

A PORTRAIT OF THE CANADIAN AGRI-FOOD SYSTEM

A Portrait of the Canadian Agri-Food System

Economic and Policy Analysis Directorate
Policy Branch
December 1998

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Preface

A Portrait of the Canadian Agri-Food System provides a graphical compendium of the Canadian agri-food system. In addition, it compares Canada's economic performance with those other major countries, which are either producers or consumers of agri-food commodities. The Portrait is intended to be an "easy to use" source of information for both senior management and department analysts whose interests vary widely. Its objective is to provide a convenient starting point for developing annotated "decks" which have a specific and narrower focus.

This December 1998 version of *A Portrait of the Canadian Agri-Food System* updates information contained in previous versions. Important changes to this edition include **Section 6 - International Economic and Agricultural Performance Indicators** which has been significantly revised and many of the major overview graphics now include the latest annual percentage change (usually 1996 to 1997). There have also been three new sets of graphics that have come directly from the work completed by other analysts within Agriculture and Agri-Food Canada (AAFC) or Statistics Canada (STC). These sets of graphics highlight the supply balance of major Canadian agricultural commodity, farm attitudes towards change and government - based on a farm survey undertaken last year and a comparison of the 1982 and 1996 Farm Energy Use Survey. It was felt that these works were worth highlighting in this edition of the Portrait, but we do not plan to make them regular features.

As always, we encourage you to provide your feedback. For further information about *A Portrait of the Canadian Agri-Food System*, please contact Jeff Corman at (613) 759-7415 or e-mail: cormanj@em.agr.ca.

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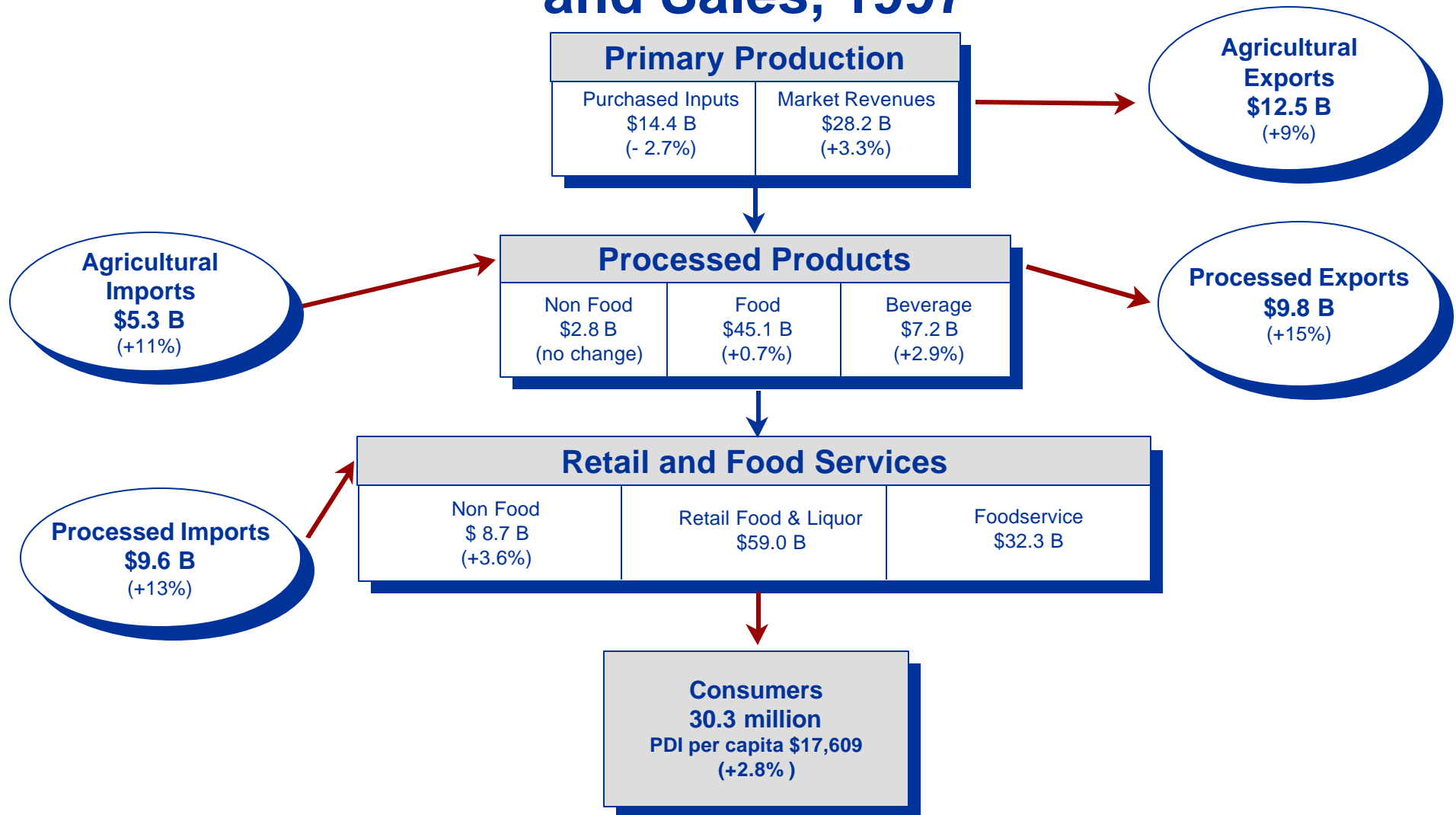
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Agri-Food System: Structure, Growth and Employment

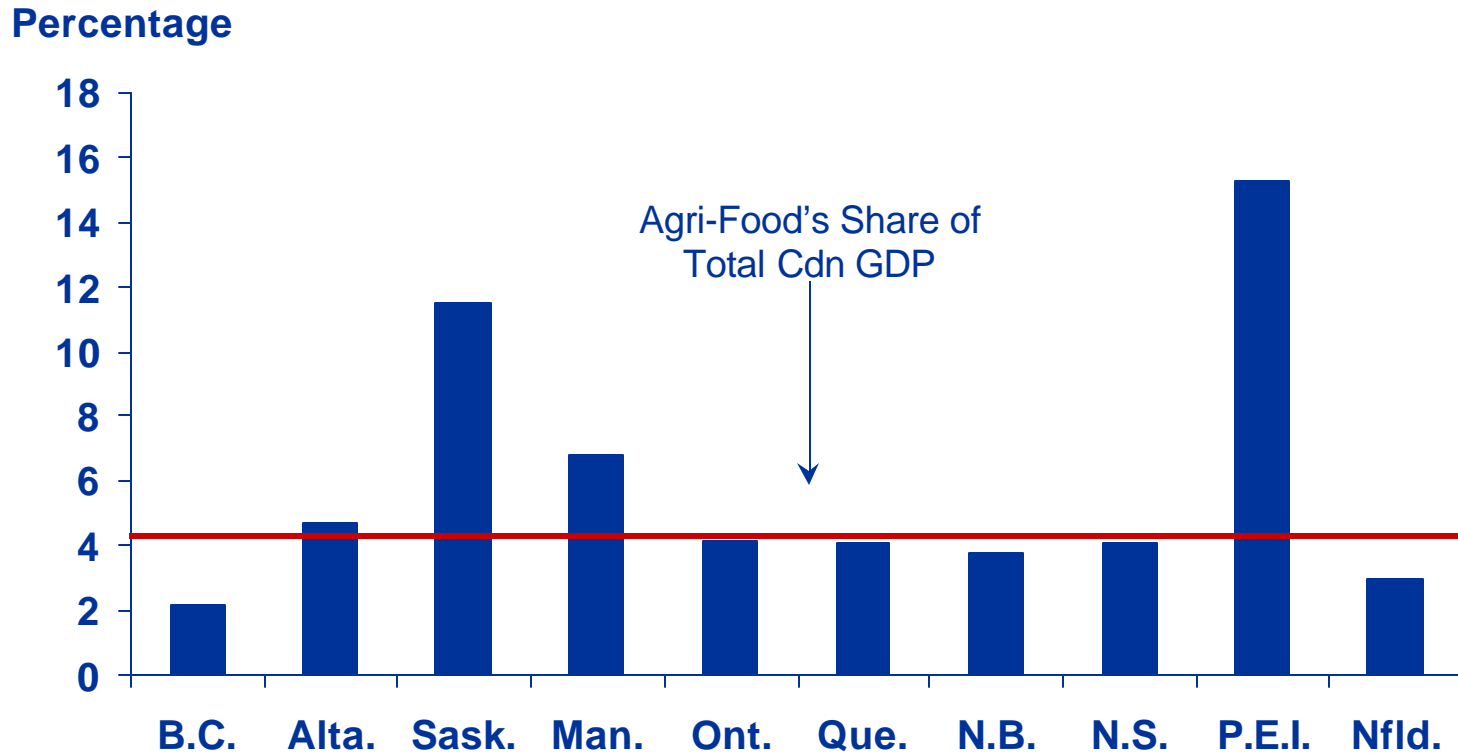
Canada Agri-Food System Value of Production and Sales, 1997



*Note: % changes are from 1996; figures for foodservice & liquor sectors are for 1996.

