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ANNUAL REPORT 1976-1977

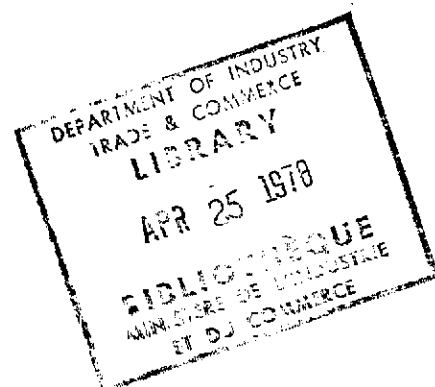


Government
of Canada

Gouvernement
du Canada

Industry, Trade
and Commerce

Industrie
et Commerce



Department of Industry, Trade and Commerce

ANNUAL REPORT

1976-77

Cat No.: Id-1-1977

ISBN-0-662-01782-X

OTTAWA

The Honourable Jack H. Horner
Minister of Industry, Trade and Commerce
Ottawa, Ontario

Dear Sir:

I have the honour to submit the annual report of the Department of Industry, Trade and Commerce covering activities during the period April 1, 1976 to March 31, 1977.

Respectfully submitted



G. F. Osbaldeston
Deputy Minister

OTTAWA

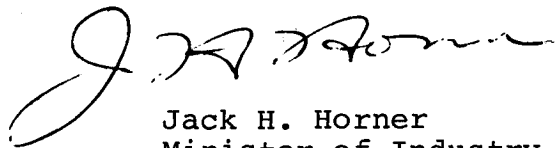
To His Excellency
The Right Honourable Jules Léger, C.C.,
Governor General of Canada

May it please Your Excellency:

I have the honour to submit to Your Excellency the annual report for the Department of Industry, Trade and Commerce covering the period April 1, 1976 to March 31, 1977.

A summary of the Department's policies, activities and services rendered is laid before Your Excellency.

Respectfully submitted



Jack H. Horner
Minister of Industry,
Trade and Commerce

Contents

	Page
INTRODUCTION.....	3
PRODUCT INNOVATION	4
MARKET DEVELOPMENT	6
Consortia	6
Joint Ventures and Turnkey Projects	7
Capital Projects Branch	7
Export Programs and Services	8
Other Development Programs	9
Trade Commissioner Service	10
Specific Export Activities	10
PRODUCTION EFFICIENCY	14
University Activities	15
Metric Conversion	15
Program to Enhance Productivity (PEP)	15
Environmental Protection	15
Forest Products	16
Electrical and Electronics Industries	16
Farm Machinery	16
Consumer Products	16
INTERNATIONAL ENVIRONMENT	17
United States	17
Western Europe	18
Eastern Europe	20
Pacific, Asia and Africa	20
Caribbean and Central America	22
Latin America	22
Multilateral Trade Negotiations	23
Commodity Trade	24
Industrial Co-operation	24
Grains and Oilseeds	24
Resource Industries	25
Electrical and Electronics Products	26
Defence Programs and Contracts	26
Transportation	27
Textiles	27
Science and Technology	27
Standards	28
DOMESTIC ENVIRONMENT -- FIELD OPERATIONS	28
Natural Resource Development	28
Pulp, Paper and Wood Products	29
Iron and Steel	29
Non-ferrous Metals	30
Coal	30
Textiles and Consumer Products	30
Chemical Industry	31
Electrical and Electronics Industries	31
Transportation Industries	32
Machinery	33
Design	33
TOURISM	34
Statement of Expenditures	37
Statement of Revenues	38

INTRODUCTION

Governments throughout the world were mainly preoccupied during the year with the economic situation and its implications for domestic employment, inflation and economic recovery. Rising energy costs placed heavy balance of payments burdens on both developing and developed economies, and policy makers were focusing their attention on ways to achieve an upturn in economic activity without runaway inflation.

International discussions at several levels, including heads of governments, were aimed at re-establishing confidence and formulating broad plans of action. However, in spite of those efforts, the economic situation continued to be serious, and governments everywhere were faced with increasing protectionism both at home and abroad.

After the U.S. presidential election, meetings between the U.S. Secretary of Commerce and the Minister of this Department, followed by the Prime Minister's visit to Washington and other inter-governmental meetings, provided opportunities for discussion of trade matters, and helped toward a further improvement of relations between the two countries.

Two-way trade between Canada and the United States reached a new record level of more than \$50 billion during the year; Canada held a slight advantage, with its exports accounting for a little more than half of that amount.

A sector that is giving some cause for concern, however, is tourism. For the first year on record, more Canadians visited the United States than Americans visited Canada. This country's deficit on travel account in the international balance of payments rose to a new high of \$1.2 billion in 1976-77, with a little more than half of that amount incurred in Canada's exchange of travel with the United States.

Canadian exports to Western Europe showed a slight increase, exceeding imports by about \$1 billion. Good as the figures are, co-operation between Canada and Western Europe is still far below its potential with respect to investment, intercorporate links and technological exchanges.

Trade with Eastern Europe set another record, with exports from Canada coming close to the \$1 billion mark. Canada and the U.S.S.R. signed a long-term agreement as a framework for expanding and diversifying trade between the two.

Japan continued as the second largest trading nation for Canada. More than half of this two-way trade of \$4 billion comprised Canadian exports. Canada continued to make other gains in Asian markets, and extended its trade agreement with The People's Republic of China for three more years.

Despite the drop in world sugar prices, Canada was able to increase exports to Cuba and Central America. Exports to South America and Mexico were a record, passing \$1 billion in value, and Canada secured some substantial contracts there involving specialized technology and equipment.

While there have been some favourable trends in Canadian trade, international competition is growing stronger. Canadian industry has been looking for ways to develop, and for opportunities to replace some of this country's imports with goods made in Canada. The Department has encouraged this trend with its analyses of imports and surveys of market opportunities.

Further, to adjust to changing economic conditions, the Department continued its re-assessment of priorities, its studies on the impact of assistance programs and parallel studies directed toward improving its interface with business and industry.

PRODUCT INNOVATION

Under PAIT, a program to encourage the development of new products and processes among Canadian manufacturers by paying up to half the cost of selected projects, regions approved 48 of the 112 new submissions -- all for companies with less than \$2 million annual sales. Projects came from every province with increasing numbers from the Atlantic and the Western provinces.

One new venture dealt with generating energy by solar and wind power. Almost half the completed PAIT projects were considered successful, producing sales worth more than \$300 million mainly in export markets.

In the ocean industries, some notable achievements supported by PAIT included a manifold centre that gathers crude oil flows from several wells in subsea operations, and the TAURUS submersible vehicle for operations, inspection and exploration in offshore oilfields. A program started with PAIT help is intended to build and market a 500-metre depth diver saturation complex, with a personnel transfer capsule, decompression facilities, and control and handling systems. Yet another development is a streamlined fairing that enables drill pipe to resist the pull of currents encountered, for example, in rivers and gulfs.

In the railway sector, PAIT has assisted in the development of a high-speed tamping machine for mainline track maintenance, which works 10 to 12 times faster than conventional tampers. A 20-ton capacity, self-propelled crane, now being tested by CN and CP Rail, has added yet another dimension to Canadian manufacture.

In response to market opportunities, Canadian firms in the urban transportation field have developed or improved products as diverse as traffic control systems, solid-state propulsion control and driver-training simulators. A bus seat, given support by the Department's Industrial Design Assistance Program (IDAP), has so far secured \$2 million in export orders, and has upgraded the firm's technology in the process. A new streetcar and an urban transit test facility are two more of the interesting projects underway.

Another urban transit achievement is a new 30-foot bus for lower volume routes or airport shuttle service. The design has some features that were found only on European buses and combines them with proven North American components.

An all-terrain, firefighting vehicle, with a foam system for combating aircraft fires, has now reached the prototype stage and orders are starting to come in -- the first being from an African country for three units.

Innovation assistance to Canadian firms is helping toward lighter and more fuel-efficient vehicles with such products as aluminum bumpers and more effective pulley designs.

In the aircraft sector, the development of Trigull, a new light amphibian, is now completed and it has obtained an MOT certificate. Series production will follow.

The Department continues to support telecommunications equipment manufacturers in developing electronic circuitry, special telephone system products, micro-circuitry, rural telephone systems and fibre optics communications systems. Colour visual displays for supervisory control, avionics, instrumentation and process control are other areas where the Department helps to meet the high costs of product innovation.

New technological developments in the machinery sector, with assistance from the Department's incentive programs, included continued development of a two-shafted industrial gas turbine in the 30,000 hp range, with improved thermal efficiency; a new automatic machine to produce large grinding wheels for the automotive industry and bearing manufacturers, which replaces a manual operation; and a compact combine harvester with greater capability than many larger machines and the promise of better efficiency by reducing grain losses in harvesting.

Some of the successfully assisted projects in the iron and steel industry were special pipe for Arctic pipelines, one-sided galvanizing of sheet steel to help prevent rust on motor vehicles, a new scrap process, a "coil box" process to improve production in a hot-strip mill, large diameter hydraulic cylinders, new imbedded tire chains for earth-moving tires, a new design for transmission towers, an unusual sheet-metal pallet without welds that can be shipped unassembled, a new process for very large, high-volume, permanent-mould iron castings, and a new process for seamless high-alloy and titanium pipe fittings which combines extrusion and forging.

In non-ferrous metals, the Department's programs helped toward a new hydro-metallurgic process for zinc concentrates, the hydraulic transportation of ore to the mine head, production of metal strip by powder metallurgy, and optimization of hydro-electric power generation for aluminum production.

