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Industry Profile
Canada's Food Processing Industry

Contents

The data contained in this *Industry Profile* are those available as of May 1996.

Canada's food industry - large by any measure

The Canadian food processing industry (SIC 10) is large by any measure. In 1995, it employed 184,000 people, accounting for 10% of total manufacturing sector employment and value added. It is Canada's third largest manufacturing industry.

The Canadian food processing industry represented 1.9% of Canadian gross domestic product (GDP) in 1993, similar to the share of the food sector in other major industrialized countries. In 1993, for instance, the food industry totalled 1.3% of GDP in the United States, 1.5% in Germany, 1.6% in the United Kingdom, 1.8% in Italy, 2.3% in France and 2.4% in Japan.

The food processing industry does not include economic activity associated with the production of primary agricultural products such as wheat, barley, oats and oilseeds shipped in bulk, live animals, fresh eggs and unprocessed fresh fruits and vegetables. Added together, the agriculture and food processing sectors represent almost 5% of total Canadian employment and about 4% of GDP valued at factor cost.

The Canadian food processing industry is considered mature and developed, and has registered slow but steady growth in recent years. Given the modest expansion of domestic markets and the liberalization of export opportunities under the recently signed North American Free Trade Agreement (NAFTA) and General Agreement on Tariffs and Trade (GATT), many Canadian food processors see new export opportunities in foreign markets. The value of the Canadian dollar in relation to other major currencies is likely to give Canadian producers an additional cost advantage in export markets. In recent years the export-orientation of the Canadian food industry has increased, with exports rising to 19% of industry shipments in 1995 from 14% in 1990.

Demographic change - aging population, ethnic diversity, smaller families

Population growth, demographic shifts and household composition have a major impact on food consumption and spending. Canada's population has been growing at about 1.3% a year since 1980, marginally higher than in the United States, where the population is expected to grow 1% annually for the remainder of the 1990's.

Immigration has averaged about 250,000 per year over the past four years. The expanding immigrant population, mainly from Asia (Hong Kong, India, the Philippines and China), Europe, and South and Central America, is having a noticeable effect on the food processing industry, which must now meet a wider variety of tastes and preferences.

Demographic shifts affect the demand for food products. The Canadian population is aging, with demographic projections for the next decade indicating the greatest expansion - nearly 28% - in the 40-54 age group. By the year 2006 the 40-54 year-

Canada

Industry Profiles

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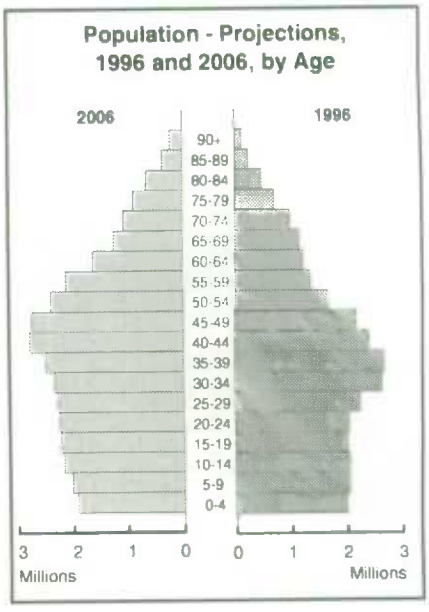
old age group will number almost 8 million people, or 23% of the total population. Seniors - those 65 years and over - are expected to increase by 20% to 4.4 million people by 2006, representing over 13% of the total population. The food processing industry will therefore have to cater increasingly to the needs of the older shopper.



The changing composition of Canadian households is a further influence on consumer food expenditure patterns, with the trend toward increasing numbers of single-person and single-parent households expected to continue. The average Canadian household is also becoming smaller. In 1996, the average household is estimated to have 2.74 persons, almost 8% smaller than a decade earlier.

Increasing participation in the labour force by women - 58% in 1993 compared to 50% in 1980 - is resulting in increased demand for prepared foods. Canadians spent an estimated $29.47 weekly per person on food from stores and an additional $12.72 for restaurant food (for a total of $42.19) in 1993. That was 12.5% of after tax income in 1992, the most recent year for which such estimates are available. Expenditures on food and non-alcoholic beverages were over $45 billion in 1993, an increase of 3.5% over 1992.

The combination of an aging and more culturally diverse population characterized by decreasing household size and greater numbers of single-person and one-parent households suggests that growth in food expenditures is likely to continue to be slow but steady. More women in the workforce and more single-person and single-parent households also imply increased demand for prepared foods and foods prepared outside the home. The Canadian food processing industry will be catering to older, smaller and more culturally diverse households. With modest growth in domestic demand, the industry is expected to intensify efforts to expand exports, which have increased dramatically in recent years.

Exports - new directions, new markets

On balance, Canada exports about the same value of processed food products that it imports. In 1995 Canada exported $8.2 billion worth of such products and imported about $8.1 billion.

The patterns of trade in food products between Canada and its major trading partners range from many years of near-balanced trade with the United States, which purchased 62% of Canada's total processed food exports in 1995, to a widening imbalance in favour of the European Union (EU). The latter was associated with a decline in the total value of food product exports to the EU but with modest increases in Canadian imports of EU products by Canada. Canada is experiencing growth in exports to Asia and achieving significant success in penetrating new markets in Asia for Canadian food products. Canada recorded a significant and growing surplus in its processed food trade with Japan, which stood at $1.4 billion in 1995.

A rapidly growing middle class in developing countries is contributing to the growth in demand for higher value-added Canadian food products, particularly products such as meat, bakery goods and dairy products. The higher value-added

industries offer the greatest investment and employment opportunities in Canada and manufacture consumer-ready, highly processed packaged products such as breakfast cereals, cake mixes, biscuits, frozen dinners, pizzas and soups.

The 1989 Canada-United States Trade Agreement (CUSTA) included tariff cuts for agriculture and food products. Market access for food products was subsequently improved by the provisions of NAFTA, signed in 1992, and was followed by a marked pickup in trade in processed food products with the United States and Mexico.

Global trends

The growth of international trade in processed food products has tended to lag that of other sectors, particularly manufacturing. Agriculture and food exports now account for less than 10% of global merchandise exports, compared to about 25% in the early 1960s.

Some of the most far-reaching changes to patterns of world trade in agriculture and food products may come from the recent economic reforms in the People's Republic of China. As it industrializes and shifts away from its agrarian roots, China's appetite for food imports from countries such as Canada is expected to result in sharply higher demand and world prices for cereals and other food products. China's share of world agricultural imports has remained stable over the past decade, at around 2.3%, but it is expected to increase as China's economic reforms proceed.

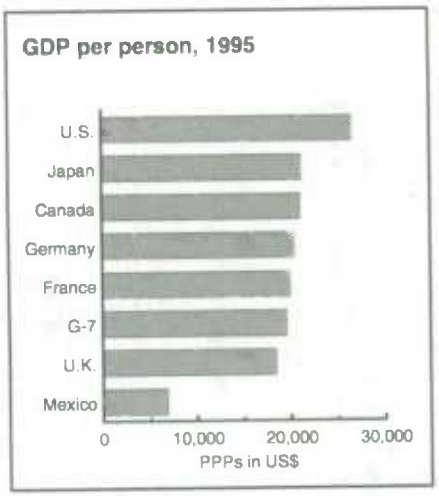
Increasingly diversified markets and more intensive regional trade have dominated agricultural trade flows during the past few decades. The impact has been far from uniform but has not resulted in large shifts in overall patterns of agricultural trade. The closely integrated agricultural markets of Eastern and Central Europe and the former USSR became much more open to imports, particularly from North America and the EU, even before the reforms of the 1990s and the breakdown of the traditional regional trading systems. In addition, developing countries still depend to a very large extent on developed country markets as both suppliers of imports and outlets for exports.

Note of appreciation

Canada owes the success of its statistical system to a long-standing co-operation involving Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued co-operation and goodwill.

Statistics Canada acknowledges the contribution of the Department of Foreign Affairs and International Trade in the production of this report.