Sources: Statistics Canada, Agriculture Economic Statistics, Family Expenditures in Canada, AAFC - Farm Income, Financial Conditions and Government Assistance Data Book, Trade Database.

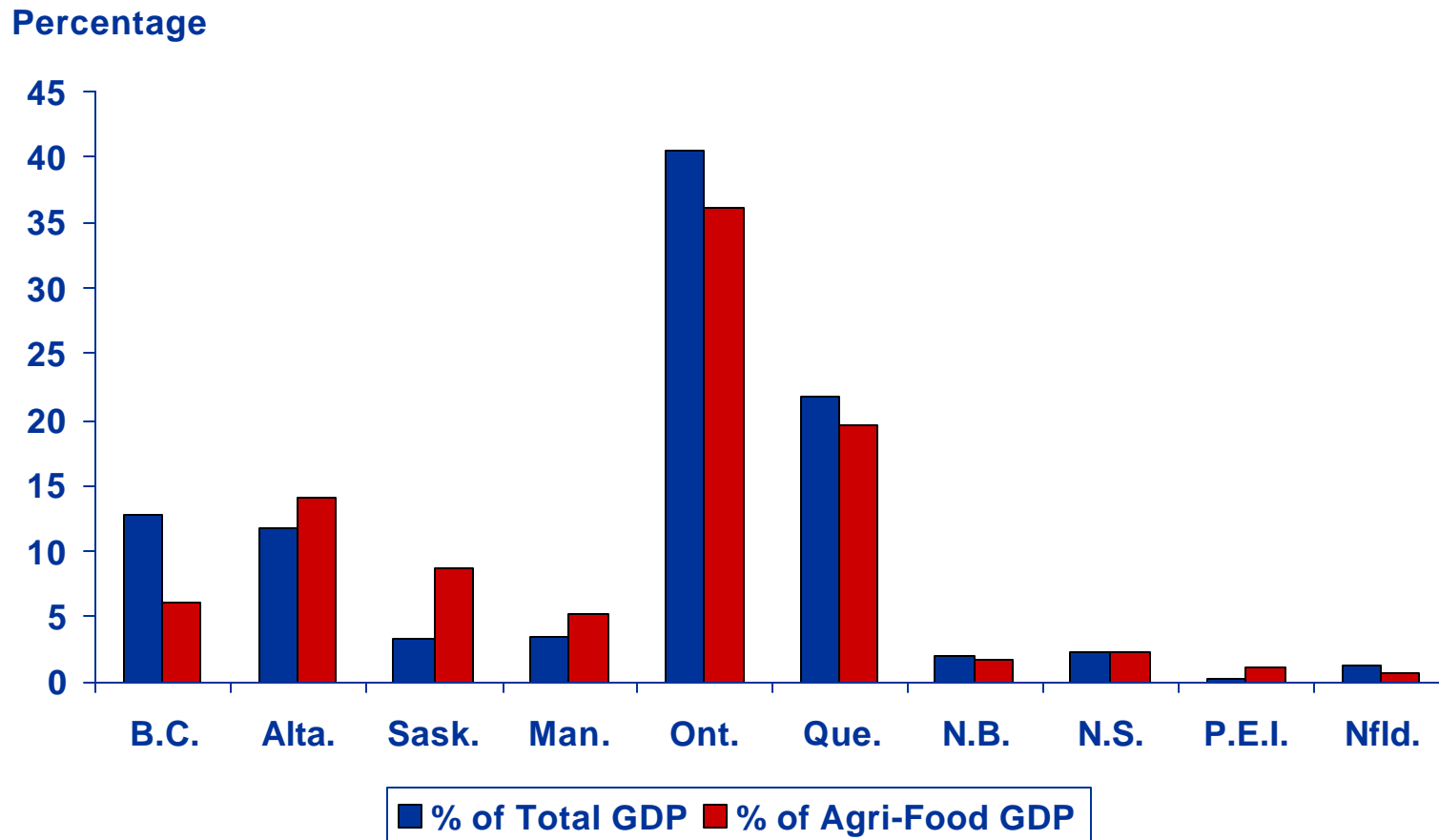
Agri-Food Share of Provincial GDP, 1997



Note: Agri-Food includes primary production, food and beverage processing.

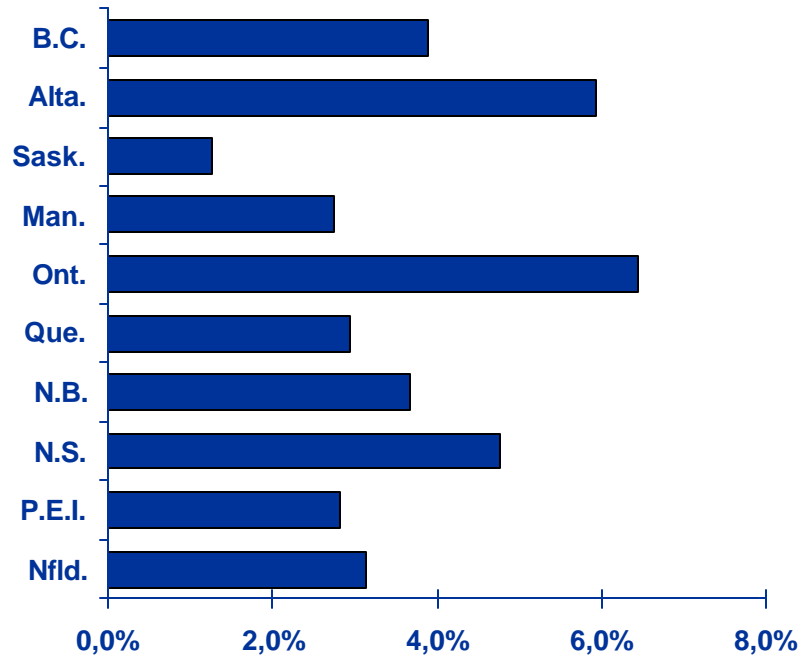
Source: Statistics Canada.

Provincial Shares of Canadian Total GDP and Agri-Food GDP, 1997

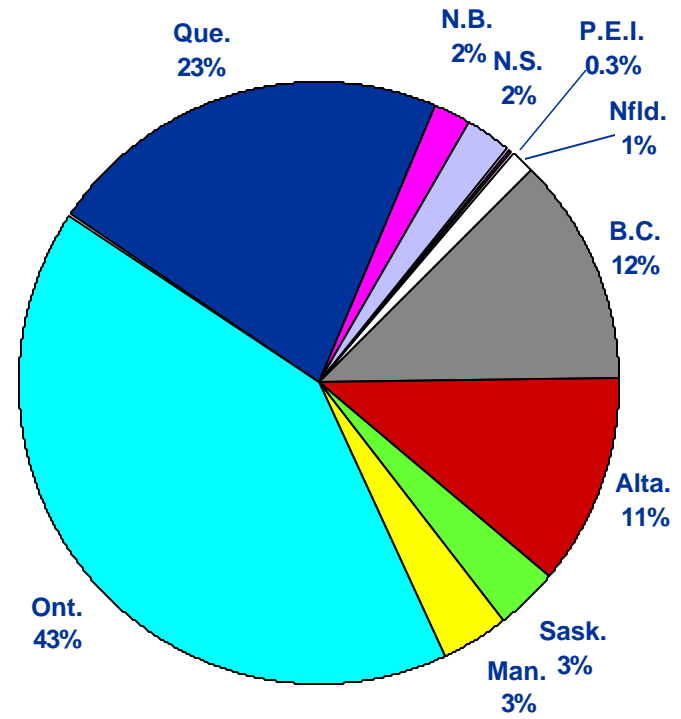


Source: Statistics Canada.