The Department is seeking a way to help product innovation by studying the role that government can play in improving the environment for invention, and in providing more direct assistance to the private inventor. It has also continued its financial assistance to the Copyrights, Inventions and Patents Association of Canada.

MARKET DEVELOPMENT

Increasing international competition in world trade is showing how useful the Department's import analyses and market surveys are to Canadian industry. These are designed to find opportunities for possible import replacement and further industrial development in Canada.

Of the 192 requests for the surveys received this year, 118 concerned industrial development and expansion, 42 were required for use in industrial promotion, and the remainder were for monitoring the effects of imports on Canadian industry. The subjects included machinery, chemicals, metal and metal products, wood, rubber and plastic products, and textiles.

It is difficult to measure the impact of the Department's reports accurately, but with the help of this input into the decision-making process, five new manufacturing firms have been set up, some 35 firms are in various stages of development, and others are awaiting finalization of their financial arrangements. These developments represent a reported investment of about \$120 million and some 3,600 new jobs, not to mention the layoffs they may have averted.

Consortia

Factors that have inhibited growth in the transportation industries, among others, have included fragmentation of the domestic market, lack of effective systems leadership in the approach to foreign markets, and the reluctance of some foreign companies to allocate development responsibilities to their Canadian subsidiaries. The Department encourages the formation of export consortia to overcome such problems.

In the resource industries, Department assistance and advice to five lumber producers in Eastern Canada led to the formation of an export consortium called "Seabex". The first housing consortium, known as "Homexpo Canada" and incorporated in 1975, has made recent inroads in the Middle East. The Department is currently working with Nova Scotia and Manitoba to form consortia in those provinces.

Joint Ventures and Turnkey Projects

The Department's main activities in the area of joint ventures have been to analyze joint venture investment, provide assistance to a number of companies in researching specific opportunities, advise on investment abroad, and establish contact with other areas of Canadian expertise.

In the past year, an international tender for the Venezuelan railway project led to the formation of a joint Canadian-Spanish consortium that will undertake the project on a negotiated basis. Canada will supply most of the equipment, design and engineering services. In view of the many risks and uncertainties, both political and commercial, confronting the Canadian group, the Canadian government's input has been extensive and included ministerial participation in the Canada-Venezuela-Spain negotiations. This is the largest single PEMD project ever approved and amounted to \$480,000.

In the second Venezuelan project, the Caracas subway which also received PEMD assistance, the Centre for Joint Ventures and Turnkey Projects has been studying the risk aspects in close association with the insurance industry, and the problem is now understood. Proposals for new initiatives, both in government and the private sector, have not been submitted.

The work of the Centre has clearly shown the close connection between joint ventures and turnkey projects, and their relation to capital and other overseas projects.

Capital Projects Branch

The Department has made this Branch the central agency in the development of a broad range of capital project business; also for the consulting and technical service industries, whose activities generally lead to capital projects or equipment sales at a later stage. Among the professions involved are engineering consultants, architects, surveyors, agronomists and economists.

Canadian engineering firms were assisted by the Branch in the establishment of primary and secondary industry in developing countries, with marked success in such countries as Iran, Nigeria and India. Plants, including those for ore processing, cement, zinc refining, and pulp and paper, have brought equipment orders to Canada, with the prospect of more to come.

Urban and rural development have provided a continued export market through pre-feasibility studies, master plan design and project management contracts won by Canadian consultants. The Department helped in achieving many of these successes. Follow-on orders are expected from a number of them. In addition, Canada won some complete projects, such as the multi-million dollar contract for supplying semi-mobile schools in the Middle East.

Export Programs and Services

The Office of Export Programs and Services is responsible for the operation of two of the Department's export incentive programs -- the Promotional Projects Program (PPP) and the Program for Export Market Development (PEMD). The first involves Canadian participation in trade fairs, trade missions and in-store promotions initiated and carried out by the Department. The second helps to develop and sustain exports of goods and services by supporting activities initiated by industry.

In 1976-77, PPP helped 794 companies to participate in 61 foreign international trade fairs in 26 countries. Altogether 24 missions took 166 Canadian businessmen to 37 countries, and 28 incoming missions brought 228 foreign businessmen to Canada. A further 951 foreign buyers visited Canadian suppliers. In addition, 16 technical trainees were brought to Canada.

The total Department investment in PPP was \$3.6 million, leading to more than \$116 million in sales, reported or anticipated, according to the initial returns.

Through its PEMD operations, the Department provided \$4.9 million in repayable contributions to companies to share in their costs of developing export business -- a 55 per cent increase over the previous year. The full costs might otherwise have discouraged the companies from seeking foreign sales. In 1976-77, the Department received 1,168 PEMD applications. Companies reported export sales of \$375 million resulting from the program.

The most active sectors among PEMD projects were commercial and institutional buildings, industrial plants, transportation and resources; and the most active areas were Latin America and the Middle East, with Asia and Africa next.

As an illustration of the type of project the program has been able to assist, some of Canada's manufacturing industries were able to send representatives to Europe, Eastern European countries, Latin America, East Asia, Middle East, etc.; some came back with contracts, and a number of them found promising possibilities for equipment made in Canada. Some of these companies could not have financed these trips without this aid.

The following few specific examples will highlight the above:

1. A pulp and paper mill project in Poland generated export sales of \$80 million.
2. Expansion of the Indonesian state coal mining company resulted in export sales of \$11 million.
3. Construction of an airport in Saudi Arabia generated export sales of \$50 million.

New initiatives included attempts to improve Canada's percentage of world markets in transportation, power and telecommunications, with special attention to projects financed by the international lending banks.

Since PEMD's inception in 1971, it has processed 7,041 applications for assistance, worth \$14 million, and has received reports of \$640 million in export sales being generated.

Other Development Programs

In addition to the programs mentioned, the Department offers adjustment assistance to manufacturers for restructuring their operations. This is intended to improve significantly their ability to meet international trade competition, or to take advantage of new opportunities for producing goods that will face strong international competition. The instrument for this is the General Adjustment Assistance Program (GAAP) which insures loans made by private lending institutions to manufacturers.

The program has helped a Canadian clothing manufacturer to expand sales from \$5 million to \$22 million a year by giving it access to working capital. Also, a manufacturer of large cranes, needing financial help to complete several large projects and alter its product mix, obtained financing through GAAP. The restructuring succeeded and the company has repaid the financing.

In 1976-77, loan insurance totalling nearly \$60 million was provided for 26 companies which could not have obtained the loans otherwise.

Another program with international implications is the Defence Industry Productivity Program (DIP). This program has enhanced Canada's growing role in high technology in electronics, avionics and specialty vehicles, as well as in computer software communication and signal processing.

With the emergence of closer international co-operation in the development of such products and in view of the benefits arising from the technological developments, the Department is putting more effort into co-ordinating its industrial assistance for exploitation of the export potential, and with excellent results. DIP assisted 74 projects related to 56 companies in 1976-77, with a total expenditure of \$44.9 million.

In yet another area, the Department's main contribution to market development is the Agricultural and Food Products Market Development Assistance Program (AGMAP). Over the past four years it has supported 44 projects with a total commitment of \$5.1 million. This included market development in the livestock sector, and new products and processes for dairy export markets and in special crops.

A five-year export market development plan has been approved for the AGMAP project with the Ontario Bean Producers' Marketing Board. The Department has also an ongoing AGMAP project for testing Canadian forage varieties in Europe, with a view to developing seed sales, and another for promoting the Canadian seed potato industry in foreign markets.

A federal/provincial industry project for apple market development also involves the Department, as does a market research program to increase Canadian cheddar cheese exports to Britain.

Trade Commissioner Service

With its 240 foreign service officers and 170 local commercial officers in 89 offices located in 64 countries, the Trade Commissioner Service (TCS) is playing an increasing role in trade relations. It works closely with other Department officials to identify obstacles to Canadian trade and access to markets, and reports on local economic and commercial policies and developments affecting Canadian interests.

In 1976-77, the TCS answered more than 38,500 requests from Canadian businessmen for marketing assistance, as well as directing more than 46,500 inquiries from foreign buyers to Canadian firms. TCS posts also helped to establish 1,820 new foreign agencies and provided some 3,150 new buying connections for Canadian firms.

Collaborating with other branches, the Department of Regional Economic Expansion and provincial authorities, the TCS identified and encouraged direct investment of significant benefit to Canada. It played a role during the year in some 180 projects involving a potential investment of \$260 million in Canada.

Posts of the TCS assisted in 105 projects involving a potential for direct and joint venture investment of \$720 million in foreign markets, where access for Canada's exports was difficult.

Specific Export Activities

Occasionally, an opportunity arises for the Department to support industry in a major export promotion whether it is a solo show or a specific product promotion. In October 1976, an in-store promotion of clothing was staged in Western Europe with the C & A Brenninkmeyer chain of stores. For the campaign, 84 buyers visited more than 180 Canadian manufacturers. Purchases of Canadian winter clothing and sportswear by C & A for this promotion amounted to \$5.1 million from 93 Canadian suppliers to stock a total of 60 different items for 229 stores in Britain, the Netherlands, Federal Republic of Germany and Belgium. Direct media advertising for this promotion reached 60 million readers and Canadian clothing was displayed in more than 498 store windows.

*Canadian food products were promoted in Japan during the year and were the subject of sales meetings or market surveys in several U.S. cities. Beef cattle, dairy cattle and semen were shown at the 3rd International Annual Exposition in Brazil, and furs at the International Fur Fair in the Federal Republic of Germany. Another promotional effort was the publication of "Variety Cheese in Canada".

