

In addition to establishing a Canadian operation for software development, a number of foreign companies have entered into business alliances with Canadian firms. The new business partnerships are aimed at strengthening marketing channels, opening new markets and developing new products. (See Table 4.2.)

CTI: AN EMERGING INDUSTRY WITH HIGH GROWTH POTENTIAL

Computer-telephone integration (CTI) is an emerging industry that develops new products, services and integrated systems for information management in a multimedia environment. Relative to the telecommunications industry, the CTI market is in its early stage of development. The global market was estimated at \$450 million in 1994, but it is set to take off, with industry analysts estimating that it will reach \$6 billion by the year 2000. Increased demand for CTI products and services will be generated, in large part, by cost reductions.



TABLE 4.2
Selected Business Alliances Involving Canadian Software Producers

Canadian company	Partner	Nature of business alliance
Chancery Software Inc.	Apple Computer	Joint Marketing Agreement
HyperCube Inc.	Autodesk Inc.	Licensing Agreement
Micro Tempus Inc.	Microsoft Corp.	Technology Transfer/ Joint Marketing Agreement
Object Technology International Inc.	IBM Corp.	Technology Development Agreement
PenMagic Software Inc.	GO Corp.	Technology/Marketing Collaboration
Simware Inc.	Ericsson GE	Marketing Agreement

Source: Department of Industry.

In a short time, the Canadian CTI industry has successfully responded to the challenge of the market. There are now a large number of companies introducing an extensive range of innovative, customized products that are well-suited to operate in client-server environments and provide multimedia solutions, user-friendly interfaces and complex customer support capabilities. It is expected that the CTI market will begin to shift more and more toward the small office/home office (SOHO) marketplace.

The industry lends itself to a wide range of suppliers. No single company will dominate the market or provide complete CTI solutions on its own. The industry includes some of the larger telecommunications companies that are developing CTI products, such as voice recognition, as one dimension of their overall business activity. Other companies are totally devoted to the development of CTI products.

The CTI industry is developing as a group of systems integrators and third-party developers providing fully integrated CTI solutions for customers. Traditional telecommunications and computing companies will have to adopt flexible business strategies for this newly created market, including the formation of joint ventures, partnerships and strategic alliances.

The federal government has developed a special program for the CTI industry called the Canadian CTI Initiative. Among the objectives of this program are to demonstrate the strengths of the Canadian industry and position it within the global CTI market, attract international investment to Canada and facilitate strategic alliances.

GEOMATICS

The geomatics industry comprises technologies and services for acquiring, storing, analyzing, disseminating and managing geographically referenced information. Mapping and surveying of land and water, remote sensing and image processing, and geographical information systems (GIS) are the principal activities of the industry.

Canada's pivotal role in the development of this industry and continued accomplishments are internationally recognized. This is not surprising. Canada's geography has demanded the creation of customized solutions for mapping and surveying its vast land and coastline. Canadian landmark achievements have included:

- the invention and application of GIS technology in nation-wide forestry management in the 1960s;
- development of the first land registration information system (LRIS) in the 1970s, that integrates survey control, land records, base and property mapping;



- creation of the first navigational electronic chart system (ECS) in the 1990s, that integrates digital hydrographic chart data with real-time positioning information; and
- launch of the world's first earth observation satellite system (RADARSAT) that contains a synthetic aperture radar capable of penetrating cloud cover and darkness.

Fast-growing Markets

The global market for spatially related information is estimated to be in excess of \$10 billion and growing at a rate of more than 20 percent per annum. Industry analysts report that close to one half of the market is in North America, but that the fastest growth is taking place in the Far East, with about 10 percent of the market, along with rapidly expanding markets in Latin America. The principal client group has been governments and public enterprises.

The federal government calculates that the domestic geomatics market is around \$750 million, and growing at a conservatively estimated 5 percent per year. The Canadian industry, however, has been able to boost exports at a faster rate, to a level of about \$250 million. The two fastest growing segments of the market are remote sensing and GIS.

Small Companies with Advanced Technologies

Of the approximately 1,350 firms employing 12,000 people, most are small- to medium-sized with annual revenues under \$2 million and fewer than 50 employees. But these companies have developed software systems and applications that are among the best in the world, especially in the areas of natural resource and environmental management.

The Canadian industry's strengths lie in cartography, geodetic/control surveying, hydrography, geographical information processing and consulting, photogrammetric and cadastral mapping, remote sensing, software development and training. Internationally, Canadian companies have a strong — if not dominant — market position in the following areas:

- advanced high-resolution airborne radar systems;
- remote sensing products and services;
- electronics associated with satellite data ground-receiving stations;
- image processing systems; and
- geophysical airborne survey services and equipment.

R&D Capabilities

There are strong linkages among industry, universities and government for the development of geomatics technologies. Many public research institutes and universities across the country have a solid reputation in geomatics, providing industry with the latest innovations and applications. There has been a significant amount of specialization among them. A selection of these organizations and areas of expertise is presented in Table 4.3.

World-class Private Sector Technologies

Because of the importance of natural resources to the Canadian economy and the heightened priority of environmental management, Canadian companies have developed wide-ranging applications of geomatics technologies.

For hydrographic information, Canadian companies offer advanced systems.

International Submarine Engineering Ltd. designed the DOLPHIN, a remote-controlled semi-submersible vehicle fitted with a multi-beam swath echo-sounder and positioned by a differential global positioning system (GPS) to portray ocean mapping information.

TABLE 4.3
Selected Geomatics Research Organizations in Canada

Research centre	Areas of specialization
Department of Geography Memorial University, Newfoundland	GIS/Remote sensing and human-computer interaction
Atlantic Centre for Remote Sensing of the Oceans Nova Scotia	Airborne and satellite remote sensing of the ocean and coastal areas
Department of Surveying Engineering University of New Brunswick, New Brunswick	Ocean mapping, GPS, systems development and land information management
Centre de recherche en géomatique Faculté de foresterie et de géomatique Université Laval, Québec	GIS implementation, data uncertainty, real-time and temporal GIS and forestry geomatics
Centre d'application de télédétection Université de Sherbrooke, Québec	Remote sensing/GIS integration and applications research in resource management and environmental monitoring
Institute for Space and Terrestrial Science York University, Ontario	Satellite sensor development and quantitative remote sensing
Centre for Land Information Management University of Toronto (Erindale), Ontario Department of Survey Science	GIS/expert systems applications and land information management
Department of Geography University of Waterloo, Ontario	Digital image analysis and remote sensing applications development
Department of Geography University of Western Ontario, Ontario	PC-based GIS software development
Department of Geomatics Engineering University of Calgary, Alberta	Satellite positioning, vehicle navigation and systems integration
Alberta Research Council Alberta	Integration of GIS and knowledge-based systems and application of GIS to resource management, environmental and geological problems
Forest Information Resource Management Systems (FIRMS) Group University of British Columbia, British Columbia	Remote sensing/GIS integration for resource management
Department of Geography University of Victoria, British Columbia	Cartographic presentation, GIS applications development and application of remote sensing to problems in forestry and geography

The Ice Data Integration and Analysis System of MacDonald Dettwiler and Associates Ltd. provides sea-ice mapping, as well as monitoring and forecasting services for the Canadian Arctic, the Atlantic region and the Great Lakes.

Universal Systems Ltd. offers a hydrographic information processing system designed specifically to process data collected by echo-sounders.

For mapping and surveying of land resources, Canadian companies are also in the forefront internationally.

Nortech Surveys (Canada) Inc. has developed a unique airborne data acquisition system called Digital Video Geographic (DVG) for route and forest inventory.

EASI/PACE, a software package by PCI Enterprises, displays remotely sensed optical and radar imagery. It is used internationally to monitor and map resources, land use and the environment.

CARIS is a GIS software package developed by Universal Systems Ltd. that offers a full topology and true three-dimensional data structure in an integrated raster/vector environment.

Oracle Corporation Canada is developing an extension to the Oracle Relational Data Base Management System (RDBMS) which will permit the efficient management of complex multi-dimensional, geo-referenced or spatio-temporal data within the RDBMS.

Export Orientation

With advanced, reliable products and systems that have proven capabilities in the domestic market, Canadian geomatics companies are increasingly turning to foreign markets for business opportunities. One area with major growth potential is coastal zone information. There are over 120 coastal states with claims for exclusive economic zones (EEZs), but the majority of these do not have the required marine geomatics infrastructure to support sovereignty claims.

Buttressed by high economic growth rates, governments in Asian countries are devoting more resources to infrastructure development. These large projects have extensive requirements for geomatics products and services. In addition, Asia presents complex environmental challenges that will need advanced geographically-referenced information. Many Canadian geomatics companies have already established an excellent reputation in many of these countries, in connection with development assistance projects undertaken by the federal government's Canadian International Development Agency (CIDA).

In addition, public-private sector partnerships in the industry have assisted the penetration into new markets, especially in the developing countries. This strategic approach bore fruit in Mexico when a Canadian industry-government consortium won a major contract to modernize that country's mapping program.

In the more developed markets of the U.S. and Western Europe, which will continue to account for the largest shares of the world geomatics market, Canadian companies are enjoying successes in selling to the private sector. International business alliances are facilitating this export orientation.

PROSPECTS

The prospects for Canada's telecommunications products, software, CTI, and geomatics industries are exceptionally strong, for both the well-established companies with markets around the world, and the small, emerging firms with highly specialized products. The excellent R&D infrastructure and pool of talented scientists, engineers and innovators will keep these industries in the forefront of the most advanced technologies.

Whether scouting for new investment possibilities, considering global R&D or product mandates for subsidiaries, or searching for strategic alliances, prospective foreign investors in the telecommunications, software products and CTI industries will find a host of opportunities in Canada.



CHAPTER 19: *The Electronics Sector*



THE DEMAND FOR electronics products and services continues to grow quickly, in part because of the explosion of information technologies and telecommunications. This is particularly true for the microelectronics and electronic materials industries. But other electronics-based industries, such as lasers and optoelectronics are witnessing renewed growth potential as commercial opportunities open up in entirely new areas.

THE MICROELECTRONICS INDUSTRY

The Canadian microelectronics industry is comprised of about 30 companies, most of which are small and specialized. They employ about 6,000 people. The total output of about \$700 million in 1993 is expected to double by 2001. Much of Canada's microelectronics production will continue to be oriented toward the thriving telecommunications products industry, whose microelectronics component is growing at 20 percent per year. Another growing market is multimedia applications for personal computers. Most Canadian microelectronics companies have extensive testing capabilities in addition to their prototype assembly facilities for proprietary products.

The larger firms, such as Northern Telecom Ltd., Mitel Semiconductor, IBM Canada and Gennum Corporation, produce primarily for their own requirements. In the case of integrated circuits, the main subsector of the industry, two thirds of the value of Canada's output is destined for internal consumption.

The International Component

Along with the "in-house" feature, the industry is characterized by a significant international dimension. For example, of the integrated circuits not destined for internal company use, 70 percent is exported. And some 55 percent of the \$1.2 billion Canadian market is met by imports.

For the foreign investor, this indicates some of the potential for import substitution in the Canadian market. But more than this, a Canadian-based manufacturer has access to the huge North American market, which for semiconductors is valued in excess of \$30 billion.

Under the North American Free Trade Agreement (NAFTA), duties on microelectronics components and testing equipment have been removed or are being phased-out. Duties on microelectronic components and testing equipment were eliminated. The NAFTA also contains clear rules of origin for preferential tariff treatment that make it advantageous for microelectronics firms outside North America to develop and manufacture their products in the region. As tariffs are eliminated, Mexico's *maquiladora*, or in-bond industry, will cease to have special advantages. Canada's attractive business environment and skilled people provide definite locational advantages.

Complementing their considerable experience in working with American firms, several Canadian companies have established overseas ties, especially in Europe. For example, Gennum Corporation has an agreement with EM Microelectronics of Switzerland to use its

low-voltage CMOS process for product design. C-MAC has two of its six facilities outside North America. Primetech Electronics Inc. has a plant in Belgium which manufactures products for the aviation industry. ATI Technologies Inc. has an office in Munich, Germany.

Technological Strengths

In conjunction with the advantages provided by R&D tax incentives, a solid research infrastructure and market access to North America, the Canadian microelectronics industry has a number of technological strengths that will be attractive to the potential investor. These include:

- digital audio/visual products;
- low-voltage bi-polar circuits;
- custom silicon integrated circuits;
- hybrid chips;
- surface mount board fabrication;
- digital signal processing; and
- encryption.

In addition, to penetrate the lucrative North American semiconductor market, Canadian companies have developed capabilities in eight key areas:

- telecommunications integrated circuit (IC) design;
- linear IC design;
- custom and standard IC design;
- hybrids and multi-chip modules (MCM);
- photodetector IC devices;
- microwave IC devices;
- video and multimedia devices; and
- process equipment.

Strong R&D Support

Thirty-two universities across Canada undertake research in microelectronics and related areas. Many university research groups are linked with industry and governments in common projects. Two of these are the Canadian Microelectronics Corporation (CMC), and MICRONET.

The CMC was established to enrich the research environment in Canadian universities by opening up services that facilitate the design and testing of integrated circuits. In addition to the 32 universities, CMC includes 15 industrial members. Since 1984, more than 2,700 designs have been fabricated and more than 18,000 packaged chips have been returned to university designers. CMC operates with the assistance of a \$5 million annual federal government grant.

MICRONET is a network of centres of excellence on microelectronic devices, circuits, and systems for ultra large scale integration (ULSI). Established in 1989, it supports research at nine major universities — Victoria, Calgary, Manitoba, Windsor, Waterloo, Toronto, Carleton, McGill, and Université du Québec — involving more than 70 senior researchers and 250 graduate students. It has 16 industry and five government members. With an annual budget of about \$3 million, its mandate was renewed in 1994 for four years.

The federal government operates two research organizations with in-depth expertise on microelectronics. The National Research Council's (NRC) Institute for Microstructural Sciences undertakes research in advanced electronic devices, optoelectronics and photonics materials. With some 100 researchers and technicians, the Institute has laboratory facilities in epitaxial growth, microfabrication, focussed ion-beam implantation, materials characterization, device design and testing, thin film deposition, acoustics and signal processing.

The CRC undertakes research on new microelectronic devices and circuits, particularly those based on compound semiconductors such as gallium arsenide (GaAs) or gallium aluminum arsenide (GaAlAs). Research is also conducted on methods for assessing the long-term reliability of those devices and their resistance to various forms of radiation.

Provincial governments are also directly involved in microelectronics R&D. For example, the Alberta Microelectronics Centre (AMC) designs and fabricates silicon chips, and undertakes research in several areas, including silicon micromachining for sensors and process modelling of thin film properties. AMC also provides services to industry and educational institutions involved in advanced electronic technologies.

Ontario's Ortech International conducts research on electronic material including thin film semiconductors for gas sensors, sensor packaging and integration.

The microelectronics industry, with the financial support of government, has organized several pre-commercial R&D consortia. The Canadian Semiconductor Design Association (CSDA) brings together four companies (Newbridge, Gennum, Mitel and MOSAID) to stimulate the development of technologies required to design and manufacture integrated circuits. CSDA operates a \$45.5 million program, half of which is funded by the Ontario government.

The Solid State Optoelectronics Consortium of Canada (SSOC) conducts research in integrated optoelectronics to give industry a competitive edge in designing new products and systems. SSOC maintains facilities within the Institute for Microstructural Sciences. The consortium's members include Bell Northern Research, EG&G Optoelectronic Canada, MPR Teltech Ltd., the National Optics Institute, the Communications Research Centre, T Labs and the NRC. Its five-year, \$40 million program initially concentrates on the use of gallium arsenide, and will subsequently explore indium phosphide technology.

The Strategic Microelectronics Consortium (SMC) was launched in 1991 to advance Canada's microelectronics capabilities by linking companies in collaborative projects. Its initial \$37 million, four-year budget was focussed on three areas: device, packaging and application technology. SMC currently has 27 industrial members representing most of the microelectronics industry in Canada. The consortium provides an important point of contact for foreign firms interested in exploring alliances with Canadian microelectronics firms.

Complementing industry's research consortia are several industry associations that provide national networks for Canadian companies. These include the Canadian Advanced Technology Association, the Information Technology Association of Canada, and the Electro-Federation Canada. (See Appendix A for contact information.)

Intellectual Property Protection

Patent protection in Canada is given for 20 years. As of June 1993, improvements have been made to the Patent Act that clarify the filing, examination and granting of patents. In addition, individuals can apply for the exclusive right to the design, or topography, of integrated circuits. Canada's Integrated Circuit Topography Act provides protection for a ten-year period.

ELECTRONIC MATERIALS INDUSTRY

The electronic materials industry is one part of the broadly defined area of advanced materials, which comprise a spectrum of new materials and processes that allow for the design and manufacture of products with novel and improved properties. Electronic materials are used in semiconductor devices, microwave and optoelectronic components, and electronic ceramics. These are high value-added materials at the early stage of product lifecycles, providing enabling capabilities for a cross section of industries.

Like the microelectronics industry, there are only a few small- and medium-sized firms that operate solely in the field. Much of the activity in this area is conducted in larger companies where electronic materials account for only a part of the company's overall revenue-generating operations. Nevertheless, it is a part that attracts a considerable share of the firm's R&D efforts.

The industry is not an easy one to track statistically. However, estimates have been made that project a world-wide market for semiconductors, optoelectronic components and electronic ceramics in excess of \$300 billion by the year 2000. North America accounts for a large proportion — probably over 40 percent — of that market. Annual rates of growth for the remainder of the decade are projected in the vicinity of 14 percent.

The Canadian market for electronic materials is estimated to be more than \$2.5 billion. Most of the demand is met by imports, implying, as in the case of microelectronics, that there are ample opportunities for foreign investors to build production facilities in Canada to supply domestic as well as North American clients.

A Small Industry with Advanced Products

Canada's small but dynamic electronic materials industry is fully integrated into the North American market. Composed of more than 60 companies involved in the design and manufacture of semiconductor devices, optoelectronic components and electronic ceramics, the industry's domestic production is \$650 million of which more than half is exported.

Canadian companies offer innovative products and processes, from conceptual windows on tomorrow's technologies to customized product development. Some of these are listed in Table 4.4.

A Solid University Research Community

A large number of Canadian universities are conducting advanced research in areas such as superconductivity, gallium arsenide (GaAs) integrated circuits, laser processing of gallium arsenide, laser processing of optical wave lengths, thin film semiconductors, contact metallization, and polymers for electronic applications.

The 19 research groups profiled here are but a sample of the sophisticated R&D activities taking place in Canadian universities and research institutes. Many of these groups work in close association with industrial partners.

These pools of expertise are linked nationally through MICRONET, the Canadian Network of Centres of Excellence. (See above under Microelectronics Industry.) Other research networks of importance to the electronic materials industry include La Société Microélectronique de Sherbrooke Inc. and the National Optics Institute (Quebec); the Centre for Research and Productivity (New Brunswick); the Ontario Centre for Materials Research and the Canadian Microelectronics Centre (Ontario); the Strategic Microelectronics Consortium, the Alberta Research Council and the Alberta Microelectronic Centre (Alberta).



TABLE 4.4
Selected Canadian Companies in the Microelectronics Industry

Companies	Major market sectors
INTEGRATED CIRCUIT DESIGN AND MANUFACTURING COMPANIES	
Northern Telecom Ltd.	Telecommunications
Mitel Corporation	Telecommunications
Gennum	Linear amplifiers
Newbridge	Datacom
LSI Logic Canada	Custom design
MICROWAVE AND OPTOELECTRONIC DEVICES MANUFACTURERS	
Antel	Photodetectors
Data Images	LCD displays
Optotek	MMIC and LED displays
Optoelectronics	Fibre optics
EG&G	Photodetectors
Silonex	Photodetectors
ELECTRONICS CERAMICS AND COMPONENTS MANUFACTURERS	
Aastra Advanced Ceramics	Piezoelectric ceramics, superconducting ceramics, ceramic sensors
BM Hi-Tech Inc.	Piezoelectric ceramics, sensors, transducers
Lakeside Electronics Ltd.	Piezoelectric ceramics, thick film pastes
Philips Cables Ltd.	Fibre optic cables
CTF Systems Inc.	Superconducting ceramics
MPB Technologies Inc.	Custom ceramic-based products

Source: NGL Consulting Ltd.

LASERS AND OPTOELECTRONICS

The Canadian laser and optoelectronics industries are among the country's most technologically innovative. A sound business base for laser and optoelectronics enterprises has resulted in dynamic growth and increased world presence for these Canadian industries. The superlative research and development environment, combined with the expertise and depth of its scientific community, provide for a productive and profitable interface between the commercial, institutional and academic communities.

Canadian Opportunities

Many Canadian-based laser and optoelectronics firms welcome strategic alliances with foreign firms or research institutes interested in:

- producing or selling in North America;
- distributing advanced products in home markets;
- developing new capabilities for products and services;



- leveraging existing capability; or
- broadening a research program.

Because Canada's domestic market for lasers and optoelectronics currently exceeds the country's production capacity by 250 percent, there are considerable opportunities for foreign firms, be it a strategic alliance or a greenfield investment.

American firms will find that the Canadian market is identical to the U.S. in terms of products and protocols, with similar trends, and significant growth potential. R&D opportunities are built around a highly skilled but less costly technical and managerial resource base, and the

TABLE 4.5
Canadian Universities Conducting Research in Electronic Materials

University and department	Area of research
Simon Fraser, Physics	New magnetic materials using inclusion solids. Shallow donor identification in III-V semiconductors using mangetophotoluminescence.
British Columbia, Physics	Clean substrate preparation for molecular beam eptaxy.
Alberta, Physics	Preparation and study of new high Tc superconductors.
Guelph, Chemistry and Biochemistry	Thin film amorphous silicon prepared by electrochemical reduction.
Waterloo, Physics	High-temperature ceramic superconductors.
Toronto, Metallurgy and Material	Laser processing of gallium arsenide.
Toronto, Electrical Engineering	Gallium arsenide integrated circuits.
Toronto, Physics	Polymers for electronic applications.
McMaster, Institute for Materials	Growth of single crystals of high-temperature superconductors.
McMaster, Physics	Study of superconductivity in the high Tc oxides.
McMaster, Engineering Physics	Contact metallization system for II-V semiconductors.
Windsor, Engineering Materials	Piezoelectric thin film and superconducting ceramics.
Queen's, Physics	Fabrication of thin film electronic ceramics.
Royal Military College, Physics	Characterization of dielectric, piezoelectric, and pyroelectric properties of ceramic materials.
McGill, Chemistry	Synthesis of organopolysilanes and applications as pre-ceramic and electronic materials.
École polytechnique de Montréal, Physics	Laser processing of optical waveguides.
Sherbrooke, Physics	High-temperature superconductors.
Concordia, Chemistry	Structural and electronic studies of ionic conductors. High-temperature superconductors.
Laval, Engineering and Metallurgy	All optical waveguiding bistable devices formed in semi-conductor-doped glass.

Source: NGL Consulting Ltd.



potential to leverage the R&D dollar more effectively than in the United States. Canadian-based firms have access to many new, innovative technologies being developed in Canadian universities and research institutes that continue to attract world-calibre designers and scientists.

The NAFTA permits unhindered business travel for Canadian, American and Mexican business people for marketing, sales and collaborative activities. Research and professional staff engaged in the following general activities qualify for temporary entry:

- research and design;
- manufacturing and production;
- installation and training; and
- after-sales servicing.

For European and Asian firms looking for new markets, Canada provides a gateway to the U.S. \$2.8 billion per year North American laser and optoelectronics markets. The North American market for commercial lasers is estimated to be 40 percent of the global market, and the market for optoelectronics is expected to reach 43 percent by the end of the decade.

In addition to the many attractive features of a Canadian business location highlighted in previous sections, there are strategic advantages in the laser and optoelectronics industries. Firstly, the products, protocols and technological trends are the same in Canada as in the United States. There is, therefore, no additional product modification for the American market. Secondly, the newly established firm can gain credibility and a reputation in the smaller Canadian market before entering the United States. Thirdly, under the NAFTA, almost all tariffs on lasers and optoelectronic products manufactured in NAFTA member-countries (and traded among them) either have been removed or are being phased out.

Trends in North American Markets

The North American laser and optoelectronics markets are undergoing a period of significant challenge and change. The issues of cost containment and commercialization have surfaced as two major factors influencing the delivery of industry products. Faced with smaller defence markets and a growing need to refocus on commercial markets, many photonics firms have turned to producing commercial products at an affordable price. Thus, demands on the delivery of laser and optoelectronics products have never been greater, while the need for cost containment is now more important than ever.

The following trends will present an array of new commercial opportunities for entrepreneurial manufacturers and researchers in these industries.

- Improvements in laser performance such as higher power densities, shorter pulse widths, broader bandwidths, improved spectral selectivity, and shorter wavelengths, will open unprecedented commercial opportunities in medicine, aerospace and consumer products.
- Expanded laser applications will assure growth in external-cavity or beam-handling optics such as lenses, mirrors, prisms and filters.
- Widespread acceptance of fibre optics and growth in the telecommunications sector will fuel continued improvements in multiplexing, switching and amplification technologies.
- The need for precise, versatile optical sensors will continue to escalate as more products and systems are equipped with sensor capabilities.
- Markets will look for tighter integration with interactive software systems that control and interrupt sensed information.

- The integration of laser and optical components into larger and more complex instrument systems that have a mission unrelated to optical processing will continue to be a strong force in the market. This includes, among others, speed packaging, semiconductor inspection, and pharmaceutical label verification. Optoelectronics and laser technology companies will continue to adjust their marketing programs to link to “non-specialist” companies.

Leading-edge Products and Technologies

Canada’s dynamic laser and optoelectronics industries comprise over 100 niche-oriented firms. They are spread across four subsectors: laser systems and products; optoelectronics systems and designs; optoelectronics components manufacturers; and optoelectronics devices manufacturers.

Over several decades, companies in these subsectors have established a record of innovation and product development that places them at the forefront of their industries. Both small- and medium-sized enterprises as well as large companies have made their presence felt on the international stage. Some of their achievements are listed in Table 4.6.

A Strong Research Community

Developments in the Canadian industry have been assisted by research in the public sector. More than 50 universities and colleges are developing and using laser and optoelectronics technologies. Examples of research being carried out at Canadian universities and colleges are listed in Table 4.7.

Many of these universities are linked nationally through the Canadian Network of Centres of Excellence. Other contributing institutes and government agencies include the National Optics Institute, the National Research Council and the Natural Sciences and Engineering Research Council.

Two provincial research groups that are active in laser and optoelectronics research are Ontario’s Ortech International, and the Centre de recherche industrielle du Québec (CRIQ). In many cases, the provincial research councils work closely with industry and universities to support technical development.