Canada GDP - Total Economy



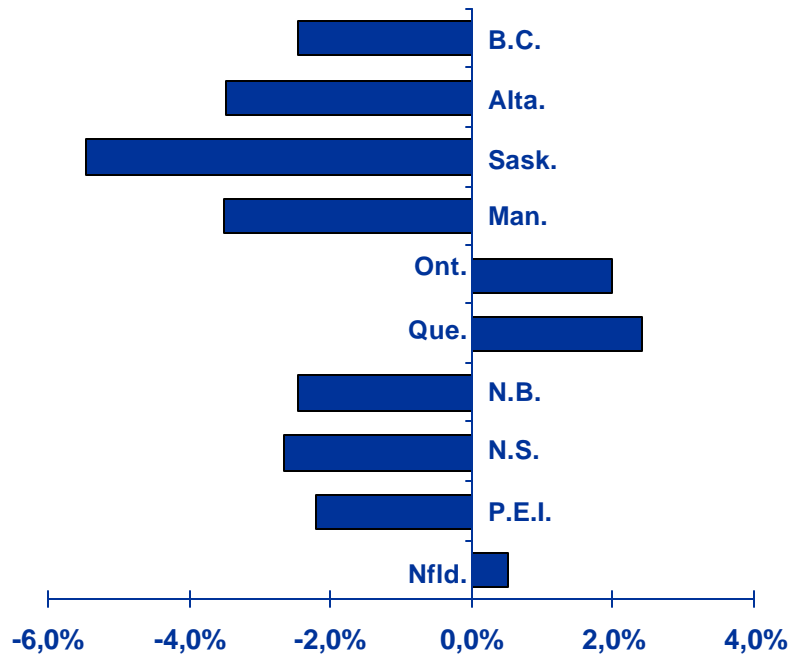
**% change in current \$ GDP
from 1996**



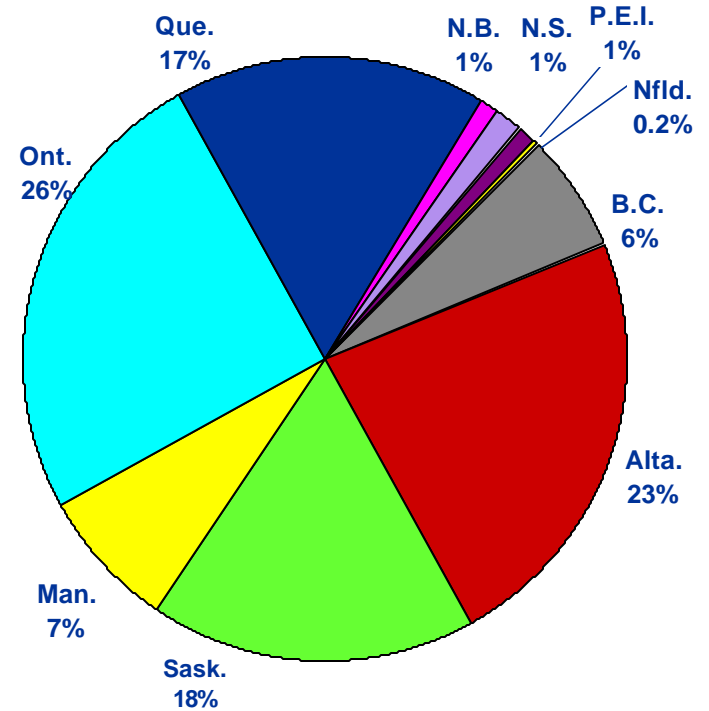
**Provincial shares of total
GDP, 1997**

Source: Statistics Canada.

Provincial Shares of Canadian Agricultural GDP, 1997



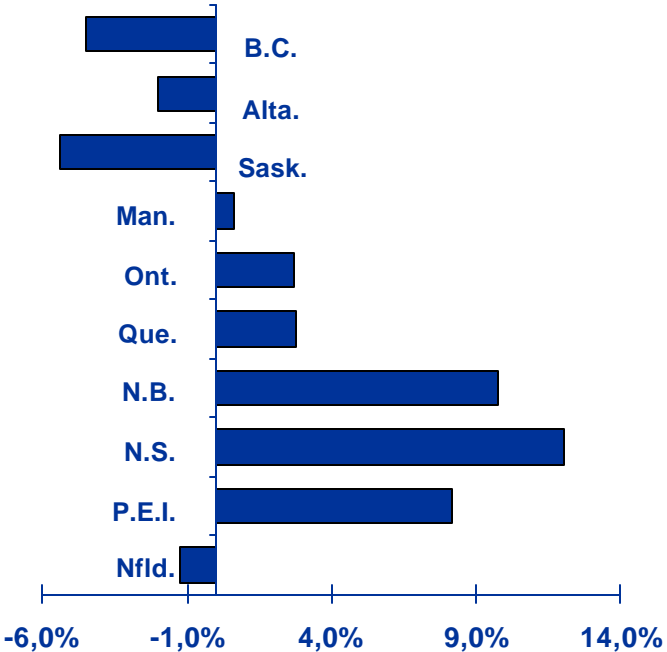
% change in current \$ GDP from 1996



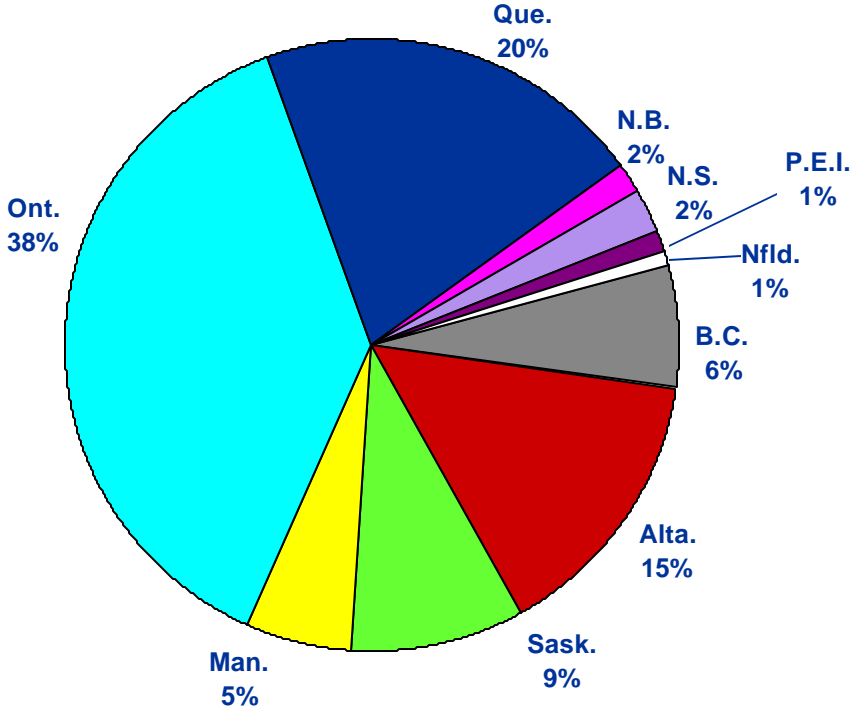
Provincial shares of total agricultural GDP, 1997

Source: Statistics Canada.

Provincial Shares of Canadian Agri-Food Processing GDP, 1997



% change in current \$ GDP from 1996

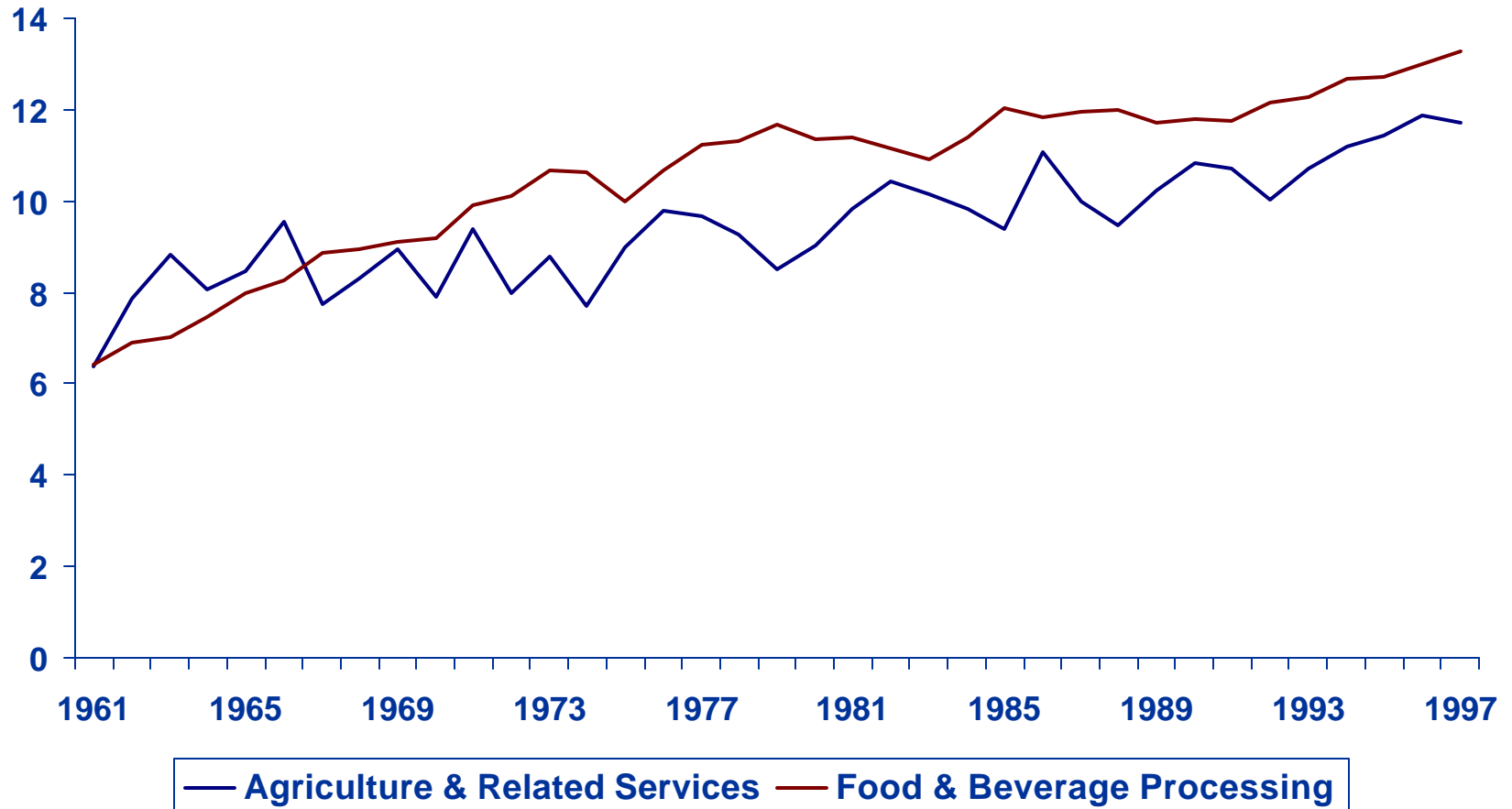


Provincial shares of total Agri-Food GDP, 1997

Source: Statistics Canada.