*Potatoes Canada has proved to be a successful experiment in marketing, with unprecedented exports of potatoes to Western Europe. This organization resulted from federal/provincial industry co-operation. The Department is working toward similar co-operation at the three levels for marketing blueberries overseas. Dehydrated alfalfa and tobacco are other commodities for which the Department is taking steps to increase exports.

*Promotional Projects Program support given.

*Assistance was also provided to the Fisheries Council of Canada in promoting consumption of fish through the North Atlantic Seafood Association, and also to organized fisheries promotions in the United States, Britain, Sweden, Denmark and France.

The Department's support for production of medium to large computer systems began in 1975. Production doubled in the current year, with about 90 per cent of it being exported to Europe and Asia.

One Canadian company became a major exporter of word processing and text editing systems which were developed with Department assistance. Multi-million dollar sales have been made to the United States and Europe this year and are expected to double in the coming year.

*Six appliance manufacturers, sponsored by the Department, took part in the International Home Electronics and Domestic Appliances Exhibition in England, and completed in excess of \$878,000 in sales on site, with indications of probably more than \$5 million in sales to more than 20 countries within 12 months.

*Three appliance manufacturers, with a technique called "kitting", have penetrated Central American and Middle East markets. Kit sales reached about \$276,000 for the year. The manufacturers are also exploring the European market. The manufacturers supply kits of parts and components for a refrigerator or wringer-washer, which the offshore distributor assembles.

*A Department exhibit for 16 companies was included in the Electronica 1976 Fair in Munich, resulting in \$193,000 on-site sales and projected sales of more than \$7 million.

A \$55 million order for five 700 MVA hydro-electric generators for Venezuela was the highlight of the export contracts that formed an important part of the business done by Canadian electrical equipment manufacturers.

The Canadian telecommunications sector continues to compete aggressively in export markets with major emphasis in Africa and the Middle East.

Canada competed successfully in the United States satellite market during the year. Negotiations took place with a view to Canada becoming an associate member of the European Space Agency.

Canada's largest telephone equipment manufacturers continued to expand in the United States with 12 factories, as well as increased market penetration in Europe and Southeast Asia.

Telesat, Canada's domestic satellite operating company, joined the Trans-Canada Telephone System and has recently become more export-oriented in a consulting role. Bell Canada has formed a new export consulting company group, Bell Canada International.

One company in the energy control systems sector has grown in four years to the point where export sales now exceed its domestic market.

*Promotional Projects Program support given.

*An Ottawa demonstration of airport vehicles, firefighting equipment and snow removal equipment was sponsored by the Department for two groups of visitors: one from Europe, Asia, the Middle East and Africa, and the other from the United States. Some 70 visitors attended, and later went to airports and company facilities in Montreal and Toronto.

Preliminary studies by the Department of the freight container and municipal vehicles industries in Canada showed there was promise of increased industrial activity.

Another study concerning motor vehicles compared the costs of manufacturing truck trailers in Canada and the United States. A study of the potential market for an urban car reached the preliminary conclusion that a market exists if the price were significantly lower than that of current sub-compact cars, and if it incorporates safety and other features desired by respondents to the study.

A sale of mining dump trucks to the U.S.S.R. valued at about \$100 million, was finalized through an Export Development Corporation line of credit. The order will be completed by early 1979.

*In automotive parts, the market thrust tended to concentrate on markets developed in the United States, Europe and Japan. A number of Canadian firms introduced new products in these markets, and indications are quite strong that they will be successful. The Department purchased space at automotive trade shows in the United States and Europe, and helped manufacturers with independent exhibits in other areas. Two missions from Japan visited Canada.

Using domestic demand as a base, Canadian manufacturers of urban transportation systems achieved unprecedented export sales in 1976-77. With federal marketing support, this included PEMD, they obtained U.S. orders for subway and commuter vehicles worth more than \$180 million. Non-vehicular export sales exceeded \$50 million, with electrical and electronic equipment becoming increasingly important in this sector.

The Department is currently working on a directory of Canadian capability in urban transportation which trade commissioners will present to potential customers abroad. It will be featured also at international transit conferences and exhibitions, and in direct-mail promotion. The strategy of the Department in this field was, until recently, to concentrate its export assistance on the U.S. market. Now that Canadian manufacturers are well established there, the areas of concentration have become Latin America and the Pacific Rim.

*To promote boat exports, the Department was instrumental in sponsoring 60 boat dealers and distributors from the northern United States who visited the International Boat Show in Toronto. The Department also sponsored an exhibit at the Marine Trades Exhibition and Conference in Chicago, with the accent on power boats and their accessories.

*Promotional Projects Program support given.

*For the ocean industries, market penetration is accomplished through wide-scale fair participation and missions and marketing trips. The Department co-ordinated participation in the Offshore Technology Conference and the Offshore North Sea Conference, and in major diving, marine and oil shows. It assisted with visiting missions from Italy and Brazil, with the likelihood in the latter case of joint venture contracts for Canadian firms.

In addition, the Department was involved in federal/provincial co-operation, such as a proposed feasibility study for a Newfoundland-based commercial diving and research centre.

Canada's aerospace industry is benefiting from a federal contract for 18 Lockheed Aurora aircraft and their avionic systems. The Department is monitoring this program for industrial benefits to Canada, and Lockheed exceeded its contractual requirements in this respect by more than \$20 million during the first year.

*Through its export promotion programs and activities, the Department supported sales of Canadian machinery abroad to the value of \$1.65 billion in 1976. Canada sold more than \$480 million of farm machinery to the United States, \$5.5 million to Mexico and \$4 million to Australia. Major sales of power generation equipment included \$10.5 million worth to Iran, \$4 million to the U.S.S.R., \$3.7 million to Mexico and \$3.2 million to Australia. Canada also sold \$69 million of logging machinery and \$40 million of chain saws abroad. PEMD assistance was given in most cases.

Under the aegis of Canada's industrial co-operation initiative with the European Economic Community and its members, the Department sponsored a plastics processing mission to Britain and the Federal Republic of Germany. Canadian manufacturers were able to develop several opportunities for co-operation with their counterparts in those two countries, a number of which have materialized in business transactions.

*In the textiles and consumer products area, the sporting goods industry increased its ski production and made major export gains with hockey equipment and swimming pools in Europe. The industry participated with federal support in fairs in France and the Federal Republic of Germany, and in receiving a U.S. mission of buyers in Montreal. PEMD grants have helped to increase export sales for tanning and footwear companies.

*The carpet sector of the textile industry has been most active in developing exports, particularly in the Middle East, Europe and Australia.

Through PEMD assistance in most cases, the Department helped many firms that were seeking export markets for steel products because of the downturn in domestic demand and construction activity. They had some success with structural steel, fasteners, rails, pipes and tubes, tinplate and plate, but world markets remained largely depressed. A seminar in antenna products for world satellite communications markets resulted in multi-million dollar contracts.

*Promotional Projects Program support given.

In non-ferrous metals, the Department helped industry to develop European markets for aluminum pallets and nuclear grade tubing. Also, the Market Data Generation project aided producers of heat exchangers and investment casters in their marketing programs.

The Department has entered into a second five-year, cost-sharing program with British Columbia and its Council of Forest Industries to develop the overseas marketing capability and offshore demand for Canadian lumber, plywood and other wood products. The major thrust over the next few years will be in Japan. The Department has also made a market survey of Morocco, Spain, Italy and Greece.

*Canada received a technical housing mission of EEC officials, which studied the correlation between the National Building Code and timber-frame construction. The Department sponsored a mission of French building officials, providing them with information on sound insulation and fire retardation.

It appears that the Department's efforts in primary wood products, particularly for manufactured housing, have borne fruit. A larger group of companies than ever explored offshore markets during the year, with many notable successes. Exports in this sector -- many with PEMD support -- have risen from zero to many millions of dollars in just a few years.

PRODUCTION EFFICIENCY

The Department has brought together, under a new Business Services Branch, a variety of services that promote business expansion and efficiency. These include import replacement services and market analyses, interfirm comparisons and programs to assist in upgrading Canadian business management.

The demand for information and analytical assistance on industrial performance has increased significantly. The information was gathered from domestic and international sources, and supplemented with in-depth studies of key problems such as the impacts of scale, capital intensity and managerial skills on productivity.

Requests increased also for the Interfirm Comparison Program, which consists of confidential analytical comparisons of the performance of individual companies to show where and why they differ, and how they could improve. These comparisons have been completed in 12 sectors, including steel construction, wooden and upholstered furniture, computer services, die-casting, and six types of plastics processing. Others are under way. After a pilot project, the Department has decided to use private consultants in this comparison work, but under its direction and control.

*Promotional Projects Program support given.

University Activities

During the last 10 years, the Department's program for universities and other organizations has led to the establishment of nine industrial research institutes, nine centres of advanced technology and three industrial research associations. A new centre of advanced technology -- the Health Industry Development Centre at the Manitoba Research Council -- opened in 1976-77.

The Technological Innovation Studies Program provided 10 awards to eight universities. Research supported by this program was the basis for a book entitled "Winning the New Product Game", which portrays the problems and successes experienced by several Canadian companies in bringing new products to the marketplace.

The Department continued to assist in the improvement of business management, in co-operation with Canadian universities, through the development of management courses and establishment of Centres for International Business Training.