International comparisons - macroeconomic indicators



- Expressed on the basis of Purchasing Power Parities (PPPs), which adjust for international differences in price levels, Canada's output per person in 1995 was greater than that of most Group of Seven (G-7) major industrialized countries, surpassed only by the United States and Japan.
- Canada's inflation rate, as measured by the consumer price index, has been one of the lowest in the G-7 countries for a number of years. It was 2.2% in 1995. This was below the G-7 average of 2.3% and significantly less than the U.S. inflation rate of 2.8% and the OECD average of 4.4%.
- From a peak of 11.8% in the aftermath of the 1990/91 recession, Canada's unemployment rate has fallen significantly.
- Economically, Canada is the smallest of the G-7 countries. Its GDP in U.S. dollar terms accounted for 3% of the G-7 total in 1995, only half as large as that of Italy and the United Kingdom, the next largest members.

International comparisons - macroeconomic indicators 1995

Country	GDP	GDP in terms of PPPs*	GDP per Person	GDP per Person in terms of PPPs*	CPI** year-to-year % change	Short-term Interest Rate	Unemployment Rate
	billion U.S. $	billion U.S. $	U.S. $	U.S. $	%	%	%
Canada	564.6	620.2	19,100	20,979	2.2	7.1	9.5
United States	6,981.7	6,981.7	26,525	26,525	2.8	5.9	5.5
United Kingdom	1,099.7	1,075.9	18,785	18,379	3.4	6.7	8.7
France	1,549.2	1,161.0	26,641	19,965	1.7	6.6	11.6
Germany	2,420.5	1,659.6	29,652	20,331	1.9	4.5	8.2
Japan	4,960.7	2,652.3	39,606	21,176	0.1	1.2	3.1
Italy	1,091.1	1,119.3	19,039	19,531	5.4	10.5	...
Major Industrialized Countries (G-7)	**18,667.5**	...	**27,711**	...	**2.3**	...	**6.8**
Mexico	234.8	644.3	2,476	6,794	35.5	48.4	...
OECD (Total)	22,221.3	...	22,676	...	4.4	...	7.5

* Purchasing Power Parities (PPPs) adjust for international differences in price levels

** CPI: Consumer Price Index

... figures not appropriate or not applicable

Source: OECD, Main Economic Indicators

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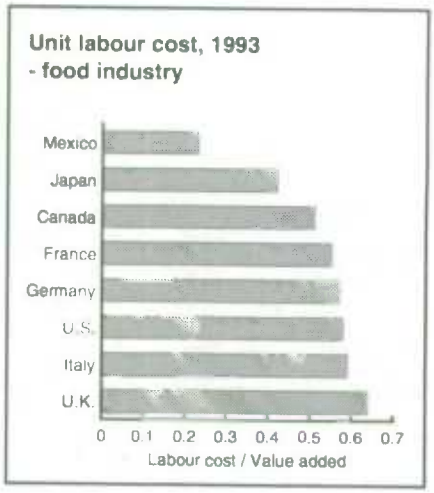
International comparisons - food processing industries

- The Canadian food industry is the smallest of any G-7 country, but one of the more productive. Using PPPs to eliminate price differences between countries, Canada is third to Italy (a surprisingly strong performer, according to OECD data) and the United States in productivity, as measured by value added per worker, and well ahead of all the other G-7 countries. On a U.S. dollar basis, value added per worker in Canada ranked fourth among the G-7 countries behind Japan, the United States and Italy, and ahead of France, Germany, and the United Kingdom.

- Canadian labour compensation per worker in the food industry was US$29,338 in 1993 (the latest year for which data are available), slightly lower than the G-7 average. Canada's labour compensation per worker was the third highest in the G-7 following the United States (US$34,668) and France (US$32,484). Italy reported the lowest labour compensation per worker (US$24,164), followed by Germany (US$25,744), the United Kingdom (US$27,562) and Japan (US$27,674).

- Canada's unit labour costs (labour cost per unit of ouput) were third lowest in the G-7, after Italy and Japan. France was fourth, followed by the United States, Germany and the United Kingdom.



International comparisons - Food processing industries 1993

Country	Value added (U.S. $)	Value added (PPP*)	Value added per worker (U.S. $)	Value added per worker (PPP)	Number employed ('000)	Labour compensation per worker (U.S. $)	Unit labour cost**
	millions						
Canada	10,559	10,810	57,076	58,435	185	29,338	0.51
United States	89,711	89,711	60,128	60,128	1,492	34,668	0.58
United Kingdom[1]	21,005	19,628	43,132	40,304	487	27,562	0.64
France[1]	29,344	24,445	56,648	47,192	518	32,484	0.57
Germany[1]	29,679	22,585	43,517	33,115	682	25,744	0.59
Japan	112,079	67,621	65,929	39,777	1,700	27,674	0.42
Italy	17,753	18,214	59,573	61,120	298	24,164	0.41
Major industrialized countries (G-7)	**310,129**	**253,014**	**57,838**	**47,186**	**5,362**	**29,691**	**0.65**
Mexico	13,604	23,321	25,814	44,253	527	5,934	0.23

* Purchasing Power Parities (PPPs) adjust for international differences in price levels

** Labour compensation/value added

[1] 1992 data

Source: OECD, Structural Analysis (STAN) Database

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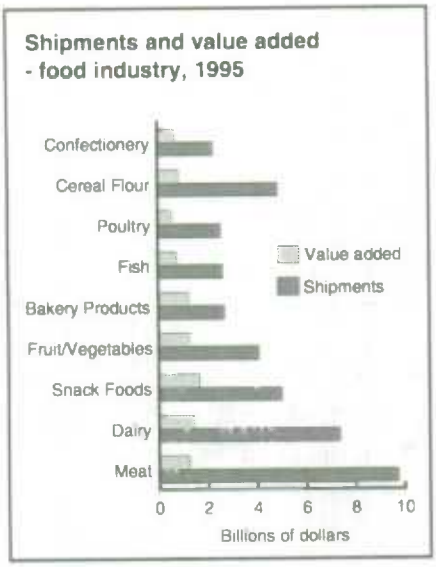
Production - shipments



- Generally weak domestic and international demand was reflected in total shipments of Canadian processed food products increasing by only 12% during the 1990-95 period, reaching a total value of $43.2 billion in 1995.

- Shipments between 1990 and 1995 varied dramatically by industry. The largest gains were in shipments of vegetable oil, specifically canola oil, which increased by 51% to $1.2 billion in 1995. Canola oil has become the oil preferred by restaurants, caterers and food processors.

- At $4 billion, shipments of processed fruits and vegetables had risen 26% by 1995 from their 1990 level of $3.2 billion, reflecting changes in consumer tastes and an increasing awareness of the value of fruits and vegetables to a healthy diet.

- Between 1990 and 1995, the value of shipments by Canadian fish processors remained almost unchanged at $2.6 billion despite higher prices, a consequence of declining fish stocks rather than any change in consumer demand.

- Shipments by dairies fell almost 2.5% between 1990 and 1995, dropping to a level of $7.3 billion. Factors contributing to the weaker demand included a smaller proportion of children and teenagers in the population, increased immigration from countries where milk products are not prominent in the diet, and the increased access and popularity of imported cheeses and other dairy products. Cheese accounts for more than half of the total value of shipments by the dairy industry, totalling almost $2.5 billion in 1993. A third of cheese shipments are cheddar, the most popular Canadian cheese.