TABLE 4.6
Canadian Company Achievements in Lasers and Optoelectronics

Company	Province	Achievement
Applied Physics Specialties	Ontario	Produced the first commercial hard carbon coating
Bomen Hartmen & Braun	Québec	World-class leader in infrared spectroscopy
Canstar Communications	Ontario	Received an \$80 million contract to supply optic communications system to interconnect the New York Transit Authority
Dalsa Inc.	Ontario	Developed and marketed CCD Turbosensor™ line scan and area scan technology
EXFO E.O. Engineering Inc.	Québec	World leader in fibre optic test equipment
Focal Technologies Inc.	Nova Scotia	World's first production multi-pass fibre optic rotary joint
GSR Inc.	Alberta	Manufactures the most sophisticated CAD/CAM industrial cloth laser cutters in the world
Hughes Leitz Optical Technologies Ltd.	Ontario	Special high-performance, custom-built lenses for IMAX and OMNIMAX projection systems
Hymarc Ltd.	Ontario	The only scanning laser sensor on the market designed for coordinated measure machines
Lumonics Inc.	Ontario	Largest manufacturer of Industrial Yag and Pulsed CO ₂ lasers and market leaders in laser marking
MPB Technologies Inc.	Québec	Developing the first undersea branching multiplexers for the optical filter Trans-Atlantic Telecommunication Systems
Mitel Corporation	Ontario	Sold over 150,000 PBX systems, and provided the world's first digital private network signalling system between London and New York
Northern Telecom Ltd.	Ontario	First to announce and deliver a complete family of fully digital switching and transmission equipment
Optech Inc.	Ontario	World leader in lidar bathymeter technology
Opto-Electronics Inc.	Ontario	Original manufacturer of the world's fastest photodetectors and diode laser light source
Optotek Ltd.	Ontario	Designs and manufactures the world's most sophisticated light emitter-diode printhead for use in electronic printing presses
Seastar Optics Inc.	British Columbia	First firm to market an ultra-low noise laser diode driver
Spar Aerospace Ltd.	Ontario	Prime contractor for the Canadian Space Program, and major supplier of satellite subsystems for the international communications and surveillance market
Vortek Industries Ltd.	British Columbia	Designs and manufactures the world's most powerful arc lamp systems for scientific and industrial users

TABLE 4.7
Canadian Universities' Research on Lasers and Optoelectronics

University	Department	Province	Area of research
Simon Fraser	Physics	British Columbia	Laser processing for micromachining
British Columbia	Physics	British Columbia	Diagnostics of laser fusion plasmas
Victoria	Electrical Engineering	British Columbia	Programmable laser manipulation systems
Alberta	Electrical Engineering	Alberta	Raman surgical laser development
Saskatchewan	Science	Saskatchewan	Confocal laser scan microscope
Manitoba	Physics	Manitoba	Molecular dynamics in compressed gases/liquids with laser scattering
Carleton	Chemistry	Ontario	Pulsed laser emission spectroscopy
Guelph	Physics	Ontario	Beam-laser spectroscopy of cryogenic molecular solids
Ottawa	Electrical Engineering	Ontario	Multisensor control for autonomous mobile robots
Waterloo	Chemistry	Ontario	Flame characterization using planar laser-induced fluorescence
Toronto	Electrical Engineering	Ontario	Laser studies of adsorbate photochemistry
McMaster	Chemistry	Ontario	Laser-assisted materials processing for optoelectronics applications
Western	Chemistry	Ontario	Laser spectroscopy of jet-coloured molecules
Queen's	Electrical Engineering	Ontario	Design optimization of integrated optical devices
York	Physics	Ontario	Laser diagnostics of the atmosphere
McGill	Electrical Engineering	Québec	Laser spectroscopy of impurities in solids
École Polytechnique	Physics	Québec	Laser processing of optical waveguides
Concordia	Civil Engineering	Québec	Laser-doppler anemometer for wind tunnel flow measurements
Laval	Physics	Québec	Intense femtosecond laser pulse interaction with atoms
New Brunswick	Physics	New Brunswick	Quantum optics and laser spectroscopy
Dalhousie	Physics	Nova Scotia	Optical sensors and optical sensing buses
St. Francis Xavier	Physics	Nova Scotia	Electron scattering from atoms in an intense laser field
Prince Edward Island	Science	Prince Edward Island	Laser flash photolysis of carbenes and carbonyl ylides and oxides

CHAPTER 20: *The Health-care and Biotechnology Sectors*



FOREIGN INVESTORS IN Canada's medical devices and pharmaceutical industries can benefit from highly skilled health scientists, researchers and technical personnel, government support within a favourable regulatory environment, a well-developed infrastructure, along with excellent support industries such as microelectronics, advanced industrial materials and biotechnology.

Canada's regulatory system for health-care products is widely recognized for its high standards. As a complement to the country's internationally respected health-care system, it creates a positive image and support for its health-care manufacturing sector.

Canada has a history of pioneering work in health-care products. For example, it developed the world's first heart pacemaker and Cobalt-60 cancer therapy unit. Building on this tradition, Canadian initiatives in science and technology have continued to generate health-care research that is leading edge and focussed on niche products with global appeal.

THE MEDICAL DEVICES INDUSTRY

In 1993, Canada produced \$1.65 billion worth of medical devices, of which \$538 million was exported. To meet domestic demand, the country imported approximately \$1.7 billion in medical devices. This indicates the potential Canadian market for the foreign investor.

Markets

Canada is one of the world's ten largest markets for medical devices, with domestic consumption in 1993 estimated at \$2.8 billion. In per capita terms, Canada ranks fourth, behind the United States, Japan and Germany. Almost one half of consumption is in the form of medical and surgical supplies. Figure 4.1. provides a breakdown of the market by type of product.

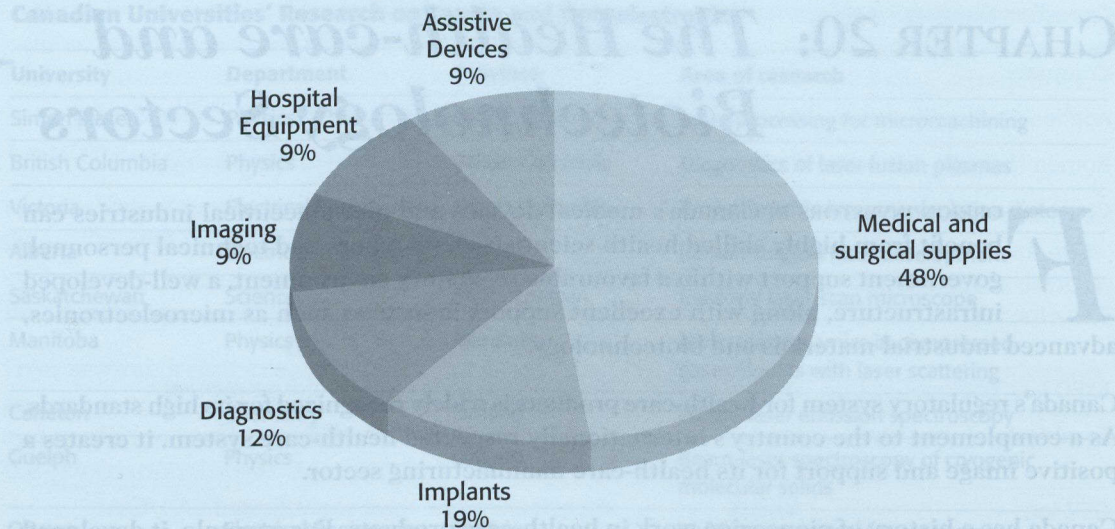
In addition to the opportunities in the domestic market, Canadian producers have ready access to the American market, which in 1993 imported a total of US \$5 billion in medical devices. In 1993, about 60 percent of Canadian exports of medical devices went to the United States. Canada's special trade relationship with the U.S. is especially beneficial to the medical devices industry as the U.S. represents one half of the global market for health-care products.

Canada is an especially good location for medical devices companies engaged in global marketing, since medical devices manufactured in Canada for export have to comply only with the regulations of the importing country.

A Well-developed Infrastructure and Research Community

In terms of R&D expenditure, the health-care sector is the second largest in Canada, following telecommunications. Total health-care R&D expenditure — private and public — reached \$1.5 billion in 1994, an average annual growth of 14 percent since 1988. About \$100 million of this research is related to the medical devices industry, a level which is expected to increase dramatically with the advent of clinical evaluation networks.

Figure 4.1: The Canadian Medical Devices Market, 1993



Source: Medical Devices Canada, *Canadian Medical Devices Industry: Annual Survey of Industry Production Trends, 1993*.

Canada's business and research climate strongly supports the medical devices industry. In recent years, Canadian scientists, doctors and engineers have made important contributions to the fields of surgery, diagnostics, medicine and biomedical engineering.

Universities perform a little over one half of Canada's total health-care R&D expenditures. Industry accounts for roughly 20 percent, approximately the same share as hospitals and research centres. There are over 100 clinical trial facilities in hospitals, universities and independent organizations across the country.

Of special importance to the medical devices industry are the numerous Networks of Centres of Excellence that provide industry with access to Canada's leading basic, applied and clinical researchers. One of the main objectives of these Networks is to foster partnerships between Canada's health-care research community and the industrial sector to invigorate research, develop scientists' skills and increase technical knowledge.

Seven of Canada's 15 Networks of Centres of Excellence conduct research directly related to medicine or medical devices. Over the four-year period ending in 1997, \$80.6 million has been budgeted for five of these: Canadian Bacterial Diseases Network, Canadian Genetic Diseases Network, Protein Engineering Network, Inspiraplex Respiratory Health Network and NeuroScience Network.

Canada's National Research Council (NRC), the federal government's leading science and technology agency, spent about \$42.5 million in fiscal year 1993 to 1994 on health-care R&D activity.

Metropolitan Toronto, with over 55 affiliated hospitals and research centres, is considered to be the third largest centre for medical devices R&D in North America. The University of Toronto, North America's largest medical school, has 3,700 faculty members in the Faculty of Medicine. Because the practice of medicine in Canada is similar to the United States, Canada is an excellent location for clinical work related to medical devices.

Industry Strengths

The Canadian medical devices industry has developed numerous strengths in such technologically advanced areas as cardiovascular devices; diagnostic equipment; orthopedics, prosthetics and orthotics; medical imaging and brain mapping techniques; and biomaterials. (See Table 4.8.)

TABLE 4.8
Canadian Strengths in Medical Devices

Medical/surgical supplies	Disposables, instruments, lasers, respiratory equipment and supplies, wound care
Diagnostic	Biotechnology, instrumentation, laboratory equipment, reagents, in vitro
Imaging and nuclear medicine	X-ray and ultrasound, image processing including 3-D, radiation therapy, interventional and disposable devices, radiopharmaceuticals
Implants	Cardiovascular, drug delivery systems, ophthalmic, orthopedic, dental
Assistive devices	Prostheses, bathroom aids, contact lenses, hearing aids, incontinence, orthotics, rehabilitation, mobility aids and seating
Dental	Burs, sterilizers, amalgam alloy, treatment units, orthodontic brackets, curing life
Informatics	Health-care information systems
Hospital equipment	Dialysis, robotics, monitoring equipment, operating room, sterilization/decontamination, furniture

Government Support Programs and Regulation

The federal and provincial governments are committed to supporting the growth of the medical devices industry in Canada. In addition to the generous tax incentives provided by both levels of government, there are several programs designed to assist Canadian-based medical devices companies in the development of new technologies and products.

At the federal level, programs are delivered by the National Health Research and Development Program, Medical Research Council, and Natural Sciences and Engineering Research Council.

To ensure the maintenance of high standards in safety and reliability, medical devices are regulated by the federal government in accordance with the Medical Devices Regulations, which derive their authority from the Food and Drugs Act.

While setting high standards for health products, the Canadian regulatory system is also characterized by minimal mandatory compliance for the majority of medical devices. For example, in contrast with American practices, medical devices manufacturers located in Canada are not required to obtain domestic regulatory approval for products manufactured specifically for export. Instead, Canadian exporters must certify that products are in compliance with the importing country's regulatory requirements.

LONDON, ONTARIO



THE BEST OF BOTH WORLDS

Can you be part of a dynamic, well-connected business community and still raise your family in a safe and peaceful environment? The answer is yes, in London, Ontario.

A recent study by KPMG Management Consulting concluded that the cost of doing business in London is competitive with four equivalent American cities and the lowest for software development. "We have no difficulty convincing people that London is a great place to live," says Mayor Dianne Haskett, "but it's also important to make a strong business case. We now have the numbers to make that case."

HEALTH COMES FIRST

London is a North American leader in health care and medical research. The city is home to three major teaching hospitals, the University of Western Ontario Faculty of Medicine, the John P. Robarts Institute (Canada's largest privately-funded medical research facility) and several other research institutes. It is an international centre for research and treatment in the areas of stroke, organ transplantation and epilepsy surgery. Investigators continue to advance human knowledge in areas such as AIDS, Alzheimer's, gene therapy and advanced medical imaging. The health sector in London employs 22,400 and contributes \$1.1 billion to the local economy.

This strength gives rise to unique opportunities for economic development and growth. Technology transfer is fostered by the University Research Park, already home to more than 20 companies and organizations.

A CONNECTED COMMUNITY

The telecommunications infrastructure in London matches or surpasses that available in New York, Atlanta, Boston and Chicago. With its diverse and well-educated labour force, the city has become Canada's leading call centre site, with over 1,000 telemarketing agents.

London's advanced telecommunications infrastructure provides the base for LARG*net, an ATM/fibre optics-based network serving London's medical, educational and research community. A further development, LARG*health, is designed to create a community-based record of care that links health care providers through electronic communications.

TRADITIONAL STRENGTHS AND NEW IDEAS

London has been a major regional business centre since the mid-nineteenth century. Today the business community is anchored by several national and multi-national industries and companies, including Canada Trust, London Life, Kellogg's, 3M, CAMI, Siemens, General Motors and Labatt's.

The vibrant manufacturing sector will receive a boost when the National Research Council establishes its new Integrated Manufacturing Technologies Institute at the Research Park. Says Walter Petryschuk, Director of the new centre: "We will enhance the whole corridor's ability to attract investment, because manufacturers will perceive that there's a real nucleus of capability to help them problem solve."

Building on the broad and mature economic base, the city has become a hotbed for software development and environmental technology companies.

IN THE MIDDLE OF EVERYTHING ...AND ROOM TO GROW

London is just two hours from Detroit and Toronto, on the major highway linking Canada's industrial heartland to the American northeast. It is within eight hours drive of over 150 million people. Regular rail service connects it with both Canadian and American destinations and London's international airport offers over 70 flights a day.

Due to a major 1993 annexation, London has a plentiful supply of land in various stages of development, as well as an inventory of available buildings.

EFFECTIVE CITY MANAGEMENT

In 1992, London was selected by a national business magazine as Canada's best run city. The magazine cited low taxes, low crime rate, excellent road and public transit systems, and an effective, modern police force. A 1995 national magazine survey praised London for the quality of health care and high standard of water treatment and waste management.

The city's Economic Development Office maintains a comprehensive data base of local market information, suppliers, labour and utility costs, tax rates and industrial and commercial sites, and is ready to assist any business.

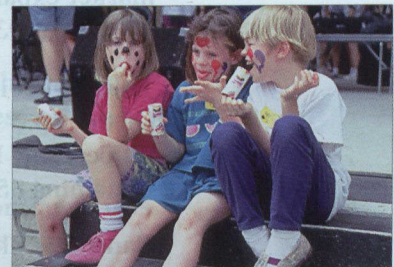
LIFELONG LEARNING

The University of Western Ontario is one of Canada's premier universities, with a student enrolment of more than 25,000. Fanshawe College offers more than 85 career-specific programs in the applied arts and technology, as well as providing customized training tailored to the needs of local business. Almost half of working Londoners have received some post-secondary education.



THE LIVING IS EASY

London is famous for its shady boulevards, lush parks and charming Victorian architecture. While respectful of the past, London is a modern, vibrant city with plentiful, reasonably-priced housing, good schools and a low crime rate. Londoners enjoy great shopping, restaurants, a world class convention centre, a professional theatre, a community symphony orchestra, an extensive community library system, and many other lifestyle advantages. Mark Pickard, Vice-President and General Manager of Spartan of Canada, a London electronics manufacturer, says local companies have no difficulty attracting high quality employees. "London is seen as one of the best cities to live in. It offers everything— it's a small town with family values, but it's also a large city for entertainment purposes."



L O N D O N F A C T S

Population	330,000
Area	16,638 hectares
Londoners with second language	51,545
Average household expenditures	\$45,829
Labour Force	192,000
Municipal credit rating (Moody's)	Aaa
Per capita retail sales	\$7,000
Average house price (detached bungalow)	\$146,000
Land zoned industrial	436 hectares
Number of hotel/motel rooms	2,767
Cost of suburban Class A Office space per square foot	\$16

For further information,
contact the City of London
Economic Development Office,
11th Floor, 300 Dufferin Avenue,
P.O. Box 5035, London,
Ontario, Canada, N6A 4L9

Tel. (519) 661-4545

Fax (519) 661-5331

e-mail webmaster@city.london.on.ca

A recent review of Canada's regulatory system for medical devices may result in greater regulatory harmonization with the United States, Europe and Asia. This effort toward increased harmonization is intended to reduce the amount of time and effort currently required to obtain regulatory approval.

Foreign Companies in Canada

Several Canadian subsidiaries of multinational enterprises, such as Becton Dickinson, 3M, Johnson & Johnson, Baxter and Mallinckrodt have geographic manufacturing mandates for international markets.

A number of smaller American companies with high value-added products, particularly in the cardiovascular area, have also established export manufacturing facilities in Canada.

Strategic Alliances with Canadian Firms

Many smaller Canadian firms in the medical devices industry are actively seeking strategic alliances. Often created as spin-off operations from university-led research, they have niche technology capabilities and the prospect of developing innovative products with global opportunities. These companies' links with Canadian universities and hospitals facilitate the quick and cost-effective development of new medical devices from prototype to commercialization.

In recent years, smaller, more flexible companies from high-tech areas such as California and Houston, as well as some European firms have sought strategic alliances with Canadian firms. And, because of Canada's regulatory environment for the sale of medical devices abroad, Canadian companies are increasingly active in contract manufacturing for American firms wanting to develop export markets.

PHARMACEUTICALS

Greater attention to health care, an ageing population and an increase in specific disease groups are driving growth in the pharmaceuticals market. It is a dynamic and challenging industry that is having to respond to significant changes in health-care systems, including a greater emphasis on preventive medicine, cost containment and business restructuring.

The Canadian market for pharmaceuticals is the seventh largest in the industrialized world. In 1993, Canadians purchased \$11.8 billion worth of pharmaceutical products. The market expanded rapidly in the 1980s and early 1990s, with average rates of growth over 1982 to 1993 of roughly 10 percent per year.

The market is divided into two broad categories of prescription and non-prescription drugs. Of the \$6.3 billion in sales of prescription medicines, brand-name products account for 90 percent. Non-prescription items, and veterinary and biological products make up the remaining \$5.5 billion.

Canada is also an integral part of the much larger North American market for pharmaceuticals. The U.S. is the world's largest consumer of pharmaceuticals, representing about one third of the global market. Mexico's market has attractive prospects for growth in the medium- to long-term as personal incomes grow.

Canadian-based pharmaceutical companies have capitalized on the opportunities generated by free trade with the U.S. It is the main reason for the six-fold increase in pharmaceutical exports between 1988 and 1994. Although at a much smaller level, Canadian sales to Mexico are also growing. Total Canadian pharmaceutical exports in 1994 reached \$666 million.

Because of the excellent business and R&D environment, as well as improved access to the world's richest market for health-care products, pharmaceutical manufacturers from around the world are locating in Canada.

A Sophisticated R&D Infrastructure

Of the top 100 R&D spenders in Canada, roughly one quarter are pharmaceutical companies. In 1994, members of the Pharmaceutical Manufacturers' Association of Canada spent 11.3 percent of total sales on R&D. Approximately 22 percent of current R&D expenditures by the patent-holding segment of the industry is spent on basic research, while nearly 63 percent goes to applied research including drug formulation, pre-clinical and clinical research.

Pharmaceutical companies choosing to locate in Canada benefit from several specific R&D related advantages, over and above those offered to all industries. These include:

- Canada has a well-developed medical research infrastructure incorporating world-class universities, hospitals and government laboratories, especially the NRC.
- The cost of clinical research conducted in Canada is low compared with some other countries and, in certain cases, may receive support from government funding agencies.
- Canada's internationally respected health-care system provides an enhanced image for all companies working in the development of health-care products, and provides a supportive environment for clinical research.
- Companies in the pharmaceutical industry work closely with universities and hospital research laboratories. Universities across the country have established expertise in a number of areas that have direct applications for the pharmaceutical industry.

Working in this conducive environment, Canadian researchers have discovered a number of therapeutically important drugs. Developments in biotechnology are also expanding the frontiers of research in pharmaceuticals.

Canada's Favourable Regulatory Environment

Canada is internationally recognized for applying high standards for the safety and efficacy of pharmaceuticals. Products are regulated in accordance with Canada's Food and Drugs Act, administered by the Health Protection Branch (HPB) of Health Canada. Current regulations governing pharmaceutical products are similar to those in the United States and other major producing countries. (See Appendix A for contact information.)

Biologics (vaccines and hormones such as insulin) fall under the jurisdiction of the Bureau of Biologics of Health Canada. It authorizes the manufacture and marketing of these products, and inspects the facilities of manufacturers who must hold a licence.

While Canada's regulatory system provides public confidence in health-care products it is also aimed at creating an environment that encourages investment in the industry.

In 1993, the federal government adopted legislation to strengthen patent protection in the pharmaceutical industry. Patent protection for pharmaceutical products is now extended to 20 years. In the same year, the Intellectual Property Improvement Act came into force, enhancing administrative practices and procedures associated with the Patent Act. Rules affecting the filing, examination and granting of patents have been clarified.

Of particular interest to export-oriented companies, Canada allows the export of pharmaceutical products to markets where that product is accepted, even if it has not yet been approved for sale in Canada. This contrasts with American practice. The government is also negotiating recognition agreements with countries of the European Union (EU) and Russia, among others, to facilitate exports to those markets.

The government also works toward keeping its service costs down. Approval for advanced-stage products is comparatively low-cost and government agencies provide new-product approval services free of charge.

Industry Structure

Of the roughly 150 manufacturers in Canada, about 30 percent are subsidiaries of U.S. and European-based multinationals. They are the major players in the Canadian pharmaceutical industry, producing 80 percent of all pharmaceuticals in the country and capturing over 70 percent of the Canadian market in 1993. These companies also account for most of the R&D performed by the Canadian pharmaceutical industry.

In addition to the large multinationals are a number of smaller, independent Canadian companies, primarily working in R&D or producing generic substitutes. The generic sector grew in the 1970s and 1980s in response to legislation that provided for the compulsory licensing of generic substitutes in exchange for a royalty payment to the patent holder.

No single firm occupies a dominant position in the Canadian market. Among the 30 largest Canadian manufacturers, no single entity has had more than 7 percent of the entire market since 1990. In each of the many therapeutic submarkets, there are usually several competing products. Only the biologics subsector is concentrated in a small number of firms.

Few Canadian companies produce fine chemicals, the primary active ingredient of pharmaceuticals. Those that do, however, are known in several international markets for their high-quality products.

The pharmaceuticals industry employs about 22,000 people in plants located mainly in Quebec and Ontario.

Future Opportunities

Because of the favourable R&D environment, improved regulatory system, and an excellent base for exporting, Canadian subsidiaries of multinational enterprises in the pharmaceutical industry are in a strong position to gain world or regional product and research mandates. As a result, R&D activity in Canada will continue to increase.

Smaller Canadian companies with strong R&D capabilities will be looking for strategic alliances with larger firms to develop and market products internationally. Greater product specialization is anticipated. Some of the specialized therapeutic areas where Canada has established research capabilities are Alzheimer's, cardiovascular, central nervous system and gene-based ailments.

Governments in Canada will continue to encourage the industry through improved regulatory processes and a strengthened infrastructure for R&D and clinical evaluations. The federal government will also pursue greater market access for Canadian-based firms through mutual recognition agreements, especially in the rapidly expanding markets of Asia, Latin America and Eastern Europe.

BIOTECHNOLOGY INDUSTRY

Companies in the biotechnology industry pursue activities that cut across several sectors of the economy, including health care, agri-food, environment and natural resources. The products of the industry, therefore, have a variety of applications: laser beam-activated drugs; anaerobic digestive systems for the treatment of pulp mill effluents; biological pest control; bioleaching in mining; and fermentation technology.

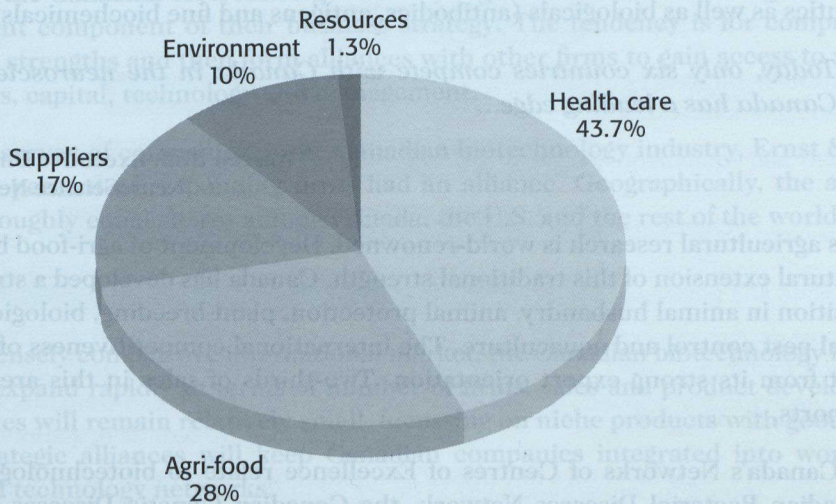
The 1980s saw a particularly rapid growth of the industry, as companies capitalized on the many new commercial opportunities. Since then, Canadian companies have developed an international presence with the development of a number of world-class, competitive products.

Canadian Biotechnology Firms

Roughly 300 Canadian-based firms make up Canada's biotechnology industry, 120 of which have biotechnology as their core activity. Around 90 percent are small- and medium-sized enterprises. Total employment is 13,000.

Over 40 percent of Canadian-based biotechnology companies are in the health-care sector, an area that continues to record the highest growth in the number of biotechnology companies. The next largest share, with 28 percent, belongs to the agri-food sector. (See Figure 4.2.)

Figure 4.2: Distribution of Canadian Biotechnology Companies, 1993



Source: Ernst & Young, *Canadian Biotech '94: Capitalizing on Potential*, 1994, p. 19.

Firms continue to spend more on R&D, the driving force of the industry. Total spending on biotechnology R&D is estimated to be around \$700 million, with the core biotechnology companies accounting for approximately \$250 million. According to Ernst & Young's *Third Report on the Canadian Biotechnology Industry*, there were 8,800 products in various stages of the product development cycle in 1993. Two-thirds of these are in production.

Sales revenue for the industry reached about \$1.7 billion in 1993. The health-care sector accounted for approximately \$1 billion, the agri-food sector for \$600 million, and the environmental sector for \$25 to \$50 million. Growth in revenues has been very high, averaging over 20 percent per year in the past five years.

The North American Market

World-wide sales of biotechnology products in 1993 are estimated to have been roughly \$15 billion. North America accounts for most of this. Today's market in North America for biotechnology products is thought to be in the range of \$9 to \$10 billion per year, with over 80 percent derived from the health-care sector.

Growth in the market over the next ten years is expected to be robust. In their most recent report on the industry, Ernst & Young forecasts that the North American biotechnology market will grow, on average, by an impressive 25 percent per year over the 1994 to 2004 period. This would take total sales in 2004 to \$34.5 billion, with the health-care sector continuing to account for more than 80 percent.

Canadian-based companies are well-positioned to take advantage of this rapid growth. Their products are highly regarded internationally and competitive on the global market. At present, exports make up about 40 percent of total sales of the Canadian industry. The U.S. is, and will remain, the most important export market, followed by Western Europe and Japan.

A Sound Research Base

In the two largest segments of the biotechnology industry — health and agri-food — Canada has a well-developed research base upon which to build. Canada's bioclinical research base in its medical schools and teaching hospitals is world-class. This has been a boon for biotechnology companies in the health sector, underpinning the development of diagnostics and therapeutics as well as biologicals (antibodies, antigens and fine biochemicals).

*Today, only six countries compete with Canada in the neurosciences.
Canada has a leading edge...*

Warren Bull, Executive Director,
NeuroScience Network

Canada's agricultural research is world-renowned. Development of agri-food biotechnology was a natural extension of this traditional strength. Canada has developed a strong, competitive position in animal husbandry, animal protection, plant breeding, biological fertilizers, biological pest control and aquaculture. The international competitiveness of this sector is apparent from its strong export orientation. Two-thirds of sales in this area are derived from exports.