Metric Conversion

The Department is responsible for overall planning of the implementation of metric conversion in the federal government through the Interdepartmental Committee for Metric Conversion. During the year, the Minister sponsored the first metric conversion omnibus bill (Bill C-23). Arrangements were finalized to enable the private sector to review proposed metric amendments to regulations. Plans were completed also for preparing a metric training program for general and administrative personnel, and seminars for federal information officers and editors.

Program to Enhance Productivity (PEP)

PEP (one of the programs to be absorbed on April 1, 1977, by the new EDP program) approved projects in 1976-77, exceeding the previous year's; there were 51 of them and a total commitment of \$772,000. The program underwrites up to half the cost of examining the feasibility of projects to improve production efficiency. With the decentralization of the program to give smaller companies greater access to it, the regional offices approved 12 of the projects.

Companies from Newfoundland to Alberta took advantage of PEP during the year. Most industry sectors received support, but the largest number of projects involved textile and clothing companies.

Environmental Protection

The Department is monitoring domestic and international environmental protection policies and legislation, and assessing their impact on Canadian industrial development and trade. This task includes keeping an up-to-date record of provincial and federal environmental legislation, and of the main issues discussed internationally.

So as to harmonize environmental policies and programs with the objectives of greater industrial efficiency and international competitiveness, the Department works closely with Environment Canada, other federal departments and the provinces.

Forest Products

An investigation of what can be done in the pulp and paper sector to improve efficiency in general and international competitiveness in particular has been initiated. The Department also organized a technical study mission to Nordic countries to examine structural lumber, finger-jointing technology and its possible application to Canada. This initiative was in recognition of the growing importance of shorter length lumber produced in this country.

Electrical and Electronic Industries

The 1976-77 program included assistance to modernize and increase the yield of piezo-electric crystals for microwave systems.

Investigation continued into all aspects of television manufacture in Canada, and a TV duty remission program was introduced to help the industry reduce costs by rationalizing production.

A major rationalization of the appliance industry occurred with the merging of the appliance divisions of three of the largest companies to form a new company that is expected to become cost competitive internationally.

Investment in capital equipment in the avionics industry continued to be weak as was shown by support of little more than \$1 million for such expenditures under the Industry Modernization for Defence Exports Program. This raises concern about the industry's ability to maintain or improve its international competitive position, particularly with rising labour rates.

Most Canadian instrumentation and process control companies are still too small to support the research and development and the marketing necessary to compete internationally. Despite their size, companies are competitive in price and technology, and the Department is trying to encourage rationalization and mergers, where possible, as well as international marketing consortia to reduce the costs of engaging in international competition.

Farm Machinery

In co-operation with the Department of Regional Economic Expansion, this Department has made a survey of farm machinery manufacturers in Manitoba, Saskatchewan and Alberta, relating their capabilities to the forecast demand for farm machinery for 1977 in both the domestic and foreign markets. This has given individual manufacturers a better idea of the adjustments they might have to make in production.

Consumer Products

The Footwear and Tanning Industries Adjustment Program has assisted 29 footwear and four tanning firms since it started in 1973-74. These firms represent about 45 per cent of the employment in the footwear industry and 50 per cent in tanning. Through further assistance, the industry established the Footwear and Leather Institute of Canada in 1976, and awarded seven Footwear Canada Scholarships in management and design.

In conjunction with the Manitoba Department of Industry and Commerce and the Manitoba Fashion Institute, the Department is establishing a productivity and development program for the province's apparel industry. This is intended to increase both productivity and efficiency through consultative and advisory services.

INTERNATIONAL ENVIRONMENT

United States

A new record of more than \$50 billion was set in two-way trade with the United States: Canadian exports reached \$26.2 billion and imports \$25.5 billion. As the United States' single most important market, Canada exceeded the whole of the European Community's two-way trade with the United States by nearly \$7 billion.

The U.S. Justice Department initiated a number of anti-trust activities in 1976, some of which had implications for Canada. In consultations between the two countries, the principal anti-trust problems were those related to a U.S. Grand Jury investigation of uranium marketing, and its indictment against potash producers; and also a U.S. Justice Department advisory opinion on a possible joint venture for development of a new jet engine.

Actions by both governments to provide relief for domestic industries had a bearing on bilateral trade. The U.S. International Trade Commission initiated 10 investigations resulting from domestic industries petitioning for import relief, involving products of interest to Canada such as sugar, footwear, television sets, fresh-cut flowers, cast-iron stoves and beef.

The Commission made nine determinations involving, among others, round stainless steel wire, honey, sugar, non-rubber footwear and television receivers. While recommending import restrictions in a number of instances, the President did not take action on all. The Administration did, however, impose quantitative restrictions on imports of specialty steels from all sources, including Canada.

The Department advised and assisted Canadian exporters affected by the restrictions, and held discussions with U.S. authorities to minimize adverse effects on Canadian shipments. Similarly, it advised and assisted Canadian firms affected by the U.S. Treasury Department's more vigorous enforcement of anti-dumping and countervailing duty provisions. The United States initiated an anti-dumping investigation involving certain parts of self-propelled bituminous paving equipment and made final determinations in the cases of hollow or cored ceramic brick and tile (no injury), press-on rubber industrial tires (no sales at less than fair value) and automobiles (investigation discontinued). The U.S. Treasury also conducted a countervailing duty investigation of groundfish imported from Canada, deciding affirmatively, but waiving the countervailing duty.

Canada took action under GATT Article XIX to restrict imports of clothing and certain other textile goods.

Agriculture continued to figure prominently in Canada-United States bilateral trade relations. Following U.S. limitation of beef and veal imports, Canada reached understandings with its trading partners, including the United States, for orderly marketing. The arrangement envisaged imports of 24.75 million pounds of U.S. beef and veal in 1977, while the United States provided for imports of some 75 million pounds from Canada.

Other Canadian representations to the United States concerned a "Buy American" proposal, the extraterritorial application of U.S. laws, and U.S. tax treatment of expenses incurred by its citizens attending foreign conventions, as well as the above-noted recommendations of the International Trade Commission on import restrictions.

The Department helped to resolve problems faced in the customs and tariffs area by Canadian exporters, and took steps to maintain and improve general access to the U.S. market. The Western Hemisphere Bureau participated in a one-day seminar organized by the Department's Winnipeg office to guide exporters on customs and related procedures.

Further assistance to Canadian exporters related to maximizing their returns from promotional efforts in the United States through research-based guidance on the most suitable regions for their products and the most promising distribution methods. This helped Canadian sales to pass the levels indicated by inflation and the acceleration of the U.S. economy.

As in the previous year, the Department paid special attention to markets for automotive parts and mass transit equipment. Exports of clothing, furniture, specialized machinery and equipment were also promoted by participation in U.S. trade fairs, and by organizing visits of buyers to appropriate Canadian suppliers and trade shows.

Western Europe

Although most Western European economies still experienced minimal growth in 1976, Canadian exports to the region increased by 8 per cent to \$5 billion. Imports into Canada from there decreased slightly by 2 per cent to \$4 billion.

The EEC, with almost one-quarter of world trade, excluding sales between its member countries, forms the world's largest trading entity, and with its population of 260 million, generates almost one-fifth of the world's output of goods and services.

The EEC as a group of nations ranks second to the United States among Canada's trading partners, with Canadian exports reaching \$4.4 billion and imports of \$3.2 billion in 1976. Industrial materials and agricultural produce make up the largest share of Canada's exports to Western Europe, with finished goods only about 12 per cent of the total; but these goods represent almost two-thirds of Western European exports to Canada. The region is also Canada's second largest source of investment capital, with 15 per cent of direct foreign investment.

The potential for investment, intercorporate links and scientific and technological exchanges with Western Europe is far from fully realized. It is a major objective of the Department to create and maintain a favourable environment for Canadian business to pursue its interests there, and efforts along these lines found expression in three broad fields, as follows:

1. To safeguard and improve its access, Canada looks to the current round of multilateral trade negotiations, particularly in the EEC markets. The Department continued to identify export opportunities in Europe that would benefit from concessions in these negotiations.

2. To promote exports to Western Europe, more than one-fifth of its Trade Commissioner Service officers abroad are deployed in 21 posts there. Senior trade commissioners from these posts took part in export opportunity seminars in Vancouver, Edmonton, Regina, Winnipeg, Toronto, Montreal and Halifax. They also had 1,000 private interviews with Canadian businessmen. More than 40 per cent of the Department's fairs and missions budget went to Western European projects, and the Department participated in more than 20 fairs in the area. It also sponsored more than a dozen trade missions to and from Western Europe. More than 450 Canadian firms took advantage of the Department's Program for Export Market Development (PEMD) in the area.

3. To improve communications and co-operation, a Framework Agreement for Commercial and Economic Co-operation between the European Community and Canada was signed in 1976. It provides for a Joint Co-operation Committee through which possibilities for trade, industrial and economic co-operation between firms on both sides are identified and developed. The kinds of co-operation sought include expansion and diversification of trade, two-way investment, joint ventures, scientific and technological exchanges and licensing agreements.

In parallel with this agreement, Canada worked along bilateral lines for further economic co-operation with Britain, Denmark, France, the Federal Republic of Germany, Italy, Finland and Sweden. Canada also continued its semi-annual consultations with the Commission of the European Communities to review trade and economic matters at a senior level.

A number of access questions were raised with authorities in the EEC or individual member states including the quota arrangements and waterlining requirements for exports of newsprint to the EEC, regulations relating to gift shipments of apples to Britain and the health regulations governing cattle imports into Belgium. Problems faced by Canadian producers of cheese, malt and flour as a result of competition from EEC exporters, assisted by restrictions under the Common Agricultural Policy, were also pursued with EEC authorities.