Shipments

							Rates of change		
								Compound average annual rate	Cumulative increase/ decrease
	1990	1991	1992	1993	1994	1995*	1994-95	1990-95	1990-95
	millions of dollars						%		
Meat & meat products (except poultry)	8,956	8,494	8,506	9,223	9,624	9,715	0.9	1.6	8.5
Poultry products	2,244	2,321	2,264	2,458	2,493	2,554	2.4	2.6	13.8
Fish	2,645	2,597	2,462	2,538	2,670	2,642	-1.0	-0.0	-0.1
Fruits & vegetables	3,235	3,298	3,294	3,506	3,817	4,079	6.9	4.7	26.1
Dairy	7,537	7,570	7,443	7,318	7,290	7,350	0.8	-0.5	-2.5
Flour, cereal & feed	4,204	3,931	4,153	4,387	4,670	4,870	4.3	3.0	15.8
Vegetable oil (except corn)	805	829	971	1,071	1,073	1,221	13.8	8.7	51.7
Bakery products	2,413	2,372	2,529	2,600	2,663	2,688	0.9	2.2	11.4
Sugar & confectionery	1,781	1,699	1,925	2,109	2,224	2,260	1.6	4.9	26.9
Snack foods	4,090	4,421	4,503	4,391	4,721	4,995	5.8	4.1	22.1
Other food products	672	682	898	691	799	855	7.0	4.9	27.2
Total food	**38,582**	**38,214**	**38,948**	**40,292**	**42,044**	**43,229**	**2.8**	**2.3**	**12.0**
Total Manufacturing	**299,195**	**280,504**	**286,307**	**309,963**	**349,895**	**385,059**	**10.0**	**5.2**	**28.7**

Source: Industry Division
* first 3 quarters of 1995 plus last quarter of 1994

For more information: Henry Glouchkow (613) 951-9833

Production - value added

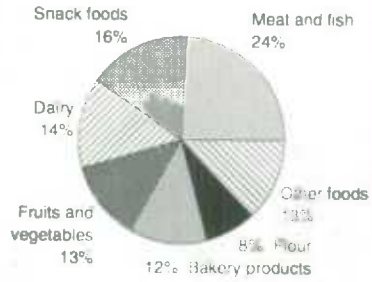
- Value added per worker in the food industry increased a sizeable 16%, from $47,720 in 1990 to $55,500 in 1995 (measured in constant dollars at factor cost). Gains in labour productivity were the result of plant consolidation, sustained levels of capital investment (technology), as well as increases in output attributable to steady population growth.

- Value added by the food processing industry amounted to $10.2 billion in 1995, representing 10% of all value-added in the manufacturing sector.

- Value added within the food processing sector accounts for only 24% of the value of shipments (measured by gross domestic product at factor cost). An estimated 35% of the value of shipments represents the value of the primary farm products, with the rest being inputs supplied by ancillary industries such as those producing containers and packaging materials.

- The largest increases in value-added over the 1990-95 period were in the relatively small other food products and vegetable oil sectors (108% and 69% respectively) and the more significant fruit and vegetable processing sector (23%). Value-added in the fish processing sector fell by 18% between 1990 and 1995, mainly the result of declining fish stocks and a reduced catch, while in the dairy sector value added slipped by 10%, mainly because of the changing tastes and preferences of an aging and increasingly diverse Canadian population.

Value added - food industry, 1995



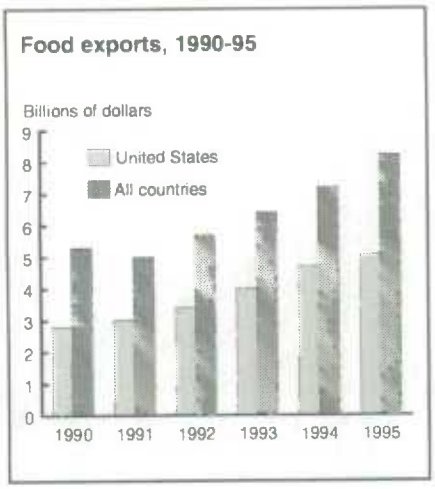
Value added - GDP at factor cost

	1990	1991	1992	1993	1994	1995*	Rates of change 1994-95	Compound average annual rate 1990-95	Cumulative increase/ decrease 1990-95
	millions of constant (1986) dollars							%	
Meat	1,216	1,189	1,192	1,156	1,188	1,218	2.5	0.0	0.2
Poultry	435	435	436	453	504	516	2.4	3.5	18.6
Fish	897	849	747	779	769	738	-4.0	-3.8	-17.7
Fruits & vegetables	1,048	1,076	1,036	1,125	1,205	1,291	7.1	4.3	23.2
Dairy	1,577	1,497	1,419	1,411	1,430	1,416	-1.0	-2.1	-10.2
Flour, cereal & feed	817	779	798	806	818	832	1.7	0.4	1.8
Vegetable oil (except corn)	98	103	124	135	149	166	11.4	11.1	69.4
Bakery products	1,152	1,153	1,214	1,222	1,229	1,233	0.3	1.4	7.0
Sugar & confectionery	548	531	635	668	684	669	-2.2	4.1	22.1
Snack foods	1,408	1,521	1,566	1,525	1,599	1,655	3.5	3.3	17.5
Other food products	225	508	623	551	508	468	-7.9	15.8	108.0
Food	**9,421**	**9,641**	**9,790**	**9,831**	**10,083**	**10,202**	**1.2**	**1.6**	**8.3**
Total manufacturing	**92,856**	**86,285**	**87,421**	**91,586**	**97,976**	**102,443**	**4.6**	**2.0**	**10.3**

Source: Industrial Monitor
*first 3 quarters 1995 plus last quarter 1994

For more information: Lyle Sager (613) 951-9164

Canadian exports and imports



- The 1990-91 recession reduced Canadian food exports by 5%. Food exports rebounded by a vigorous 13% in 1992, reflecting the general improvement in world economic conditions and NAFTA, which further liberalized North American trade. Since 1992, export growth has been averaging 7% a year, producing growth of 55% over the 1990-95 period.

- The food processing industry accounts for about 4% of Canada's merchandise trade. Although Canada has always traded heavily in food products, Canada's export orientation (exports/shipments) rose from 14% in 1990 to 19% in 1995, with exports totalling $8.2 billion.

Canadian exports & imports by industry

							Rates of change		
								Compound average annual rate	Cumulative increase/ decrease
	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1994-95**	**1990-95**	**1990-95**
	millions of dollars						%		
Exports of:									
Meat	1,432	1,221	1,450	1,720	1,843	2,150	16.7	8.5	50.1
Poultry	20	23	19	23	32	63	96.9	25.8	215.0
Fish	2,134	1,907	1,872	1,852	1,965	2,096	6.7	-0.4	-1.8
Fruits & vegetables	228	217	250	331	408	515	26.2	17.7	125.9
Dairy	202	203	207	177	205	268	30.7	5.8	32.7
Flour, cereal & feed	324	324	390	415	535	628	17.4	14.2	93.8
Vegetable oil (except corn oil)	115	158	222	305	366	374	2.2	26.6	225.2
Bakery products	162	175	226	291	357	417	16.8	20.8	157.4
Sugar & confectionery	206	246	319	370	437	504	15.3	19.6	144.7
Other food products	495	558	722	877	1,035	1,211	17.0	19.6	144.6
Total food exports	**5,318**	**5,032**	**5,677**	**6,361**	**7,183**	**8,226**	**14.5**	**9.1**	**54.7**
Imports of:									
Meat	788	848	842	970	1,096	1,056	-3.6	6.0	34.0
Poultry	140	133	159	189	206	233	13.1	10.7	66.4
Fish	618	651	707	895	1,051	1,185	12.7	13.9	91.7
Fruits & vegetables	895	937	1,050	1,083	1,206	1,292	7.1	7.6	44.4
Dairy	164	168	190	211	288	310	7.6	13.6	89.0
Flour, cereal & feed	286	340	428	496	587	602	2.6	16.1	110.5
Vegetable oil (except corn oil)	194	215	220	264	283	309	9.2	9.8	59.3
Bakery products	188	211	266	303	344	375	9.0	14.8	99.5
Sugar & confectionery	745	630	738	852	995	1,009	1.4	6.3	35.4
Other food products	1,054	1,167	1,293	1,487	1,826	1,789	-2.0	11.2	69.7
Total food imports	**5,072**	**5,300**	**5,893**	**6,750**	**7,882**	**8,160**	**3.5**	**10.0**	**60.9**

Source: International Trade Division

For more information: Bob Gordon (613) 951-9797

- Almost all sectors of the food products industry registered export increases between 1990 and 1995. Exports increased by $2.9 billion over this period to a total of $8.2 billion. The largest increases in value terms were for meat products, exports of which increased by $718 million (50%) between 1990 and 1995, followed by the other food products category ($716 million or 145%), flour and cereal ($304 million or 94%), sugar and confectionery ($298 million or 145%), and frozen fruits and vegetables ($287 million or 126%).