Five of Canada's Networks of Centres of Excellence relate to biotechnology. These are: the Canadian Bacterial Diseases Network, the Canadian Genetic Diseases Network, the NeuroScience Network, the Respiratory Health Network, and the Protein Engineering Network. Supplementing these are eight Biotechnology Networks administered by different departments of the federal government. These facilitate collaboration and communication among researchers in university, government and industry.

*Federal programs, along with provincial agencies ... provide a good
nurturing environment for start-ups in Canada.*

Carolyn Armstrong,
Vice President, Business Development
Imutec Corporation

Regulatory Environment

In a rapidly expanding, competitive industry with many new products, it is important to have a regulatory process that effectively manages risk while ensuring that products can be brought to market in a timely fashion. Canada is currently developing its biotechnology regulations to meet those objectives. A top priority of the federal government is the early finalization and implementation of a system that will be harmonized with the country's main trading partners, in particular the United States.

Intellectual Property Protection

The federal government is also strengthening its patent protection for biotechnology products. The extended patent protection for pharmaceuticals will apply to the development and manufacture of biopharmaceuticals. Other changes, soon to be phased-in, deal with the handling of sequencing data and the deposit of biological material. In 1996, the Canadian Intellectual Property Office will have the capacity to process sequencing data in electronic form for nucleotides and peptides.

Also by 1996, Canada will be a signatory of the Budapest Treaty, whereby the deposit of biological material in any of the collections of the international depository authorities may be considered as part of a patent disclosure in Canada.

Strategic Alliances

Companies in the Canadian biotechnology industry regard alliances with foreign companies as an important component of their business strategy. The tendency is for companies to focus on their strengths and then form alliances with other firms to gain access to marketing capabilities, capital, technology and management.

In their 1993 survey of companies in the Canadian biotechnology industry, Ernst & Young found that 83 percent of responding firms had an alliance. Geographically, the alliances were split in roughly equal shares among Canada, the U.S. and the rest of the world.

Outlook

Despite an intensely competitive international market, the Canadian biotechnology industry continues to expand rapidly in terms of number of firms, sales and product development. Most companies will remain relatively small, focussing on niche products with good export potential. Strategic alliances will keep Canadian companies integrated into world-wide marketing and technology networks.

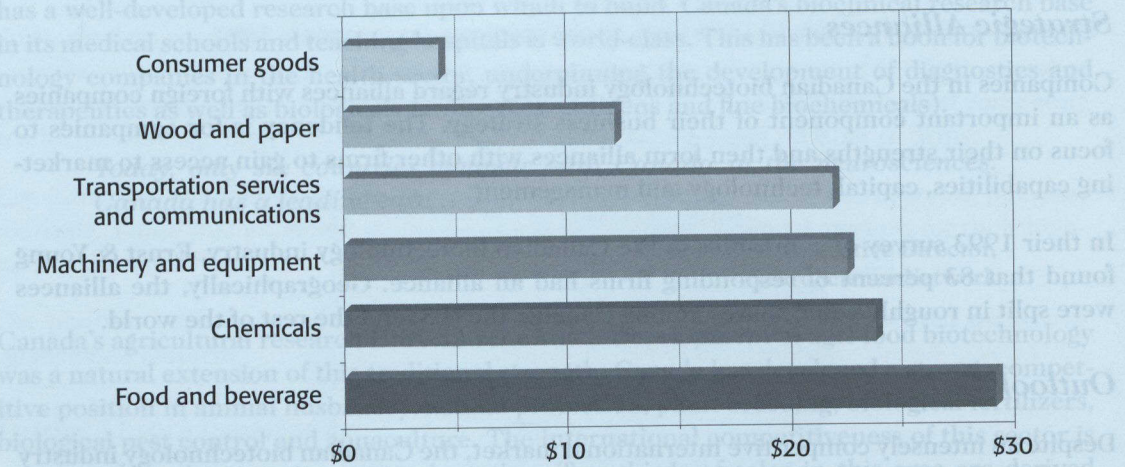


CHAPTER 21: *Agri-food and Food Packaging*

THE AGRI-FOOD INDUSTRY — which includes agriculture, food and beverage processing, as well as the distribution, retail and food service component — enjoys a prominent place in the Canadian economy. It contributes 8 percent of the country's GDP. More importantly, it is one of Canada's major employers, accounting for 15 percent of total employment.

In particular, the Canadian food and beverage processing industry is a leading target for foreign investment. Over the past five years, international investment in the industry has grown by almost 30 percent, much faster than in any other part of the manufacturing sector. (See Figure 4.3.)

Figure 4.3: Foreign Investment Growth, 1990-1994
(percentage change over 5 years)



Source: Statistics Canada, 1994.

The interest of foreign investors in Canada's food and beverage processing sector is not difficult to understand. Canada is one of the world's leading producers of food. Its agricultural and fisheries resource base is immense, with vast areas devoted to the production of grains, oilseeds, fruit, vegetables and other field crops. It has large dairy and livestock herds, highly sophisticated poultry production and a wide range of both wild and cultured fish and seafood.

The sector is supported by an innovative food packaging industry. With the continued growth in snack foods, bottled beverages, deli foods and ready-to-cook meals, the packaging requirements of the food industry have changed dramatically in the past decade. The Canadian industry has been able to respond quickly and flexibly to these new demands.

Vice President, Business Development
Imatrec Corporation

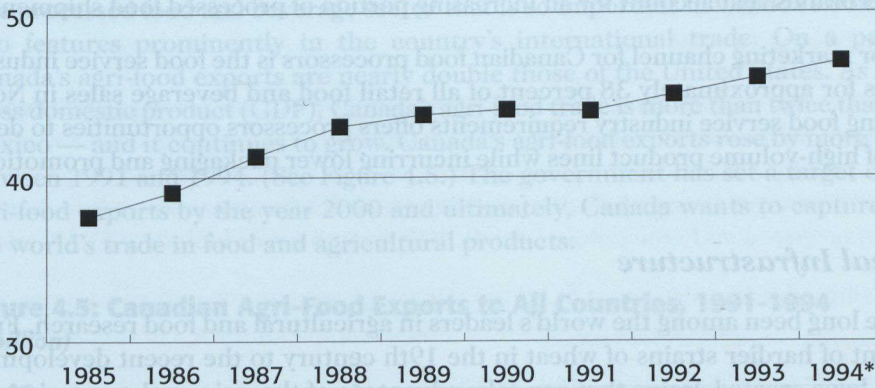
FOOD AND BEVERAGE PROCESSING

The processed food and beverage sector enjoys a prominent place among Canada's manufacturing resource-processing industries, ranking ahead of automotive industries, pulp and paper, electronics, or textiles and apparel. The food sector is, in fact, the leading consumer products sector in Canada and across North America.

A Record of Growth and Diversification

The Canadian processed food and beverage sector has experienced significant growth in the first half of the decade. Between 1990 and 1994, the value of annual industry shipments increased by an estimated \$3 billion. (See Figure 4.4.) As a result, the value of annual shipments is approaching \$50 billion.

Figure 4.4: Canadian Processed Food Shipments, 1985-1994
(\$ billions)



* Agriculture and Agri-Food Canada estimate.

Source: Statistics Canada, Census of Manufacturers.

While growing, the sector has diversified. Canadian food and beverage processors have responded to shifting consumer preferences by producing Canadian products that compete directly with the imports that have found widespread consumer acceptance and stimulated new market demand. Nowhere is this more evident than in dairy products, which were second only to frozen foods in retail grocery sales volume growth in 1994. Canadian consumers now can buy Canadian-made dairy products such as variety cheeses, yoghurts and spreads that were previously available only as imported foods.

Similar examples of diversification are to be found in the manufacture of sauces, preserves and condiments. Leading the way have been Mexican-style tomato-based sauces and salsas, joined by prepared mustards, steak sauces, marinades and salad dressings. These kinds of products, plus sweet sauces and fruit preserves, have been instrumental in allowing many new Canadian-based food firms to break into both regional and national markets.

Even some industries previously considered to be mature have witnessed dramatic growth in the number of new entrants and new products. For example, small, independent brewing companies, such as Algonquin Breweries and the Whistler Brewing Company, have been launched in Ontario, Quebec, British Columbia and other regions of the country. The Canadian wine industry has experienced a comparable phenomenon, largely because of increased specialization in the production of high quality wines from varietal grapes that are more successful in competing with imported varieties and vintages. Small firms in both the brewing and wine industries are now moving beyond local and regional markets into interprovincial and international niche markets.

An Ideal Test Bed

By world standards, Canadian and American consumers are affluent, accustomed to a wide selection of processed foods, and eager to try new food and beverage products. They expect quality, convenience and variety. In fact, these characteristics make Canadian consumers an exacting testing ground for new food and beverage products. What is more, the Canadian market is an excellent indicator of trends and preferences in the neighbouring American market. Most Canadian retailers feature the same brands that lead in food and beverage sales in the United States. This makes Canada the ideal test market for products destined for all of North America.

Marketing and Distribution

Canadian food and beverage manufacturers benefit from highly sophisticated marketing channels in Canada, the U.S. and Mexico. All three countries have established highly efficient food wholesale and distribution industries. These channels, in turn, offer growing markets for the private label brands that account for an increasing portion of processed food shipments.

The other major marketing channel for Canadian food processors is the food service industry, which accounts for approximately 38 percent of all retail food and beverage sales in North America. Meeting food service industry requirements offers processors opportunities to develop a diversity of high-volume product lines while incurring lower packaging and promotional costs.

Technological Infrastructure

Canadians have long been among the world's leaders in agricultural and food research. From the development of hardier strains of wheat in the 19th century to the recent development of canola, they have created grains that can take advantage of the unique characteristics of the Canadian environment. Areas of demonstrated Canadian strength include:

- livestock breeding;
- fermentation technologies;
- molecular biology applied to developed, disease-resistant crops;
- new types of edible oils with superior nutritional properties;
- nutritionally and functionally superior grain varieties;
- utilization of new seafood species; and
- new processing technologies for red meat.

This technological sophistication is sustained and enhanced by a national network of food research and development centres concentrated in several clusters around the country.

A Reputation for Quality

Canada has an international reputation for high quality foods, beverages and food commodities. The regulatory system that governs food and beverage manufacturing and distribution is one of the cornerstones upon which this reputation has been built. It provides consumers in both Canada and other countries with the assurance that Canadian-processed foods are of high quality, safe and fully in compliance with the ingredient and nutritional profiles indicated on product packaging and labelling.

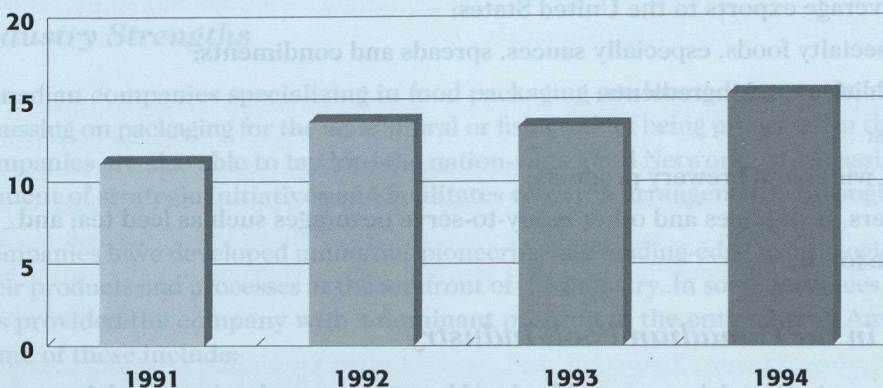
Canada's federal government fully recognizes that regulations governing industry behaviour must serve the public interest at the same time as they foster international competitiveness. Although this quality assurance system is stringent, it is not an impediment to manufacturers of processed foods in Canada. Rather, it is an underlying reason for the international success of Canada's food industry and serves to ensure global market access for Canadian food and beverage products in the future.

Canadian processed food and beverage products are winning international recognition by consumers and food service industries in other countries. Canadian food and beverage products are frequently accorded the highest awards at international food trade fairs such as SIAL. In recent years, Canadian wines, beers, processed vegetables, biscuits and prepared vegetarian foods have all taken top prizes. Five Canadian food processors won a SIAL d'OR at the 1994 SIAL event.

Exports

The processed food and beverage sector that is so important in Canada's domestic economy, also features prominently in the country's international trade. On a per capita basis, Canada's agri-food exports are nearly double those of the United States. As a percentage of gross domestic product (GDP), Canada's agri-food trade is more than twice that of the U.S. and Mexico — and it continues to grow. Canada's agri-food exports rose by more than 40 percent between 1991 and 1994. (See Figure 4.5.) The government has set a target of \$20 billion in agri-food exports by the year 2000 and ultimately, Canada wants to capture 3.5 percent of the world's trade in food and agricultural products.

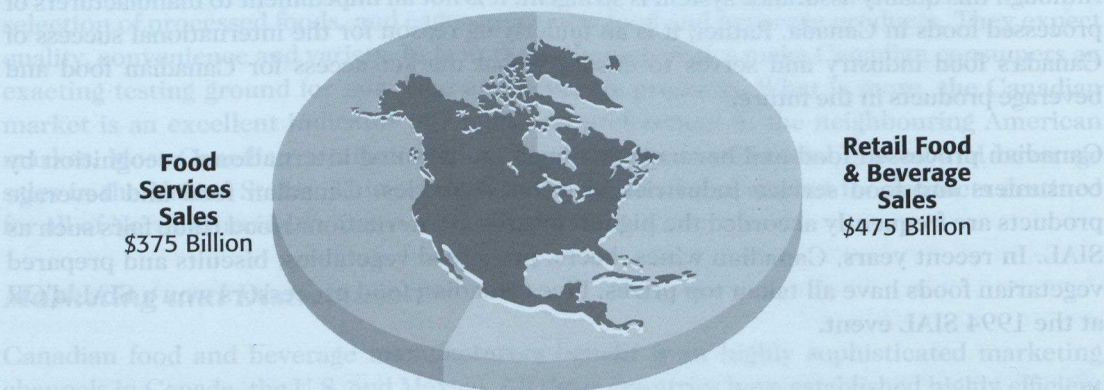
Figure 4.5: Canadian Agri-Food Exports to All Countries, 1991-1994 (\$ billion)



Source: Agriculture and Agri-Food Canada, International Markets Bureau.

Much of this growth is directly attributable to the preferred access to the markets of the United States that Canadian producers now enjoy subsequent to the 1989 Canada-U.S. Free Trade Agreement (FTA). There are many examples of food and beverage categories where trade has increased significantly in both directions. The advent of free trade with Mexico under the NAFTA will further stimulate agri-food exports to that large and growing market. The entire North American market of 380 million consumers is the richest single market in the world. Combined retail food, beverage and food service sales in this market reach an estimated \$850 billion annually. (See Figure 4.6.) Coupled with enhanced access to imported raw materials under the NAFTA, Canadian-based processors will gain freer access to supplies of these commodities produced throughout Canada, the U.S. and Mexico.

Figure 4.6: The World's Richest Market, 1994



Source: Agriculture and Agri-Food Canada, USDA.

Major Market Trends

The North American market is characterized by population growth, increasing sophistication and greater diversity in consumer tastes. Consumer demands are heavily influenced by changing lifestyles. An ageing population, the growing prevalence of dual income and single-parent households, plus growing ethnic populations are all factors leading to an increased demand for a diversity of prepared and convenience foods. Key growth areas include:

- processed, value-added foods;
- ready-to-cook, portion-controlled foods;
- food and beverage exports to the United States;
- imported specialty foods, especially sauces, spreads and condiments;
- new food additives and ingredients;
- health foods;
- low-alcohol wines and brewery products;
- bottled waters, fruit juices and other ready-to-serve beverages such as iced tea; and
- convenience foods.

Investment in the Canadian Food Industry

Capital investment in Canada's processed food and beverage sector has increased dramatically since the implementation of the FTA. This investment was made not only by the many new entrants, including small- and medium-sized companies, but by long-established firms in what were previously considered to be mature industries such as grains and oilseeds processing, brewing, distilling and dairy processing.

Canada's food and beverage processing industry wants to attract new capital and new technology. Today, capital investment increasingly flows into new firms, products and processes and exceeds \$2.0 billion annually. Much of this is directed toward meeting volume and quality demands of export markets. Current trends suggest that opportunities for new investment are especially strong in the following sectors:

- frozen foods;
- meat and meat products;

- cereal and grain-based products;
- food-related biotechnologies;
- snack foods;
- sauces, salad dressings, condiments, marinades and fruit preserves;
- fisheries and seafood processing;
- new beverage products; and
- ethnic foods.

THE FOOD PACKAGING INDUSTRY

Shifting consumer preferences toward ready-to-cook meals, specialty foods, and convenience foods have placed new demands on the food packaging industry. Food processors look for longer shelf life, attractive packaging, and new materials for preparation methods such as microwaving. At the same time, increasing emphasis is placed on reducing the amount of packaging used. This is a response to the public's environmental concerns and government regulations that have targetted a 50 percent staged reduction in packaging waste by the year 2000.

These changes translate into a wide range of business opportunities for innovative approaches and solutions in the design and manufacture of packaging, processing and labelling equipment, and for new materials. This potential exists throughout the North American market. Canadian firms are well-established in this market and their exposure will grow as a result of the NAFTA.

For some Canadian companies, up to 80 percent of sales are to the United States. Canada is one of the top five suppliers of packaging machinery to that country.

Industry Strengths

Canadian companies specializing in food packaging are located across the country, usually focussing on packaging for the agricultural or fish product being processed in the region. These companies are also able to tap into the nation-wide Food Network, which assists in the development of strategic initiatives and facilitates research arrangements throughout Canada.

Companies have developed numerous pioneering and leading-edge technologies that have put their products and processes at the forefront of the industry. In some instances, the innovation has provided the company with a dominant position in the entire North American market. Some of these include:

- research and commercial irradiation facilities;
- an energy-efficient, heat-and-hold vegetable blancher;
- a short radius, individual-quick-freeze, spiral freezer that uses 60 percent less horsepower;
- a cooling tunnel that uses 95 percent less water;
- a flour mill that reduces the 14 actions in conventional milling to a simple, one-step process;
- automated packaging machinery and material handling systems for the dairy, food and beverage industries;
- engineering support to develop layouts for plant installations;
- foil-laminated closures and closure applicating equipment;
- motionless mixers;
- interlocking bucket conveyor systems; and
- an automated opener for herring roe.

R&D Capabilities

Canada's Food Network brings together research facilities in universities, and the federal and provincial governments. Eleven universities plus nine federal government research centres and eight provincial facilities participate in the Food Network. Two exemplary Canadian food research centres with special expertise in food packaging are Agriculture Canada's Food Research and Development Centre in St.-Hyacinthe, Quebec, and the University of Guelph, in Guelph, Ontario.

The federal government's St.-Hyacinthe Centre is a major player in Canada's food sector, in large part because of its strong relationship with industry and its focus on partnerships. The Centre's goals are improvements in product quality, technological innovation, and enhanced competitiveness. Research and development has been beneficial for export promotion, import replacement, greater value-added products, technological advances and energy conservation.

Of particular interest to the food packaging industry is the Centre's Food Preservation Technology Section. Researchers analyze food spoilage and the means to control it, prepackaged products, rigid packaging, flexible film testing, and food-package systems modelling.

One major R&D project coordinated by the Centre produced a new preservation technique that significantly extends the shelf-life of fresh berries. In collaboration with three other private-sector companies, the technology allows a Quebec-based company to transport blueberries to new and distant markets.

The University of Guelph was endowed with the George Weston Chair of Food Packaging Technology. Its objectives are to contribute to the country's export potential, ensure the quality and safety of the domestic food supply system, and reduce environmental impacts. Team members engage in strategic, pre-competitive research that is available and relevant across the food sector, including new preservation techniques, shelf-life modelling, and the development and design of packaging materials.

International Business Alliances

Foreign companies have teamed with Canadian firms to form joint ventures that extend the market reach of Canadian-produced goods. A Canada-Japan joint venture, Langenpac-Kyoto Seisakusho, was established to manufacture case packers for the North American market. The company combines Japanese design with Canadian engineering and manufacturing facilities and know-how.

Another joint venture, Quadro Ytron (UK) Ltd., was set up in the United Kingdom to market Canadian-designed and produced grinding mills and equipment for fluid handling throughout Europe.

CHAPTER 22: *Environmental Industries Sector and Ocean Technologies*



GLOBAL CONCERN OVER the state of the environment has driven the emergence of a dynamic industry based on environmental technologies. Today, companies in the environmental industries sector are not just offering solutions for pollution control and waste management. They are increasingly looking at pollution prevention techniques and waste reduction methods that can be used by manufacturers and municipal governments. As a result of constant research and development, these technologies are becoming ever more innovative and cost-effective.

Around the globe, industry and government are working together more creatively to achieve environmental goals. Governments are moving away from confrontational regulatory approaches to systems that look to an industry to generate and market efficient solutions in response to defined environmental goals.

Industry is responding to environmental challenges by adopting voluntary codes, such as the International Chamber of Commerce's *Business Charter for Sustainable Development*, and the Responsible Care program of the North American chemical industry.

We are operating on the assumption that it is easier, cheaper, and more profitable to eliminate pollution at source.

Bob Whelan

Manager of Corporate Information
3M Canada

As a result of greater public attention, government regulations, and greater acceptance by industry of environmental standards, the global demand for environmental products and services is expanding quickly. Estimates of the size of the global market in 1994 are in the US \$300 to \$330 billion range. Environment Canada and the Department of Industry project that the world market will grow to US \$425 billion by the year 2000.

Regulatory Aspects

Despite the new approaches by many companies toward environmental management, most industry officials continue to cite environmental regulations, at the federal and provincial level, as the primary motivating force for adopting new environmental practices.

The regulatory framework in Canada is an amalgam of federal and provincial legislation. Some regulations are the direct result of signing international agreements on environmental issues, such as the Convention on Long-range Transboundary Air Pollution and the Convention on the Protection of the Atmosphere's Ozone Layer.

The centrepiece of federal legislation is the Canadian Environmental Protection Act, proclaimed in 1988. The Act concentrates on the management of toxic substances through a life-cycle approach; pollution prevention; the setting of environmental quality objectives; the fulfillment of Canada's international obligations; and recognition of the shared (government-business-consumer) stewardship of the environment. The Act's focus is preventative, using regulations and enforcement together with a package of non-regulatory guidelines, codes of conduct, incentives and the development of environmental technologies.

The 1995 Canadian Environmental Assessment Act replaces the Federal Environmental Assessment and Review Process. Its purpose is to ensure that environmental considerations are included in federal government planning and decision making processes. The Act applies to development projects that involve federal authority.

Each province has extensive authority for environmental protection. Provincial laws and regulations on environmental protection are usually the most pertinent for the creation and operation of businesses. New companies, particularly those in manufacturing and processing, have to comply with provincial laws regarding the effect of their business activity on air and water quality, fisheries and wildlife. The nature of environmental legislation varies from province to province.

With the goal of better harmonizing federal and provincial environmental regulation, authorities of the two levels of government are currently working on an Environmental Management Framework Agreement that will make changes in responsibility and administration. Some of the new instruments being considered for meeting environmental goals are economic instruments such as emissions trading, a way of building in economic incentives for business to reduce emissions beyond what is required by regulation.

THE CANADIAN ENVIRONMENTAL INDUSTRIES SECTOR

Although the Canadian environmental industry is characterized by small- and medium-sized firms, many of which have been established only in the past five years, it is already a major economic sector. In terms of employment, it is the third largest industry in Canada, with 150,000 workers. The 4,500 firms in this sector generated sales of \$11 billion in 1994, with roughly \$6 billion in manufacturing and \$5 billion in services.

Companies are spread across the country, but almost one half of the firms in this sector are in Ontario, primarily in the Toronto area. They generate about 60 percent of national sales of environmental products.

The industry has a strong trade orientation, with 23 percent of production exported in 1994. The American market took 80 percent of the total, mainly in the form of equipment. Around 600 Canadian-based firms have exported but, significantly, another 1,200 are considered export-ready.

Annual growth rates for the industry have averaged about 6 percent per year, but are expected to increase to 10 percent over the next five years. Some industry analysts expect even faster growth, with the market reaching \$21 billion by 1997. The demand is largely driven by legislation and regulations. But, it is also coming from Canadian companies that are now incorporating environmental considerations into their business strategies. This is creating exciting challenges for the Canadian environmental industries.

A contaminant discharged into the environment is a misplaced raw material that could have made money for the company, rather than just becoming a polluting liability. Pollution is just a product in the wrong place.

Gary Gallon
President

Canadian Environmental Industry Association

Definitions and statistical measurements of the environmental industry are still being developed. This makes aggregate study of the sector difficult, but two of the most established areas of activity are water and wastewater management, and solid waste management.

INDUSTRIAL WASTEWATER MANAGEMENT

Of the \$4 billion that is expected to be spent in Canada in 1995 on water and wastewater management, roughly one third is spent by industry. Municipalities account for the remaining two thirds. The industries with the largest expenditures on water and wastewater products and services are: pulp and paper, chemical manufacturing, mining, oil and gas, iron and steel, and utilities.

The Canadian market for the treatment of industrial wastewater will remain strong, growing annually by 5 to 10 percent. Much of this growth is being driven by provincial legislation, particularly in British Columbia and Quebec, that calls for the rehabilitation and improvement of water quality. British Columbia's new legislation regulates effluents from industrial parks and includes measures to control the discharge of dioxins and furans from pulp mills.

The Canadian pulp and paper industry is in the process of installing wastewater treatment systems to deal with organochlorine emissions. Capital spending is estimated to be in the \$2 to \$5 billion range. Other attractive market opportunities, across a number of industries, are expected in biological and oil/water separation systems, membrane treatment, water filtration systems for petrochemical industries, and ultraviolet treatment.

The market in the U.S. for products and services for wastewater management, estimated to be in the range of US \$30 billion, will remain strong. More than two-thirds of wastewater treatment facilities in the U.S. do not meet national water standards. Billions of dollars will have to be spent to bring these operations up to prescribed standards.

As countries become more prosperous, the demand for environmental goods and services will increase. The quest for environmental quality cuts across all economic sectors and in recent years there has been a distinct trend towards pollution prevention (green technologies) and away from pollution control. 'An ounce of prevention is worth a pound of cure' is becoming the prevailing philosophy. Encouraging innovation that is both clean and more productive is a critical challenge for our environmental industry and for the economy as a whole.

Source: Environment Canada and Industry Canada, *Consultation Paper: Environmental Industry Strategy for Canada*. Ottawa, January 1994, p. 5.

Strengths in Technology

Building on Canada's strong R&D infrastructure and taking advantage of the generous tax incentives for R&D activity, the environmental industries sector has developed a reputation for high-quality and innovative solutions to environmental problems. Moreover, many of the technologies result in capital cost savings for wastewater treatment. Table 4.9 presents some of these processes.

Companies developing technologies for wastewater treatment are supported by a strong body of research being conducted at universities and research institutes across the country. There are 15 universities and 15 public and private research centres with special expertise in wastewater management.

Government Support for Research Activity

Government laboratories have been critical to the development of environmental research in Canada. They are particularly important to the small- and medium-sized companies developing niche products but lacking specialized and expensive testing equipment.