Eastern Europe

Exports to Eastern Europe reached a record value of \$788.2 million in 1976, an increase of 18 per cent over the previous year; imports increased by 15 per cent to \$205.6 million. Grains and oilseeds continued as the major export components, accounting for about 82 per cent of the total. The non-grain element increased slightly from \$135.8 million in 1975 to \$140.4 million in 1976.

The U.S.S.R. signed a long-term economic agreement with Canada similar to those it negotiated with other major Western trading partners. While this does not entail specific commitments to volume or type of goods traded, it creates a framework that could help to expand and diversify trade. Both parties undertook to establish a long-term program of economic co-operation, and the agreement provided for renewal of the exchange of most-favoured-nation treatment for five more years.

In October 1976, the Secretary of State for External Affairs, accompanied by the Minister of State for Small Business, led a mission of senior business representatives and governmental officials to the Soviet Union. The inaugural meeting of the Mixed Commission established by the agreement took place. Also, in Warsaw, the Minister of State took part in signing ceremonies for a multi-million dollar contract awarded to a Canadian firm for paper-making machines -- Canada's largest equipment sale in Eastern Europe to date. The sale was made with PEMD assistance.

Trade commissioners stationed in Eastern Europe returned to Canada in the fall and took part in seminars in major industrial centres on the subject of doing business in Eastern Europe.

Missions visiting Canada were led by the Trade Minister of the Soviet Union, the Hungarian Deputy Prime Minister, the Polish Minister of Forestry and Wood Products Processing Industries, and the Under-Secretary of Foreign Trade for Yugoslavia. Other trade consultations were held with the U.S.S.R., Poland and Bulgaria, in which Canada had opportunities to emphasize supply capabilities of interest to those countries, and to identify trade opportunities for Canadian industry. Financing protocols with the U.S.S.R. and Poland resulted in export contracts of some \$300 million being signed in 1976.

Pacific, Asia and Africa

Japan's place as Canada's second largest national trading partner was maintained in 1976 with two-way trade reaching nearly \$4 billion of which some \$2.4 billion were Canadian exports.

During the Prime Minister's visit to Tokyo in October, he and Prime Minister Miki signed the "Framework for Economic Co-operation" which reaffirmed the commitment of both governments to economic co-operation and further development of bilateral economic ties.

Following an Australian announcement of proposed wide-ranging tariff changes in November, the Department was actively engaged in advising Canadian businessmen of the potential impact. Representations to Australia resulted in the overall impact of the changes being considerably reduced.

The fourth meeting of the Canada-China Joint Trade Committee was held in Ottawa to discuss the development of trade. In October, an exchange of notes extended the Canada-China Trade Agreement for a further three years. This agreement provides for the exchange of most-favoured-nation treatment and annual consultations.

A delegation from Vietnam, led by the Vice-Minister of Foreign Affairs, discussed development of relations between the two countries, including trade.

Trade commissioners from seven posts in Southeast Asia held seminars and interviews with businessmen in major Canadian centres, following the mission led by the Minister to that area. The first meeting between Canadian officials and the Association of Southeast Asian Nations, held in Manila, discussed trade and development.

The Indonesian Minister of Industry visited Canada. He discussed possibilities for Canada-Indonesia co-operation, and visited several Canadian industries.

Exports to Africa and the Middle East continued to expand slightly, reaching \$892 million in 1976. In addition, Canadian sales of services (engineering, management and construction) were estimated at about \$200 million. Trade promotion in the area was highlighted by the Department's participation at fairs in Algeria, Iran, Iraq and Turkey.

A Canada-Israel Joint Economic Committee was established with the signing of a memorandum of understanding during the Canadian visit of Israel's Deputy Prime Minister and Minister of Foreign Affairs.

The Nigerian Commissioner for Foreign Affairs included discussions on trade during a visit to Ottawa. During a separate visit to Canada, the Nigerian Commissioner of Agriculture had talks on agriculture and fisheries at both the federal and provincial levels.

The second annual meeting of the Canada-Iran Joint Economic Commission was held. The talks reviewed projects identified during the inaugural meeting of the Commission and identified new sectors for Canadian participation: distribution, handling and storage of goods; rolling mills; petrochemicals; joint participation in the food industry; transportation and power transmission.

The inaugural meeting of the Canada-Saudi Arabia Joint Economic Committee took place in Ottawa under the joint chairmanship of the Minister of Industry, Trade and Commerce and the Minister of Industry and Electricity of Saudi Arabia. The purpose was to identify trade opportunities. Subsequently, four missions of Department officials to Saudi Arabia dealt with the construction, education and training, agriculture, and power transmission sectors.

Caribbean and Central America

Canadian exports to this area in 1976-77 were \$558 million, an increase of 4 per cent over the previous year. In the Commonwealth Caribbean, Canadian exports were down to \$132 million despite a healthy increase in exports to Trinidad and Tobago. Led by Cuba, Canadian sales to the non-Commonwealth Caribbean increased to \$345 from \$330 million in the previous year. Canadian sales to Central America increased by 23 per cent to \$81 million.

The sharp drop in world sugar prices affected prospects in Cuba and the Dominican Republic, but Canadian exports to Cuba, the largest market in the region, set a record of \$234 million. On the other hand, strong world prices for their main exports benefited the foreign exchange balances of most Central American countries. In addition to traditional exports, Canadian firms, many with PEMD assistance, have a number of large projects in the area, particularly in the mining, railway, hydro-electric and forestry sectors.

Severe balance of payment problems in Jamaica and Guyana resulted in both countries tightening their import controls. Lower sales to these markets and to Barbados, The Bahamas and Belize accounted for the 6 per cent decline in Canadian exports to the Commonwealth Caribbean.

A further round of negotiations between Canadian and Caribbean Common Market officials took place with a view to preparing a draft Trade and Economic Co-operation Agreement.

Latin America

Canadian exports reached a record of \$1.1 billion in South America and Mexico, or 1.7 per cent over the previous year. Two major markets showed increased purchases -- Venezuela with \$355.3 million and Brazil with \$327.6 million. Exports to Mexico stayed virtually the same at \$212.9 million despite the economic difficulties of that country and attendant resistance to imports.

Canada's expanding relations with the region were highlighted by the first meeting of the Canada Brazil Joint Committee on Trade and Economic Matters, and by a visit of the Secretary of State for External Affairs to Brazil, Peru and Colombia, and by the Minister's visit to Venezuela.

Several meetings between the Brazilian and Canadian governments concerned Canada's interest in obtaining a substantial share of the equipment needed in constructing the ITAIPU hydro-electric project, and also to be favourably considered for design and construction of the new Sao Paulo International Airport.

In Venezuela, a consortium of Canadian companies, supported by the Minister, was the successful bidder for design and construction of a complete railway in the province of Guyana. The Department's representational and financial support helped the consortium to obtain the contract for Canadian equipment worth hundreds of millions of dollars.

In Mexico, where the administration has set development of the oil industry as one of its highest priorities, Canada has confirmed its interest. Canadian companies have also initiated contacts with a view to exporting oil and gas equipment to the national petroleum company.

Multilateral Trade Negotiations

During the fiscal year, discussions continued in Geneva in various negotiating sub-groups dealing with non-tariff barriers such as government procurement, technical barriers to trade (product standards), customs procedures and practices and import quota restrictions. Negotiations in the sub-group were aimed at developing international codes of discipline. In addition, other negotiating groups which met included: the Tariffs Group, the Sectors Group, the Safeguards Group, the Tropical Products Group, the Agriculture Group and the Framework Group.

Broad Canadian objectives in the negotiations are: (1) the reduction or elimination of trade restricting or distorting effects of non-tariff measures and bringing such measures under more effective international scrutiny and discipline; (2) a substantial reduction of tariffs on both industrial and agricultural products; (3) a significant improvement in the terms of access of agricultural exports, resulting in a greater role over time for comparative advantage and increased stability in international trade; (4) in carefully defined and selected sectors, a comprehensive attack on all barriers to trade especially where these impede the processing and upgrading of resources in the country of origin; and (5) improved opportunities for developing countries to increase their export earnings.

Commodity Trade

Canada agreed to an extension of the 1971 International Wheat Agreement (IWA) to June 30, 1978. Canada, along with other members of the International Wheat Council, has been working toward development of a new agreement expected to be negotiated in 1978.

Canada participated in UNCTAD IV in May 1976, at which the Integrated Program for Commodities was adopted. Its principal elements are negotiations on a common fund for financing commodity buffer stocks, and consultations and negotiations on a series of commodities of export interest to developing countries. Department officials participated in a series of international meetings relating to various individual commodities under the program.

Canada is an importing member of the Fifth International Tin Agreement which came into force July 1, 1976. Canada is also an importing member of the 1975 International Coffee Agreement and the International Cocoa Agreement, both of which entered into force October 1, 1976.

Industrial Co-operation

Canada and the European Communities signed a Framework Agreement for Commercial and Economic Co-operation which became effective October 1, 1976. This should lead to increased trade and investment opportunities and, in particular, facilitate the expansion of industrial co-operation between Canada and Europe.

The agreement provides for a Joint Co-operation Committee to promote and keep under review various aspects of commercial and economic co-operation. A Sub-committee for Industrial Co-operation was formed, and also three working groups in the forest products, telecommunications/peri-informatique and aerospace sectors. Watching briefs (situation reports) are to be maintained on the coal, iron and steel, and non-ferrous metals sectors.

Grains and Oilseeds

Favourable grain harvests in Canada and most other major producing countries resulted in a lower demand, more competition and a severe drop in prices. Despite this, Canadian grain exports remained high, and the lower returns were offset somewhat by a strong demand and rising prices for oilseeds.