- The United States continues to be Canada's largest single export market, the destination of over 62% of exports by the Canadian food industry. Following the signing of the CUSTA, exports to the United States increased by $2.2 billion between 1990 and 1995, a 76% increase.

- North American, Japanese and South East Asian markets were the best export growth areas for the food industry from 1991 to 1995, but Canada has lost markets and market share in the European Union (EU) following the 1990-91 recession.

- Imports of processed food products have grown steadily since 1990. The largest increases were in imports from the United States, which rose by $2.2 billion (79%) between 1990 and 1995. The higher level of Canadian food imports from the United States was virtually offset by increased food exports by Canada to the United States, producing a substantial increase in the value of two-way trade since the signing of the CUSTA in 1990.

- Significant increases also occurred in food imports from the EU, which rose by $204 million or 34% between 1990 and 1995.

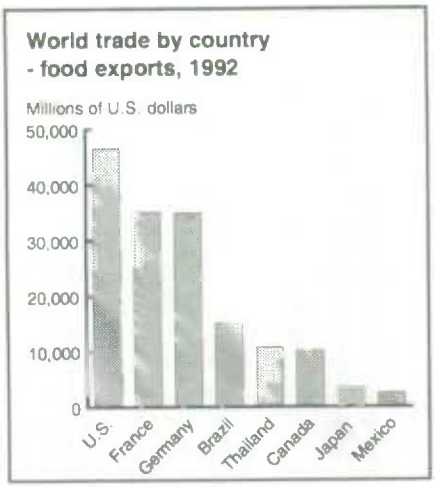
Canadian exports & imports by country

							Rates of change		
								Compound average annual rate	Cumulative increase/ decrease
	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1994-95**	**1990-95**	**1990-95**
	millions of dollars							%	
Exports to:									
United States	2,881	3,017	3,434	3,998	4,708	5,078	7.9	12.0	76.3
Mexico	89	32	67	51	61	65	6.6	-6.1	-27.0
European Union of which:	649	558	571	466	449	532	18.5	-3.9	-18.0
United Kingdom	190	151	145	117	132	148	12.1	-4.9	-22.1
France	103	108	102	84	82	92	12.2	-2.2	-10.7
Germany	65	61	69	74	59	68	15.3	0.9	4.6
Japan	959	799	922	1,107	1,176	1,449	23.2	8.6	51.1
China	7	8	8	20	60	112	86.7	74.1	1 500.0
All countries	**5,318**	**5,032**	**5,677**	**6,361**	**7,183**	**8,226**	**14.5**	**9.1**	**54.7**
Imports from:									
United States	2,788	3,084	3,539	4,121	4,780	4,989	4.4	12.3	78.9
Mexico	25	17	18	23	33	62	87.9	19.9	148.0
European Union of which:	596	601	651	673	756	800	5.8	6.1	34.2
United Kingdom	120	123	135	127	139	141	1.4	3.3	17.5
France	62	68	78	77	79	83	5.1	6.0	33.9
Germany	75	76	84	80	101	102	1.0	6.3	36.0
Japan	30	25	24	28	34	31	-8.8	0.7	3.3
China	22	28	51	94	130	142	9.2	45.2	545.5
All countries	**5,072**	**5,300**	**5,893**	**6,750**	**7,882**	**8,160**	**3.5**	**10.0**	**60.9**

Source: International Trade Division

For more information: Bob Gordon (613) 951-9797

World trade



- On a global basis the most widely traded processed foods were meat products, with 20% of all 1992 trade, followed by fish products (14%), fruits and vegetables (11%) and dairy products (11%).
- World exports of food products totalled US$437 billion in 1992, the most recent year for which data are available. Canada's share of that trade was approximately US$10 billion, or 2%, the same proportion as Australia, Argentina and Thailand.
- In value terms, the largest exporter of food products was the United States, with US$47 billion, or 11% of the world total.
- The world's principal importers of food products in 1992, the most recent year for which data are available, were Germany (US$53 billion), Japan (US$46 billion), the United States (US$37 billion), France (US$35 billion), the United Kingdom (US$31 billion) and Italy (US$31 billion).

Note: The World Trade Data Base (WTDB), compiled from data submitted by member countries to the United Nations, uses a broader product classification - the Standard International Trade Classification - than the Harmonized System used for Canadian merchandise trade data. The data are subject to fairly extensive reconciliation to eliminate discrepancies in counterpart entries reported by trading partners. As a result, direct comparison of Canadian merchandise trade data and the WTDB is not feasible. Nevertheless, the WTDB yields useful insights on global trading patterns.

World trade by industry

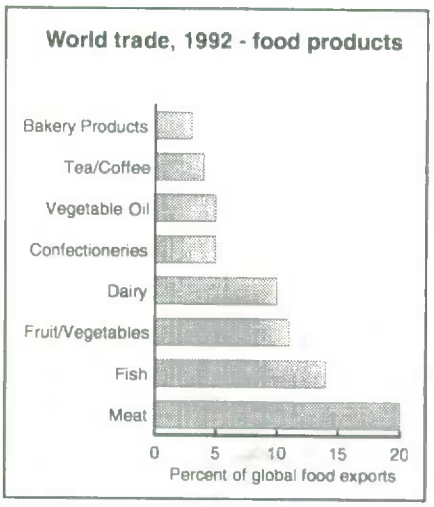
						Rates of change	
	1988	1989	1990	1991	1992	Compound average annual rate 1988-1992	Cumulative increase/ decrease 1988-1992
	millions of U.S. dollars					%	
Meat	67,141	71,279	77,544	77,991	83,858	5.7	24.9
Poultry	6,601	7,431	8,913	10,426	11,914	15.9	80.5
Fish	46,877	47,382	52,236	57,713	59,724	6.2	27.4
Fruits & vegetables	35,847	37,882	44,023	46,823	49,963	8.7	39.4
Dairy	39,330	40,059	40,789	43,121	49,132	5.7	24.9
Flour, cereal & feed	16,229	18,400	20,172	21,517	23,503	9.7	44.8
Vegetable oil (except corn)	22,302	21,029	19,084	18,837	21,266	-1.2	-4.6
Bakery products	7,115	7,876	9,537	10,622	12,006	14.0	68.7
Sugar & confectionery	32,331	33,056	38,799	38,156	40,692	5.9	25.9
Snack food	616	655	754	831	883	9.4	43.3
Other food products	73,717	75,549	77,400	83,089	83,732	3.2	13.6
Total food	**348,106**	**360,598**	**389,251**	**409,126**	**436,675**	**5.8**	**25.4**

Source: International Trade Division

For more information: Bob Gordon (613) 951-9797

- The countries with the greatest growth in demand for processed food imports during the 1988-92 period were Mexico (136%), Portugal (85%), Spain (80%), Indonesia (79%), and Turkey (66%). Over the same period, there was an increase of 32% (or US$53 billion) in food imports by the EU, and 12% (US$4 billion) by the United States.

- The highly industrialized countries continue to be the largest exporters of food products, the European Union accounting for 50% of global food exports, and all OECD countries for around 70%.