Real GDP Growth

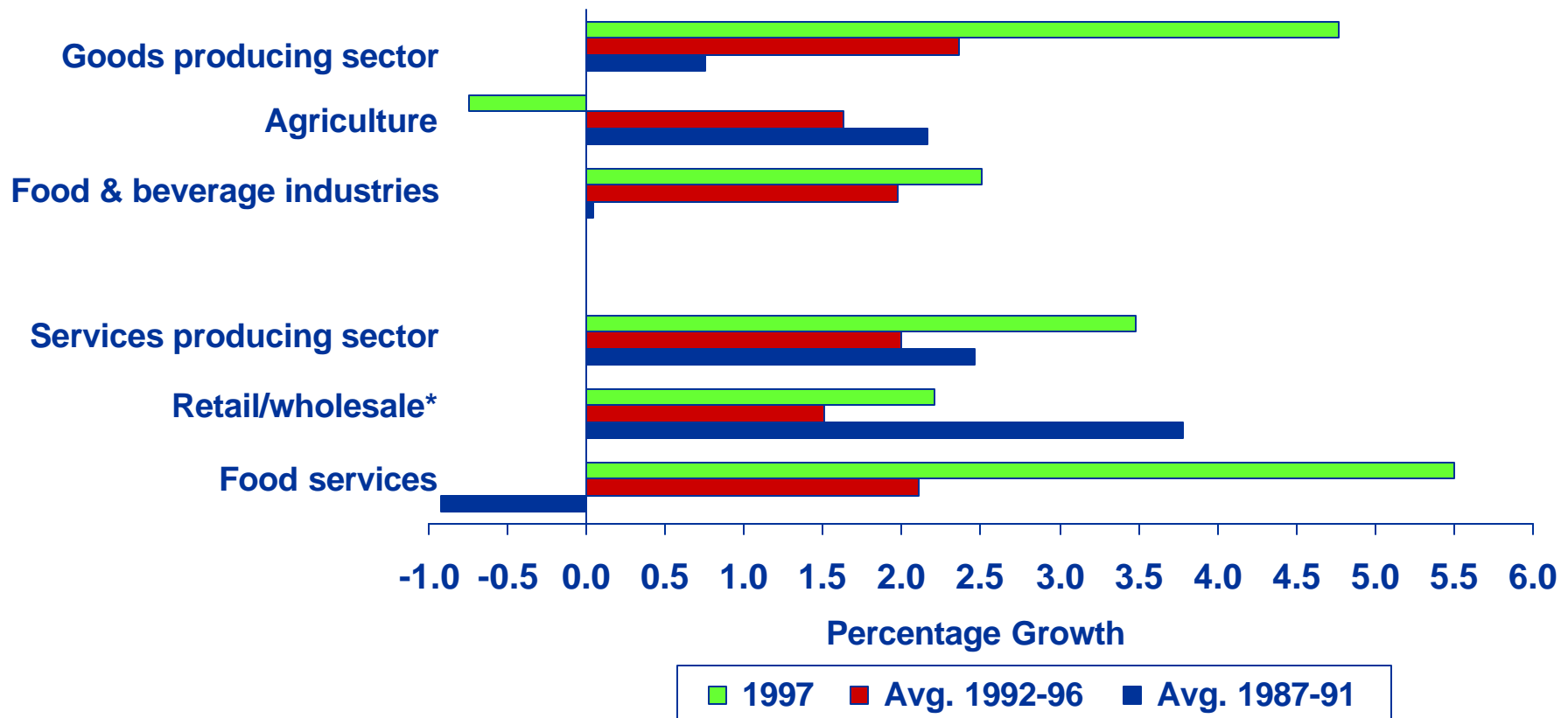
Billions of 1986 \$



Source: AAFC, Farm Income, Financial Conditions and Government Assistance Databook, February 1998.

GDP Growth

Agri-Food System Relative to Total Economy

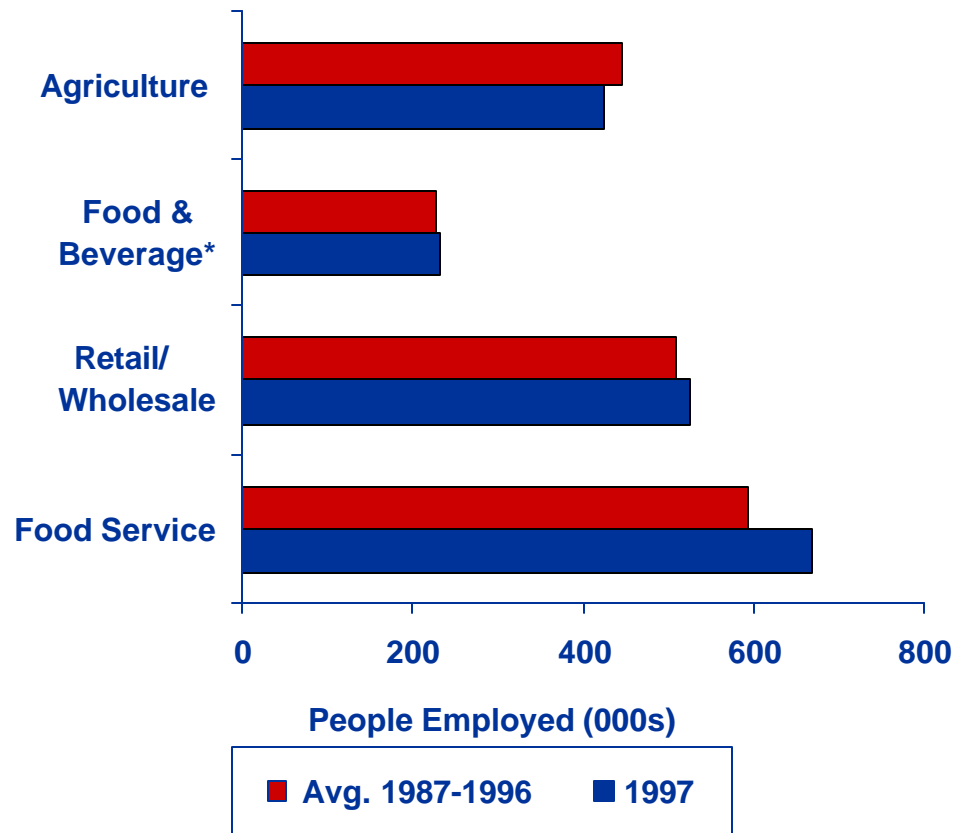


*Note: No available 1997 data for the Retail/Wholesale sector - points shown are for 1996, Avg. 1991-95, and Avg. 1986-91.

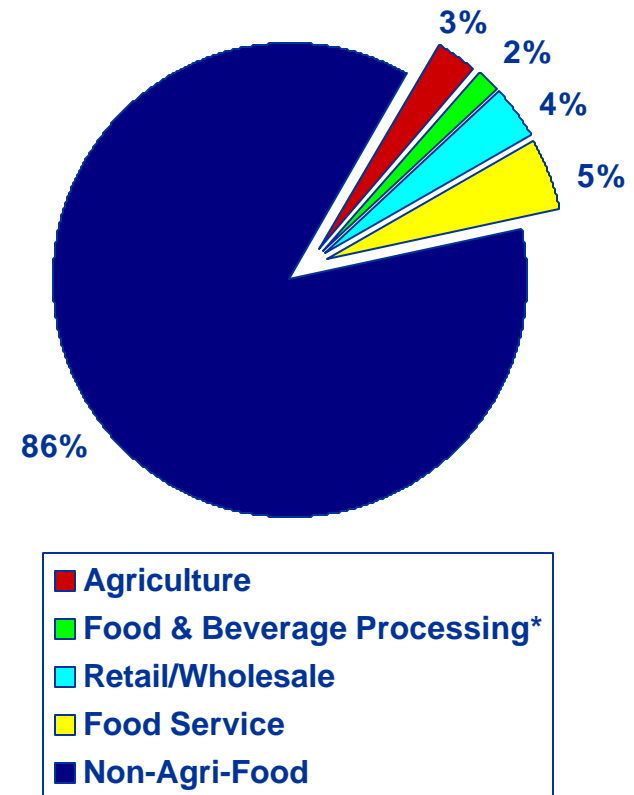
Source: Statistics Canada, Cansim.