TABLE 4.9
Technologies and Their Application for Wastewater Treatment

Process	Application
Anaerobic technology	Energy recovery and unique construction with more than 20 percent capital cost savings
Sequencing batch reactor technology	High-quality effluent at more than 25 percent capital cost savings
Biological nutrient removal	Phosphorus removal to less than 0.3 mg/L and nitrogen removal to 1 mg/L at temperatures of less than 10° C
Reciprocating ion exchange	Metal ion recovery for recycling with payback periods as short as one year
Membrane systems	Separation and recovery of valuable feed stock to save on treatment costs
Automated polymer dosing	Up to 40 percent polymer savings in sludge de-watering
Ultraviolet oxidation	Destruction of complex synthetic organic compounds for pre- and/or post-treatment of industrial effluents and remediation of contaminated aquifers
Ultraviolet disinfection	Cost-effective and environmentally friendly control of bacteria in effluents and industrial process waters
Wet air oxidation	Compact technology for breakdown of complex organic compounds
Oil from sludge (OFS)	Residuals management with useful by-product recovery
Wastewater treatment modelling plant	Realistic, dynamic modelling for process design and operational control of wastewater treatment plants

For example, the NRC's Institute for Environmental Research and Technology provides scientific and testing services to industries, enters into joint ventures with clients, and licenses products and processes to companies for commercialization. One of the areas of activity is management of liquid wastes.

Research results from the National Water Research Institute helped the Canadian company, Trojan Technologies, develop ultraviolet (UV) sterilization processes for sewage and drinking water treatment systems. Trojan is now the world's leading supplier of UV disinfecting systems with 70 percent of the global market and activity in 35 countries.

The Environmental Technology Commercialisation Program provides important financial assistance to small- and medium-sized companies that are developing new technologies. Up to 75 percent of the cost of preliminary studies, to a maximum of \$50,000; and up to 50 percent of demonstration costs, to a maximum of \$5 million; are available to commercialize new environmental technologies. The program's six-year budget of \$80 million is expected to generate \$150 million in private-sector spending on environmental technologies. This program helped Zenon Environmental Inc. to develop a biological treatment system for oily wastewater produced by automobile manufacturers.

The federal government has also moved to government-owned, company-operated facilities. One of these, Environment Canada's Wastewater Technology Centre, is now a profitable research organization that has created new technologies, expanded into foreign markets, and

formed a partnership with Philip Environmental to create a new company for the management of wastewater facilities.

Provincial governments have also been directly involved in establishing environmental research centres. One of these, the Waterloo Centre for Groundwater Research, was created in 1987 with funding from the Ontario government's Technology Fund. This Centre works closely with industry to direct research activity into areas with industrial applications. The Centre contracts with industry for product testing and helps to market products developed by researchers at the Centre.

THE SOLID WASTE MANAGEMENT INDUSTRY

Second in size to the market for water and wastewater management products and services, solid waste management is the oldest and most developed of the environmental industries. The concept of waste management, as opposed to waste disposal, gained currency in the 1970s. With increased pressure on landfills due to closures and urban sprawl, an industry began to grow around the ideas of waste management engineering, waste reduction and recycling.

New products and services began to appear. For example, in 1981 Canada introduced the first municipally coordinated residential curbside recycling program in North America. The continued emphasis on solid waste management through the 1980s led to advances in recycling and waste reduction. But, waste generation continued to grow. Over the past decade in Canada, there has been a 25 percent per capita increase.

Concerned over the steady rise in waste generation, in 1989 the Canadian Council of Ministers of the Environment set a national goal to reduce the amount of waste sent for disposal by 50 percent by the year 2000. The following year, the federal and provincial governments, with the cooperation of the packaging industry, endorsed the National Packaging Protocol with the objective of reducing packaging waste by 50 percent by the year 2000.

In addition to government regulations, the market for solid waste management is being driven by a growing urban population, high waste-generation rates, the high value of land, closing of landfills and the cost of transporting waste to distant disposal sites.

The North American Market

In the first part of the 1990s, sales of the solid waste management industry were in the \$1.1 to \$1.5 billion range. This includes solid, hazardous and special waste management equipment and services, as well as recycling technologies and consulting.

The Canadian solid waste stream is made up of 57 percent industrial, commercial and institutional waste, 33 percent residential, and 10 percent from demolition, land clearing and construction. In total, the country generates 16 million tonnes of solid waste annually.

Municipalities are the biggest customers, accounting for \$400 to \$600 million of industry revenues. This was followed by chemical manufacturing companies with \$100 to \$140 million.

The market in Canada is expected to grow at an annual rate of 7 to 10 percent per year through the remainder of this decade, mirroring anticipated growth rates in the United States.

The combined Canada-U.S. market for solid waste management products and services currently exceeds US \$30 billion. The U.S. generates 180 million tonnes of solid waste each year.

In Mexico, the environmental sector has been targetted as a priority for development. The market for solid waste handling equipment totalled US \$500 million in 1991.

Market Opportunities

Emphasis will continue to be placed on recycling throughout North America. At present, recycling programs in Canada are expanding at the rate of about 10 percent annually. Even so, much more needs to be accomplished. For example, only about 20 percent of paper is currently being recycled. Another 60 percent, although recyclable, is currently being landfilled.

Composting of organic waste, the second largest component of the waste stream, has become another focus of waste management. It has the potential to reduce by 30 percent the quantity of waste sent for disposal.

Demand for waste separation technologies, especially for plastics, will grow, as will incineration equipment for volatile organic compounds. In the U.S., incineration capacity is expected to grow quickly.

Consulting services will be in high demand as municipalities are faced with a shortage of landfill sites. There is also a growing trend for the private sector to take over waste collection, recycling, and resource recovery programs from the municipalities.

Regulatory Aspects

The Canadian Environment Protection Act puts responsibility for the management of industrial wastes on industry, promoting a “cradle-to-grave” approach for the handling of all materials. The Act encourages the development of new technologies, processes and services to deal with waste and waste disposal efficiently and effectively.

Provincial governments set the standards for disposal of municipal solid waste and provide a regulatory function. For example, Ontario has introduced the Industrial Waste Diversion Program which requires businesses to conduct annual waste audits and formulate plans for the separation, at source, of recyclables.

Municipalities are responsible for managing the collection and disposal of municipal waste. Today, municipalities are developing integrated approaches to waste management that assign priority to source reduction, reuse, recycling and resource recovery.

Industry Strengths and Capabilities

Many Canadian companies are world leaders in developing products and services to manage solid waste. Labrie Equipment Ltd. of Quebec manufactures specialized recycling trucks with innovative and efficient loading systems. Most of its production — 70 percent — is exported to the United States. It also sells to Europe and has recently appointed a distributor in Asia.

Ontario-based Mobile Computing Corporation is developing the world's first vehicle-mounted, computerized measuring system capable of weighing garbage. This technology will enable municipalities to implement “user pay by weight” concepts for municipal collection and disposal.

Recovery Technologies, also of Ontario, has developed a cryogenic process for recycling tires which is being used in Italy and Switzerland.

Canada also pioneered the handling of aluminum processing residue using plasma-arc technology, a process that is being sold world-wide.

The Alberta Special Waste Management Corporation, a government-industry collaborative effort, operates one of North America's largest hazardous-waste disposal facilities.

Government Support Programs

Federal government testing facilities and financial assistance programs are generally available to environmental industries, including companies specializing in solid waste management. (See above under industrial wastewater management.) In addition, there are several provincial government programs specifically for solid waste management.

To promote compliance with the 50 percent waste reduction goals, the government of Quebec provides funding to industry for recycling and waste recovery initiatives. The province has also initiated a comprehensive study of effective curb-side recycling programs, in co-operation with municipalities and industry.

In British Columbia, large regional districts are responsible for developing solid waste management plans that comply with provincial regulations and legislation. The province provides capital funding to these districts to assist in the development of infrastructure.

PROSPECTS FOR THE ENVIRONMENTAL INDUSTRIES SECTOR

The environmental industries sector is evolving rapidly. Many of the environmental products that will be available in 15 years do not exist today. One of the main challenges will be to keep up with the growing demand for products and processes that prevent pollution and minimize waste at the source, rather than offering “end-of-pipe” solutions.

Part of this demand is driven by government regulations. But, increasingly companies are determining that good environmental practices are good business practices: reducing wastes cuts costs. Complying with new regulations, such as the elimination of chlorofluorocarbons in refrigeration, can result in improvements in energy efficiency. Materials traditionally viewed as waste can be turned into commercially viable products.

Some of the most promising opportunities for Canadian companies lie in four areas: energy efficiency and renewables; software analytics, monitoring and instrumentation; recycling; and biological technologies. It is estimated that annual growth rates in these markets will be in the range of 20 to 35 percent over the remainder of the decade.

OCEAN TECHNOLOGIES INDUSTRY

Firms in the ocean technologies industry provide high-value, custom-engineered products and services with a variety of applications that cut across a number of other industrial sectors. Traditionally, technological developments in the industry have been directed at the offshore oil and gas industries, marine defence and shipbuilding, and marine science. Domestic markets in these areas have softened appreciably over the past decade. New opportunities have emerged, however, as the result of growing environmental and resource management concerns.

Increasingly, the ocean technologies industry, like the environmental industries more generally, is being driven by the changing environmental regulatory regime. New regulations are being implemented in regions throughout the world, many of which have business implications for companies with sophisticated, niche-oriented products and services.

As the result of United Nations requirements for the management of exclusive economic zones (EEZs), markets are expanding in those countries that have laid claim to these offshore regions. Support from international financial institutions for economic development in EEZs will contribute to growth in markets in developing countries.

The Canadian Industry

Canada is one of a handful of countries with internationally competitive technologies and companies with reputable track records in the ocean technologies industry. Canadian firms are leaders, sometimes capturing up to 40 percent of world-wide markets for specific products or services. Canada's firmly established strengths in communications and information technologies have contributed significantly to the competitive advantages of several of these firms.

There are approximately 500 of these companies, including those that produce marine equipment. In total, they generate annual sales of about \$1 billion. The typical Canadian company in this industry is small, Canadian-owned, highly innovative and entrepreneurial. It is trade-oriented, with nearly 60 percent of revenues derived from exports, of which some 75 percent go to the United States.

R&D activity is a critical component of the companies' strategic plans. More than 25 percent of the average company's employees are involved in R&D activity, with total R&D spending averaging around 12 percent of sales revenues. The in-house capabilities encompass design and production. Thus, the typical firm focuses on low-volume output of sophisticated, customized products and services.

Industry Strengths

Many Canadian companies have developed products that are in use throughout the world. In several instances, they have captured over 50 percent of the world's market for certain products. Areas of recognized capabilities include hydrographic and oceanographic instrumentation, cold ocean technology, sub-sea robotics and remotely operated vehicles, remote-sensing systems, navigation and communication systems, and "smart ship" technology. (See Table 4.10.)

Successful Industry-University Linkages

Canadian firms in the ocean technologies industry have a tradition of building partnering arrangements and establishing consortia with public sector organizations. The university research community is a key component of this sector, working closely with industry on applied R&D. Special expertise and industry-oriented research centres can be found at Newfoundland's Memorial University; Dalhousie University in Halifax; and Simon Fraser University, the University of British Columbia and the University of Victoria in British Columbia.

Memorial University's Ocean Engineering Research Group concentrates research activity in: ocean geotechnology, ocean acoustics and remote sensing, sea ice and icebergs, ocean structure and marine hydrodynamics, and engineering and economic impact studies of hydrocarbon development projects. The Group has particularly close ties with the Centre for Cold Ocean Resources Engineering (C-CORE) and the Institute for Marine Dynamics of the National Research Council (NRC).

Dalhousie University's Ocean Forum fosters synergies among industry clients, funding agencies and researchers. Its primary objective is to identify a viable ocean research agenda that responds to the needs and concerns of the marine business community. Areas of interest have included the development and application of remote sensing technology, both satellite and ground-based, for marine requirements; the use of fibre optics for marine engineering applications; and the development of broadly based sensor technologies.

TABLE 4.10
Expertise in Ocean Technologies

CanOcean DeepWater Services, Vancouver, B.C.	Full deep water services including a specialized support vessel equipped with a dynamic positioning system and a hydro-acoustic sub-sea navigation system
E.M.C.S. Industries, Victoria, B.C.	Patented marine growth and corrosion control system
Focal Technologies, Dartmouth, Nova Scotia	Highly specialized slip rings, fibre optic rotary joints, and fluid rotary unions
Geo-Resources Inc., St. John's, Newfoundland	Engineering, maintenance and operation of the DOLPHIN (Deep Ocean Logging Profiler Hydrographic Instrumentation and Navigation), the only expertise of its kind in the world
Instrumar Ltd., St. John's, Newfoundland	Multi-phase flow sensor for the measurement of volume fractions in offshore oil and gas wells
International Hard Suits, Vancouver, B.C.	Revolutionary one-atmosphere diving system known as the NEWTSUIT
Knudsen Engineering, Perth, Ontario	Designed and produces the Digital Acoustic Imaging System (DAISY) sonar, known for its unique technique of storing and retrieving three-dimensional beam-forming parameters in real-time
Metocean Data Systems Ltd., Dartmouth, Nova Scotia	World's largest manufacturer of drifting buoys and ARGOS transmitters; 85 percent of revenues from export sales
Nautel, Hackett's Cove, Nova Scotia	Technically superior, high-power, low-distortion, solid-state radio transmitters for use in rugged field conditions, now operating in 160 countries; holds over 50 percent of the international market for non-directional radio beacons
Orcatron Manufacturing Ltd., Vancouver, B.C.	Underwater voice communication systems; products in use in more than 40 countries
RSI, Vancouver Island, B.C.	Robotic arms; used in the recovery of the space shuttle Challenger
Ultimateast Data Communications Ltd., St. John's, Newfoundland	World's first integrated communicating fleet management and geographical information system called FLAG (Fleet Locating and Graphics)

Simon Fraser University has formed a wholly owned, incorporated subsidiary — SF Univentures Corporation — that serves as the prime technology transfer agent for the university. Specific emphasis is placed on commercialization of the university's research excellence in substantive "core" or "enabling" technologies. SF Univentures is a member and shareholder in the SPIRIT Subsea Systems Consortium.

UBC Research Enterprises, a for-profit entity that is wholly owned by the University of British Columbia, facilitates the development and transfer of university-based technology and assists in the formation of new spin-off companies. Areas of interest within the ocean technologies field include hydraulics, sensors, controls and robotics systems.

The University of Victoria's Centre for Earth and Ocean Research and its Faculty of Engineering coordinate university research in the marine sector. Researchers provide expertise to the sub-sea industry and are actively working in the marine technology areas of robotics, information systems, and cold ocean research. Examples of technology developed for the marine industry are:

- a multi-pulse acoustic mapping system designed to appreciably increase the rate at which oceanographic data can be collected;
- acoustic tracking systems;
- adaptive controls for robotic systems; and
- tele-operation of remote manipulators.

Collaboration between Industry and Government

Federal and provincial governments, separately or jointly, are funding and administering programs for the ocean technologies industry. For example, the federal government's Atlantic Canada Opportunities Agency (ACOA) has funded ocean industry development programs in co-operation with the governments of Newfoundland and Nova Scotia.

Innovative products and systems have also resulted from collaborative R&D activity between industry and government. One example is Terra Surveys Ltd. In co-operation with the Canadian Hydrographic Service, it developed an airborne Lidar (scanning laser) system that combines a scanning laser bathymeter to penetrate water with high-resolution data-processing techniques and a total real-time global positioning system (GPS). This system is being actively marketed in Southeast Asia.

Government requirements are also leading to large-scale collaborative efforts among Canadian companies. Development of the Canadian Ocean Mapping System, for example, has brought together four companies located in Newfoundland, Nova Scotia, New Brunswick and British Columbia. This integration of enabling technologies and expertise from various firms, along with the research capabilities of universities and government laboratories, will help to position Canadian companies for business in external markets.



SECTION 5:

Investing in Canada — The Next Steps

Introduction

THE COMPETITION FOR international capital is intense. A growing number of countries are adopting reforms to liberalize their economies while seeking to promote their advantages to prospective investors. As a result, international investors today face opportunities in virtually every part of the world.

Decisions to invest abroad, however, can never be taken lightly. They require extensive market research, in-depth analysis and good judgement. In the end, though, the foundation of the decision is information. This book has gone part of the way toward providing information that will be of use to the foreign investor considering a Canadian location. It is a beginning, an overview of some of the most attractive elements of Canada's business environment.

From this point, information needs become more specific and detailed. This section identifies many of the ways in which a prospective investor can get further help in evaluating a specific Canadian location or in commencing the process of making an investment.

Section 2: Investing in Canada — The Next Steps

Intruduction

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CHAPTER 23: *Market Research from a Home Base*



THERE IS A VAST amount of information on Canada, and much of it can be accessed from other countries. Government, industry and the media have an extensive array of publications available by mail. Increasingly, such information can also be accessed electronically, through direct online services, or via the Internet. Canada's missions abroad are an invaluable source of knowledge and expertise on doing business in Canada. Bilateral business councils, with offices in the international investor's home country, are another excellent point of contact.

PUBLICATIONS

The most detailed source of primary data comes from Statistics Canada. Its Census data and official Canadian statistical sources on the economy are highly regarded internationally for their accuracy and methodology. All are readily available by subscription or selected purchase. Alongside the statistical material, Statistics Canada publishes a number of journals with analytical articles based on recent trends in the economy, including macro-economic indicators, consumer markets, labour, international trade and investment, and social affairs.

All departments of the federal and provincial governments are potential sources of invaluable public information. In addition to providing announcements and explanations of new laws, regulations and programs available to business, the departments with responsibilities for economic development prepare background documents on specific industries; various aspects of doing business, such as importing and exporting; and industry trends.

In the private sector, incorporated Canadian companies provide the public with considerable financial information. Those with publicly traded shares prepare detailed annual reports with considerable material dealing with company strategies, activities over the year, plans for the future and market trends in their industry.

For in-depth knowledge on specific sectors or industries of the Canadian economy, there are countless trade journals, news magazines and financial reports, publications by industry associations, and a range of material from independent publishers.

Many management and consulting firms prepare detailed analytical reports on industries, markets and economic developments, either on a customized basis or for a wider audience. Main conclusions of these reports often appear in journals and newspapers. The reports' authors are good contact points.

Communications technologies and the spectacular growth in Internet users have opened up new, cost-effective ways to send much of the required information electronically to clients from around the globe. In many cases, it is unnecessary to use the mail: instead, publications can be accessed immediately by electronic means. The Department of Foreign Affairs and International Trade maintains FaxLink, a fax-on-demand information system, accessible by fax machines. The service provides information on doing business in Canada. The information is also available through Internet, at <http://www.dfait-maeci.gc.ca>.

CANADIAN MISSIONS ABROAD

Canada has over 120 missions in foreign countries. (See Appendix C for a full listing.) In the U.S., in addition to the Embassy in Washington, there are 20 Consulates and Trade Offices dispersed across the country. The major European and Asian countries also have at least one Consulate in addition to the Embassy or High Commission.

The Canadian mission is a point of first contact on diverse matters. Trade commissioners at Embassies and Consulates not only promote Canadian exports; they are actively engaged in investment promotion and can respond knowledgeably to questions regarding foreign direct investment into Canada and the Canadian business environment. Specific enquiries can be relayed through the trade commissioners to Canada.

Many missions are staffed with officers from Citizenship and Immigration Canada to answer enquiries on immigration, including the business immigration program.

BILATERAL BUSINESS COUNCILS

Canada has joined with a number of foreign countries to establish bilateral business councils. These usually entail the creation of a small office in each of the countries to manage enquiries, arrange seminars and assist in developing contacts between companies from the two countries. These councils offer memberships to companies for the services provided. The offices of such councils can be an excellent source of information for the potential investor.

One of the bonuses of these organizations is the range of expertise among their members. By joining a bilateral business council, the foreign business person considering Canada as a location can talk to other business people from their community who are experienced in doing business in Canada.

CONTACTING EMBASSIES AND CONSULATES IN CANADA

Foreign companies interested in a Canadian investment opportunity should be aware that there are many embassies and consulates in Canada. These can be contacted from the home base as a starting point for information gathering. All officers of these missions maintain close contacts with Canada's Department of Foreign Affairs and International Trade (DFAIT), which provides extensive information to foreign representations in Canada.

CHAPTER 24: *Government Contacts in Canada*



AS A FIRST STEP IN acquiring information from government sources, the prospective foreign investor must have a preliminary appreciation of the division of responsibilities among the three levels of government in Canada. Because Canada is a federation, the national and provincial governments divide and share responsibilities in many areas. The determination of which level of government has authority in which areas and how that authority will be exercised, is an ever-evolving process.

The fundamental division of powers is described in the Constitution Act, 1982. But there are countless separate agreements between the federal government and the provinces that define who has responsibility for what in practice. A lengthy study would be required, however, to develop a full understanding of federal-provincial relations in Canada.

The foreign business person does not need to know the intricacies of these relations. But it is important to understand that in many areas of business activity, be it corporate taxes or environmental regulations, the federal and provincial governments share responsibilities. It is, therefore, essential for the prospective foreign investor to examine laws and regulations at both levels.

The federal government has primary responsibility in areas such as international trade and investment, immigration, banking, transportation, communications, criminal law, unemployment insurance and health care. It levies income, consumption and excise taxes, as well as customs and countervailing duties. In some areas of federal jurisdiction, the actual delivery of programs may reside to a large extent with the provinces. One example is health care. In other instances, the federal government may devolve some of its responsibilities to a province through a bilateral agreement, as in the case of immigration in Quebec.

Provinces in Canada have significant authority: they can levy income and consumption taxes; they have responsibility for education and labour law; they oversee natural resource and land use; and have authority for municipal affairs. Although in many instances there are national standards that have to be maintained, provinces make decisions and adopt policies that result in some appreciable interprovincial differences. For example, taxes and minimum wages can vary from province to province.

Territorial governments, of which there are two in Canada — the Northwest Territories and the Yukon — are essentially under federal jurisdiction. Because of their small, combined population of roughly 100,000, they do not have the tax base to provide a similar range of programs to their residents. There is, however, a process of devolution of some powers from the federal government to the territorial governments. Territorial government departments are responsible for the formulation and implementation of programs related to economic development.

The municipal level of government is responsible for providing much of the infrastructure within cities and towns, for example, roads and sewers, and for community services such as policing and waste collection. Municipalities raise revenues mainly through property taxes. From a business perspective, the municipal government is especially important for its role in designating land for development purposes. To rationalize the delivery of services and programs, adjacent municipalities may decide to give certain responsibilities and associated financial resources to a regional government.



Federal, provincial and municipal governments share authority in a number of areas that have an impact on business activity. They also devise and implement programs to assist business development. Therefore, the prospective foreign investor should examine the range of economic development programs available from each level of government. Some useful contact points are provided in Appendix A.

FEDERAL GOVERNMENT DEPARTMENTS AND AGENCIES

Regardless of which region of the country or industrial sector is being considered, the federal government has extensive information that is useful to the foreign business person. Experienced departmental officials are ready to help and, if they do not have answers to specific questions, they will make referrals.

For the foreign investor, the two key departments for information on business development, especially in the investment and technology areas, are the Department of Foreign Affairs and International Trade (DFAIT) and the Department of Industry (DI). These are the usual points of first contact, but there are a number of other departments and agencies that can be of service in specific areas. Some of these are also examined below.

The Department of Foreign Affairs and International Trade (DFAIT)

DFAIT is responsible for Canada's foreign policy, relations with other countries, and participation in multilateral organizations. This covers political, social, cultural and environmental affairs, but a large part of its activity concerns international trade and investment. In addition to a Minister of Foreign Affairs, there is also a Minister of International Trade in Canada, a high-ranking Cabinet portfolio.

Because of the importance of trade to the country's overall economy, DFAIT has important responsibilities for Canada's economic health and competitiveness. It actively pursues and promotes the country's economic and commercial interests abroad. To generate economic development and employment in Canada, it also encourages and facilitates international direct investment in Canada. To this end, DFAIT designs and administers a number of programs to attract productive international investment to Canada.

The Department helps to attract international investment and technology to Canada and assists Canadian companies interested in international investment, partnerships and the acquisition of technologies. Specifically, the Department, through its headquarters and missions abroad:

- markets Canada internationally as an attractive partner for investment and technology;
- makes presentations on specific Canadian investment opportunities to potential investors abroad;
- prepares company-specific briefs for potential investors;
- identifies appropriate Canadian partners for small- and medium-sized enterprises with advanced technologies;
- supports the efforts of Canadian subsidiaries seeking to attract and retain manufacturing and R&D mandates from their parent companies;
- responds to enquiries regarding investment opportunities in Canada;
- works with provincial and municipal governments to assist potential investors in defining their requirements, including arranging site visits and meetings with potential partners; and
- provides information on investing in Canada.

To complement the services it provides to foreign investors, the Department concentrates much of its activities on assisting Canadian companies. Many of these services deal directly with export promotion, but some are geared specifically to helping Canadian companies make contacts with prospective foreign investors. Departmental trade commissioners and commercial officers, in Canada and abroad, are actively involved in:

- finding international investment partners and international sources of capital and technology;
- meeting international companies as a first step toward forming joint ventures, strategic alliances and technology transfers;
- acquiring information about international investment relationships, international business structures and investment frameworks; and
- informing international venture capital groups about business opportunities in Canada.

Enquiries from foreign business people can be made to Canadian missions abroad. In Canada, enquiries can be directed to DFAIT's Ottawa headquarters or to the many International Trade Centres located across the country. These were established in cooperation with DI as a key point of contact on matters relating to international trade and investment. The Centres are an excellent place for foreign investors contact first as they can provide information on a number of programs and guide foreign business people to appropriate contacts. A list of these Centres is provided in Appendix B.

The Department of Industry (DI)

DI concentrates on policies and programs that assist Canadian industry, and that provide protection to Canadian consumers. It works closely with DFAIT on sector-specific matters dealing with international trade and investment. The Department administers the Investment Canada Act, including investment review and notification.

Organized largely by industrial sector, DI works directly with Canadian companies and business associations to promote industrial, scientific and technological development. One aspect of this is the promotion and facilitation of foreign direct investment in targeted industrial sectors in Canada. Within the divisions specializing on industrial sectors are knowledgeable officers who have detailed information on individual companies, market trends, business strategies and future directions. These officers maintain contacts with business people in companies, associations and consulting firms.

The Department manages a portfolio of programs for economic development and provides services relating to business intelligence and information, technology and industrial development, as well as trade and market development. It maintains a network of regional offices across Canada to put officers in close contact with local business people and to inform headquarters about developments in the various regions of the country. These regional offices are also important players in the Department's efforts to work closely and cooperatively with the provinces.

A national network of Business Service Centres run by DI provides a complement to DFAIT's International Trade Centres. The Business Service Centres offer a range of services to Canadian businesses and prospective investors. They provide publications, how-to guides and videos. Increasingly, information can be disseminated in electronic form. This information is available through the Internet, at <http://www.ic.gc.ca>.

Other Federal Departments and Agencies

Several other government departments have divisions that are interested in foreign direct investment in their specific sectors. Agriculture and Agri-Food Canada is an important contact point for information and assistance on the food and beverage industries. Environment Canada's Technology Development Directorate has information relating to the environmental industries sector.

The Canadian Forest Service Sector of Natural Resources Canada has an Industry, Trade and Technology Directorate with expertise in the paper industry, as well as harvesting and wood products industries. Companies in the defence industry should develop contacts in the Department of National Defence.

In addition to the extensive experience on various industries that resides in these departments, the federal government maintains four regional agencies that have responsibilities for economic development in their regions. These are: Atlantic Canada Opportunities Agency (ACOA), the Federal Office of Regional Development-Quebec (FORD-Q), Northern Ontario Development Fund (FedNor), and Western Economic Diversification Canada (WD). (See Appendix A for contact points.)

ACOA manages several financial and technical assistance programs directed to the economic development needs of Atlantic Canada, with special emphasis on the development of industry, trade, investment, technology and entrepreneurship. With offices throughout Atlantic Canada, ACOA refers foreign investors to other sources of support and information within the region.