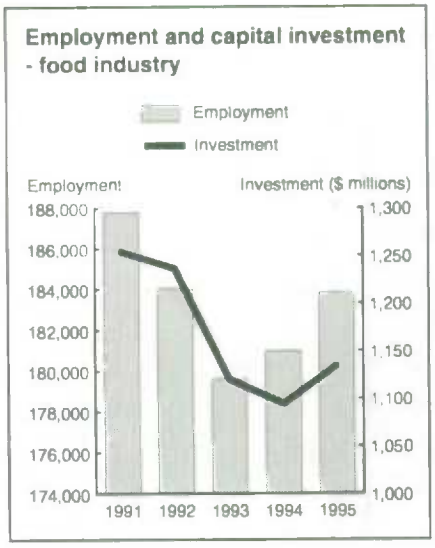
World trade by country

						Rates of change	
	1988	1989	1990	1991	1992	Compound average annual rate 1988-92	Cumulative increase/ decrease 1988-92
	millions of U.S. dollars					%	
Exports by:							
Canada	9,133	8,824	9,716	9,327	10,072	2.5	10.3
United States	34,482	36,264	37,760	40,494	46,586	7.8	35.1
Mexico	2,853	2,860	2,517	2,635	2,424	-4.0	-15.0
European Union	150,057	157,526	177,809	189,530	209,426	8.7	39.6
France	24,233	26,166	30,179	31,131	35,031	9.7	44.6
Germany	26,839	26,811	29,771	33,106	34,891	6.8	30.0
Japan	3,355	3,248	3,186	3,318	3,343	-0.1	-0.4
Thailand	8,173	10,647	10,094	11,782	10,797	7.2	32.1
Brazil	17,005	15,203	14,275	13,085	15,127	-2.9	-11.0
All countries	**348,106**	**360,598**	**389,251**	**409,126**	**436,675**	**5.8**	**25.4**
Imports by:							
Canada	7,149	7,755	9,359	9,948	10,737	10.7	50.2
United States	32,968	33,566	35,311	35,203	36,938	2.9	12.0
Mexico	2,690	4,135	5,218	5,033	6,360	24.0	136.4
European Union	166,624	167,377	187,550	200,524	219,568	7.1	31.8
France	26,725	27,862	30,562	32,287	34,895	6.9	30.6
Germany	35,963	35,530	42,512	47,021	52,520	9.9	46.0
Japan	36,246	37,298	37,222	40,745	45,643	5.9	25.9
Thailand	1,575	1,736	2,077	2,336	2,735	14.8	73.7
Brazil	785	2,285	2,333	2,587	1,731	21.9	120.5
All countries	**348,106**	**360,598**	**389,251**	**409,126**	**436,675**	**5.8**	**25.4**

Source: International Trade Division

For more information: Bob Gordon (613) 951-9797

Capital investment



- Increasing demand and consolidation of manufacturing establishments have contributed to steady improvements in the industry's capacity utilization rate, from 79.1 in 1991 to 82.1 in 1995.
- The net capital stock for the food processing industry grew by almost 5% overall between 1991 and 1995.
- The food industry is not particularly capital intensive. In 1995, net capital stock per worker of almost $48,000, was about half the corresponding figure for the manufacturing industry as a whole.
- Overall, capital spending in the food sector moderated between 1991 and 1995. However, capital investment in the vegetable oil processing sector increased from $9 million to $62 million over the period, and it rose by $39 million (29%) in the bakery products sector.
- A moderate increase in the net capital stock, together with declining employment from 1991 to 1995, produced a 10% increase in the capital/labour ratio.

Capital Investment

						Rates of change		
							Compound average annual rate	Cumulative increase/ decrease
	1991	1992	1993	1994	1995	1994-95	1991-95	1991-95
	millions of dollars					%		
Capital Expenditures								
Meat & poultry	161	164	170	196	160	-18.4	-0.2	-0.6
Fish	89	54	57	75	51	-32.0	-13.0	-42.7
Fruits & vegetables	210	107	131	101	97	-4.0	-17.6	-53.8
Dairy	232	244	188	170	171	0.6	-7.3	-26.3
Flour, cereal & feed	140	153	129	78	126	61.5	-2.6	-10.0
Vegetable oil (except corn)	9	20	21	49	62	26.5	62.0	588.9
Bakery products	133	158	119	145	172	18.6	6.6	29.3
Sugar & confectionery	102	107	127	82	80	-2.4	-5.9	-21.6
Other food products	178	229	178	198	215	8.6	4.8	20.8
Total Food	**1,254**	**1,236**	**1,120**	**1,094**	**1,134**	**3.7**	**-2.5**	**-9.6**
Capital stocks (current dollar estimates)								
Net stocks	8,725.3	8,664.3	8,724.4	9,017.8	9,141.2	1.4	1.2	4.8
Gross stocks	17,391.4	17,396.4	17,807.8	18,619.7	19,032.0	2.2	2.3	9.4
Performance measures:								
Capacity utilization rate	79.1	80.2	79.6	82.0	82.1	0.1	0.9	3.8
Capital / labour ratio	43,407.8	45,483.2	46,895.8	47,330.2	47,793.1	1.0	2.4	10.1
Output / capital ratio**	118.3	117.0	116.7	117.7	116.1	-1.4	-0.5	-1.9

** GDP / capital stock (net) - constant 1986 dollars
Source: Investment & Capital Stock Division

For more information: Richard Landry (613) 951-2579

R & D/Technology

- Research and development expenditures (R & D) by the food industry were approximately $71 million in 1995, and provided direct employment for more than 700 highly skilled professionals and technicians.
- Expenditures on R & D, which represent an investment in the development of new products or processes but which companies typically treat as a current expense, were equivalent to almost 6% of food industry capital investment in 1995.
- R & D expenditures by the food industry of $71 million in 1995 were equivalent to 0.2% of industry revenues, but that understates the expenditures as it does not include the public sector funding of the 12 university and 18 federal and provincial government food research facilities involved in food research and applied molecular biology.
- Adoption of advanced technologies in the food processing industry has been fairly extensive, with over 78% of the sector reporting the adoption of at least one type of advanced technology, and almost 50% reporting the adoption of more than five technologies. Advanced technologies include, for instance, computer-aided manufacturing, automated material handling systems controlled by computers, computer controlled equipment serviced by robots, and computer controlled automated sensor equipment.

Note : Capital investment and R&D are crucial factors affecting a company's or an industry's ability to remain at the leading edge of technology. While R&D generally represents development of new or enhanced products or processes, capital investment represents investment in new plant or equipment, generally purchased from outside suppliers. Although corporate accounting practices allow R&D expenditures to be capitalized, in this report they are treated separately from capital expenditures.

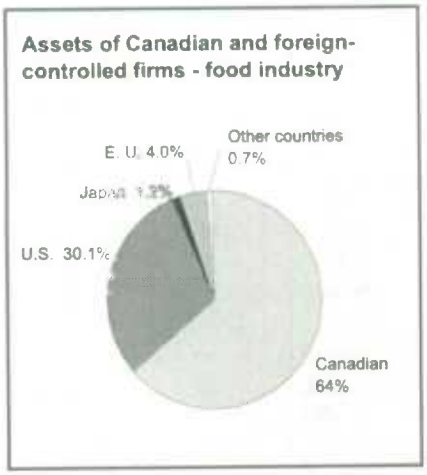
R & D/Technology

	1990	1991	1992	1993	1994	1995*	Rates of change 1994-95	Compound average annual rate 1990-95	Cumulative increase/ decrease 1990-95
	millions of dollars							%	
Expenditures									
Food industries	61	58	60	67	69	71	2.9	3.1	16.4
All industries	5,105	5,439	5,845	6,374	6,743	6,999	3.8	6.5	37.1
Number of persons engaged in R & D	persons								
Food industries	755	652	...	721	...	...			
All industries	53,240	53,730	...	60,528	...	...			
Performance measure									
R&D expenditures / shipments	4.8	3.9	3.8	4.2					

Source: Industrial Research & Development Statistics (88-202)
... figures not appropriate or not applicable
* intentions

For more information: Michel Boucher (613) 951-7683

Foreign investment indicators



- As measured by assets of foreign controlled firms, foreign ownership of the Canadian food sector, at 20%, is relatively low. Assets of Canadian controlled firms totalled $38.1 billion, or 80% of the industry total in 1992, the most recent year for which data are available. U.S. controlled companies owned assets of $6.2 billion, amounting to 13% of the industry total, followed by U.K. controlled firms with assets of $2.1 billion or 4% of the industry total. Other foreign controlled firms held less than 3% of total assets of the Canadian food industry.

- With 20% of industry assets, foreign controlled firms in the Canadian food industry accounted for 19% of operating revenues and fully 56% of the industry's net profits before tax.