Canada Agri-Food System Employment

Employment Growth



Employment Share 1997



*Excludes fish processing.

Source: Statistics Canada, Labour Force Survey.

Glossary of Terms

Agri-Food System

Includes the primary agriculture sector, the food and beverage and non-food processing sector, the distribution sector and the food and beverage services sector.

Agri-Food (Provincial & National GDP comparisons)

Includes agriculture and related service industries and food and beverage processing industries.

GDP (Gross Domestic Product)

Total value of final goods and services produced within a nation's border during a year.

PDI (Personal Disposable Income)

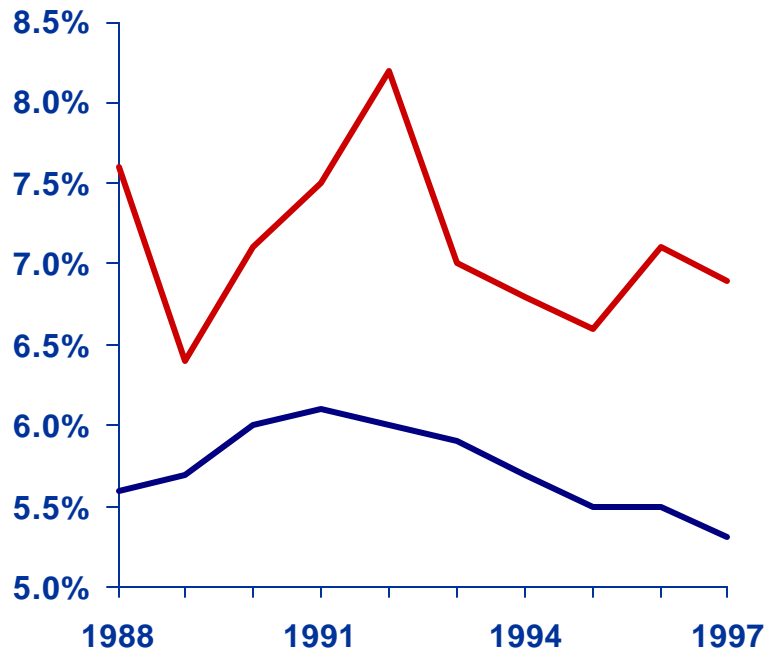
Personal income minus personal taxes. Disposable income is either spent on the consumption of goods and services or saved.

Canadian Agri-Food Trade

Canadian Agri-Food Share of Total Trade

Imports and Exports

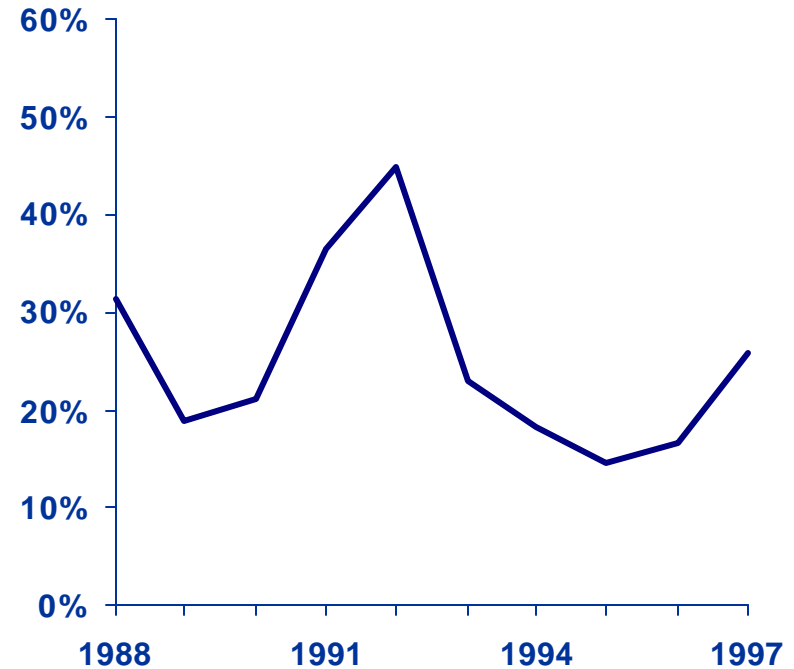
Percentage of Total Canadian Merchandise Trade



— Imports — Exports

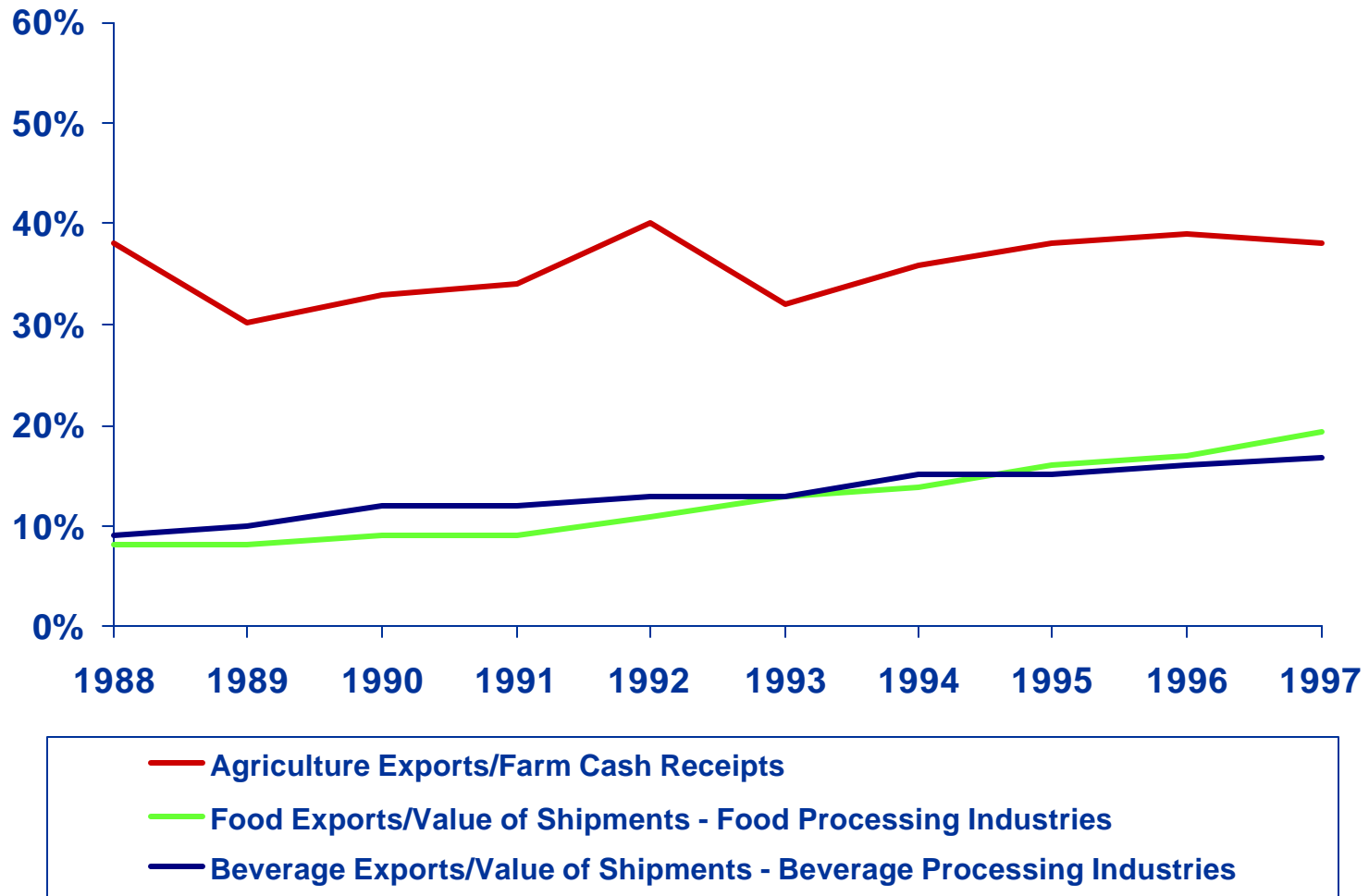
Trade Balance

Percentage of Total Canadian Merchandise Trade Balance



Source: AAFC Merchandise Trade database.