FORD-Q administers the Canada-Quebec Subsidiary Agreement on the Economic Development of the Region of Quebec. Its overall objective is to increase the number of large-scale industrial investments in Quebec and thereby encourage technological innovation, subcontracting and the creation of permanent skilled jobs. Financial assistance can be obtained for feasibility studies and capital investment.

FedNor is the federal government's economic development initiative in Northern Ontario. It provides contributions for eligible capital projects, marketing, innovation and related activities that will generate new business and employment opportunities in the region.

WD offers a variety of support mechanisms, ranging from small-business assistance to large, industry-wide programs. It is a valuable source of information on western Canada, including additional sources of support in the region. The agency has offices in all four western provinces.

Financial Services

There are two federal financial institutions that serve businesses in Canada. The Business Development Bank of Canada (BDC) is a Crown corporation that promotes and assists business in Canada. It pays particular attention to the needs of small- and medium-sized businesses and offers financial services such as term loans, loan guarantees, and a venture capital program. The FBDB, with offices in all major cities in Canada, is also active in business counselling and skills development.

The Export Development Corporation (EDC) is a customer-driven, financial service corporation dedicated to helping Canadian businesses to succeed in the global marketplace. EDC facilitates export trade through the provision of export financing, direct loans, lines of credit, short- and medium-term credit insurance, export insurance and performance-related insurance and guarantees to Canadian companies and their customers.

PROVINCIAL GOVERNMENTS

Although the federal government has responsibility for relations with foreign countries, provincial governments are often directly involved in international trade and investment promotion. Several provinces maintain representations abroad that can provide the prospective foreign investors with information about the business opportunities in the provinces. Provincial governments also participate in trade missions to promote economic development.

Each province has a department of trade or industry that encourages investment within its jurisdiction. (See Appendix A for a listing of these.) They can provide information on:

- the size and composition of regional markets;
- business development programs and incentives;
- site selection;
- the availability of skilled labour in specific locales; and
- local occupancy costs.

By going to the provincial government departments, the foreign business person widens the net of potential government support programs for their investment, and deepens the knowledge base about regional markets and specific industries. Through enquiries at the provincial level, precise information can be gathered on interprovincial variations in corporate and personal income taxes, location costs, payroll taxes and regulations. At the same time, prospective investors can acquire a sense of government policies and attitudes toward business.

MUNICIPAL GOVERNMENTS

The next step in acquiring information from governments is to approach economic development officers in the municipalities. Cities across the country are intensely vying for investment into their communities. They offer incentives to locate in their jurisdictions, and develop industrial parks to attract business.

Cities are also important insofar as they are a major determinant of the overall quality of life. Cities will be more attractive to the potential investor if they are safe, have first-rate community services, offer a range of facilities for culture, entertainment, sports and other leisure activities, and if they are clean and environmentally conscious. Many of Canada's largest cities have these features. As noted in a previous chapter, the Geneva-based Corporate Resources Group ranked four Canadian cities — Vancouver, Toronto, Ottawa and Montreal — among the top ten cities in the world to live in.



CHAPTER 25: *Business Associations*

THERE ARE SCORES of business associations in Canada that can provide a wide range of information on business practices in Canada and sector-specific information. These associations fall into two broad categories: those that cut horizontally across all or many industries, and others that are industry or sector-specific.

HORIZONTAL ASSOCIATIONS

A large number of business associations in Canada represent diverse business interests — large and small companies from different industries — or that concentrate on a particular business activity of interest to companies in many industries. Three of the most prominent of these horizontal associations are the Canadian Chamber of Commerce, the Canadian Exporters' Association, and the Canadian Manufacturers' Association. (See Appendix A for contact points.)

Canadian Chamber of Commerce

The Canadian Chamber of Commerce is the oldest of the business associations in Canada, with a history that dates back to the mid-eighteenth century. In addition to the national association, there are provincial and local chambers spread across the country.

The Canadian Chamber has developed a strong international orientation over the years. It is a member of the International Chamber of Commerce and of multilateral and bilateral business councils. Chambers at all levels are in a position to offer advice to companies on a wide range of topics dealing with international business activity.

Much of this international orientation revolves around the organization of trade seminars and missions, and collecting information on foreign markets for its members. For the foreign investor interested in Canada, the Chamber can also be an important source of information on the business environment in Canada, and on companies looking for strategic alliances and partnerships.

Canadian Exporters' Association

With a membership of nearly 1,000 companies, the Canadian Exporters' Association provides advice and assistance to its members on virtually any aspect of export activity. The Association's membership includes companies that are exporting products and services, but also businesses that provide services to the exporter, such as banks and other financial institutions, consulting firms, freight forwarders, law firms, trading houses and export agencies.

The Association performs an ongoing function of education and updating for its members. It publishes regular news bulletins, and organizes seminars and workshops in various locations across the country on different export-related topics.

Canadian Manufacturers' Association

The Canadian Manufacturers' Association represents the interests of Canadian manufacturers in both the domestic and international contexts. The Association undertakes studies on the potential impact of economic policies on Canadian manufacturers, actively represents its membership in public forums, runs special programs such as export development for its members, and keeps its membership informed of laws and regulations affecting the business climate.

Other Associations

There are many other horizontal associations in Canada that, like the above associations, represent the interests of their members and disseminate information that affects their members' business activities. All of them cut across industries, so they can be of interest to a broad cross-section of companies located in Canada. Some of these are:

- Canadian Importers Association;
- Canadian Federation of Independent Business;
- Business Council on National Issues;
- Canadian Standards Association; and
- Canadian Advanced Technology Association.

SECTOR-SPECIFIC ASSOCIATIONS

No matter which sector of activity a company is involved in, chances are there will be an industry association that it can join. These associations cover manufacturers of products, from natural resources to advanced technologies, and the service sector, from customs brokers to bankers.

These sector-specific associations serve companies with similar interests and concerns. They are excellent points of contact for new companies in the sectors, as the association can provide in-depth information on market conditions, laws, regulations, recent performance and outlook.

These associations work closely with commercial officers in the provincial and federal governments. Because they share information, the ground covered by associations and sectoral divisions within governments are similar to some extent. It would be worthwhile to make contact with both as the approach and assessment of industry trends may vary.

Foreign companies interested in making contact with any of the sector-specific associations can obtain names and addresses from government officials, business people, financial institutions and media sources.



CHAPTER 26: *Other Points of Contact*

BUSINESS PROFESSIONALS

AS A PROSPECTIVE INVESTOR seeks more detailed answers to specific questions about investing in Canada, it is likely that contacts will have to be made with highly specialized professionals. Representatives of financial institutions, accountants, lawyers and management consultants are some of the people a company may want to approach.

Foreign companies will find that there are a number of professionals who know the Canadian business environment intimately, but who also are familiar with the business practices of the company's home country. They may also speak a language in common with the potential investor. In such instances, differences in doing business in Canada, either cultural or legal, can be discussed more easily. Such professionals can be found in major cities across the country.

FOREIGN BANKS IN CANADA

Foreign investors may be particularly interested in approaching a Canadian branch of a bank from their home country. In the past decade, the number of these banks has grown considerably. Appendix D provides a list of these.

TRADE SHOWS AND MISSIONS

If the foreign investor is planning a fact-finding mission to Canada, a visit built around a trade show can be one of the best strategies because it can provide one-stop shopping. Companies, government departments, business associations and service providers are likely to be represented. By meeting with the various representatives at trade shows, discussions can be initiated, materials gathered, and preliminary networks established.

Trade missions to Canada perform the same function, with the added advantage that they often acquaint participants with several regions of the country and different provincial and municipal governments.

Foreign companies can also make contact with Canadian companies participating in trade shows and missions in their home countries. The Canadian government, sometimes in cooperation with the private sector, organizes numerous trade missions abroad each year.

The Association performs an ongoing function of education and updating for its members. It publishes regular news bulletins, and organizes seminars and workshops in various locations across the country on different export-related topics.

CHAPTER 27: *Travelling in Canada*



AFTER CONDUCTING MARKET RESEARCH and making initial contacts from one's home base, a trip to Canada is the next step. In Appendix E, a number of useful tips are compiled for the business traveller organizing a visit to Canada. The foreign traveller should also be aware, though, of some more general characteristics of travel in Canada.

First and foremost, Canada is a country of immigrants. Originally from Europe, immigration to Canada in the past few decades has increasingly been from countries in Asia, Africa and the Caribbean. Most of these immigrants settle in the larger metropolitan areas of Toronto, Montreal and Vancouver. As a result, Canadian cities have become much more cosmopolitan and multicultural. It is not unusual to find pockets within cities where the language spoken and storefront signs are in neither of the two official languages. Restaurants and grocery stores provide ethnic foods. But, living within these pockets are residents with an English, French or other European ancestry. These areas are truly a blend of cultures.

Another characteristic of Canadian cities is that they are considered to be safe, especially in comparison to the United States. Violent crime in Canada is not usually random.

The major cities in all of the provinces offer a full range of accommodation and an extensive choice of restaurant cuisine. On an international comparison, the prices are very reasonable. There are many theatres, concert houses and cinemas. Fitness centres and sports facilities are accessible, and are often to be found in hotels. Golf clubs and ski resorts are usually found in close proximity to major cities.

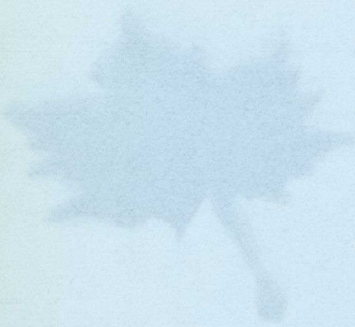
First-time visitors to Canada will be struck by the size of the territory and the vast expanses of uninhabited spaces. On the one hand, this means that travelling times from one end of the country to the other have to be factored into the visit. But, there is a cultural dimension to the country's geography. The concepts of space and wilderness are important parts of the Canadian identity. Although they primarily live in large urban areas, the accessibility to natural settings — open fields, forests, lakes and rivers — is cherished by most Canadians.

If a foreign visitor has to travel to rural or remote areas, it is not a hardship. Modern facilities, excellent communications and roads, and comfortable accommodations can be found even in small towns.

Efficient transportation from one city to another is available, and is often by air because of the vast distances involved. Airports in many of the major cities are often no more than a 20-minute taxi ride from the downtown area.

A business trip to Canada can be every bit as enjoyable as it is profitable.

CHAPTER 27: Foreign Relations in Canada



AFTER CONDUCTING MARKET RESEARCH and making initial contacts from one's home base a trip to Canada is the next step. In Appendix A, "How to Visit Canada," the author provides the business traveler with a checklist of items to take and a list of organizations that can assist in organizing a visit to Canada. The foreign traveler should also be aware of some more general information of travel in Canada. First and foremost, Canada is a vast country with a wide variety of climates and geographical features. The author has provided a map of Canada in the past few chapters to assist the reader in locating the various metropolitan areas of Toronto, Montreal, and Vancouver. A detailed list of cities and their approximate population and industrial base is provided in the appendix. It is important to note that the major cities and industrial areas are located in the western and central parts of the country. The major cities are listed in the appendix. The author also provides a list of cities and their approximate population and industrial base. It is important to note that the major cities and industrial areas are located in the western and central parts of the country. The major cities are listed in the appendix.

FOREIGN BANKS IN CANADA

The major cities in all of the provinces offer a full range of accommodation and an extensive choice of international banks. These banks provide a wide range of services and facilities. They are accessible, and are often to be found in hotels, clubs, and business districts. They are accessible, and are often to be found in hotels, clubs, and business districts.

TRADE SHOWS AND MISSIONS

First-time visitors to Canada will be struck by the amount of unutilized space. On the one hand, this means that traveling times from one end of the country to the other have to be fairly long. On the other hand, it means that there is a great deal of unutilized space. On the one hand, this means that traveling times from one end of the country to the other have to be fairly long. On the other hand, it means that there is a great deal of unutilized space. On the one hand, this means that traveling times from one end of the country to the other have to be fairly long. On the other hand, it means that there is a great deal of unutilized space. On the one hand, this means that traveling times from one end of the country to the other have to be fairly long. On the other hand, it means that there is a great deal of unutilized space.

Appendices

APPENDIX A: *Contacts in Canada*

APPENDIX B: *International Trade Centres
in Canada*

APPENDIX C: *List of Canadian
Missions Abroad*

APPENDIX D: *Foreign Banks in Canada*

APPENDIX E: *Travelling to Canada*

APPENDIX A: *Contacts in Canada*

Federal Government Departments and Agencies

Department of Foreign Affairs and International Trade (DFAIT)

DFAIT is responsible for Canada's foreign policy, relations with other countries, and participation in multilateral organizations. Although this covers political, social, cultural and environmental affairs, a large part of DFAIT's activities include international trade and investment. In addition to having a Minister of Foreign Affairs, there is a Minister of International Trade, a high-ranking Cabinet portfolio.

Because of the importance of trade to the country's overall economy, DFAIT has important responsibilities for Canada's economic health and competitiveness. It actively pursues and promotes the country's economic and commercial interests abroad. To generate economic development and employment in Canada, the Department also encourages and facilitates international direct investment in Canada. To this end, DFAIT designs and administers a number of programs to attract productive international investment to Canada.

The Department helps to attract international investment and technology to Canada and assists Canadian companies interested in international investment, partnerships as well as the acquisition of technologies.

Investment Development Bureau

The Investment and Technology Bureau (TID) promotes Canada as an attractive, competitive destination for business investment to potential foreign investors. It actively encourages investments that take the form of new plant and equipment, joint ventures or strategic partnerships. TID is especially interested in attracting investment that introduces new technology into Canada, which is key to creating new jobs and economic opportunities. It also helps Canadian companies to find international investment partners and to access international sources of capital and technologies. TID provides support to the chief executive officers of Canadian subsidiaries of multinationals that are seeking to attract manufacturing and research and development (R&D) mandates to Canada. It also monitors and analyzes investment trends and perceptions of Canada as an investment site. TID works closely with the "geographic" branches of DFAIT and the investment counsellors at Canadian missions around the world, as well as with provincial and municipal authorities, and professional and business organizations. For more information, contact:

Department of Foreign Affairs and International Trade

Lester B. Pearson Building

125 Sussex Drive

Ottawa, ON K1A 0G2

Tel.: (613) 992-4916

Fax: (613) 996-1370

FaxLink*: (613) 944-6500

Internet: <http://www.dfait-maeci.gc.ca>

*FaxLink is a faxback system which provides fact sheets on investment related topics and market sectors. It must be contacted through your fax machine. Dial from your fax phone and follow the voice prompt instructions.

Department of Industry (DI)

DI was created with a broad mandate to make Canada more competitive by fostering the growth of Canadian businesses, by promoting a fair and efficient marketplace for business and consumers, and by encouraging commercial ventures in scientific research and technology. In the area of small business, it has been given specific responsibility to:

- develop, implement and promote national policies to foster the international competitiveness of industry; the enhancement of industrial, scientific and technological development; and the improvement in both the productivity and efficiency of industry;
- promote the mobility of goods, services, and factors of production within Canada;
- develop and implement national policies to foster entrepreneurship and the start-up, growth and expansion of small businesses;
- develop and implement national policies and programs respecting industrial benefits from procurement of goods and services by the Government of Canada; and
- promote and provide support services for the marketing of Canadian goods, services and technology.

The regional offices of DI work directly with Canadian companies to promote industrial, scientific and technological development. They help clients recognize opportunities in a competitive international marketplace by providing services in the areas of business intelligence and information as well as trade and market development. DI also promotes and manages a portfolio of programs and services.

The following are areas in which the DI regional offices have special competence:

- access to trade and technology intelligence and expertise;
- entry points to national and international networks;
- industry-sector knowledge base;
- co-location with International Trade Centres connected to DFAIT and Canadian posts abroad;
- client focus on emerging and threshold firms; and
- business intelligence.

For more information, call (613) 941-0222.
Internet: <http://www.ic.gc.ca>

Canada Business Service Centre Network

Province of Newfoundland:

Canada Business Service Centre
90 O'Leary Avenue
P.O. Box 8687
St. John's, NF A1B 3T1
Tel.: (709) 772-6022 or 1-800-668-1010
Fax: (709) 772-6090
FaxBack: (709) 772-6030

Province of Prince Edward Island:

Canada/Prince Edward Island Business Service Centre
232 Queen Street
P.O. Box 40
Charlottetown, PE C1A 7K2
Tel.: (902) 368-0771 or 1-800-668-1010
Fax: (902) 566-7098
FaxBack: (902) 368-0776 or 1-800-401-3201

Province of Nova Scotia:

Canada/Nova Scotia Business Service Centre
1575 Brunswick Street
Halifax, NS KB3J 2G1
Tel.: (902) 426-8604 or 1-800-668-1010
Fax: (902) 426-6530
FaxBack: (902) 426-3201 or 1-800-401-3201

Province of New Brunswick:

Canada/New Brunswick Business Service Centre
570 Queen Street
Fredericton, NB E3B 6Z6
Tel.: (506) 444-6140 or 1-800-668-1010
Fax: (506) 444-6172
FaxBack: (506) 444-6169

Province of Quebec:

Info entrepreneurs
5 Place Ville Marie
Suite 12500, Plaza Level
Montreal, PQ H3B 4Y2
Tel.: (514) 496-4636 or 1-800-322-4636
Fax: (514) 496-5934
Info-Fax: (514) 496-4010 or 1-800-322-4010

Entrepreneurship Outaouais

25 Laurier Street
Seventh Floor
Hull, PQ J8X 3Y5
Tel.: (819) 595-3403
Fax: (819) 771-9846

Province of Ontario:

Entrepreneurship Centre
111 Lisgar Street
Ground Floor
Ottawa, ON K2P 2L7
Tel.: (613) 560-6081
Fax: (613) 560-2102

Canada-Ontario Business Call Centre
Toronto, ON M5V 3E5
Tel.: (416) 954-4636 or 1-800-567-2345
Fax: (416) 954-8597
FaxBack: (416) 954-8555 or 1-800-240-4192

Province of Manitoba:

Canada Business Service Centre
330 Portage Avenue
Eighth Floor
P.O. Box 981
Winnipeg, MB R3C 2V2
Tel.: (204) 984-2272 or 1-800-665-2019
Fax: (204) 983-3852
FaxBack: (204) 984-5527 or 1-800-665-9386

Province of Saskatchewan*:

Canada/Saskatchewan Business Service Centre
122-3rd Avenue North
Saskatoon, SK S7K 2H6
Tel.: (306) 956-2323 or 1-800-667-4374
Fax: (306) 956-2328
FaxBack: (306) 956-2310 or 1-800-667-9433

**This office is also responsible for the Yukon.*

Province of Alberta*:

Canada Business Service Centre
9700 Jasper Avenue
Suite 122
Edmonton, AB T5J 4H7
Tel.: (403) 495-6800 or 1-800-272-9675
Fax: (403) 495-7725
FaxBack: (403) 494-4138 or 1-800-563-9926

**This office is also responsible for the Northwest Territories*

Province of British Columbia:

Canada/British Columbia Business Service Centre
601 West Cordova Street
Vancouver, BC V6B 1G1
Tel.: (604) 775-5525 or 1-800-667-2272
Fax: (604) 775-5520
FaxBack: (604) 775-5515

Chemicals and Bio-Industries Branch

Bio-Industries Group
Department of Industry
235 Queen Street
Ninth Floor East
Ottawa, ON K1A 0H5
Tel.: (613) 954-4715
Fax: (613) 952-4209

Citizenship and Immigration

Immigrant Investor Program

300 Slater Avenue
Seventh Floor
Ottawa, ON K1A 1L1

Information on this program is best found at the Canadian Embassy or Consulate. Application forms and program information is available in the appropriate language.



Revenue Canada

Revenue Canada, Customs Program Branch provides a NAFTA Help Desk telephone line with service available in Spanish. Revenue Canada publications and customs notices are available by calling or faxing the NAFTA Information Desk. For more information, contact:

NAFTA Spanish Help Desk

Tel.: (613) 941-0965

NAFTA Information Desk

Revenue Canada, Customs Programs Branch
191 Laurier Avenue West
Sixth Floor
Ottawa, ON K1A 0L5
Tel.: 1-800-661-6121, or (613) 941-0965
Fax: (613) 952-0022

Agriculture and Agri-Food Canada

Research Branch

Business Initiatives Office
Central Experimental Farm
Ottawa, ON K1A 0C6
Tel.: (613) 759-1485
Fax: (613) 759-1506

Food Inspection Branch

59 Camelot Drive
Nepean, ON K1A 0Y9
Tel.: (613) 952-8000
Fax: (613) 952-7387

Market and Industry Services Branch

Food Bureau
Sir John Carling Building
930 Carling Avenue
Ottawa, ON K1A 0C5
Tel.: (613) 759-1000
Fax: (613) 759-7480

Statistics Canada

Statistical Reference Centre

R.H. Coates Building
Ottawa, ON K1A 0T6
Tel.: (613) 951-8116
Fax: (613) 951-0581

National Research Council (NRC)

Canadian companies hoping to succeed in the international marketplace may require additional technology to improve their competitiveness. The NRC works with Canadian firms of all sizes to develop and apply technology for economic benefit. It manages the Industrial Research Assistance Program (IRAP), a national network for the diffusion and transfer of technology. The NRC also manages the Canada Institute for Scientific and Technical Information (CISTI) database.

The IRAP network supports the process of developing, accessing, acquiring, implanting and using technology throughout Canadian industry. IRAP has been in existence for 50 years

and has acquired a reputation as one of the most flexible and effective federal programs. IRAP takes advantage of an extensive network of more than 190 different locations within approximately 90 communities across Canada, including numerous provincial technology centres, the NRC's own laboratories and research institutes, federal government departments, and technology transfer offices in Canadian universities. For further information, contact:

Industrial Research Assistance Program

National Research Council
Montreal Road
Building M-55
Ottawa, ON K1A 0R6
Tel.: (613) 993-1770
Fax: (613) 952-1086

Canada Institute for Scientific and Technical Information

National Research Council
Montreal Road
Building M-55
Ottawa, ON K1A 0S2
Tel.: (613) 993-1600 or 1-800-668-1222
Fax: (613) 952-9112

Institute for Marine Biosciences

National Research Council
1411 Oxford Street
Halifax, NS B3H 3Z1
Tel.: (902) 426-8278
Fax: (902) 426-9413

Institute for Microstructural Sciences

National Research Council
Montreal Road
Ottawa, ON K1A 0R6
Tel.: (613) 993-9369
Fax: (613) 957-8734

Institute for Biodiagnostics

National Research Council
435 Ellice Avenue
Winnipeg, MB R3B 1Y6
Tel.: (204) 983-7692
Fax: (204) 983-3154

Health Canada

Health Protection Branch

Policy and Scientific Affairs
Tunney's Pasture
Ottawa, ON K1A 0L2
Tel.: (613) 954-3006
Fax: (613) 954-9981

Environment Canada

Technology Development Branch

Asticou Centre
241 Cité des Jeunes Blvd., Block 100
Hull, PQ K1A 0H3
Fax: (613) 953-9029

Wastewater Technology Centre (WTC)

Established in 1971 by Environment Canada as a research and development laboratory, the WTC has become the foremost Canadian facility in the development and evaluation of treatment and disposal technology for municipal and industrial wastewaters and associated residues. WTC also fulfills a prominent role in international trade and scientific negotiations. The Centre is now under the contractual supervision of RockCliffe Research Management Inc. It is presently in a better position to provide support to government programs and to develop and commercialize innovative technology in support of Canada's environmental protection needs.

Wastewater Technology Centre (WTC)

867 Lakeshore Road
P.O. Box 5068
Burlington, ON L7R 4L7
Tel.: (905) 336-4855
Fax: (905) 336-4765

Natural Resources Canada

Canadian Forest Service Sector

580 Booth Street
Ottawa, ON K1A 0E4
Tel.: (613) 997-1107

Canadian Intellectual Property Office (CEPO)

Place du Portage, Phase I
50 Victoria Street
Hull, PQ K1A 0C9
Tel.: (613) 997-1936

Business Development Bank of Canada (BDBC)

800 Victoria Square
P.O. Box 335
Montréal, PQ H4Z 1L4
Tel: (514) 283-5904
Fax: (514) 283-0617

Canadian International Development Agency (CIDA)

An important possible source of financing for Canadian ventures is the special fund available through CIDA under the Industrial Cooperation Program (CIDA/INC). This program provides financial contributions to stimulate Canadian private-sector involvement in developing countries by supporting long-term business relationships such as joint ventures and licensing arrangements. INC supports the development of linkages with the private sector by encouraging Canadian enterprises to share their skills and experiences with partners in other countries. A series of INC mechanisms help enterprises to establish mutually beneficial collaborative arrangements for the transfer of technology and the creation of employment in Mexico.

There are five INC mechanisms that help eligible Canadian firms to conduct studies and that provide professional guidance and advice to potential clients. Where a project involves

environmental improvement, technology transfer, developmental assistance to women, job training or job creation, early contact with CIDA's Industrial Cooperation Division is suggested. An important CIDA criterion is that the project must create employment without threatening jobs in Canada. In fact, most CIDA-assisted projects have produced net increases in Canadian jobs. For more information, contact:

Industrial Cooperation Division

Canadian International Development Agency
200 Promenade du Portage
Hull, PQ K1A 0G4
Tel.: (819) 997-7905/7906
Fax: (819) 953-5024

Business Council on National Issues (BCNI)

90 Sparks Street
Suite 806
Ottawa, ON K1P 5B4
Tel.: (613) 238-3727
Fax: (613) 236-8679

Canadian Radio-television and Telecommunications Commission (CRTC)

Promenade du Portage I
Terrace de la Chaudière
Hull, PQ K1A 0N2
Tel.: (819) 997-0272
Fax: (819) 953-3756

Export Development Corporation (EDC)

EDC is a customer-driven, financial services corporation dedicated to helping Canadian businesses succeed in the global marketplace. EDC provides a wide range of risk management services, including insurance, financing and guarantees to Canadian exporters and their customers around the world.

EDC's products fall into four main categories:

- export credit insurance, covering short- and medium-term credits;
- performance-related guarantees and insurance, providing cover for exporters and financial institutions against calls on various performance bonds and obligations normally issued either by banks or surety companies;
- foreign investment insurance, providing political risk protection for Canadian investments abroad; and
- export financing, providing medium- and long-term export financing to foreign buyers of Canadian goods and services.

EDC has established relationships with leading commercial and public sector institutions in Mexico and Latin America. Exporters can call (613) 598-2860 for more information.

Smaller exporters, with annual export sales under C \$1 million, should call the Emerging Exporter Team at 1-800-850-9626.

Exporters in the information technology sector can call EDC's Information Technologies Team at (613) 598-6891.

For information on the full range of EDC services, contact any of the following EDC offices:

Ontario

Export Development Corporation
 Head Office
 151 O'Connor Street
 Ottawa, ON K1A 1K3
 Tel.: (613) 598-2500
 Fax: (613) 237-2690

Export Development Corporation
 National Bank Building
 150 York Street
 Suite 810
 P.O. Box 810
 Toronto, ON M5H 3S5
 Tel.: (416) 973-6211
 Fax: (416) 862-1267

Export Development Corporation
 Talbot Centre
 148 Fullarton Street
 Suite 1512
 London, ON N6A 5P3
 Tel.: (519) 645-5828
 Fax: (519) 645-5580

Quebec

Export Development Corporation
 Tour de la Bourse
 800 Victoria Square
 Suite 4520
 P.O. Box 124
 Montreal, PQ H4Z 1C3
 Tel.: (514) 283-3013
 Fax: (514) 878-9891

British Columbia

Export Development Corporation
 One Bentall Centre
 505 Burrard Street
 Suite 1030
 Vancouver, BC V7X 1M5
 Tel.: (604) 666-6234
 Fax: (604) 666-7550

Alberta

Export Development Corporation
 510-5th Street S.W.
 Suite 1030
 Calgary, AB T2P 3S2
 Tel.: (403) 292-6898
 Fax: (403) 292-6902

Manitoba*

Export Development Corporation
 330 Portage Avenue, Eighth Floor
 Winnipeg, MB R3C 0C4
 Tel.: (204) 983-5114
 Fax: (204) 983-2187

**office also serves Saskatchewan*

Nova Scotia

Export Development Corporation
 Purdy's Wharf, Tower 2
 1969 Upper Water Street
 Suite 1410
 Halifax, NS B3J 3R7
 Tel.: (902) 429-0426
 Fax: (902) 423-0881

Regional Development Organizations

Atlantic Canada Opportunities Agency (ACOA)

ACOA manages several financial and technical assistance programs directed to the economic development needs of Atlantic Canada, with special emphasis on the development of industry, trade, investment, technology and entrepreneurship. With offices across Atlantic Canada, ACOA refers foreign investors to other sources of support and information within the region.