Exports of the six major grains amounted to 765 million bushels (19 million tonnes), of which wheat and flour accounted for 494 million bushels (13.5 million tonnes) while the major oilseeds accounted for 58 million bushels (1.35 million tonnes) in the 1976-77 crop year.

The credit grain sales program again made an important contribution, covering about 30 per cent of wheat exports and some quantities of barley and oats.

The Grain and Oilseeds Marketing Incentives Program encourages market development, promotes value-added processing of crops into protein, oil and starch components for animal feeds and food products. Its cost in the current year was \$634,000.

An amendment to the Prairie Grain Advance Payments Act, raising the maximum advance to a producer, coupled with lower delivery opportunities in the past few crop years, increased advances to \$126 million. The interest cost for 1976-77 more than doubled to \$2,550,460; this is borne by the federal government.

Payments under the Two-Price Wheat Act, which reduced the price for Canadian consumers to \$3.25 a bushel, were \$65.3 million -- well below the level of the previous year, when export prices were high.

The POS (Protein, Oil, Starch) Pilot Plant Corporation, an industry-government venture, neared completion of its plant in Saskatoon. The non-profit corporation will develop new food technologies for Canadian crops and help to increase Canadian processing. The federal government pays 90 per cent of the capital cost, which meant payments of \$3.2 million in 1976-77.

The Canadian International Grain Institute helps to maintain and enlarge markets at home and abroad with instructional programs for countries that buy Canadian grains and for the Canadian grain industry. Seven courses involving 20 countries were given during the year. The Department paid \$529,000 as 60 per cent of the cost, and the Canadian Wheat Board paid the remainder.

Marketing visits undertaken jointly by government and industry included Asia, the Middle East, Western Europe and Japan. In the food aid field, a survey made of the current status and trends in the value-added processing sector included blended foods, protein supplements and school feeding programs.

The Rapeseed Utilization Assistance Program, administered by the Rapeseed Association of Canada, received \$300,000 in 1976-77 for 20 projects of research and development. About half of the funds went to research in meal, and next in order were oil and flour.

Expenditures in the Grains Program for 1976-77 were: operating expenditures \$2,202, grants and contributions \$180,731.

Resource Industries

The Department participated in three major committees connected with the resource industries to promote industrial co-operation: 1) Canada/EC Ad Hoc Forest Products Working Group, 2) Canada/Japan Joint Economic Committee and 3) Canada/U.S.S.R. Working Group on the Forest Product Industries. It was also involved with a technical pulp and paper mission to Japan, a paper and paperboard market survey of East Africa, and a paper and paperboard marketing mission for Italy.

A number of OECD projects in which the Department was engaged included a "Waste Paper Utilization Study" and a report on "Opportunities for Energy Conservation in Pulp and Paper". It also initiated efforts to establish a biannual short-term economic outlook on the pulp and paper industry in OECD countries.

In the iron and steel sector, there was participation in international meetings such as the ECE Steel Committee, the OECD Steel Group and the UNIDO steel meetings, as well as several meetings of government and the steel industry about the steel sector approach to GATT/MTN.

Steel experts from the U.S.S.R. visited Ottawa and Canadian mills, and the Department and Canadian steel industry officials made return visits. The Department also arranged for meetings between an incoming Czech steel delegation and Canadian industry, held consultations with the United States about specialty steel and problems concerning chrome, and continued discussions with Japan on their possibly locating a steel mill in British Columbia.

In non-ferrous metals, a number of international meetings included the Lead-Zinc Study Group, the UN Committees for Trade and Development (UNCTAD) on Copper, Tungsten and Manganese, as well as for the sector in GATT/MTN.

A Canadian non-ferrous metals mission of 10 representatives of secondary manufacturing visited the European Economic Community. Its objectives included the exchange of technological, marketing and management information, sales of products and technology, and a search for specific European technology and equipment for use in Canadian operations. About 150 (75 per cent) of the meetings require further follow-up.

To keep abreast of world trade patterns and technological developments in primary wood products, the Department continued its input to programs and projects of the ECE Timber Committee. Trade promotion in manufactured wood products, notably timber-frame housing, was emphasized in 1976-77 through trade fairs and missions, including the major shows in Brussels and Utrecht.

The Department sponsored a mission to the Middle East composed of company representation involved in house manufacturing, who surveyed the potential markets in Iran, Bahrain and Saudi Arabia. These companies expect concrete export opportunities as a result of the trip.

Electrical and Electronics Products

The telecommunications sector is not restricted from competing in world markets by technical specifications for most types of communication systems. The one exception is telephone exchanges which restrict the two major Canadian manufacturers from competing in Africa/Middle East and Latin America markets. As electronic exchanges are further developed, and in particular with the advent of digital switching, Canada will be able to compete in all markets. This sector must continue to compete against non-tariff barriers to obtain export contracts.

A factor which has impacted on the performance of the electronics sector is the emergence of a number of non-tariff barriers in U.S. defence trade, including increasing use of "no-foreign" clauses in requests for bids, and "nuclear-hardening" and "communication-security" requirements that have kept Canadian firms from bidding on certain U.S. programs. While some success has been achieved in overcoming some of these restrictions, there is no question that access to the U.S. military market is becoming more difficult.

Canada has a good base for both domestic and world competitiveness in specialty instrumentation and process control systems, such as those applied to the resource industries -- geophysics, cartography, energy generation and transportation, and mineral processing.

The trend of the last 20 years has been a consistent decrease in Canadian products as a percentage of the Canadian market. This trend has not only stopped in recent years, but appears to be reversing.

Defence Programs and Contracts

Canada continued to co-operate with her allies in defence planning through co-operative defence research, development and production programs co-ordinated by the Department. Many of these programs have civilian applications and represent advanced technology in communications, navigation and transportation equipment.

Defence export contracts placed in Canada by NATO and other friendly countries amounted to \$390.6 million in 1976-77. Imports of defence equipment cost \$1,114.4 million during the same period, and consisted mainly of the long-range patrol aircraft system (CP-140) from the United States, and the Leopard tanks from the Federal Republic of Germany.

Transportation

The Department pursued developments in international shipping arising from the seventh session of the Committee of Shipping of UNCTAD. These included the conditions and costs of sea carriage of trade, the effectiveness of shippers' organizations (councils), the status of the Code of Conduct for Liner Conferences, and problems of port congestion in a number of countries.

Other meetings involving the Department were UNCTAD intergovernmental meetings on container standards, a convention of multi-modal transport, and Canada's new membership on the ISO Advisory Committee on international standards for physical distribution equipment. There were also three sessions of the Maritime Transport Committee of OECD on the shipping problems of trading nations, and participation in the Shipping Advisory Board and the new Marine Transportation Research and Development Advisory Board.

On the industrial side, the automotive parts trade deficit increased only slightly to \$2.59 billion in 1976. However, the overall automotive products deficit, including vehicles, tires and tubes, fell significantly to about \$1.2 billion. Concern about the continuing size of the parts deficit has led the Department to attempt a moderation of it through discussions with the industry.

Textiles

A world surplus capacity in textile products makes the international market highly competitive. In fact, the domestic industry has great difficulty in maintaining a satisfactory share of the domestic market, because of imports from both developed and developing countries. This is evident from the industry's requests for studies of various markets by the Textile and Clothing Board during the past year.

Science and Technology

The Department played a leading role in arranging three visits of Canadian businessmen to the U.S.S.R. and one visit to Canada by a Soviet delegation in 1976. These were in the context of the oil, gas and electrical working groups of the mixed commission of the Canada-U.S.S.R. Agreement on Co-operation in the Industrial Application of Science and Technology. As a result, Canada obtained \$42.8 million of new business for pipeline compressors, valves and other equipment.

Standards

The development of policies and programs in the field of standardization continued as one of the Department's responsibilities. Projects included a survey of Canadian standards activities for the Commonwealth Science Council, and a report on provincial activities for the Canadian Permanent Mission to GATT.

The Department continued to work for the reduction of trade barriers caused by standards and related test methods and certification procedures. This involved participation in the standardization activities of intergovernmental organizations such as ECE, the Pacific Area Standards Congress and GATT.

DOMESTIC ENVIRONMENT -- FIELD OPERATIONS

On the domestic scene, the gradual decentralization of the Program for the Advancement of Industrial Technology (PAIT), Program to Enhance Productivity (PEP) and Industrial Design Assistance Program (IDAP) reached the stage where the regional offices handled 44 per cent of all the Department's projects in 1976-77. Commitments of \$4.3 million for 76 projects were made through the regional offices.

In addition, the function of making company assessments for the Program for Export Market Development (PEMD), Sections B, C and D, has been decentralized for the Eastern and Western Regions, which speeds up the processing of applications for companies with under \$2 million in annual sales.

The 11 regional offices intensified their work in industrial and trade development and in federal-provincial relations. They sponsored seminars and conferences in the areas of licensing, patents, joint ventures, international trade and tourism. They also helped to co-ordinate the programs of incoming missions. A new regional office in Charlottetown, Prince Edward Island, opened during the year.

Natural Resource Development

In its second year of operation, the Advisory Committee on Industrial Benefits from Natural Resource Development reviewed projects involving capital expenditures of some \$15 billion. Among those that would involve Canadians in providing equipment and services were the Arctic natural gas pipeline proposals, the Liquefied Natural Gas (LNG) project of Petro Canada, the East Coast offshore exploration program of Eastcan, and the Arctic exploration program of Panarctic.