Export Intensity

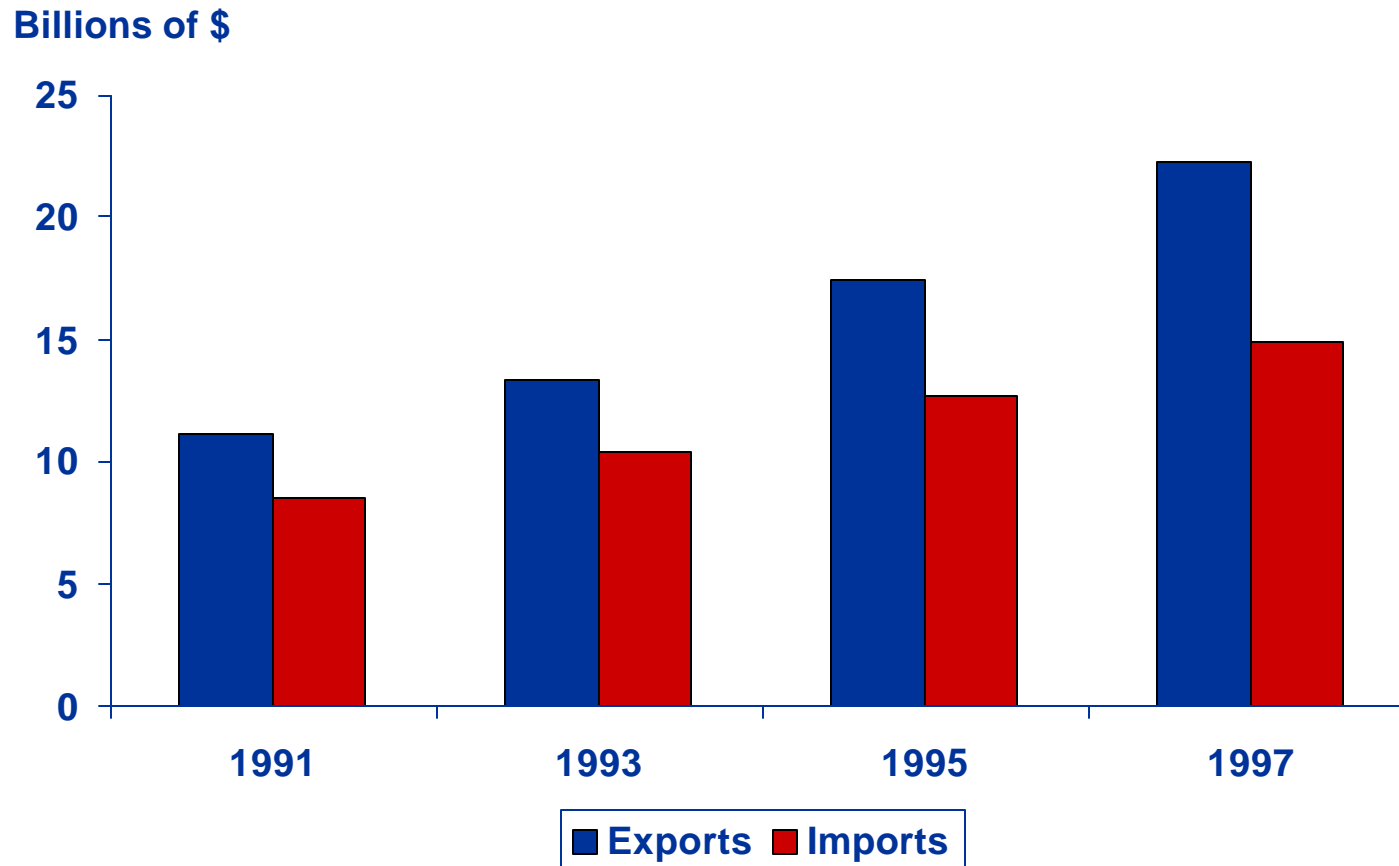


Source: AAFC Trade Database.

Graph 2-2

Graph 2-3

Canadian Agri-Food Trade

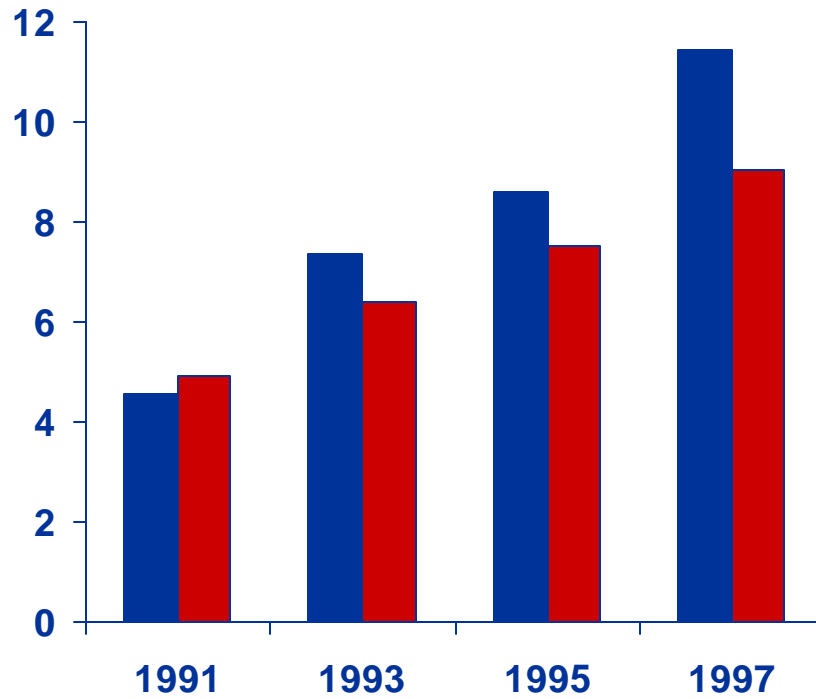


Source: AAFC Trade Database.