International Division
 Blue Cross Centre
 644 Main Street
 Moncton, NB E1C 9J8
 Tel: (506) 851-2271
 Fax: (506) 851-7403

Federal Office of Regional Development-Quebec (FORD-Q)

FORD-Q administers the Canada-Quebec Subsidiary Agreement on the Economic Development of the Region of Quebec. Its overall objective is to increase the number of large-scale industrial investments in Quebec and thereby encourage technological innovation, subcontracting and the creation of permanent, skilled jobs. Financial assistance can be obtained for feasibility studies and capital investment.

Info Entrepreneur
 5 Place Ville-Marie, Plaza Level
 Montréal, PQ H3B 4Y2
 Tel: (514) 496-4636
 Fax: (514) 496-5934

Northern Ontario Development Fund (FedNor)

FedNor is the federal government's economic development initiative in Northern Ontario. It provides contributions for eligible capital projects, marketing, innovation and related activities that will generate new business and employment opportunities in the region.

FedNor
 302 Queen Street East
 Sault Ste. Marie, ON P6A 1Z1
 Tel: (705) 942-1327
 Fax: (705) 942-5434



**Western Economic Diversification
Canada (WD)**

WD offers a variety of support mechanisms, ranging from small-business assistance to large, industry-wide programs. It is a valuable source of information on western Canada, including additional sources of support in the region. The agency has offices in all four western provinces.

Canada Place
9700 Jasper Avenue
Suite 1500
Edmonton, AB T5J 4H7
Tel: (403) 495-4164
Fax: (403) 495-4557

**Provincial and Territorial
Governments**

British Columbia

Investment Branch
BC Investment Office
Ministry of Employment and Investment
712 Yates Street
Victoria, BC V6V 1X4
Tel: (604) 356-2415
Fax: (604) 356-8212

Alberta

Tourism, Trade and Investment Division
Department of Alberta Economic Development
and Tourism
Fourth Floor
Commerce Place
10155-102nd Street
Edmonton, AB T5J 4L6
Tel: (403) 422-6236
Fax: (403) 422-9127

Saskatchewan

Development Services
Saskatchewan Economic Development
Seventh Floor
1919 Saskatchewan Drive
Regina, SK S4P 3V7
Tel: (306) 787-4707
Fax: (306) 787-1620

Manitoba

Industry Development
Department of Industry, Trade and Tourism
410-155 Carlton Street
Winnipeg, MB R3C 3H8
Tel: (204) 945-2456
Fax: (204) 957-1793

Ontario

Investment Case Management
Ministry of Economic Development and Trade
Hearst Block
900 Bay Street
Fifth Floor
Toronto, ON M7A 2E1
Tel: (416) 325-6833
Fax: (416) 325-6814

Quebec

Investment Services
Ministry of Industry, Commerce, Science and Technology
770 Sherbrooke Street West
Seventh Floor
Montreal, PQ H3A 1G1
Tel: (514) 982-3013
Fax: (514) 873-4503

Palais de Justice
1 Notre Dame E.
Montreal, PQ H2Y 1B1
Tel.: (514) 573-5324

New Brunswick

Trade and Investment Branch
Department of Economic Development and Tourism
P.O. Box 6000
Fredericton, NB E3B 5H1
Tel: (506) 444-4292
Fax: (506) 444-4277

Prince Edward Island

Department of Economic Development and Tourism
P.O. Box 2000
Charlottetown, PE C1A 7N8
Tel: (902) 368-4250
Fax: (902) 368-4224

Nova Scotia

Nova Scotia Marketing Agency
Nova Scotia Economic Renewal Agency
1800 Argyle Street
Suite 608
P.O. Box 519
Halifax, NS B3J 2R7
Tel: (902) 424-5320
Fax: (902) 424-0664

Newfoundland and Labrador

Marketing and Investment Division
Department of Industry, Trade and Technology
P.O. Box 8700
St. John's, NF A1B 4J6
Tel: (709) 729-2781
Fax: (709) 729-3208

Northwest Territories

Corporate and Technical Services Division
 Department of Economic Development and Tourism
 P.O. Box 1320
 Yellowknife, NT X1A 2L9
 Tel: (403) 873-7364
 Fax: (403) 873-0101

Yukon

Department of Economic Development
 P.O. Box 2703
 Whitehorse, YK Y1A 2C6
 Tel: (403) 667-5466
 Fax: (403) 667-8601

Private Sector Sources

Canadian Advanced Technology Association

388 Albert Street
 Second Floor
 Ottawa, ON K1R 5B2
 Tel.: (613) 236-6550
 Fax: (613) 236-8189

Canadian Chamber of Commerce

Head Office
 55 Metcalfe Street
 Suite 1160
 Ottawa, ON K1P 6N4
 Tel: (613) 238-4000
 Fax: (613) 238-7643

Canadian Exporters' Association (CEA)

99 Bank Street
 Suite 250
 Ottawa, ON K1P 6B9
 Tel: (613) 238-8888
 Fax: (613) 563-9218

Canadian Manufacturers' Association (CMA)

75 International Boulevard
 Fourth Floor
 Etobicoke, ON M9W 6L9
 Tel: (416) 798-8000
 Fax: (416) 798-8050

Canadian Standards Association

178 Rexdale Blvd.
 Rexdale, ON K1V 0W2
 Tel.: (416) 747-4000
 Fax: (613) 747-4149

Standards Council of Canada

45 O'Connor Street
 Suite 1200
 Ottawa, ON K1P 6N7
 Tel.: (613) 238-3222
 Fax: (613) 995-4564

Quality Management Institute

90 Burnhamthorpe Road West
 Suite 300
 Mississauga, ON L5B 3C3
 Tel.: (905) 272-3920
 Fax: (905) 272-4538

Canadian Federation of Independent Business

4141 Yonge Street
 Willowdale, ON M2P 2A6
 Tel.: (416) 222-8022
 Fax: (416) 222-4337

Canadian Importers Association

210 Dundas Street West
 Seventh Floor
 Toronto, ON M5G 2E8
 Tel.: (416) 595-5333
 Fax: (416) 595-8226

Geomatics Industry Association of Canada

66 Queen Street
 Suite 400
 Ottawa, ON K1P 5C6
 Tel.: (613) 232-8770
 Fax: (613) 232-4908

Food Research and Development Centre

3000 Casavani Blvd. West
 Saint-Hyacinthe, PQ J2S 8E3
 Tel.: (514) 773-1105

Centre de recherche industrielle du Québec (CRIQ)

8475 Christopher Columbus
 Montreal, PQ H2N 2M9
 Tel.: (514) 383-1550
 Fax: (514) 383-3250

Ortech International

2395 Speakman Drive
 Mississauga, ON L5K 1B3
 Tel.: (905) 822-4111
 Fax: (905) 823-1446

Waterloo Centre for Groundwater Research

200 University Avenue
 BFG Building, Room 1201
 Waterloo, ON N2L 3G1
 Tel.: (519) 888-4567 ext. 2892
 Fax: (519) 725-8720

Information Technology Association (ITAC)

2800 Skymark Avenue
 Suite 402
 Mississauga, ON L4W 5A6
 Tel.: (905) 602-8345
 Fax: (905) 602-8346

Electro-Federation Canada

10 Carlson Court
 Suite 210
 Etobicoke, ON M9W 6Z2
 Tel.: (416) 674-7410
 Fax: (416) 674-7412

Pharmaceutical Manufacturers Association

1111 Prince of Wales Drive
 No. 302
 Ottawa, ON K2C 3T2
 Tel.: (613) 727-1380
 Fax: (613) 727-1407



APPENDIX B: *International Trade Centres in Canada*

International Trade Centres

The Department of Foreign Affairs and International Trade (DFAIT) and the Department of Industry (DI) have established **International Trade Centres** (ITCs) across Canada to assist first-time and experienced Canadian exporters by providing trade publications, recruiting participants for trade fairs and missions, providing a wide range of services to companies seeking export counselling, technology transfer or joint ventures with foreign investors. For further information contact the ITC nearest you.

Nova Scotia

International Trade Centre
P.O. Box 940
Station M
1801 Hollis Street
Halifax, NS B3J 2V9
Tel: (902) 426-7540
Fax: (902) 426-2624

New Brunswick

International Trade Centre
P.O. Box 1210
Assumption Place
770 Main Street
Moncton, NB E1C 8P9
Tel: (506) 851-6452
Fax: (506) 851-6429
Toll free (New Brunswick only): 1-800-332-3801

Newfoundland

International Trade Centre
P.O. Box 8950
Atlantic Place
215 Water Street
Suite 504
St. John's, NF A1B 3R9
Tel: (709) 772-5511
Fax: (709) 772-2373

Prince Edward Island

International Trade Centre
P.O. Box 1115
Confederation Court Mall
134 Kent Street
Suite 400
Charlottetown, PE C1A 7M8
Tel: (902) 566-7400
Fax: (902) 566-7450

Quebec

International Trade Centre
5, Place Ville-Marie
Suite 800
Montreal, PQ H3B 2G2
Tel: (514) 496-4636
Fax: (514) 283-8794

Ontario

International Trade Centre
Dominion Public Building
One Front Street West
Fourth Floor
Toronto, ON M5J 1A4
Tel: (416) 973-5053
Fax: (416) 973-8161

Manitoba

International Trade Centre
P.O. Box 981
330 Portage Avenue
Eighth Floor
Winnipeg, MB R3C 2V2
Tel: (204) 983-6531
Fax: (204) 983-2187

Saskatchewan

Saskatoon Office
International Trade Centre
The S.H. Cohen Building
119-4th Avenue South
Room 401
Saskatoon, SK S7K 5X2
Tel: (306) 975-5315
Fax: (306) 975-5334

Regina Office

1919 Saskatchewan Drive
Sixth Floor
Regina, SK S4P 3V7
Tel: (306) 780-6325
Fax: (306) 780-6679

Alberta

Edmonton Office

International Trade Centre
Canada Place
9700 Jasper Avenue
Room 540
Edmonton, AB T5J 4C3
Tel: (403) 495-2944
Fax: (403) 495-4507

Calgary Office

510-5th Street S.W.
Suite 1100
Calgary, AB T2P 3S2
Tel: (403) 292-6660
Fax: (403) 292-4578

British Columbia

International Trade Centre
P.O. Box 11610
650 West Georgia Street
Suite 900
Vancouver, BC V6B 5H8
Tel: (604) 666-0434
Fax: (604) 666-8330

APPENDIX C: *List of Canadian Missions Abroad*



For trade or investment matters, please contact the mission below and ask to speak with the Senior Trade Commissioner.

Afghanistan (Republic of) see Pakistan

Albania (Socialist People's Republic of) see Hungary

Algeria (People's Democratic Republic of)

Canadian Embassy

Street Address:
27 bis, rue Des Freres Benhafid
Hydra, Algiers
People's Democratic Republic of Algeria

Mailing Address:
P.O. Box 225
Alger-Gare, Algiers
People's Democratic Republic of Algeria

Tel: (011-213-2) 69.16.11
Fax: (011-213-2) 69.39.20

Andorra (Principality of) see France

Angola (People's Republic of) see Zimbabwe

Anguilla see Barbados

Antigua see Barbados

Argentina (Argentine Republic)

Canadian Embassy

Street Address:
Tagle 2828
1425, Buenos Aires
Argentina

Mailing Address:
Casilla de Correo 1598
1000, Buenos Aires
Argentina

Tel: (011-54-1) 805-3032
Fax: (011-54-1) 806-1209

Armenia (Republic of) see Russia

Australia (Commonwealth of)

Canberra

Canadian High Commission

Street Address:
Commonwealth Avenue
Canberra ACT 2600
Australia

Mailing Address:
(same as above)

Tel: (0011-61-6) 273-3844
Fax: (0011-61-6) 270-4695

**Sydney
Canadian Consulate General**

Street Address:
Level 5, Quay West
111 Harrington Street
Sydney, N.S.W.,
Australia 2000

Mailing Address:
(same as above)

Tel: (011-61-2) 364-3000
Fax: (011-61-2) 364-3098

Austria (Republic of)

Canadian Embassy

Street Address:
Laurenzerberg 2,
A-1010 Vienna
Austria

Mailing Address:
(same as above)

Tel: (011-43-1) 531-38-3000
Fax: (011-43-1) 531-38-3906

Azerbaijan (Republic of) see Turkey

Azores see Portugal

Bahamas (Commonwealth of the) see Jamaica

Bahrain (Emirate of) see Kuwait

Balearic Islands see Spain

Bangladesh (People's Republic of)

Canadian High Commission

Street Address: House CWN 16/A,
Road 48, Gulshan
Dhaka 1212
People's Republic of Bangladesh

Mailing Address:
G.P.O. Box 569
Dhaka 1000
People's Republic of Bangladesh

Tel: (011-88-02) 607-071-7/883-639
Fax: (011-88-02) 883043

Barbados

Canadian High Commission

Street Address:
Bishop's Court Hill
St. Michael
Barbados

Mailing Address:
P.O. Box 404
Bridgetown
Barbados

Tel: (809) 429-3550
Fax: (809) 437-8474

Barbuda see Barbados

Belgium (Kingdom of)

Canadian Embassy

Street Address:
2 Tervuren Avenue
1040 Brussels
Kingdom of Belgium

Mailing Address:
(same as above)

Tel: (011-32-2) 741.06.20
Fax: (011-32-2) 741.06.06

Belize see Jamaica

Belarus (Republic of) see Russia

Benin (Republic of) see Nigeria

Bermuda see United States of America
(New York City)

Bolivia (Republic of) see Peru

Bosnia-Herzegovina (Republic of)
see Yugoslavia

Botswana (Republic of) see Zimbabwe

Brazil (Federative Republic of)

Brasilia

Canadian Embassy

Street Address:
Ses-Av. das Nações, Lote 16
Brasilia — DF 70410-900
Federative Republic of Brazil

Mailing Address:
Caixa Postal 00961
Brasilia — DF 70359-970
Federative Republic of Brazil

Tel: (011-55-61) 321-2171
Fax: (011-55-61) 321-4529

Sao Paulo

Canadian Consulate General

Street Address:
Edifício Top Centre
Avenida Paulista 854
5 Andar*, 01310-913 Sao Paulo SP
Federative Republic of Brazil

Mailing Address:
Caixa Postal 22002
01495-970 Sao Paulo SP
Federative Republic of Brazil

Tel: (011-55-11) 287-2122
Fax: (011-55-11) 251-5057

Britain (United Kingdom of Great)

Canadian High Commission

Street Address:
Macdonald House
One Grosvenor Square
London W1X 0AB,
England

Mailing Address:
(same as above)

Tel: (011-44-71) 258-6600
Fax: (011-44-71) 258-6384;
258-6322 (Tourism)

British Virgin Islands see Barbados

Brunei Darussalam (Sultanate of)
see Singapore

Bulgaria (Republic of) see Hungary

Burkina Faso see Côte d'Ivoire

Burundi (Republic of) see Kenya

Cambodia (Republic of) see Thailand

Cameroon (Republic of)

Canadian Embassy

Street Address:
Immeuble Stamatiades
rue de l'Hôtel de Ville
Yaoundé
Republic of Cameroon

Mailing Address:
P.O. Box 572
Yaoundé
Republic of Cameroon

Tel: (011-237) 23-02-03/22-18-22/
23-23-11/22-19-36
Fax: (011-237) 22-10-90

Canary Islands see Spain

Cape Verde (Republic of) see Senegal

Cayman Islands see Jamaica

Central African Republic see
Cameroon

Chad (Republic of) see Cameroon

Chile (Republic of)

Canadian Embassy

Street Address:
Ahumada 11
10th Floor
Santiago
Republic of Chile

Mailing Address:
Casilla 771
Santiago
Republic of Chile

Tel: (011-56-2) 696-2256
Fax: (011-56-2) 696-0738

China (People's Republic of)

Beijing

Canadian Embassy

Street Address:
19 Dong Zhi Men Wai Street
Chaoyang District
Beijing 100600
People's Republic of China

Mailing Address:
(same as above)

Tel: (011-86-1) 532-3536
Fax: (011-86-1) 532-4072

Shanghai

Canadian Consulate General

Street Address:
West Tower, Suite 604,
American International Centre at
Shanghai Centre
1376 Nanjing Xi Lu
Shanghai 200040
People's Republic of China

Mailing Address:
(same as above)

Tel: (011-86-21) 279-8400
Fax: (011-86-21) 279-8401

Colombia (Republic of)

Canadian Embassy

Street Address:
Calle 76, No. 11-52
Santafe de Bogotá
Republic of Colombia

Mailing Address:
Apartado Aereo 53531
Santafe de Bogotá 2
Republic of Colombia

Tel: (011-57-1) 217-5555/5152
Fax: (011-57-1) 310-4509

Quito

Consulate of Canada

Street Address:

Av. 6 de Diciembre 2816 y Orton
Quito
Republic of Ecuador

Mailing Address:

Apartado 17-11-6512 CCI,
Quito
Republic of Ecuador

Tel: (011-593-2) 543-214/
564-795/506-163
Fax: (011-593-2) 503-108

Comoros (Islamic Federal Republic of)

see Kenya

Congo (People's Republic of)

see Gabon

Cook Islands see New Zealand

Costa Rica (Republic of)

Canadian Embassy

Street Address:

Cronos Building
Calle 3 y Avenida Central
San José
Republic of Costa Rica

Mailing Address:

Apartado Postal 10303
San José
Republic of Costa Rica

Tel: (011-506) 55-3522
Fax: (011-506) 23-0609

Côte d'Ivoire (République de)

Canadian Embassy

Street Address:

Immeuble "Trade-Center"
23, avenue Nogues
Le Plateau, Abidjan
République de Côte d'Ivoire

Mailing Address:

01 B.P. 4104
Abidjan 01
République de Côte d'Ivoire

Tel: (011-225) 21-20-09
Fax: (011-225) 22-05-30

Croatia (Republic of)

Canadian Embassy

Street Address:

Mihanoviceva 1
41000 Zagreb
Republic of Croatia

Mailing Address:
(same as above)

Tel: (011-385-41) 450-903

Fax: (011-385-41) 450-913

Cuba (Republic of)

Canadian Embassy

Street Address:

Calle 30 No. 518
Miramar, Havana
Republic of Cuba

Mailing Address:

Commercial Division,
P.O. Box 500 (HVAN),
Ottawa, ON K1N 8T7

Tel: (011-53-7) 33-2516/17/27,
33-2382, 33-2752
Fax: (011-53-7) 33-2044/33-1069

Cyprus (Republic of) see Israel

Czech Republic

Canadian Embassy

Street Address:

Commercial Division,
Na Petynce 120
169 00 Prague 6
Czech Republic

Mailing Address:

(same as above)

Tel: (011-42-2) 357-685/357-785/
357-892/357-9662/353-427
Fax: (011-42-2) 355-476

Denmark (Kingdom of)

Canadian Embassy

Street Address:

Kr. Bernikowsgade 1
DK=1105 Copenhagen K
Kingdom of Denmark

Mailing Address:

(same as above)

Tel: (011-45-33) 12-22-99
Fax: (011-45-33) 12-41-10

Djibouti (Republic of) see Ethiopia

Dominica (Commonwealth of)

see Barbados

Dominican Republic

Office of the Canadian Embassy

Street Address:

Maximo Gomez 30
Santo Domingo
Dominican Republic

Mailing Address:

Apartado 2054
Santo Domingo
Dominican Republic

Tel: (809) 685-1136

Fax: (809) 682-2691

Economic Cooperation and Development (Organization for) Permanent Delegation of Canada to the OECD

Street Address:

15 bis, rue de Franqueville
75116 Paris
France

Mailing Address:

(same as above)

Tel: (011-33-1) 44.43.2090
Fax: (011-33-1) 44.43.2099

Ecuador (Republic of) see Colombia

Egypt (Arab Republic of)

Canadian Embassy

Street Address:

6 Mohamed Fahmy el Sayed Street
Garden City, Cairo
Arab Republic of Egypt

Mailing Address:

P.O. Box 1667 Kasr El Doubara
Cairo
Arab Republic of Egypt

Tel: (011-20-2) 354-3110
Fax: (011-20-2) 356-3548

El Salvador (Republic of)

see Guatemala

England see Britain

Equatorial Guinea (Republic of)

see Gabon

Eritrea see Ethiopia

Estonia (Republic of) see Latvia

Ethiopia

Canadian Embassy

Street Address:

Higher 23, Kebele 12,
House No. 122
Old Airport Area
Addis Ababa
Ethiopia

Mailing Address:

P.O. Box 1130
Addis Ababa
Ethiopia

Tel: (011-251-1) 713022
Fax: (011-251-1) 713033

European Union

Mission of Canada to the European Union

Street Address:
2 Avenue de Tervuren
1040 Brussels
Kingdom of Belgium

Mailing Address:
(same as above)

Tel: (011-32-2) 741-0660
Fax: (011-32-2) 741-0629

Faroe Islands see Denmark

Fiji see New Zealand

Finland (Republic of)

Canadian Embassy

Street Address:
Pohjois Esplanadi 25 B
00100 Helsinki
Republic of Finland

Mailing Address:
P.O. Box 779
00101 Helsinki
Republic of Finland

Tel: (011-358-0) 171-141
Fax: (011-358-0) 601-060

France (French Republic)

Paris

Canadian Embassy

Street Address:
35, avenue Montaigne
75008 Paris
France

Mailing Address:
(same as above)

Tel: (011-33-1) 44.43.29.00
Fax: (011-33-1) 44.43.29.98
(Economic/Commercial)

Lyon

Consulate of Canada

Street Address:
Bonnell Part-Dieu Building
74, rue de Bonnell, 3rd Floor
69428 Lyon Cedex 02
France

Tel: (011-33) 72.61.15.25
Fax: (011-33) 78.62.09.36

French Guyana see Guyana

French Polynesia see New Zealand

Gabon (Gabonese Republic)

Canadian Embassy

Mailing Address:
P.O. Box 4037
Libreville
Gabon

Tel: (011-241) 74-34-64/65
Fax: (011-241) 74-34-66

Gambia (Republic of) see Senegal

General Agreement on Tariffs and Trade

Permanent Mission of Canada to the Secretariat of the General Agreement on Tariffs and Trade

Street Address:
1, rue du Pré de la Pichette
1202 Geneva
Switzerland

Mailing Address:
(same as above)

Tel: (011-41-22) 733.90.00
Fax: (011-41-22) 734.79.19

Georgia (Republic of) see Turkey

Germany

Missions in Germany are organized on an industry-sector basis as opposed to a geographic basis. Therefore, all trade enquiries should be directed to the mission identified as having specific responsibility for the product in question.

Bonn

Sector responsibilities: aerospace and defence products, security equipment, books, musical instruments, fish and agri-food, environment, marine industries, chemicals, cultural industries, policy and regulatory matters, government procurement, remote sensing (including satellite space communications), power and energy equipment, engineering services, management consulting services; Liaison with Telecom.

Canadian Embassy

Street Address:
Friedrich-Wilhelm-Strasse 18
53113 Bonn
Germany

Mailing Address:
Postfach 12 02 40
53044 Bonn
Germany

Tel: (011-49-228) 968-0
Fax: (011-49-228) 968-3900

Berlin

Sector responsibilities: economic and commercial relations with Berlin and the five new German states; construction industry and agricultural equipment for all of Germany

Office of the Embassy

Street Address:
Internationales Handelszentrum
Friedrichstrasse 95, 23rd Floor
10117 Berlin
Germany

Mailing Address:
(same as above)

Tel: (011-49-30) 261-1161
Fax: (011-49-30) 262-9206

Düsseldorf

Sector responsibilities: oil and gas, mining, minerals and metals, forest products, primary and secondary industry machinery (excluding agricultural machinery); tourism promotion throughout Germany

Consulate of Canada

Street Address:
Prinz-Georg-Str. 126
40479 Düsseldorf
Germany

Mailing Address:
(same as above)

Tel: (011-49-211) 17 21 70
Fax: (011-49-211) 35 91 65

Munich

Sector responsibilities: automotive and surface transportation equipment, electrical and electronic products, computers and computer software and hardware, medical and health care and related equipment and services, telecommunications equipment and services, education training, consumer products and services

Consulate of Canada

Street Address:
Tal 29
80331 Munich
Germany

Mailing Address:
(same as above)

Tel: (011-49-89) 29065-0
Fax: (011-49-89) 228-5987

Ghana (Republic of)

Canadian High Commission

Street Address:
46 Independence Avenue
Accra
Republic of Ghana

Mailing Address:
P.O. Box 1639
Accra
Republic of Ghana

Tel: (011-233-21)
228555/228566/773791
Fax: (011-233-21) 773-792

Gibraltar see Britain

Gilbert Islands see New Zealand

Greece (Hellenic Republic)

Canadian Embassy

Street Address:
4 Ioannou Ghennadiou Street
115 21 Athens
Greece

Mailing Address:
(same as above)

Tel: (011-30-1) 725-4011
Fax: (011-30-1) 725-3994

Greenland see Denmark

Grenada see Barbados

Guadeloupe see Barbados

Guam see Japan

Guatemala (Republic of)

Canadian Embassy

Street Address:
13 Calle 8-44, Zona 10
Edyma Plaza, 8th Floor
Guatemala City 01010
Republic of Guatemala, C.A.

Mailing Address:
P.O. Box 400
Guatemala City
Republic of Guatemala, C.A.