- The capital structure of Canadian controlled firms in the food industry differs substantially from that of foreign controlled firms. Canadian controlled firms are more highly leveraged, with a debt-to-equity ratio of 2.1. In comparison, foreign investors such as those from the U.S. prefer equity financing, with a debt-to-equity ratio averaging 0.49.

Note: The financial and foreign investment indicators contained in this report are based on data reported by enterprises (i.e. families of companies), whereas most of the other data are based on surveys of establishments (i.e. plants). Enterprises often engage in a wide range of integrated activities, which are not easily accommodated by the conventional *Standard Industrial Classification*. For these reasons, the financial and foreign investment data use a broader industrial classification, known as the *Standard Industrial Classification for Companies and Enterprises* (SIC-C), and are not directly comparable with other data based on establishment surveys.

Foreign investment indicators 1992

Countries	Assets	Operating revenue	Net profit before tax	Net profits after tax	Dividends	Foriegn Direct Investment*
	millions of dollars					
Canada	38,103	73,893	772	555	602	...
United States	6,152	11,369	794	519	148	3,459
European Union of which:	2,448	4,897	197	130	35	761
United Kingdom	2,056	4,134	158	102	34	744
France	110	323	22	18	1	...
Germany	75	161	15	9	0	5
Netherlands	163	185	-3	-3	0	...
Other Europe	520	1,015	13	-20	0	...
Other Countries of which:	568	113	-11	-17	0	403**
Pacific Rim Countries	173	64	0	0	0	51
Total	**47,791**	**91,287**	**1,765**	**1,167**	**785**	**4,623**

... figures not appropriate or not applicable
** includes "Other Europe"
Sources: Industrial Organization & Finance Division
*Balance of Payments Division

For more information: Veronica Utovac (613) 951-3473
Christian Lajule (613) 951-2062

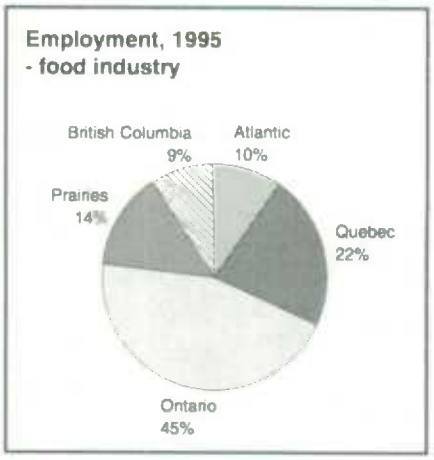
Regional indicators

- In 1995, Ontario accounted for 42% of all food industry shipments, slightly higher than its 38% share of the population. It was followed by Quebec, with 23% of shipments and 25% of the population, the Prairies with 18% (16% of the population), Atlantic Canada with 9% (8% of the population) and British Columbia with only 8% (13% of the population).

- The growth rate from 1990 to 1995, as measured by growth in shipments per year, was highest in Ontario (3.9%), closely followed by Atlantic Canada (3.2%), the Prairies (2.9%), British Columbia (2.4%), and Quebec (1.1%).

- Employment in the food processing industry fell a total of 7% between 1990 and 1995. The most badly affected region was Atlantic Canada, where job losses amounted to 35%, or 8,600 jobs. Hardest hit was Newfoundland, where 4,800 jobs - over half of the total - were lost in the 1990-95 period, largely as a consequence of declining fish stocks and their impact on the fishery.

- Prince Edward Island was the bright spot, with a 152% increase in employment, mainly in the vegetable processing sector. British Columbia lost about 2,000 jobs, or 10% of the total employment in B.C.'s food processing sector. Quebec suffered a loss of 8%, or about 3,200 jobs. Employment fell in the Prairies by 3%, or 800 jobs, and in Ontario by over 2%, or about 1,800 jobs.



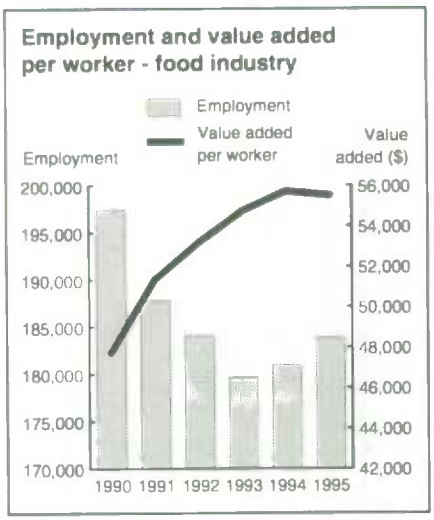
Regional indicators

							Rates of Change		
								Compound average annual rate	Cumulative increase/ decrease
	1990	1991	1992	1993	1994	1995	1994-95	1990-95	1990-95
	millions of dollars							%	
Manufacturing shipments									
Canada	**38,582**	**40,214**	**38,948**	**40,292**	**42,044**	**44,428**	**5.7**	**2.9**	**15.2**
Atlantic	3,407	3,495	3,531	3,617	3,802	3,991	5.0	3.2	17.1
Quebec	9,593	9,643	9,418	9,374	9,663	10,131	4.8	1.1	5.6
Ontario	15,359	15,173	16,073	16,763	17,472	18,585	6.4	3.9	21.0
Prairies	7,056	8,789	6,692	7,179	7,576	8,152	7.6	2.9	15.5
British Columbia	3,167	3,114	3,234	3,359	3,531	3,569	1.1	2.4	12.7
	number							%	
							1994-95	**1990-95**	**1990-95**
Employment									
Canada	**197,405**	**187,766**	**184,046**	**179,611**	**180,971**	**183,832**	**1.6**	**-1.4**	**-6.9**
Newfoundland	8,810	7,421	5,506	4,940	3,480	4,051	16.4	-14.4	-54.0
Prince Edward Island	440	317	363	376	341	1,108	224.9	20.3	151.8
Nova Scotia	8,385	9,757	9,891	7,866	8,055	6,176	-23.3	-5.9	-26.3
New Brunswick	7,172	6,488	6,611	5,915	6,584	5,286	-19.7	-5.9	-26.3
Quebec	41,135	38,615	39,762	39,119	38,206	37,921	-0.7	-1.6	-7.8
Ontario	76,510	72,063	70,014	70,419	73,476	74,702	1.7	-0.5	-2.4
Manitoba	7,539	6,889	6,298	6,003	5,312	5,947	12.0	-4.6	-21.1
Saskatchewan	3,107	2,957	3,267	2,912	2,966	3,966	33.7	5.0	27.6
Alberta	14,300	13,749	13,469	13,893	13,149	14,078	7.1	-0.3	-1.6
British Columbia (includes Yukon & NWT)	17,847	17,933	17,311	16,469	19,081	16,043	-15.9	-2.1	-10.1

Source: Industry Division
Labour Division

For more information: Bob Staveley (613) 951-3529
Steven Johnson (613) 951-4090

Employment



- Labour productivity, as measured by output per person-hour, rose by almost 17% between 1990 and 1995. During the 1990-91 recession, gains in labour productivity were mainly attributable to the introduction of labour-saving technology; since then, the gains have been attributable to increases in output.
- The food industry employed almost 184,000 people in 1995, equivalent to 11% of the total number of manufacturing jobs in Canada. Of the total number employed in the food industry, 126,000, or 69%, were hourly paid production workers.
- The introduction of advanced technology has reduced the demand for labour and, as a consequence, employment has been falling in the food sector. In 1995, it was down almost 7% from the 1990 level. Decreases in employment in the food industry have affected both production and non-production workers equally.
- Employment in the food industry was highest in the meat and poultry products sector, with a total of 46,000 employees or 25% of the total in 1995. This was followed by the bakery products sector, with 27,000 employees (15% of the total) and the dairy products sector with 24,000 (13% of the total).