Canadian Agri-Food Trade

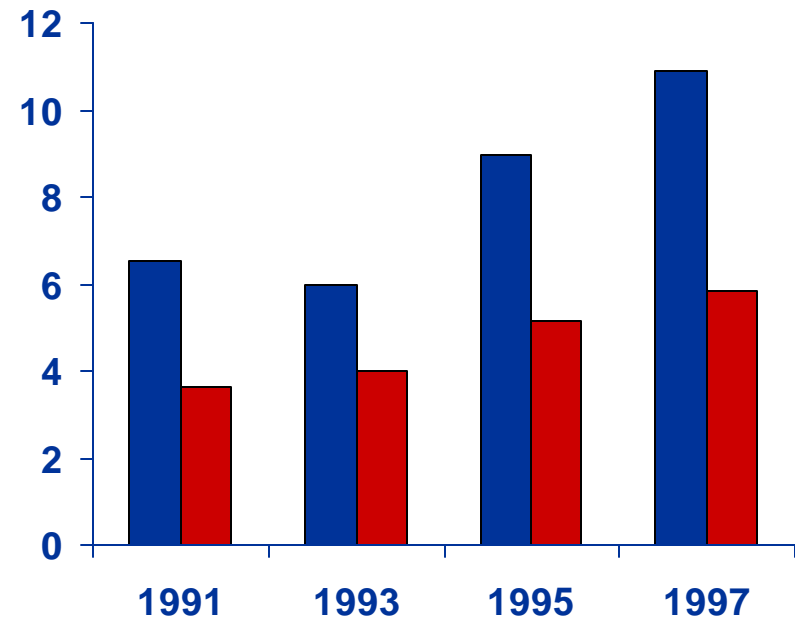
Trade with the US

Billions of \$



Trade with the Remainder of the World

Billions of \$

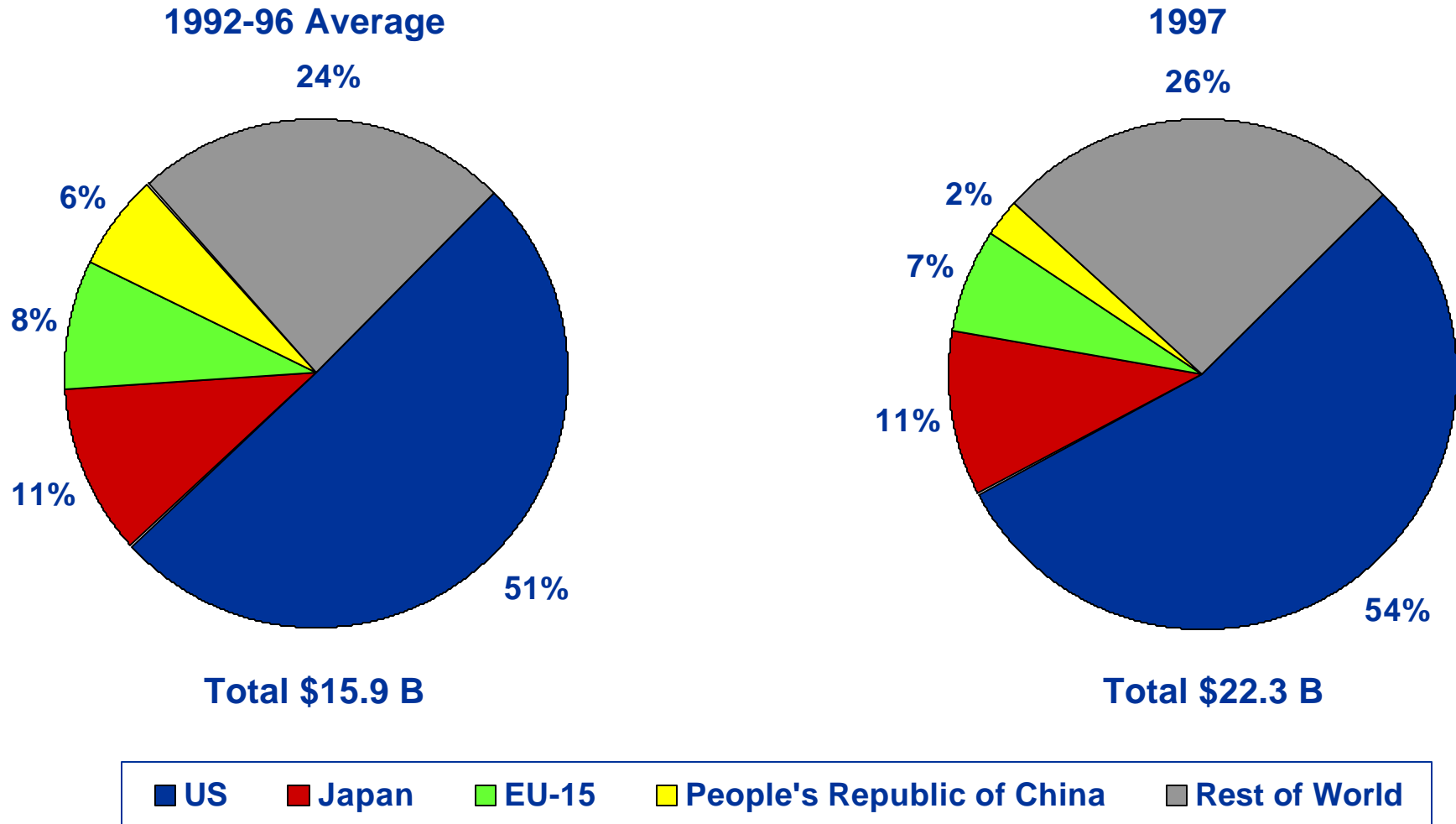


■ Exports ■ Imports

Source: AAFC Trade Database.

Graph 2-5

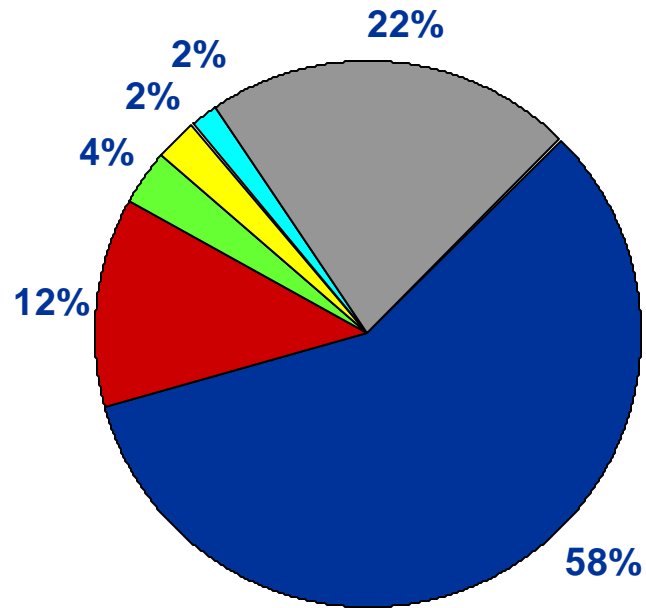
Canadian Agri-Food Exports by Destination



Source: AAFC Trade Database.

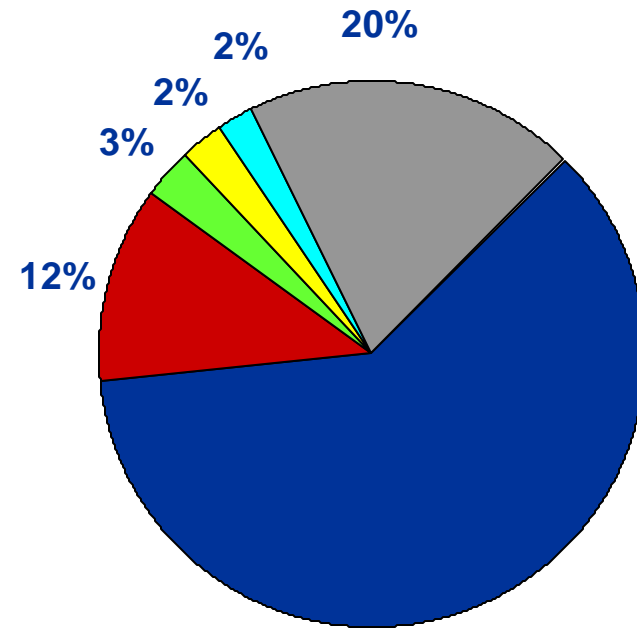
Canadian Agri-Food Imports by Country of Origin

1992-96 Average



Total \$11.5 B

1997



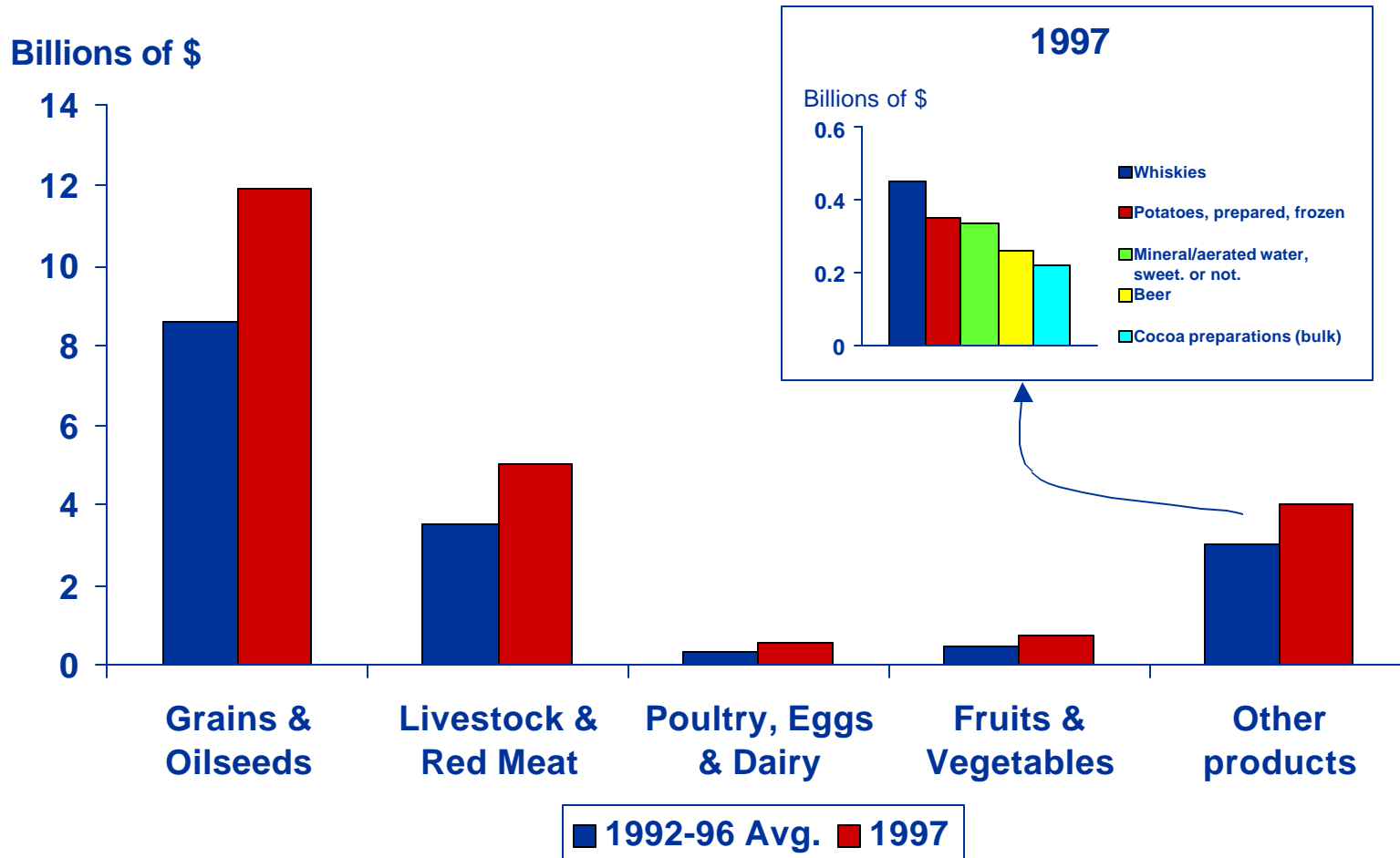
Total \$14.9 B



Source: AAFC Trade Database.