Tel: (011-502-2) 336102/04
Fax: (011-502-2) 336189

Guinea (Republic of) see Senegal

Guinea-Bissau (Republic of) see Senegal

Guyana (Cooperative Republic of)

Canadian High Commission

Street Address:
High and Young Streets
Kingston, Georgetown
Cooperative Republic of Guyana

Mailing Address:
P.O. Box 10880
Georgetown
Cooperative Republic of Guyana

Tel: (011-592-2) 72081-5
Fax: (011-592-2) 58380

Haiti (Republic of) see Jamaica

Honduras (Republic of) see Costa Rica

Hong Kong

Commission for Canada

Street Address:
13th Floor, Tower 1,
Exchange Square
8 Connaught Place
Hong Kong
Hong Kong

Mailing Address:
G.P.O. 11142
Hong Kong
Hong Kong

Tel: (011-852) 847-7414
Fax: (011-852) 847-7441

**Guangzhou
Consulate of Canada**

Street Address:
Room 1563, China Hotel,
Office Tower
Liu Hua Lu, Guangzhou
People's Republic of China

Mailing Address:
(same as above)

Tel: (011-8620) 666-0569
Fax: (011-8620) 667-2401

Hungary (Republic of)

Canadian Embassy

Street Address:
Kiralyhago Ter 8-9
H-1126 Budapest XII
Hungary

Mailing Address:
(same as above)

Tel: (011-36-1) 156-1251/
156-1365/156-1451
Fax: (011-36-1) 155-8650

Iceland (Republic of) see Norway

India (Republic of)

New Delhi

Canadian High Commission

Street Address:
7/8 Shantipath
Chanakyapuri
New Delhi 110 021
Republic of India

Mailing Address:
P.O. Box 5208
New Delhi
Republic of India

Tel: (011-91-11) 687-6500
Fax: (011-91-11) 687-5387/
687-6579

Bombay

Consulate of Canada

Street Address:
41/42 Maker Chambers VI
Jammalal Bajaj Marg, Nariman Point
Bombay 400 021
Republic of India

Mailing Address:
(same as above)

Tel: (011-91-22) 287-5479/
287-6027
Fax: (011-91-22) 287-5514

Indonesia (Republic of)

Canadian Embassy

Street Address:
5th Floor, Wisma Metropolitan 1
Jalan Jendral Sudirman Kav 29
Jakarta 12920
Republic of Indonesia

Mailing Address:
P.O. Box 8324/JKS.MP
Jakarta 12084
Republic of Indonesia

Tel: (011-62-21) 525-0709
Fax: (011-62-21) 571-2251/
570-1494

Iran (Islamic Republic of)

Canadian Embassy

Street Address:
57 Shahid Javad Sarafraz Street
Ostad Motahari Avenue, Tehran
Islamic Republic of Iran

Mailing Address:
P.O. Box 11365-4647
Tehran
Islamic Republic of Iran

Tel: (011-98-21) 622623
Fax: (011-98-21) 623202

Iraq (Republic of) see Jordan

Ireland (Republic of)

Canadian Embassy

Street Address:
Canada House,
65/68 St. Stephen's Green
Dublin 2
Ireland

Mailing Address:
(same as above)

Tel: (011-353-1) 478 1988
Fax: (011-353-1) 478 1285

Israel (State of)

Canadian Embassy

Street Address:
220 Hayarkon Street
Tel Aviv 63405
State of Israel

Mailing Address:
P.O. Box 6410
Tel Aviv 61063
State of Israel

Tel: (011-972-3) 527-2929
Fax: (011-972-3) 527-2333

Italy (Italian Republic)

Rome

Canadian Embassy

Street Address:
Via G.B. de Rossi 27
00161 Rome
Italy

Mailing Address:
(same as above)

Tel: (011-39-6) 445981
Fax: (011-39-6) 44598-754

Milan

Canadian Consulate General

Street Address:
Via Vittor Pisani 19
20124 Milan
Italy

Mailing Address:
(same as above)

Tel: (011-39-2) 6758-1
Fax: (011-39-2) 6758-3900

Ivory Coast see Côte d'Ivoire

Jamaica

Canadian High Commission

Street Address
30-36 Knutsford Boulevard
Kingston 5
Jamaica, W.I.

Mailing Address:
P.O. Box 1500
Kingston 10
Jamaica, W.I.

Tel: (809) 926-1500
Fax: (809) 960-3861

Japan

Tokyo

Canadian Embassy

Street Address:
7-3-38 Akasaka
Minato-ku
Tokyo 107
Japan

Mailing Address:
(same as above)

Tel: (011-81-3) 3408-2101
Fax: (G3 System) (011-81-3)
3470-7280/3479-5320

Fukuoka

Canadian Consulate

Street Address:
FT Bldg. 9F
4-8-28, Watanabe-dori
Chuo-ku
Fukuoka-shi 810
Japan

Tel: (011-81-92) 752-6055
Fax: (011-81-92) 752-6077

Nagoya

Canadian Consulate

Street Address:
Nakato Marunouchi Bldg. 6F
3-17-6 Marunouchi, Naka-ku
Nagoya 460
Japan

Tel: (011-81-52) 972-0450
Fax: (011-81-52) 972-0453

Osaka

Canadian Consulate General

Street Address:
12th Floor, Daisan Shoho Building
2-2-3 Nishi-Shinsaibashi
Chuo-ku
Osaka 542
Japan

Mailing Address:

P.O. Box 150
Osaka Minami 542-91
Japan

Tel: (011-81-6) 212-4910
Fax: (G3 System) (011-81-6)
212-4914

Jordan (Hashemite Kingdom of)

Canadian Embassy

Street Address:
Pearl of Shmeisani Building
Shmeisani
Amman
Hashemite Kingdom of Jordan

Mailing Address:
P.O. Box 815403
Amman
Hashemite Kingdom of Jordan

Tel: (011-962-6) 666-124
Commercial night line: (011-962-6)
666-313
Fax: (011-962-6) 689-227

Kazakhstan (Republic of)

Canadian Embassy

Street Address:
157 Prospect Abaya
6th Floor
480009 Almaty
Republic of Kazakhstan

Mailing Address:
(same as above)

Tel: (011-7-3272) 50 93 81
Fax: (011-7-3272) 50 93 80

Kenya (Republic of)

Canadian High Commission

Street Address:
Comeraft House
Hailé Sélassie Avenue
Nairobi
Republic of Kenya

Mailing Address:
P.O. Box 30481
Nairobi
Republic of Kenya

Tel: (011-254-2) 214-804
Fax: (011-254-2) 226-987/216-485

Korea (Republic of)

Canadian Embassy

Street Address:
10th Floor, Kolon Building
45 Mugyo-Dong, Jung-Ku
Seoul 100-170
Republic of Korea



Mailing Address:

C.P.O. Box 6299
Seoul 100-662
Republic of Korea

Tel: (011-82-2) 753-2605/8;
753-7290/3

Fax: (011-82-2) 755-0686/756-0869
(Province of Quebec) /773-8966
(Province of Alberta)

Kuwait (Emirate of)

Canadian Embassy

Street Address:

Da'Aiah, Area 4
24 Al-Mutawakel Street
Kuwait City
Emirate of Kuwait

Mailing Address:

P.O. Box 25281 Safat
13113 Kuwait City
Emirate of Kuwait

Tel: (011-965) 256-3025

Fax: (011-965) 256-4167

Kyrgyzstan (Republic of)

see Kazakhstan

Laos (People's Democratic Republic)

see Thailand

Latvia (Republic of)

Canadian Embassy

Street Address:

Doma laukums 4
Rīga LV-1977
Republic of Latvia

Mailing Address:

(same as above)

Tel: (011-37-1) 883-0141

Fax: (011-37-1) 883-0140

Lebanon (Lebanese Republic)

see Jordan

Lesotho (Kingdom of) see South Africa

Liberia (Republic of) see Ghana

Libya (Socialist People's Libyan Arab Jamahiriya) see Tunisia

Liechtenstein (Principality of)

see Switzerland

Lithuania (Republic of) see Latvia

Luxembourg (Grand Duchy of)

see Belgium

Macau see Hong Kong

Macedonia (The Former Yugoslav Republic of) see Hungary

Madagascar (Democratic Republic of)

see Tanzania

Madeira see Portugal

Malawi (Republic of) see Zambia

Malaysia (Federation of)

Canadian High Commission

Street Address:

Plaza MBF, 7th Floor
Jalan Ampang
50450 Kuala Lumpur
Federation of Malaysia

Mailing Address:

P.O. Box 10990
50732 Kuala Lumpur
Federation of Malaysia

Tel: (011-60-3) 261-2000

Fax: (011-60-3) 261-3428/261-1270

Maldives (Republic of) see Sri Lanka

Mali (Republic of) see Côte d'Ivoire

Malta (Republic of) see Italy (Rome)

Marshall Islands see Philippines

Martinique see Barbados

Mauritania (Islamic Republic of)

see Senegal

Mauritius see Tanzania

Mexico (United Mexican States)

Mexico City

Canadian Embassy

Street Address:

Calle Schiller No. 529
Colonia Rincon del Bosque
11560 Polanco, Mexico City
México

Mailing Address:

Apartado Postal 105-05
11560 México D.F.
México

Tel: (011-525) 724-7900

Fax: (011-525) 724-7982

Monterrey

Canadian Consulate

Street Address:

Edificio Kalos, Piso C-1
Local 108-A
Zaragoza y Constitution
Monterrey, Neuvo León
México

Tel: (011-52-83) 44-32-00

Fax: (011-52-83) 44-30-48

Micronesia (Federated States of)

see Philippines

Moldova (Republic of) see Romania

Monaco (Principality of) see France

Mongolia (Mongolian People's Republic) see China (Beijing)

Montserrat see Barbados

Morocco (Kingdom of)

Canadian Embassy

Street Address:

13 bis, rue Jaafar As-Saddik
Rabat-Agdal
Kingdom of Morocco

Mailing Address:

C.P. 709
Rabat-Agdal
Kingdom of Morocco

Tel: (011-212-7) 67-28-80

Fax: (011-212-7) 67-21-87

Mozambique (Republic of)

see Zimbabwe

Myanmar (Union of) see Thailand

Namibia (Republic of) see South Africa

Nauru (Republic of) see Australia
(Canberra)

Nepal (Kingdom of) see India

Netherlands (Kingdom of the)

Canadian Embassy

Street Address:

Parkstraat 25
2514 JD The Hague
Kingdom of the Netherlands

Mailing Address:

Commercial Division
P.O. Box 30820
2500 GV The Hague
Kingdom of the Netherlands

Tel: (011-31-70) 361-4111

Fax: (011-31-70) 365-6283

New Caledonia see Australia
(Canberra)

New Zealand

Canadian Consulate

Street Address:

9th Floor, Jetset Centre
44-48 Emily Place
Auckland 1
New Zealand

Mailing Address:
P.O. Box 6186
Wellesley St. Post Office
Auckland
New Zealand

Tel: (011-64-9) 309-3690
Fax: (011-64-9) 307-3111

Nicaragua (Republic of) see Costa Rica

Niger (Republic of) see Côte d'Ivoire

Nigeria (Federal Republic of)

Canadian High Commission

Street Address:
4 Idowu Taylor Street
Victoria Island
Lagos
Federal Republic of Nigeria

Mailing Address:
P.O. Box 54506
Ikoyi Station
Lagos
Federal Republic of Nigeria

Tel: (011-234-1) 262-2513/4/5/6
Fax: (011-234-1) 262-2517

Niue see New Zealand

North Atlantic Council

Delegation of Canada to the North Atlantic Council

Street Address:
Léopold III Boulevard
1110 Brussels
Kingdom of Belgium

Mailing Address:
(same as above)

Tel: (011-32-2) 726-4646
Fax: (011-32-2) 728-7129

Northern Ireland see Britain

Northern Marianas see Philippines

Norway (Kingdom of)

Canadian Embassy

Street Address:
Oscars Gate 20
Oslo 3
Kingdom of Norway

Mailing Address:
0244 Oslo
Kingdom of Norway

Tel: (011-47-22) 46-69-55
Fax: (011-47-22) 69-34-67

Oman (Sultanate of) see Kuwait

Pakistan (Islamic Republic of)

Islamabad

Canadian High Commission

Street Address:
Diplomatic Enclave
Sector G-5
Islamabad
Islamic Republic of Pakistan

Mailing Address:
G.P.O. Box 1042
Islamabad
Islamic Republic of Pakistan

Tel: (011-92-51) 211-101-4
(5700 DOCAN PK)
Fax: (011-92-51) 211-540

Karachi

Canadian Trade Office,
Beach Luxury Hotel, 1st Floor
M.T. Khan Road, Karachi
Pakistan

Tel: (011-92-21) 561-0672
Fax: (011-92-21) 561-0684

Palau (Republic of) see Philippines

Panama (Republic of) see Costa Rica

Papua New Guinea see Australia
(Canberra)

Paraguay (Republic of) see Chile

Peru (Republic of)

Canadian Embassy

Street Address:
Federico Gerdes 130
(Antes Calle Libertad) Miraflores
Lima
Republic of Peru

Mailing Address:
Casilla 18-1126, Correo Miraflores
Lima 18
Republic of Peru

Tel: (011-51-14) 44-40-15;
(Night Line: 44-46-88)
Fax: (011-51-14) 44-43-47

Philippines (Republic of the)

Canadian Embassy

Street Address:
11th Floor, Allied Bank Centre
6754 Ayala Avenue
Makati, Metro Manila
Republic of the Philippines 1200

Mailing Address:
P.O. Box 2168
Makati Central Post Office
1261 Makati, Metro Manila
Republic of the Philippines 1299

Tel: (011-63-2) 810-8861
Fax: (011-63-2) 810-1699

Poland (Republic of)

Canadian Embassy

Street Address:
Ulica Jana Matejki 1/5
00-481 Warsaw
Republic of Poland

Mailing Address:
(same as above)

Tel: (011-48-22) 29-80-51
Fax: (011-48-22) 29-64-57

Portugal (Portuguese Republic)

Canadian Embassy

Street Address:
Av. Da Liberdade 144/56-4th Floor
1200 Lisbon
Portuguese Republic

Mailing Address:
(same as above)

Tel: (011-351-1) 347-4892/
347-4896
Fax: (011-351-1) 342-5628/
347-6466

Qatar (Emirate of) see Kuwait

Romania

Canadian Embassy

Street Address:
36, Nicolae Iorga
Bucharest
Romania

Mailing Address:
P.O. Box 2966
Post Office No. 22
71118 Bucharest
Romania

Tel: (011-40-1) 312-0365/
312-8345
Fax: (011-40-1) 312-0366

Russia (Russian Federation)

Canadian Embassy

Street Address:
Starokonyushenny Pereulok 23
Moscow 12100
Russian Federation

Mailing Address:
(same as above)



Tel: (011-7-095) 956-6666/
241-1111
Fax: (011-7-095) 241-9034

Rwanda (Rwandese Republic)
see Kenya

Sao Tome and Principe (Democratic Republic of) see Gabon

Saudi Arabia (Kingdom of)

Riyadh

Canadian Embassy

Street Address:
Diplomatic Quarter
Riyadh
Kingdom of Saudi Arabia

Mailing Address:
P.O. Box 94321
Riyadh 11693
Kingdom of Saudi Arabia

Tel: (011-966-1) 488-2288
Fax: (011-966-1) 488-0137

Jeddah

Canadian Trade Office

Zahid Tractor Building
Corner of Mohammed Al Taweel St.
and Al-Salsabeel St.
Jeddah
Kingdom of Saudia Arabia

Mailing Address:
P.O. Box 8928
Jeddah 21492
Kingdom of Saudi Arabia

Tel: (011-966-2) 665-1050
Fax: (011-966-2) 669-0727

Senegal (Republic of)

Canadian Embassy

Street Address:
4th Floor, Sorano Building
45, boul. de la République
Dakar
Republic of Senegal

Mailing Address:
P.O. Box 3373
Dakar
Republic of Senegal

Tel: (011-221) 23-92-90
Fax: (011-221) 23-92-90

Seychelles (Republic of) see Tanzania

Sierra Leone (Republic of) see Ghana

Singapore (Republic of)

Canadian High Commission

Street Address:
IBM Towers, 14th Floor
80 Anson Road
Singapore 0207
Republic of Singapore

Mailing Address:
P.O. Box 845
Singapore 9016
Republic of Singapore

Tel: (011-65) 225-6363
Fax: (011-65) 225-2450; 226-1541
(Commercial)

Slovakia (Republic of) see Czech Republic

Slovenia (Republic of) see Hungary

Solomon Islands see Australia (Canberra)

Somalia (Republic of) see Kenya

South Africa (Republic of)

Canadian High Commission Trade Office

Street Address:
Cradock Place, 1st Floor
10 Arnold Street, Rosebank
Johannesburg
South Africa

Mailing Address:
P.O. Box 1394, Parklands 2121
Johannesburg
South Africa

Tel: (011-27-11) 442-3130
Fax: (011-27-11) 442-3325

Spain (Kingdom of)

Madrid

Canadian Embassy

Street Address:
35 Nunez de Balboa
28001 Madrid
Kingdom of Spain

Mailing Address:
Apartado 587
28080 Madrid
Kingdom of Spain

Tel: (011-34-1) 431-4300
Fax: (011-34-1) 431-2367

Barcelona

Canadian Trade Office

Travessera de les Corts 265
08014 Barcelona
Spain

Tel: (011-34-3) 410-6699
Fax: (011-34-3) 410-7755

Sri Lanka (Democratic Socialist Republic of)

Canadian High Commission

Street Address:
6 Gregory's Road
Colombo
Democratic Socialist Republic
of Sri Lanka

Mailing Address:
P.O. Box 1006
Colombo
Democratic Socialist Republic
of Sri Lanka

Tel: (011-94-1) 69-58-41/42/43;
69-87-97
Fax: (011-94-1) 68-70-49

St. Helena see South Africa

St. Kitts and Nevis see Barbados

St. Lucia see Barbados

St. Martin see Barbados

St. Pierre-et-Miquelon
see United States (Boston)

St. Vincent (Commonwealth of)
see Barbados

Sudan (Republic of the)
see Egypt

Suriname (Republic of) see Guyana

Swaziland (Kingdom of)
see South Africa

Sweden (Kingdom of)

Canadian Embassy

Street Address:
Tegelbacken 4, 7th Floor
Stockholm
Kingdom of Sweden

Mailing Address:
P.O. Box 16129
S-103 23 Stockholm
Kingdom of Sweden

Tel: (011-46-8) 613-9900
Fax: (011-46-8) 24 24 91

Switzerland (Swiss Confederation)

Canadian Embassy
Street Address:
 Kirchenfeldstrasse 88
 CH-3005 Berne
 Switzerland

Mailing Address:
 P.O. Box 234, CH-3000
 Berne 6
 Switzerland

Tel: (011-41-31) 352-63-81
 Fax: (011-41-31) 352-73-15

Syria (Syrian Arab Republic)

see Jordan

Taiwan

Canadian Trade Office

Street Address:
 13th Floor
 365 Fu Hsing North Road
 Taipei
 Taiwan

Mailing Address:
 (same as above)

Tel: (011-886-2) 713-7268
 Fax: (011-886-2) 712-7244

Tajikistan (Republic of) see Kazakhstan

Tanzania (United Republic of)

Canadian High Commission

Street Address:
 38 Mirambo at Garden Avenue
 Dar-es-Salaam
 United Republic of Tanzania

Mailing Address:
 P.O. Box 1022
 Dar-es-Salaam
 United Republic of Tanzania

Tel: (011-255-51) 46000/9
 Fax: (011-255-51) 46000/9
 (Ask for fax)

Thailand (Kingdom of)

Canadian Embassy

Street Address:
 The Boonmitr Building
 12th Floor, 138 Silom Road
 Bangkok 10500
 Kingdom of Thailand

Mailing Address:
 P.O. Box 2090
 Bangkok 10500
 Kingdom of Thailand

Tel: (011-66-2) 237-4126
 Fax: (011-66-2) 236-6463;
 236-7119 (Commercial)

Togo (Togolese Republic) see Ghana

Tonga (Kingdom of) see New Zealand

Trinidad and Tobago (Republic of)

Canadian High Commission

Street Address:
 Huggins Building
 72 South Quay
 Port of Spain
 Republic of Trinidad and Tobago

Mailing Address:
 P.O. Box 1246
 Port of Spain
 Republic of Trinidad and Tobago

Tel: (809) 623-7254
 Fax: (809) 624-6440/624-4016

Tunisia (Republic of)

Canadian Embassy

Street Address:
 3, rue du Sénégal
 Place d'Afrique
 1002 Belvédère
 Tunis
 Republic of Tunisia

Mailing Address:
 C.P. 31, Le Belvédère 1002
 Tunis
 Republic of Tunisia

Tel: (011-216-1) 796-577
 Fax: (011-216-1) 792-371

Turkey (Republic of)

Canadian Embassy

Street Address:
 Nenehatun Caddesi 75
 Gaziosmanpasa
 06700 Ankara
 Republic of Turkey

Mailing Address:
 (same as above)

Tel: (011-90-312) 436-1275
 Fax: (011-90-312) 446-2811/
 446-4437

Turkmenistan (Republic of)

see Kazakhstan

Turks and Caicos Islands see Jamaica

Tuvalu see New Zealand

Uganda (Republic of) see Kenya

Ukraine (Republic of)

Embassy of Canada

Street Address:
 31 Yaroslaviv Val Street
 Kiev
 Republic of Ukraine 252034

Mailing Address:
 P.O. Box 205
 Kiev 252001
 Republic of Ukraine

Tel: (011-7-044) 212-0212/
 212-3550/212-0312/212-0412/
 212-2864
 Fax: (011-7-044) 212-2339

United Arab Emirates (Federation of the)

Canadian Consulate

Street Address:
 Juma Al Majid Building, Suite 708
 Khalid Ibn Al Waleed Street
 Dubai
 United Arab Emirates

Mailing Address:
 P.O. Box 52472
 Dubai
 United Arab Emirates

Tel: (011-971) 4-521717
 Fax: (011-971) 4-517722

United Kingdom see Britain

United Nations

Permanent Mission of Canada to the United Nations

Street Address:
 866 United Nations Plaza, Suite 250
 New York, New York 10017
 U.S.A.

Mailing Address:
 (same as above)

Tel: (212) 751-5600
 Fax: (212) 486-1295

United States of America

Washington Canadian Embassy

Street Address:
 501 Pennsylvania Avenue, N.W.
 Washington, D.C. 20001
 U.S.A.

Mailing Address:
 (same as above)

Tel: (202) 682-1740
 Fax: (202) 682-7726



Atlanta

Canadian Consulate General

Street Address:
Suite 400 South Tower
One CNN Center
Atlanta, Georgia 30303-2705
U.S.A.

Mailing Address:
(same as above)

Tel: (404) 577-6810/577-1512
Fax: (404) 524-5046

San Juan

**Canadian Government
Trade Office**

Plaza Scotiabank, 6th Floor
273 Ponce de Leon Avenue
San Juan
Puerto Rico 00917

Tel: (809) 250-0367
Fax: (809) 250-0369

Boston

Canadian Consulate General

Street Address:
Three Copley Place, Suite 400
Boston, Massachusetts 02116
U.S.A.

Mailing Address:
(same as above)

Tel: (617) 262-3760
Fax: (617) 262-3415

Buffalo

Canadian Consulate General

Street Address:
One Marine Midland Center,
Suite 3000
Buffalo, New York 14203-2884
U.S.A.

Mailing Address:
(same as above)

Tel: (716) 858-9500
Fax: (716) 852-4340

Chicago

Canadian Consulate General

Street Address:
Two Prudential Plaza
180 N. Stetson Avenue, Suite 2400
Chicago, Illinois 60601
U.S.A.

Mailing Address:
(same as above)

Tel: (312) 616-1860
Fax: (312) 616-1877/616-1878

Dallas

Canadian Consulate General

Street Address:
St. Paul Place, Suite 1700
750 N. St. Paul Street
Dallas, Texas 75201
U.S.A.

Mailing Address:
(same as above)

Tel: (214) 922-9806
Fax: (214) 922-9815

Detroit

Canadian Consulate General

Street Address:
600 Renaissance Center, Suite 1100
Detroit, Michigan 48243-1798
U.S.A.

Mailing Address:
(same as above)

Tel: (313) 567-2340
Fax: (313) 567-2164

Cincinnati

**Canadian Government
Trade Office**

250 East Fifth Street, Suite 1120
Cincinnati, Ohio 45202
U.S.A.

Tel: (513) 762-7655
Fax: (513) 762-7802

Cleveland

**Canadian Government
Trade Office**

2100 Terminal Tower
50 Public Square
Cleveland, Ohio 44113-2204
U.S.A.

Tel: (216) 771-0150
Fax: (216) 771-1688

Wright Patterson AFB

**Canadian Government Defence
Trade Office**

MCLDDP Building 11A, Room 148,
Area B
Wright Patterson AFB
Dayton, Ohio 45433-6503
U.S.A.

Tel: (513) 255-4382
Fax: (513) 255-1821

Los Angeles

Canadian Consulate General

Street Address:
300 South Grand Avenue
10th Floor, California Plaza
Los Angeles, California 90071
U.S.A.

Mailing Address:

(same as above)

Tel: (213) 346-2700
Fax: (213) 620-8827

Miami

Canadian Consulate

Street Address:
Suite 1600, First Union
Financial Center
200 South Biscayne Blvd.
Miami, Florida 33131
U.S.A.

Mailing Address:
(same as above)

Tel: (305) 579-1600
Fax: (305) 374-6774

Minneapolis

Canadian Consulate General

Street Address:
Suite 900, 701 Fourth Avenue South
Minneapolis, Minnesota
55415-1899
U.S.A.

Mailing Address:
(same as above)

Tel: (612) 333-4641
Fax: (612) 332-4061

New York City

Canadian Consulate General

Street Address:
1251 Avenue of the Americas
New York City, New York
10020-1175
U.S.A.

Mailing Address:
(same as above)

Tel: (212) 596-1600
Fax: (212) 596-1793

Philadelphia

Canadian Government Trade Office
GSB Building, Suite 611
One Belmont Avenue, Bala Cynwyd,
Pennsylvania 19004
U.S.A.

Tel: (610) 667-8210/697-1264
Fax: (610) 667-8148

Princeton

Canadian Government Trade Office
90 Westcott Road
Princeton, New Jersey 08540
U.S.A.

Tel: (609) 252-0777
Fax: (609) 252-0792

San Diego

Canadian Government Trade Office
4370 LaJolla Village Drive,
Suite 600
San Diego, California 92122
U.S.A.

Tel: (619) 546-4467
Fax: (619) 457-2844

San Francisco

Canadian Government Trade Office
50 Fremont Street, Suite 1825
San Francisco, California 94105
U.S.A.

Tel: (415) 543-2550
Fax: (415) 512-7671

San Jose

Canadian Government Trade Office
333 West San Carlos Street,
Suite 945
San Jose, California 95110
U.S.A.

Tel: (408) 289-1157
Fax: (408) 289-1168

Seattle

Canadian Consulate General

Street Address:
412 Plaza 600
Sixth and Stewart Streets
Seattle, Washington 98101-1286
U.S.A.