Employment - number of employees

	1990	1991	1992	1993	1994	1995	Rates of change 1994-95	Compound average annual rate 1990-95	Cumulative increase/ decrease 1990-95
	number of employees							%	
Meat & poultry	45,396	42,509	45,010	44,185	46,186	45,563	-1.3	0.1	0.4
Fish	25,076	23,676	22,478	19,150	19,023	18,188	-4.4	-6.2	-27.5
Fruits & vegetables	19,511	17,242	16,247	16,492	14,723	16,529	12.3	-3.3	-15.3
Dairy	23,268	23,557	20,616	20,245	20,798	23,769	14.3	0.4	2.2
Flour, cereal & feed	17,218	17,039	14,991	16,169	16,532	15,901	-3.8	-1.6	-7.6
Vegetable oil (except corn)	880	828	815	1,070	1,090	1,549	42.1	12.0	76.0
Bakery products	30,330	27,047	27,942	27,814	27,072	27,174	0.4	-2.2	-10.4
Sugar & confectionery	8,276	8,731	9,518	9,571	8,621	11,590	34.4	7.0	40.0
Other food products	27,450	27,137	26,429	24,915	26,926	23,569	-12.5	-3.0	-14.1
Total employees	**197,405**	**187,766**	**184,046**	**179,611**	**180,971**	**183,832**	**1.6**	**-1.4**	**-6.9**
Selected data:									
Salaried employees	51,326	49,740	48,086	47,069	45,941	47,516	3.4	-1.5	-7.4
Hourly employees	137,078	130,108	126,010	122,357	125,132	126,168	0.8	-1.6	-8.0
Other employees	9,001	7,918	9,950	10,185	9,898	10,148	2.5	2.4	12.7
All employees	197,405	187,766	184,046	179,611	180,971	183,832	1.6	-1.4	-6.9
Performance measures:									
Value added per worker (constant $)	47,724	51,346	53,193	54,735	55,716	55,496	-0.4	3.1	16.3

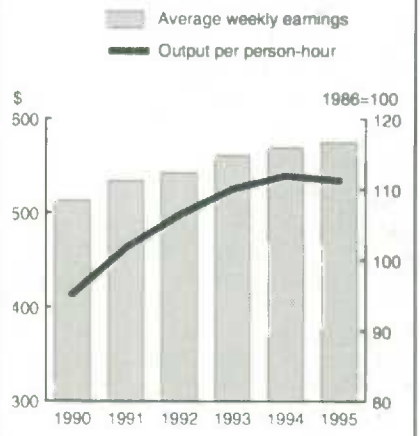
Source: Labour Division

For more information: Steven Johnson (613) 951-4090

- Despite slow growth and fewer jobs, average weekly earnings increased from 1990 to 1995, averaging an annual 2.3% increase in the 1990-95 period. At the same time, unit labour costs fell by an annual average of 0.4%.

- Hourly paid workers outnumber salaried workers by almost 3 to 1, and are paid about 38% less than salaried workers.

Average weekly earnings and output per person-hour



Employment - earnings & hours worked

							Rates of change		
	1990	1991	1992	1993	1994	1995	1994-95	Compound average annual rate 1990-95	Cumulative increase/ decrease 1990-95
	dollars						%		
Average weekly earnings*	**512.51**	**533.62**	**542.05**	**560.48**	**568.74**	**574.06**	**0.9**	**2.3**	**12.0**
Meat & poultry	492.51	510.16	522.29	532.34	528.95	546.49	3.3	2.1	11.0
Fish	394.61	408.74	398.88	417.69	418.46	445.83	6.5	2.5	13.0
Fruits & vegetables	481.72	524.25	525.11	536.42	562.90	567.74	0.9	3.3	17.9
Dairy	588.48	604.90	612.08	666.62	655.27	650.74	-0.7	2.0	10.6
Flour, cereal & feed	590.40	598.15	633.82	640.36	677.07	687.57	1.6	3.1	16.5
Vegetable oil (except corn)	676.57	707.93	738.84	774.78	751.42	677.87	-9.8	0.0	0.2
Bakery products	477.90	496.44	504.14	528.61	534.29	532.34	-0.4	2.2	11.4
Sugar & confectionary	560.40	608.19	624.97	635.87	660.17	624.29	-5.4	2.2	11.4
Other food products	580.48	590.64	605.37	595.36	610.95	593.42	-2.9	0.4	2.2
Salaried employees	**656.80**	**692.24**	**711.97**	**735.94**	**765.54**	**788.97**	**3.1**	**3.7**	**20.1**
Hourly employees	**456.47**	**471.23**	**475.42**	**493.91**	**495.43**	**492.99**	**-0.5**	**1.6**	**8.0**
	hours						%		
Average weekly hours									
Salaried employees	38.4	38.4	38.5	38.6	38.5	38.3	-0.5	-0.1	-0.3
Hourly employees	36.5	36.5	36.7	36.4	36.4	36.6	0.5	0.1	0.3
Performance measures:									
Index of output per person hour	95.1	101.7	106.3	110.0	111.9	111.2	-0.6	3.2	16.9
Index of unit labour costs	121.3	120.0	117.7	118.3	117.9	118.8	0.8	-0.4	-2.1

Source: Labour Division

* Average weekly earnings consist of wages and salaries, but excludes employee's benefits

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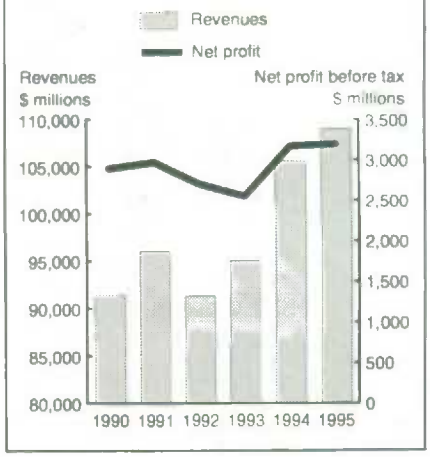
Financial indicators

- Operating revenues exhibited steady increases, rising 19.2% over the 1990-95 period to $109 billion.
- Operating profits improved by an average of 2% per year in the 1990-95 period, from $2.9 billion in 1990 to $3.2 billion in 1995. In contrast, net profits before tax remained unchanged at $2.1 billion, representing 1.9% of operating revenues in 1995, compared to 2.4% in 1990.
- Dividends have remained almost unchanged since 1990, increasing 1.5%, despite a steady decline in the return on capital employed, which fell from 7.53% in 1990 to 6.03% in 1995.
- The debt-to-equity ratio, an indicator of corporate solvency, was reduced by 6%, from 1.17 in 1990 to 1.10 in 1995, as firms repaid loans or obtained additional equity financing.

Revenues and net profit before tax - food industry



Note: The financial and foreign investment indicators contained in this report are based on data reported by enterprises (i.e. families of companies), whereas most of the other data are based on surveys of establishments (i.e. plants). Enterprises often engage in a wide range of integrated activities, which are not easily accommodated by the conventional *Standard Industrial Classification*. For these reasons, the financial and foreign investment data use a broader industrial classification, known as the *Standard Industrial Classification for Companies and Enterprises* (SIC-C), and are not directly comparable with other data based on establishment surveys.

Financial indicators

							Rates of change		
	1990	1991	1992*	1993*	1994*	1995*	1994-95	Compound avegage annual rate 1990-95	Cumulative increase/ decrease 1990-95
	millions of dollars							%	
Operating revenue	91,441	96,026	91,287	95,078	105,577	108,977	3.2	3.6	19.2
Operating profit	2,891	2,970	2,704	2,547	3,169	3,195	0.8	2.0	10.5
Net profit before income tax	2,149	2,241	1,765	1,452	1,881	2,064	9.7	-0.8	-4.0
Income taxes	663	648	644	509	748	787	5.2	3.5	18.7
Net profit after tax	1,514	1,658	1,167	964	1,166	1,339	14.8	-2.4	-11.6
Dividends	889	1,074	785	904	933	902	-3.3	0.3	1.5
Return on capital employed	7.53	7.56	5.95	5.12	5.39	6.03			
Debt/equity ratio	1.17	1.14	1.14	1.10	1.07	1.10			

* preliminary estimate

Source: Industrial Organization & Finance Division

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Glossary

Standard Industrial Classification
Industry Profiles present a broad range of data by industry, as defined by Statistics Canada's *Standard Industrial Classification* (SIC) (12-501). The SIC classifies businesses according to their principal industrial activity, with increasing levels of detail designated by 1-, 2-, 3- and 4-digit codes. Not all data are available at the 3- and 4-digit industry level. *Industry Profiles* are structured mainly at the 3-digit industry level, with some tables at the 2-digit and 4-digit level.