Through the policy and activities of this interdepartmental committee, resource companies have found it possible to use competitive Canadian engineering and project management firms for most projects, and have become more aware of existing Canadian competence.

Pulp, Paper and Wood Products

Shipments by the Canadian pulp and paper industry were close to 19 million short tons in 1976, compared with 16.2 million in the previous year, but were still below the record level of 21 million short tons in 1974. International markets have been extremely competitive, creating considerable marketing difficulties for the Canadian industry. To alleviate this, the Department has been active and successful in helping to place tonnage in international markets.

The Department also played a significant role in promoting proposals and providing technical assistance to the Department of Finance for an improved tax concession on certain energy conserving equipment to be installed in manufacturing plants.

A discussion paper prepared by the Department has provided a review of forest product industries, an analysis of the strengths and weaknesses of the various pulp and paper sectors, and recommendations for improving the international competitive position of the industry.

Under the auspices of the Forest Industries Development Committee, and the direct supervision of the Department, a rationalization pilot project is being carried out in New Brunswick. It involves restructuring the pulp and paper industry through modernization and other means to improve efficiency, reduce costs and restore its competitive position in world trade.

In the manufactured wood products sector, the Department commissioned a study of technological developments that may confront the housing and wood building components industries up to the year 1990. Through the Delphi forecasting technique, the study examined future demand in the Canadian residential house construction market in relation to use of wood building components, materials and structures, and identified the problems and opportunities.

A second housing study by the Department concerns wood-frame house manufacture in Canada, including its development and rationale, and all other information on this important sector of the economy.

Iron and Steel

A series of monthly steel meetings was held in 1976-77 with representatives of the member companies of the Steel Industry Advisory Group. The purpose was to identify opportunities and constraints relating to the Canadian steel industry.

The Department has published a promotional booklet on "Canadian Ferrous Castings and Forgings" which is available from the Iron and Steel Division. The groundwork was laid for another publication, the "Canadian Ferrous Foundry Industry Report of the 1976 National Survey" to show the size and capabilities of the industry. Revisions are under way for a new edition of the trade promotional booklet, "Metal Pipe and Tube from Canada".

Non-ferrous Metals

The depressed world economic environment resulted in lower production and corresponding lower prices for non-ferrous metals. Although the lead market remained relatively strong, and the aluminum market steadily improved, the copper, zinc and nickel markets remained depressed.

The Department, in co-operation with the industry, was instrumental in forming the Investment Casting Association of Canada, and is helping the die-casting industry to form a representative association.

Also, the Department completed preparatory work for a new booklet on the Canadian coin industry, and published a glossary of technical terminology of the copper industry in Canada.

An interdepartmental study on a proposed East Coast zinc smelter for zinc concentrates from the Arctic was undertaken, and so were studies of the copper and aluminum industries.

Coal

Canada and British Columbia have entered into an agreement for joint financing of the cost of planning and evaluation studies of the coal resource of northeast B.C. An ad hoc committee of ministers and subcommittees of senior officials are analyzing potential developments. The Department has also presented a coal market survey of 27 countries to the B.C. government and coal producers generally.

Textiles and Consumer Products

The unprecedented rise in imports significantly reduced the leather and vinyl footwear industry's market share from 59 per cent in 1975 to 50 per cent in 1976. The result was a sharp drop in capacity utilization and temporary layoffs. The Cabinet has requested the Anti-dumping Tribunal to hold an immediate inquiry to determine if imports are a cause or threat of serious injury to domestic production.

The withdrawal of rubber footwear from the General Preferential Tariffs was extended to December 31, 1979, to allow the industry more time for restructuring.

A surge of women's handbag imports, especially from the Republic of Korea, prompted Revenue Canada to initiate a full dumping inquiry.

The textile industry generally has been rather stagnant in the past year, with unsatisfactory profits particularly in home furnishings. The application of anti-dumping duties to textured polyester yarns has stimulated activity among the flat and textured yarn producers, and resulted in price advances in these areas.

The federal government's restraint action on imports of both apparel and double-knit fabrics has not yet created the desired effect in the primary textile industry, but it should show later in 1977. As the industry generally is unable to reflect increased labour and material costs in the selling prices, profits have been eroded, and in the country's present economic condition, no improvement can be expected in the foreseeable future.

Chemical Industry

The performance of the chemical industry improved during 1976 over the previous year. Sales increased in constant dollars, and particularly in the latter part of the year. Unfortunately, inflation was still adversely affecting business conditions, and the negative trade balance continued roughly the same as in the previous year.

Chemical prices increased less than those of manufacturing as a whole, and while employment increased by more than 3 per cent, average earnings improved at a lesser rate than for all manufacturing. Large new investments are under way in the petrochemical sector, but the major impact will not occur until 1978, when an improvement is expected in the unfavourable balance of trade.

A study of the plastics processing industry has been completed with the participation of provincial governments and the industry. Recommendations are being developed to help the industry overcome the constraints it faces.

With the co-operation of the Department of National Health and Welfare, the Department initiated a comprehensive study of the health care products industry. This will include the pharmaceutical, biological and medical devices, supplies and equipment sectors.

Electrical and Electronics Industries

The Canadian telecommunications sector suffers from the smallness of the domestic market. The Canadian needs are supplied primarily by Canadian manufacturers. Canada continues to be plagued by overproduction capability in the microwave sector and the manufacturers are not in a healthy position. The two major telephone equipment manufacturers have consistently maintained their share of the Canadian market and have been operating profitably. During the past year employment has decreased in the telecommunications sector due to lack of contracts domestically and offshore.

Considerable interest and action have resulted from recent increases in National Defence spending plans (the CP-140 Patrol Aircraft, Leopard Tank, New Fighter Aircraft and Ship Replacement Program). Negotiations for suitable Canadian content and industrial offset benefits in these programs have been a major activity, particularly for the Patrol Aircraft. This should intensify in future with the New Fighter Aircraft and Ship Replacement Programs. The Department will attempt to extend the benefits beyond "build to print" to encompass technology and market support over the longer term.

The Canadian domestic market in general instrumentation, such as oscilloscopes, signal analyzers, etc., is too small to provide a basis for world competition. Where a company has a foothold in the market, it is because it has achieved a lead in a specific technology over the rest of the world.

Transportation Industries

The delivery of 41 de Havilland Twin Otters brings the total to 550 now in service around the world. The company has orders for 19 Super Buffaloes. First production models of the DASH 7 aircraft are nearing completion.

Canadair's Challenger Business Jet has been a tremendous success with more than 100 sold. Both the DASH 7 and Challenger are supported by Department programs and initiatives. The possible rationalization of Canadair and de Havilland is currently being assessed.

In aerospace sub-systems, the Department's major thrust is to enhance the technological base of the sector by encouraging the purchase of advanced equipment, the development of new products and increased export sales. The strength of the sector has been based on increased sales of aircraft engines, participation in the NASA Space Shuttle program, a co-operative project with the Federal Republic of Germany and France to develop a battlefield surveillance system, and offsets to the LRPA purchase by National Defence.

Total sales of sub-systems in 1976 were \$648 million, of which \$422 million, or 65 per cent, came from exports to the United States. Total employment was about 16,000, with a high proportion of engineers and skilled labour. Major activities of the year included agreement by Canada, France and the Federal Republic of Germany to develop the aerial surveillance system, with Canadair as system manager; initiation of a rotary wing, remotely piloted vehicle project at Canadair; and assistance to Spar Aerospace to develop the capability to supply the modular interchange system for NASA's Space Shuttle program.

The shipbuilding and repair industry had a value of production of just under \$600 million in 1976; over half of which was for exports. Canadian shipyards delivered 50 vessels totalling 253,608 gross tons, had 27 vessels totalling 331,926 gross tons under construction, and a further 23 vessels totalling 114,715 gross tons on order. Shipyards had some 15,000 employees.

Canada in 1976 suffered from the combined effects of a worldwide downturn in the shipping freight market and international overcapacity in the shipbuilding industry. To attract new business and avert layoffs, two major changes in support under the Shipbuilding Industry Assistance Program were announced: in November, conversion of vessels became eligible for assistance, not new construction only; and the rate of subsidy was increased from 12 per cent to 20 per cent of the approved cost of successful applications in the first six months of the next fiscal year.

The unsettled prospect for shipbuilding was reflected in the marine components sector, and was aggravated by potential foreign customers requesting that components from their countries be used in ships built in Canada. Such requests are hard to refuse in the present buyer's market for ships. Two European manufacturers of deck machinery entered into joint ventures to manufacture their products in Canada.

The sector's Canadian content averages above 66 per cent. The main reasons preventing an increase are that Japanese steel is often considerably cheaper than Canadian steel, and that main engines, reduction gear and controllable pitch propellers are not available from Canadian production.

Studies undertaken jointly with other interested departments included the integration of trade and transportation statistics and the improvement of shipping statistics; the problems of shipping potatoes from New Brunswick and Prince Edward Island; the implications of St. Lawrence Seaway tolls proposals; revised rules for the carriage of goods by sea; the impact of Canada-U.S. traffic diversion; and the implementation in Canada of the Safer Container Convention.

The Department also produced information on passenger and cargo movements for use in developing Canadian positions in negotiation of bilateral air agreements.

Machinery

The Machinery Program assists Canadian manufacturers and reduces the costs of machinery not available from Canadian sources. The Department received more than 25,000 applications in 1976, and provided more than \$200 million in assistance, through duty remissions, to industry for acquisition from abroad of advanced capital equipment. At the same time, about 100 machinery producers were helped to increase the range of products made in Canada, and to expand production capacity to take advantage of growing demands that were met previously by imports.