Mailing Address:
(same as above)

Tel: (206) 443-1777
Fax: (206) 443-1782

U.S. Virgin Islands see United States of America (Atlanta)

Uruguay (Eastern Republic of) see Argentina

Uzbekistan (Republic of) see Kazakhstan

Vanuatu (Republic of) see Australia (Canberra)

Venezuela (Republic of)

Canadian Embassy

Street Address:
Edificio Torre Europa, Piso 7
Avenida Francisco de Miranda
Campo Alegre, Caracas 1060
Republic of Venezuela

Mailing Address:
Apartado Postal 62.302
Caracas 1060-A
Republic of Venezuela

Tel: (011-58-2) 951-6166/67/68;
951-4114; 951-6171/72/73;
951-6190
Fax: (011-58-2) 951-4950

Vietnam (Socialist Republic of)

Canadian Embassy

Street Address:
39 Nguyen Dinh Chieu Street
Hanoi
Socialist Republic of Vietnam

Mailing Address:
(same as above)

Tel: (011-84-42) 65840
Fax: (011-84-42) 65837/26010

Western Samoa (Independent State of) see New Zealand

Yemen (Republic of) see Saudi Arabia

Yugoslavia (Federal Republic of)

Canadian Embassy

Street Address:
Kneza Milosa 75
11000 Belgrade
Federal Republic of Yugoslavia

Mailing Address:
(same as above)

Tel: (011-381-11) 644-666
Fax: (011-381-11) 641-480

Zaire (Republic of)

Canadian Office

Street Address:
c/o United States Embassy
P.O. Box 8341
Kinshasa
Zaire

Tel: (011-243-12) 21532,
ext. 2314; 21913,
ext. 2313/21910/21737
Fax: (011-243-12) 43805

Zambia (Republic of)

Canadian High Commission

Street Address:
5199 United Nations Avenue,
(Longacres Area)
Lusaka
Republic of Zambia

Mailing Address:
P.O. Box 31313
10101 Lusaka
Republic of Zambia

Tel: (011-260-1) 250-833
Fax: (011-260-1) 254-176

Zimbabwe (Republic of)

Canadian High Commission

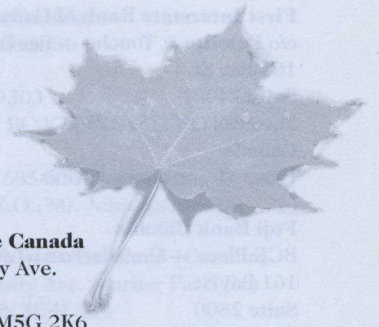
Street Address:
45 Baines Avenue
Harare
Zimbabwe

Mailing Address:
P.O. Box 1430
Harare
Zimbabwe

Tel: (011-263-4) 733-881
Fax: (011-263-4) 732-917



APPENDIX D: *Foreign Banks in Canada*



ABN AMRO Bank of Canada

Suite 3402, P.O. Box 114
IBM Tower
Toronto-Dominion Centre
Toronto, ON M5K 1G8
Canada
Tel.: (416) 367-0850
Pres. & C.E.O.: Mr. Willem Thos. Veger

AMEX Bank of Canada

101 McNabb St.
Markham, ON L3R 4H8
Canada
Tel.: (905) 474-8018
Pres. & C.E.O.: Mr. Alan Stark

Banca Commerciale Italiana of Canada

Continental Bank Building
130 Adelaide St. West
Suite 1800, P.O. Box 100
Toronto, ON M5H 3P5
Canada
Tel.: (416) 366-8101
Pres. & C.E.O.: Mr. Gennaro Stamatii

Banca Nazionale del Lavoro of Canada

95 Wellington St. West
Suite 2100, P.O. Box 23
Toronto, ON M5J 2N7
Canada
Tel.: (416) 365-7777
Pres. & C.E.O.: Mr. Alberto Berti

Banco Central Hispano-Canada

Main Floor
330 Bay St.
Toronto, ON M5H 2S8
Canada
Tel.: (416) 365-7070
Exec. V.P. & C.E.O.:
Mr. Fernando Bustamante

Bank of America Canada

4 King St. West, 18th Floor
Toronto, ON M5H 1B6
Canada
Tel.: (416) 863-5339
Pres. & C.E.O.: Mr. Alfred Buhler

Bank of Boston Canada

500 Rene-Levesque Blvd., W. Suite 920
Montreal, PQ H2Z 1W7
Canada
Tel.: (514) 397-9600
Pres., C.E.O., & C.G.M.:
Mr. William De Wolfe

Bank of China (Canada)

BCE Place
161 Bay St.
Suite 3740, P.O. Box 612
Toronto, ON M5J 2S1
Canada
Tel.: (416) 362-2991
Exec. V.P.: Mr. Chao-Hua Du

Banque Nationale de Paris (Canada)

Tour BNP
1981, av. McGill-College
Montréal, PQ H3A 2W8
Canada
Tel.: (514) 285-6212
Président et chef de la direction:
M. André Chaffringéon

Barclays Bank of Canada

304 Bay St., Fifth Floor
Toronto, ON M5H 2P2
Canada
Tel.: (416) 359-8000
Pres. & C.E.O.: Mr. Graeme P. Hansen

BT Bank of Canada

Royal Bank Plaza, North Tower
Suite 1700, P.O. Box 100
Toronto, ON M5J 2J2
Canada
Tel.: (416) 865-0770
Pres. & C.E.O.: Mr. Louis Vachon

Chemical Bank of Canada

100 Yonge St.
Suite 900
Toronto, ON M5C 2W1
Canada
Tel.: (416) 594-2203
Pres. & C.E.O.: Mr. Dale G. Blue

Cho Hung Bank of Canada

2 Sheppard Ave. East
Suite 1100
Toronto, ON M2N 5Y7
Canada
Tel.: (416) 590-9500
Pres. & C.E.O.: Mr. Kwan Chee

Citibank Canada

Citibank Place
123 Front St. West
Suite 1900
Toronto, ON M5J 2M3
Canada
Tel.: (416) 947-5560
Chair. & C.E.O.: Mr. Richard E. Lint

Credit Suisse Canada

525 University Ave.
Suite 1300
Toronto, ON M5G 2K6
Canada
Tel.: (416) 351-3500
Pres. & C.E.O.: Mr. Klaus P. Kuebel

Crédit Lyonnais Canada

Centre ManuVie
2000, rue Mansfield, 18^e étage
Montréal, PQ H3A 3A6
Canada
Tel.: (514) 288-4848
Président et chef de la direction:
M. André Froissant

Dai-ichi Kangyo Bank (Canada)

Commerce Court West
Suite 5025
P.O. Box 295
Toronto, ON M5L 1H9
Canada
Tel.: (416) 365-9666
Chairman, Pres. & C.E.O.:
Mr. Hisao Ikeda

Daiwa Bank Canada

Sun Life Tower
Sun Life Centre
Suite 2509, P.O. Box 95
Toronto, ON M5H 1J9
Canada
Tel.: (416) 979-7177
Pres. & C.E.O.: Mr. Gen Watanabe

Deutsche Bank Canada

222 Bay St.
Suite 1200
P.O. Box 196
Toronto, ON M5K 1H6
Canada
Tel.: (416) 682-8400
Pres. & C.E.O.:
Mr. Stephen Freiherr von Romberg-Droste

Dresdner Bank Canada

Exchange Tower
2 First Canadian Place
Suite 1700
P.O. Box 430
Toronto, ON M5X 1E3
Canada
Tel.: (416) 369-8300
Pres.: Mr. David N. Brandt

First Interstate Bank of Canada

c/o Deloitte & Touche — Pat Dale
181 Bay St.
Suite 1400
Toronto, ON M5J 2V1
Canada
Pres.: Mr. Anthony J. Xinis

Fuji Bank Canada

BCE Place — Canada Trust Tower
161 Bay St.
Suite 2800
P.O. Box 609
Toronto, ON M5J 2S1
Canada
Tel.: (416) 865-1020
Pres., C.E.O. & C.G.M.:
Mr. Kenichiro Tanaka

Hanil Bank Canada

36 Lombard St.
Toronto, ON M5C 2X3
Canada
Tel.: (416) 214-1111
Pres. & C.E.O.: Mr. C.K. Choe

Hong Kong Bank of Canada

885 West George St.
Suite 500
Vancouver, BC V6C 3E9
Canada
Tel.: (604) 641-1976
Pres. & C.E.O.: Mr. William Dalton

**International Commercial Bank
of Cathay (Canada)**

National Bank Building
150 York St.
Suite 910
P.O. Box 4037
Toronto, ON M5H 3S5
Canada
Tel.: (416) 947-2800
Pres.: Mr. Henry Tai

Israel Discount Bank of Canada

150 Bloor St. West
Suite M-100
Toronto, ON M5S 2Y5
Canada
Tel.: (416) 926-7200
C.E.O.: Mr. Manfred H. Gerstung

J.P. Morgan Canada

South Tower, Royal Bank Plaza
Suite 2250, P.O. Box 80
Toronto, ON M5J 2J2
Canada
C.E.O.: Mr. Andrew Shelton

Korea Exchange Bank of Canada

Edison Centre
2345 Yonge St.
Suite 600
Toronto, ON M4P 2E5
Canada
Tel.: (416) 932-1234
Pres. & C.E.O.: Mr. Jai-Hak Roh

Mellon Bank Canada

Royal Trust Tower
Toronto-Dominion Centre
Suite 3200, P.O. Box 320
Toronto, ON M5K 1K2
Canada
Tel.: (416) 860-0777
Chair., Pres. & C.E.O.:
Mr. Thomas C. MacMillan

Mitsubishi Bank of Canada

Canada Trust Tower, BCE Place
161 Bay St.
Suite 3800
P.O. Box 518
Toronto, ON M5J 2S1
Canada
Tel.: (416) 365-1940
Pres. & C.E.O.: Mr. Keiichiro Hida

National Bank of Greece (Canada)

1170 Place du Frère André
Montreal, PQ H3B 3C6
Canada
Tel.: (514) 954-1522
C.E.O.: Mr. Constantine P. Zissis

National Westminster Bank of Canada

South Tower, Royal Bank Plaza
Suite 2060, P.O. Box 10
Toronto, ON M5J 2J1
Canada
Tel.: (416) 865-0170
Pres. & C.E.O.: Mr. A. Constandse

NBD Bank, Canada

BCE Place
161 Bay St.
Suite 4240
P.O. Box 613
Toronto, ON M5J 2S1
Canada
Tel.: (416) 865-0466
Pres. & C.E.O.: Mr. William J. Buchanan

Paribas Bank of Canada

Toronto-Dominion Centre
Royal Trust Tower
Suite 4100, P.O. Box 31
Toronto, ON M5N 1N8
Canada
Pres.: Mr. Pascale Notté

**Republic National Bank of New York
(Canada)**

Esso Tower
1981 McGill College Ave.
Montreal, PQ H3A 3A9
Canada
Tel.: (514) 288-5551
Pres. & C.E.O.: Mr. Allan Schouela

Sakura Bank (Canada)

Commerce Court West
Suite 3601, P.O. Box 59
Toronto, ON M5L 1B9
Canada
Tel.: (416) 369-8531
Pres. & C.E.O.: Mr. Naoaki Yokota

Sanwa Bank Canada

BCE Place, Canada Trust Tower
161 Bay St.
Suite 4400
P.O. Box 525
Toronto, ON M5J 2S1
Canada
Tel.: (416) 366-2583
Pres.: Mr. Kenichi Sakurai

Société Générale (Canada)

1501 McGill College Ave.
Suite 1800
Montreal, PQ H3A 3M8
Canada
Tel.: (514) 841-6000
Prés.: M. Alain Clot

Sottomayor Bank Canada

1102 Dundas St. West
Toronto, ON M6J 1X2
Canada
Tel.: (416) 588-8597
Pres. & C.E.O.: Mr. Cesar A. Nunes De
Morais

Standard Chartered Bank of Canada

55 University Ave., 14th Floor
P.O. Box 14
Toronto, ON M5J 2H7
Canada
Tel.: (416) 947-8424
Pres. & C.E.O.: Mr. N.A. Johnson

State Bank of India (Canada)

North Tower, Royal Bank Plaza
Suite 800, P.O. Box 81
Toronto, ON M5J 2J2
Canada
Tel.: (416) 865-0414
Pres. & C.E.O.: Mr. N.K. Puri

Swiss Bank Corporation (Canada)
 Queen's Quay Terminal
 207 Queen's Quay West
 Suite 780
 P.O. Box 103
 Toronto, ON M5J 1A7
 Canada
 Tel.: (416) 203-2180
 Dir. & C.E.O.: Mr. Joseph H. Wright

The Bank of East Asia (Canada)
 East Asia Centre
 350 Highway 7 East
 Suite 102-103
 Richmond Hill, ON L4B 3N2
 Canada
 Tel.: (905) 882-8182
 C.E.O. & G.M.: Mr. Cedric Chun-King

The Bank of Tokyo Canada
 South Tower, Royal Bank Plaza
 Suite 2100, P.O. Box 42
 Toronto, ON M5J 2J1
 Canada
 Pres. & Chairman of the Board:
 Mr. Seiji Adachi

The Chase Manhattan Bank of Canada
 Sun Life Centre
 150 King St. West
 Suite 1600
 P.O. Box 68
 Toronto, ON M5H 1J9
 Canada
 Tel.: (416) 585-3391
 Pres. & C.E.O.: Mr. Thomas Cole Gardner

The Industrial Bank of Japan (Canada)
 100 Yonge St.
 Suite 1102
 Box 29
 Toronto, ON M5C 2W1
 Canada
 Tel.: (416) 365-9550
 Pres. & C.E.O.: Mr. Katsuhiko Otaki

The Sumitomo Bank of Canada
 BY COURIER
 Ernst & Young Tower, T-D Centre
 222 Bay St.
 Suite 1400
 Toronto, ON M5K 1H6
 Canada
 Tel.: (416) 368-4765
 Pres. & C.E.O.: Mr. Hiroshi Okawara

Tokai Bank of Canada
 Sun Life Centre
 150 King St. West
 Suite 2401
 P.O. Box 84
 Toronto, ON M5H 1J9
 Canada
 Tel.: (416) 597-2210
 Pres.: Mr. Hiroshi Osada

U.S. Bank (Canada)
 1055 Dunsmuir St.
 Suite 2684
 P.O. Box 49303
 Vancouver, BC V7X 1L3
 Canada
 Tel.: (604) 685-8286
 Pres. & C.E.O.: Mr. John Spikerman

Union Bank of Switzerland (Canada)
 154 University Ave. (corner Pearl St.)
 Toronto, ON M5H 3Z4
 Canada
 Tel.: (416) 343-1800
 Pres. & C.E.O.: Mr. Max P. Strebel

United Overseas Bank (Canada)
 Vancouver Centre
 650 West George St.
 Suite 310
 P.O. Box 11616
 Vancouver, BC V6B 4N9
 Canada
 Tel.: (604) 662-7055
 C.E.O. & C.G.M.: Mr. Bak Soo Ha

Source: Office of the Superintendent of Financial Institutions.



APPENDIX E: *Travelling to Canada*

Entrance Requirements

In order to enter Canada, all visitors (except citizens of the United States, St. Pierre and Miquelon and Greenland) are required to possess a valid passport, sufficient funds and evidence of onward transportation. Those individuals who do not require a passport should carry some form of identification. Employees of companies and business representatives operating outside of Canada are not required to obtain employment authorization for visits of less than 90 days, if the purpose of the visit is consultation and inspection. To those visitors who may require a visa to enter Canada, it is recommended they contact a Canadian embassy or consulate. A special business visa can be obtained for those who wish to enter Canada from time-to-time to oversee their investments, but who do not wish to immigrate. These visas are valid for one year, allowing multiple entries, and can be renewed. Business visitors under the North American Free Trade Agreement (NAFTA) do not require employment authorization.

Customs

Visitors are permitted to bring certain goods into Canada which are both duty- and tax-free. These items must be declared to Canada Customs upon arrival. Canada has restrictions on the amount of alcohol and tobacco that can be brought into the country. As well, there are minimum age requirements for possession of alcohol and tobacco, which vary from province to province.

Gifts may be sent or brought in duty- and tax-free to friends or relatives residing in Canada, provided the value of the gift does not exceed \$60.00.¹ These gifts may not consist of alcohol, tobacco products, or advertising materials. All gifts exceeding a \$60.00 value are subject to regular duty and tax on the amount over and above \$60.00.

Personal goods may be temporarily imported into Canada by visitors for their own use without payment of duties or taxes. These goods must be taken out of Canada at the end of the visit, with the exception of consumable items and recreational equipment for which a seasonal permit has been obtained. Some items may require a refundable security deposit to ensure the item leaves the country with the visitor.

Entry into Canada via vehicles and vacation trailers is permitted and a Revenue Canada Customs permit is issued at the time of entry, if required. Rental vehicles are permitted but they should be accompanied by vehicle registration forms plus a copy of the rental contract, indicating that they are being rented.

Animals, food and plants which are brought to Canada for personal use are subject to Agriculture Canada as well as Health and Welfare Canada regulations. These regulations are administered at the border by customs officials.

Business items such as printed material, commercial samples, blueprints, charts and audio-visual material are permitted for entry, but may be subject to full duty and tax fees, or require a refundable security deposit. For events such as congresses and conferences, most materials necessary for staging these events can be brought in both duty- and tax-free. Display goods for exhibits may require a refundable security deposit.

For more information on the services available from Revenue Canada Customs, please contact one of the offices listed below:

¹ Unless otherwise stated, all currency used is Canadian dollars.

ATLANTIC REGION

Ralston Building
1557 Hollis Street
P.O. Box 3080
Halifax, NS B3J 3G6
Canada
(902) 426-2911

QUEBEC

130, rue Dalhousie
CP 2267
Quebec City, PQ G1K 7P6
Canada
(418) 648-4445

OTTAWA

Customs Building
2265 St. Laurent Blvd.
Ottawa, ON K1G 4K3
Canada
(613) 993-0534
(613) 998-3326*
*after 4:30 and weekends

TORONTO

1 Front St. W.
P.O. Box 10, Station A
Toronto, ON M5W 1A3
Canada
(416) 973-8022

WINDSOR

Dominion Public Bldg.
185 Ouellette Ave.
Windsor, ON N9A 4H8
Canada
(519) 257-6400

WINNIPEG

Federal Building
269 Main St.
Winnipeg, MB R3C 1B3
Canada
(204) 983-6004

MONTREAL

400 Carré Youville
CP 400
Montreal, PQ H2Y 2C2
Canada
(514) 283-2953

ALBERTA

220-4th Ave. S.E.
Suite 720, Harry Hays Building
PO Box 2910
Calgary, AB T2G 4X3
Canada
(403) 292-4660

PACIFIC

333 Dunsmuir Street
Vancouver, BC V6B 5R4
Canada
(604) 666-0545

Climate

TABLE I
Average Temperatures and Precipitation

City	Mean Temperature				Average Annual	
	January		July		Precipitation	
	F°	C°	F°	C°	(in)	(cm)
Halifax, Nova Scotia	26	-3	65	18	52	132
Montreal, Quebec	16	-9	71	22	39	99
Toronto, Ontario	24	-4	71	22	31	79
Winnipeg, Manitoba	-1	-18	68	20	21	53
Vancouver, British Columbia	36	2	63	17	42	107

Business Hours

Government offices are generally open from 9:00 a.m. until 5:00 p.m. Monday through Friday. At a minimum, banks are open between 10:00 a.m. and 3:00 p.m. from Monday through Thursday, and 10:00 a.m. to 6:00 p.m. on Friday. However, many banks are open for longer periods and many branches are also open for part of Saturday. Automated banking machines are common, and are open 24 hours a day. Commercial businesses are typically open from 9:00 a.m. to 5:00 p.m. Monday to Friday.

Time Zones

TABLE II
Time Zones

Time Zones	Provinces	Hours Behind GMT*
Newfoundland Standard Time	Newfoundland	3.5
Atlantic Standard Time	New Brunswick Prince Edward Island Nova Scotia	4
Eastern Standard Time	Ontario Québec	5
Central Standard Time	Manitoba Saskatchewan	6
Mountain Standard Time	Alberta	7
Pacific Standard Time	British Columbia	8

* GMT = Greenwich Mean Time

Daylight Saving Time

Every year on the first Sunday of April, all clocks are advanced by one hour to Daylight Saving Time. On the last Sunday in October, Canada returns to Standard Time. Daylight Saving Time is not observed in Saskatchewan.

Currency

The Canadian currency is the Canadian dollar (\$). There are 100 cents (¢) in one dollar. Currency is issued in both coin and paper. Paper currency is issued in denominations of \$2, \$5, \$10, \$20, \$50, \$100, \$500, and \$1,000. Coins are issued in denomination of 1¢, 5¢, 10¢, 25¢, 50¢ and \$1. For general use, it is best to use denominations of \$20 and under.

Currency can be exchanged at any financial institution — bank, trust company, credit union, co-operative, caisse populaire — or at exchange booths found in airports or at border crossings. Canadian currency should be used while travelling in Canada. Automatic teller machines (ATMs) are located in banks, most financial institutions and a variety of retail centres. ATMs provide 24-hour access to money with the use of a bank or credit card, and a personal identification number (PIN). ATM access is available for card-holders who are part of one (or more) of the following systems: Plus™, Interac™, Cirrus™, Circuit™, and Global Access™.

Travellers cheques can be purchased at all major banks and are recommended. Travellers cheques are accepted at most banks, restaurants, hotels and many business establishments.

The six major Canadian banks are: The Royal Bank of Canada, The Canadian Imperial Bank of Commerce, The Bank of Montreal, The Bank of Nova Scotia, The Toronto-Dominion Bank and The National Bank. These banks also have branches across Canada and representation world-wide.

Language

Canada has two official languages, English and French. Approximately 25 percent of Canadians are francophone, the majority of whom live in Quebec. English is the principal language of commerce throughout Canada but businesses operating in Quebec may be required to use French in their dealings within the province. Federal institutions offer services in both official languages.

Accommodation

There is a wide variety of overnight accommodation available in Canada, including motels, hotel apartments and luxury hotels.

Motels are typically situated along major highways and roads. They provide the comfort of modern hotels and offer food services and television in the rooms. Many also have swimming pools and other amenities.

Hotel apartments are located in most major cities. They provide a bedroom, kitchen, living room and cleaning service, and can be rented for variable periods of time extending from a day to a year.

Hotels, motels and other similar establishments provide soap and towels at no additional cost. Business services, such as secretarial, copy and fax services, and car rental, may be offered by hotels, airlines or travel bureaus. Information on accommodation and approximate costs is provided at travel agencies, automobile clubs or Canadian embassies and consulates.

In larger cities, advanced reservations should be made through a travel agent. As well, reservations are recommended for all major resorts. Further reservations can be made in Canada by using services provided by major hotel chains. Major chains frequently employ multilingual personnel.

Electric Current

Electricity in Canada is supplied at an alternating current of 110 volts. The frequency of Canadian electricity is 60 Hz. An electrical adapter is required to use appliances such as shavers and hair dryers made for use outside North America. Adapters can be purchased at electric supply stores.

Laundry and Dry Cleaning

Laundry and dry cleaning services are good, quick and relatively inexpensive. Hotels offer same-day service (excluding weekends) for dry cleaning, pressing or laundering. These services can be found in hotels by requesting "valet service" or "laundry service". Dry cleaning and laundry facilities are listed in the yellow pages, and self-serve laundromats are available at a reasonable cost.

Telegrams

Telegrams or "Teleposts" should be telephoned to CN/CP Telecommunications for transmission. The addresses and telephone numbers of a CN/CP Telecommunications office can be found in local telephone directories. In Newfoundland and Labrador, telegrams should be sent through Terra Nova Tel.

Tipping

Tips or service charges are not usually added to a bill in Canada. In general, a tip of 10 to 15 percent of the total amount is given. This applies to waiters, waitresses, barbers, hairdressers, and taxi drivers. Bellhops, doormen, and redcaps (porters) at hotels, airports, and railway stations are generally tipped \$1.00 per item of luggage.

Transportation

Canada has a transportation infrastructure that is one of the world's most sophisticated. It includes an elaborate road system, well-developed bus, rail and air services, as well as trucking and maritime shipping. International airports are located in Vancouver, Edmonton, Calgary, Regina, Winnipeg, Toronto, Ottawa, Montreal, Halifax, and Gander. Schedules for arrival and departure can be obtained through a travel agent. Services provided at most of these airports include: foreign exchange, coin-operated lockers, telephones, duty-free shops, restaurants, newsstands, bookstores, drugstores and shopping concourses. Many of these airports have hotels located nearby.

Canada's vast size has made it imperative that air transportation be used to link the country together. The major cities are all served by regular commercial air carriers and even remote regions are served by smaller local carriers and special charters. Air fares vary depending on the carrier, time of year, and special circumstances such as seat sales or travel packages. As an example, however, two-way economy-class travel between Toronto and Montreal costs approximately \$500. An economy-class round trip between Vancouver on the west coast and Halifax on the east coast costs roughly \$2,000.

All of Canada's international airports offer bus, taxi or limousine service as a means of transportation. As well, many major car rental firms have outlets located at airports. Many rental cars now come equipped with cellular phones, which are operated by credit card. Rates regarding transportation services to major city centres are generally advertised in the terminal.

Travel agencies or a Canadian embassy or consulate should be consulted for information concerning travel within Canada. Addresses and telephone numbers of airlines, railways, steamship lines, bus lines and car rental offices are listed in the yellow pages.

Car rental rates average about \$40.00 a day, depending on the size of the car and whether or not there is unlimited mileage. Many firms offer several hundred kilometres free, or a daily rate with a kilometre charge added. There is usually an additional cost for insurance, and a credit card or cash deposit is usually required. Additional fees will be added if a car is hired in one city and dropped off in another. Visitors must be at least 21 years of age in order to rent a vehicle.

Taxi fares vary from city to city. However, on average, there is an immediate charge of approximately \$2.35 upon entering the taxicab, and an additional \$1.25 for each additional kilometre travelled.

Public transit can be used for transportation within a city. Average fares start at about \$2.00 and include transfer privileges. Fares are charged at a set rate, and do not vary according to distance travelled. Exact fare is required on many city vehicles. Tickets for public transit can be purchased in advance at designated sale sites as bus drivers do not sell tickets or carry money. Transfers should be requested upon boarding the public vehicle.

Shopping

Canada provides many fine handcrafted and native goods such as wood carvings, pottery, glass, jewellery, knitted or handwoven goods, art, novelties, moccasins and other articles of clothing. Some native products are made from marine mammals, such as seal and walrus. Visitors wishing to purchase such products should check the entry regulations of their home country for possible restrictions.

Most retail businesses are open from 9:00 a.m. to 5:30 or 6:00 p.m. daily. Many shops have extended hours on Thursdays and Fridays, until 9:00 p.m. Some provinces allow shops to be open on Sundays from noon to 5:00 p.m. Many small neighbourhood and convenience stores remain open late and on weekends, selling groceries, some personal items and newspapers.

Most major credit cards and principal bank cards are honoured in Canada. However, visitors should check with their own bank before leaving home.

Holidays

NATIONAL HOLIDAYS

Holiday	Date
New Year's Day	January 1
Good Friday	Friday before Easter
Easter Monday	Monday following Easter
Victoria Day	Monday before May 24
Canada Day	July 1
Labour Day	first Monday in September
Thanksgiving Day	second Monday in October
Remembrance Day	November 11
Christmas Day	December 25
Boxing Day	the day following Christmas Day

In Canada, national holidays are established by federal statute. A holiday that falls on a Saturday or a Sunday is observed the following Monday.

During national holidays, all government offices, banks and businesses are closed across Canada. In Quebec, most businesses are open on Victoria Day, and after 1:00 p.m. on Boxing Day.



PROVINCIAL HOLIDAYS

Province	Holiday
Alberta	Family Day (third Monday in February) Heritage Day (first Monday in August)
British Columbia	British Columbia Day (first Monday in August)
Manitoba	Civic Holiday (first Monday in August)
Newfoundland	Commonwealth Day (second Monday in March) St. Patrick's Day (March 17) St. George's Day (April 23) Discovery Day (June 27) Memorial Day (July 7) Orangemen's Day (July 10)
Ontario	Civic Holiday (first Monday in August)
Quebec	St. Jean Baptiste Day (June 24)
Saskatchewan	(first Monday in August)
Yukon	Discovery Day (third Monday in August)
Northwest Territories	Civic Holiday (first Monday in August)

Cuisine

Canadian cuisine combines local cooking methods and products. Beef and salmon dishes are national favourites. In British Columbia, favourites include: fish and seafood dishes, five varieties of salmon, oysters, fresh halibut, Pacific prawns, Dungeness crab, and fresh fruits (particularly apples). Alberta, Saskatchewan and Manitoba are known for their beef and buffalo, wild rice, Winnipeg goldeye, whitefish and arctic char.

Ontario's cheddar cheese is world-renowned. The province is a major producer of vegetables, such as corn and tomatoes, fowl, including turkey and chicken, freshwater fish as well as apples and grapes. Ontario's Niagara Region is well-known for its wines.

Quebec has a distinctive style of cuisine dating back to the days of New France when settlers adapted traditional French recipes to Canadian ingredients. Quebec tourtière (a meat pie), habitant pea soup, pork and veal, as well as many recipes featuring maple syrup products are local favourites.

The Atlantic provinces are famous for their fish and vegetable dishes. Restigouche salmon, salt and freshwater fish, scallops and lobsters are popular favourites. New Brunswick fiddleheads and Prince Edward Island and New Brunswick potatoes are staples in this region.

In addition to the typical Canadian cuisine, a wide variety of international dishes are offered in specialized restaurants from coast to coast. Italian, French, Chinese, Japanese, German, Ukrainian, Hungarian, Mexican, Middle Eastern and Indo-Pakistani foods are among the more popular foods offered.

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