Sources of data
Each table refers to the main statistical source - a Statistics Canada publication or division or, in respect of international comparisons, the OECD. In addition, many of the series are available from CANSIM (the Canadian Socio-Economic Information Management System), Statistics Canada's electronic database.

International comparisons
International comparisons for the Group of Seven (G-7) major industrialized countries and Mexico are taken from the OECD's *Main Economic Indicators* and the *STAN (Structural Analysis) Database for Industrial Analysis*. For the purposes of international comparison, the data are expressed in U.S. dollars and Purchasing Power Parities (PPPs). Conversions into U.S. dollars are at average annual rates. PPPs are rates of conversion that adjust for international differences in price levels to yield better estimates of purchasing power by country. PPPs can be expressed in domestic currency terms or in U.S. dollars terms.

Shipments
Shipments are the value of goods shipped at the factory gate. They are a measure of gross output in the sense that they include the gross value of all inputs incorporated in the final product, including the value of goods purchased from other businesses. As a result, aggregate shipments include goods counted more than once - first by the initial producer and second by the firm that incorporates them in its final product. The value of shipments thus includes an element of double-counting, which is eliminated in the calculation of value added by deducting the value of purchased goods and services.

Value added
Value added is the value a firm adds in the production process to the goods and services it purchases from suppliers. It is equivalent to the value of factory shipments less the cost of materials, supplies and services purchased from other businesses. For the motor vehicle industry, for example, value added includes the value of automobiles shipped, but excludes the costs of raw steel, tires or engineering services purchased as intermediate inputs. The statistical measure of value added is known as Gross Domestic Product at Factor Cost (GDP at Factor Cost). It is calculated on a constant-dollar basis as though all costs were at their 1986 level, to remove the effects of inflation. Changes in value added are thus proportional to changes in output volumes, unaffected by price increases or decreases.
Note: *Census value added* - this measure is very similar to value added. It is equivalent to the value of shipments less the cost of intermediate goods purchased but not of services. *Census value added* has been used for levels of detail where the more comprehensive measure of value added is unavailable.

Exports and imports
Exports and imports represent the interaction between global demand and domestic supply, reflected in the flow of goods between Canada and its trading partners. In combination with data on industrial production, trade statistics show the extent of export orientation, import penetration and market shares for particular commodities or industries - key indicators of competitiveness in world markets. Trade data are compiled from customs documents and show trade by commodity classified in accordance with the international HS (Harmonized System) classification. They are converted to an industrial classification by means of a concordance, which groups commodities according to their primary producers. Imports are allocated to the industry that would normally produce them if they had been produced in Canada. By allocating imports to the equivalent producing industry, it is possible to estimate (once production and exports are taken into account) important variables such as the total supply of goods by industry and - of particular relevance for the assessment of Canadian competitiveness - import shares in the Canadian market.

World trade
The data on world trade consist of export and import statistics for all countries, not just Canada. The data are taken from Statistics Canada's *World Trade Data Base (WTDB)*, which contains estimates of global trade by and between all countries, broken down into 600 commodity categories classified according to the United Nations' *International Standard Trade Classification*. The data are compiled from information submitted by member countries to the United Nations, with imputations by Statistics Canada to deal with inconsistencies or omissions in the information reported. Industry aggregates are produced by means of a commodity-to-industry concordance. Because of the broader trade classification used for the WTDB than for Canadian trade data, and the imputation procedures used to reconcile inconsistencies in counterpart data reported by different member countries, data from the two sources cannot be compared directly.

Capital investment
Investment in capital (fixed assets) has a major impact on production, productivity, efficiency and competitiveness. Since investment goods are long-term assets, their benefits are to some extent cumulative. Key indicators of capital investment therefore include not only annual capital expenditures but also the capital stock. Capital stock is the cumulative value of capital expenditures, less depreciation and the disposal of capital equipment. It can be expressed on both a gross and a net basis, the difference between the two being the accumulated depreciation.

R&D/Technology

Research and development Expenditures (R & D), like capital investment, affect a company's ability to remain on the leading edge of technology. It encompasses both original research into new technologies, and the application of research findings or other scientific knowledge to develop new or significantly improved products, processes or services. The *R&D/ shipments ratio* takes the overall size of each industry into account by expressing expenditure on R&D as a percentage of shipments. It should be noted, however, that a company does not have to engage in R&D in order to invest in advanced technology: it can buy technologically advanced equipment "off the shelf." Measures on the use of advanced manufacturing technologies are available from Statistics Canada surveys of different types of technologies employed by Canadian businesses. Alternatively, and of ever-growing importance in an economy populated by multinational enterprises, a firm may acquire technology developed by a foreign affiliate. In this type of situation, most of the firm's R&D tends to take place in the country where the parent company maintains its head office.

Foreign Investment Indicators

Foreign direct investment - investment of a long-term nature by non-residents in a Canadian business entity carrying with it some degree of control. Control is typically exercised by means of share ownership, but may take the form of a strategic partnership or other non-arm's length relationship. Foreign direct investment may also take the form of a significant minority interest in a Canadian controlled company or investment in debt obligations of an affiliated company. *Foreign controlled firm* - a foreign controlled firm is one in which a controlling interest is held by a non-resident or by another foreign controlled firm. A controlling interest is conferred through ownership of voting equity in a corporation, and the ability to be represented on the board of directors. A controlling interest may take the form of the largest block of equity, which may be significantly less than a majority of the share capital. Moreover, voting rights may not be exercised, in which case a foreign controlled corporation may function with considerable autonomy.

Employment

Employment statistics are important indicators of the standard of living that industries support. With labour income representing almost 60% of GDP, employment is a key element of production. In the *Industry Profiles*, employment is expressed in terms of number of employees, average weekly earnings, and average weekly hours worked. The data come from the Survey of Employment, Payrolls and Hours (SEPH). SEPH asks businesses about the number of employees at each establishment but does not cover the self-employed. SEPH differs from the Labour Force Survey (LFS), which also generates information on employment, unemployment and the overall size of the labour force, but from a survey of individuals rather than of businesses.

Regional Indicators

Industrial activity differs significantly from one part of Canada to another, influenced by such factors as climate, population, topology, proximity to markets, access to sources of supply, transportation links, etc. The regional Indicators shown here are shipments taken from the Annual Survey of Manufacturers and employment taken from SEPH.

Performance Indicators

Most of these measures are shown at the 2-digit industry level: *labour productivity (output per person), capacity utilization, import penetration, export orientation, the capital/labour ratio, and capital stock (net)/GDP. Productivity* is a measure of the efficiency of different inputs employed in the production process. Labour productivity (*output per person*) is a partial productivity measure. It measures output (defined as GDP at Factor Cost) per person. It can also be expressed as an index. *Capacity utilization* measures the percentage of plant capacity being used, and is calculated as the ratio of actual output to potential output. Potential output is the maximum output obtainable from the capital stock, estimated on the basis of peak output/capital ratios. *Import penetration* shows the relative share of imports in the supply of goods available for domestic consumption. Import penetration expresses imports as a percentage of domestic supply, which in turn consists of shipments minus exports plus imports. *Export orientation* shows the proportion of gross output that is exported, expressed as exports relative to shipments.
The *capital/labour ratio* indicates how intensively capital is employed in the production process relative to labour. It is expressed as an index of the constant-dollar net capital stock divided by the number of employees. The capital/labour ratio may be expected to rise over time as companies strive to improve their productivity and competitiveness through increased capital investment. *GDP/Capital stock (net) ratio* shows the amount of output produced by a unit of capital. It indicates the efficiency of capital of an industry- the higher the ratio, the higher the output for each unit of capital.