Design

The National Design Council of the Department established a new executive arm for the Council called Design Canada, combining the Department's former Office of Design with the Council's secretariat, and reducing expenditures by \$500,000.

Also, the Department's Industrial Design Assistance Program (IDAP) was decentralized, and it awarded \$208,677 in grants to cover half the design and administrative costs of approved projects. Product and Design Development programs have been established in Manitoba, Nova Scotia, New Brunswick, Ontario, Saskatchewan and Prince Edward Island. Grants totalling \$75,000 were awarded to Ontario and Prince Edward Island during the year.

Design Canada, with the governments of Ontario and Quebec, helped the Society of the Plastics Industry to organize a seminar on "Profit by Design", which was attended by 130 businessmen, suppliers and designers.

The Design Capability Program for Canadian Students awarded 18 Design Canada scholarships totalling \$89,000 for advanced design studies in international schools. Grants to Canadian universities and colleges offering courses in design management and industrial design amounted to \$60,000.

A "Design for Industry" lecture series, co-sponsored by Design Canada, Electrohome and the provincial industry departments of Ontario and Manitoba, consisted of one-day seminars in both Toronto and Winnipeg for 250 senior business executives.

Design Canada also assisted two Canadian professional design associations, the Society of Graphic Designers of Canada and the Association of Canadian Industrial Designers, in establishing a central secretariat in Ottawa.

Under a joint program with the Department of Supply and Services, called "Stimulation of Good Design through Government Procurement", a grant of \$45,000 was awarded to a Canadian design firm to develop a new generation of standard line modular office furniture suitable for general government office use and commercial sale.

"The Shape of Things Now" exhibit, which toured Canada, showed businessmen, students and the public the quality of items designed and produced in Canada.

TOURISM

For the second year in a row, Canada's tourist industry showed mixed trends, with domestic travel by Canadians diminishing as a percentage of all their travel, while Canadian travel abroad, particularly in the United States, increased sharply. U.S. visitors to Canada decreased again, but overseas visitors showed a marked increase.

Gross revenues from visitors' spending and domestic travel spending were an estimated \$9.2 billion, or about 5 per cent of the GNP. Of this, travel in Canada by Canadians accounted for \$7.3 billion and by visitors \$1.9 billion. U.S. visitors contributed \$1.3 billion to the latter sum, virtually unchanged from 1975, while overseas visitors provided \$584 million, up 22 per cent from 1975.

Canadian expenditures on travel abroad soared to \$3.1 billion, a 23 per cent increase over 1975. Canada's deficit on travel account in the international balance of payments also rose to a record-breaking \$1.2 billion, a little more than half of which was Canada's deficit on bilateral travel with the United States.

Canada's tourism problems are evidently centred in North America. On the one hand, the number of U.S. residents entering Canada dropped by 6.8 per cent to 32.2 million (visits), continuing a steady drop; on the other hand, the number of Canadians visiting the United States rose by 8.6 per cent to 35.9 million (visits), following the trend since 1974. This was also the first year in which more Canadians visited the United States than Americans visited Canada since Statistics Canada began keeping records in 1946.

Some of the reasons, unique for 1976, were the Bicentennial celebrations in the United States, the U.S. presidential election, bad summer weather in Canada, disruptions in Canadian air traffic, and the Canadian dollar being at a premium over the U.S. dollar.

Even more important underlying reasons for the changing balance of travel were the triple threat of inflation, recession and the energy situation, which tended to keep Americans from visiting Canada. As a result of Canada's diminishing price competition, Americans were finding Canadian goods and services relatively expensive. Moreover, with the shift to more Canadians taking vacations in the winter, often abroad, they tend to go south to the United States or the Caribbean and Mexico, with incentive air fares and package tours being of material significance to this.

The bulk of Canadian tourism income in 1976 was from Canadians travelling here -- an estimated \$7.3 billion. The volume of domestic travel increased 85 per cent and the value 135 per cent during the period 1971-76, which is by no means an unhealthy trend. Tourist expenditures in total gave rise to 800,000 direct and indirect jobs in 1976.

The Canadian Government Office of Tourism (CGOT) in 1976-77 had a budget of \$23.46 million and a staff of 341 in 28 offices in nine countries, including six in Canada. Its communications program aimed at not only stimulating interest in Canada, but encouraging travel, whether domestic or foreign, by commercial transportation.

CGOT also used the consortium technique of various partners, including the provinces and segments of the travel trade, combining for heavy promotion of travel in and to Canada through pre-planned tour packages. Special campaigns in the United States and Japan were directed to ski enthusiasts. Besides media advertising, CGOT sent out five million letters in a comprehensive direct-mail program, which produced more than 500,000 requests for information kits. Also, 400 reporters, writers, broadcasters and other media specialists were guests of CGOT as part of the Visit Canada media program; and editorial material, including 125 feature-length articles, was sent to 3,000 travel editors, outdoor editors and other media people in Canada, the United States and overseas.

The Department co-ordinated more than 130 consortium seminars in Canada and the United States to promote tour packages for spring, summer and fall, and an additional series for winter tours; 16,000 attended the first series, and 12,000 the winter series.

After a three-year pilot test, the Tour Development Program has proved its worth. It has helped 32 individual companies or provincial tourism departments to establish 172 new tour programs embracing nearly every region of Canada.

A new section for Travel Trade Relations developed a comprehensive inventory of package tours to and within Canada. The Department also published two industry improvement manuals called "The Inn Business" and "Canadian Menu Manual". A further one was started for planning festivals and special events.

More than 200 consumer complaints were received, and most were resolved to the satisfaction of the customer with co-operation from provincial agencies, industry associations and the private sector.

Meetings and Incentive Travel (M&IT) promotion officers were appointed for the Chicago and New York regions. A two-day conference on M&IT in Ottawa was attended by 200 delegates from provincial, territorial and municipal governments, and representatives of the industry.

A computerized, bilingual, bibliographic data base was established in 1976. It refers inquirers to the sources and locations of relevant documents and data. In economic research, the Department has developed a tourism expenditure model and a tourism impact model to collect and analyze data more precisely. It has also generated a complete set of tourism impact data relating to employment, income, investment and government revenue. Presentations explaining the system and the impact model were made to six federal departments, five provinces, the OECD Committee on Tourism, and officers of CGOT and the Interdepartmental Committee on Tourism.

Results of the Delphi study of "Tourism in Canada to 1986" were made available to the industry and CGOT. In addition, economic research was the focal point for planning an on-going Canada Travel Survey.

The Canadian Conference of Tourism Officials in Ottawa was followed by a special meeting at Banff to discuss transportation policy and the development of a national information-reservation system.

More than 550,000 travel inquiries were handled during the year. Although this was 10 per cent less than last year, the calibre of the inquiries was high. Two direct WATS (Wide Area Telephone Service) lines between the CGOT Ottawa and New York offices, established experimentally, enabled calls to the New York office to be answered automatically in Ottawa by specially trained staff. This is intended to reduce counselling pressures during the peak travel season, and if as effective as early experience indicates, it may be extended to offices in other territories.

Industry, Trade and Commerce

Statement of Expenditures

for The Fiscal Year 1976-77

		\$ ('000)
<u>Trade Industrial Program</u>		
Operating Expenditures		82,388
Grants and Contributions		
- Industrial Research and Development Incentives Act	45,922	
- Program for the Advancement of Industrial Technology	25,455	
- Defence Industry Productivity Program	44,900	
- Program to Enhance Productivity	630	
- Program for Export Market Development	4,963	
- Capital subsidies for the construction of commercial and fishig vessels	68,000	
- Industrial Design Assistance Program	499	
- Miscellaneous	<u>5,357</u>	195,726
Loans and Investments		
- Loans to assist manufacturers of automotive products in Canada	346	
- Loans to assist defence manufacturers with defence plant modernization	5,509	
- Loans under the Footwear and Tanning Industries Adjustment Program	49	
- Loans to Canadair for the financing of water bombers	10,311	
- Loans to assist manufacturers under the Kennedy Round agreement	3,965	
- Investment for the purchase of shares of capital stock of de Havilland Aircraft of Canada Ltd.	4,067	
- Investment for the purchase of shares and notes of Canadair Limited	9,969	
- Investment for the purchase of shares and notes of Consolidated Computer	12,396	
		<u>46,612</u> <u>324,726</u>

Tourism Program

Operating Expenditures	20,569
Grants and Contributions	<u>1,517</u>
	<u>22,086</u>

Grains Program

Operating Expenditures	2,460
Grants and Contributions	
- Credit wheat sales	7,743
- Payment to the Canadian Wheat Board to cover carrying charges on reserve stocks of feed grain	2,743
- Payment to the Canadian Wheat Board for the purchase of covered grain hopper cars	167,341
- Prairie Grain Advance Payment Act	2,550
- Two Price Wheat	65,303
- Western Grain Stabilization Program	61,801
- Miscellaneous	<u>6,053</u>
	<u>313,534</u>
	<u>315,994</u>
Total Department	<u>662,806</u>

Industry, Trade and Commerce

Statement of Revenues

for The Year Ended March 31, 1977

Return on Investments	\$ ('000)
Interest on loans to Export Development Corporation	77,442
Interest on loans to Federal Business Development Bank	17,395
Interest on loans to assist manufacturers of automotive products	1,243
Interest on loans to assist the pharmaceutical industry	60
Interest on loans to assist the footwear and tanning industries	118
Sundry	323
Miscellaneous Revenue	<u>1,953</u>
Total	<u>98,534</u>