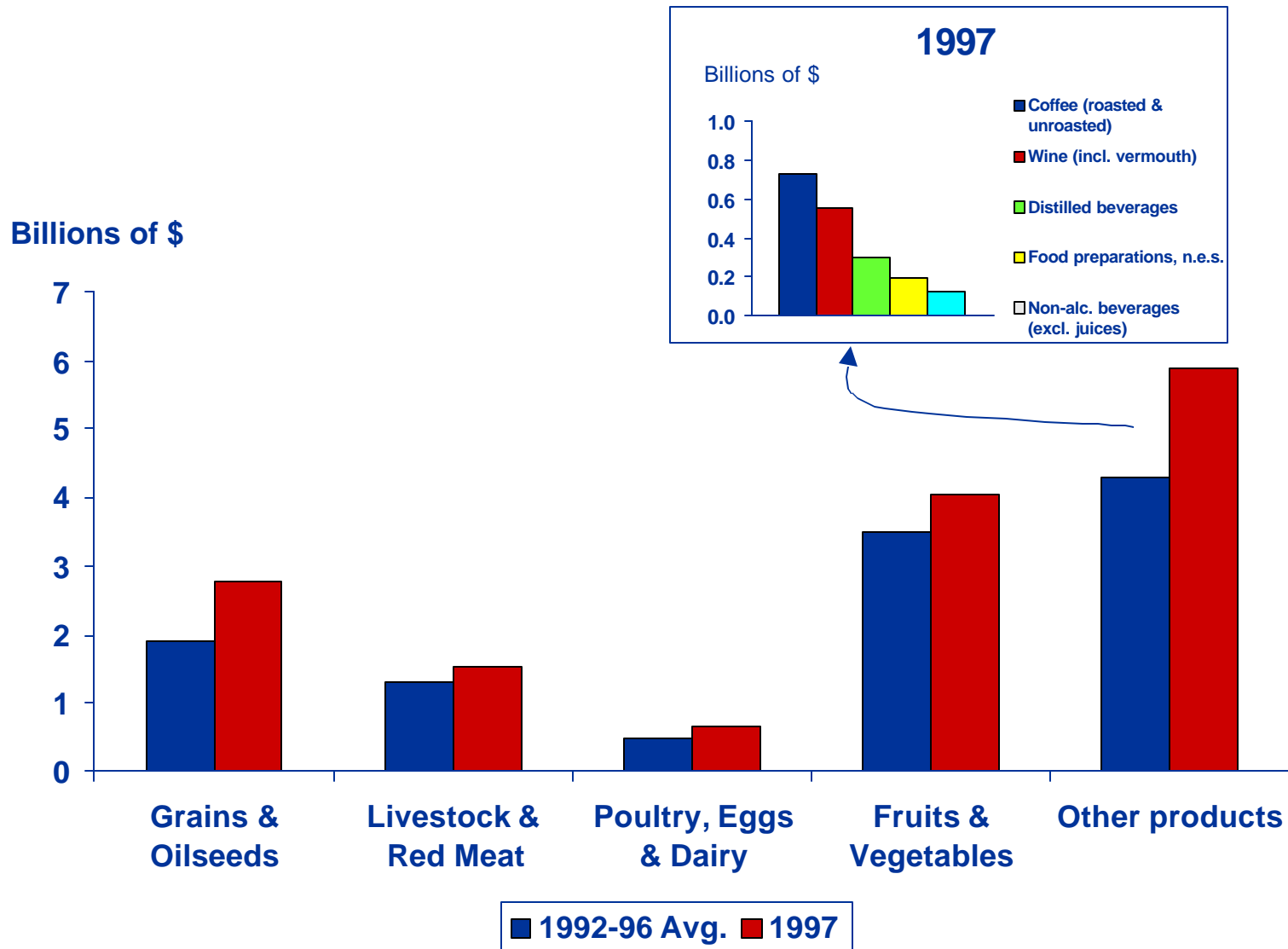
Graph 2-7

Canadian Agri-Food Exports by Commodity Group



Source: AAFC Trade Database.

Canadian Agri-Food Imports by Commodity Group



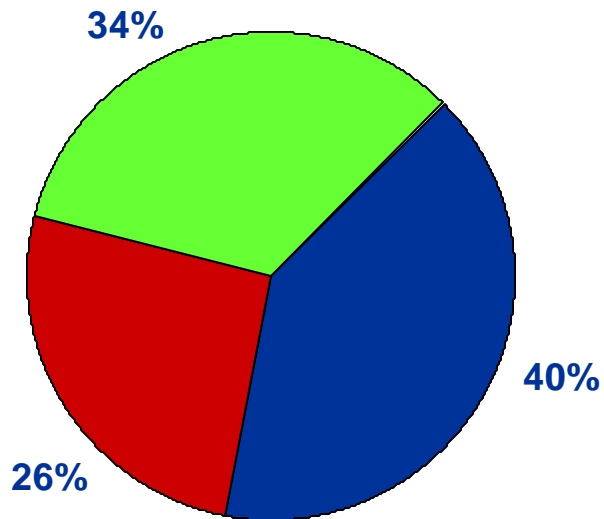
Source: AAFC Trade Database.

Graph 2-8

Graph 2-9

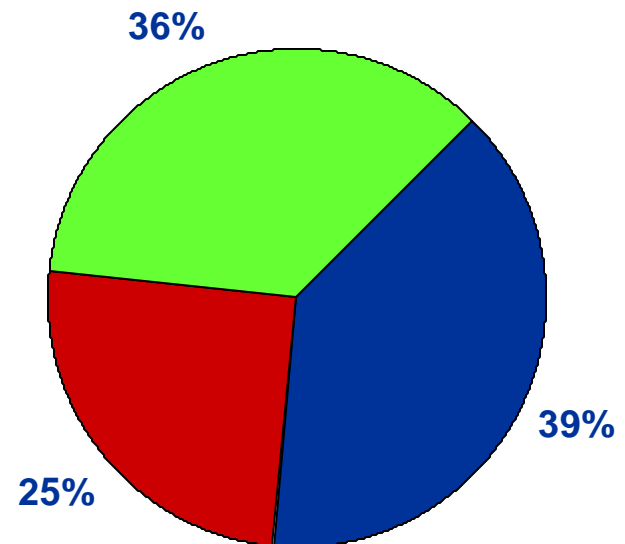
Canadian Agri-Food Exports by Degree of Processing

1992-1996 average



\$15.9 B

1997



\$22.3 B

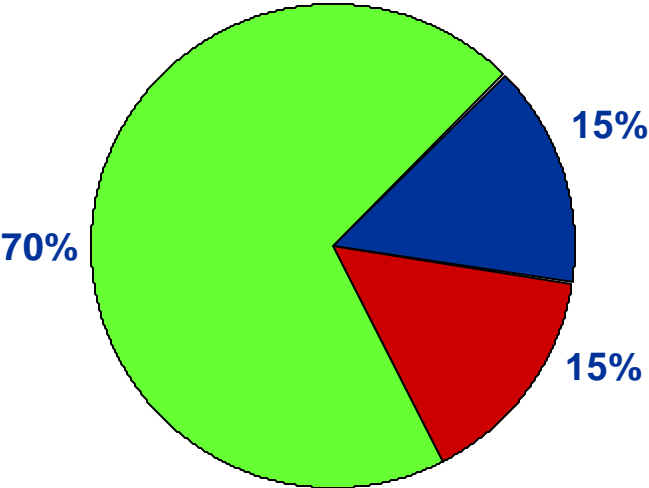
■ Bulk

■ Intermediate

■ Consumer-Oriented

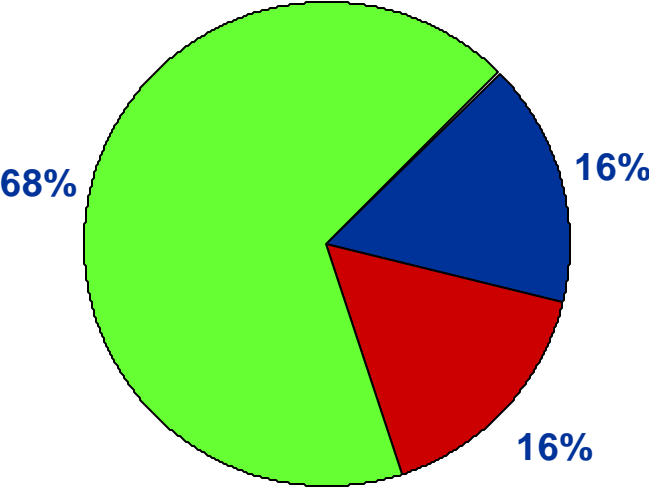
Canadian Agri-Food Imports by Degree of Processing

1992-1996



\$11.5 B

1997



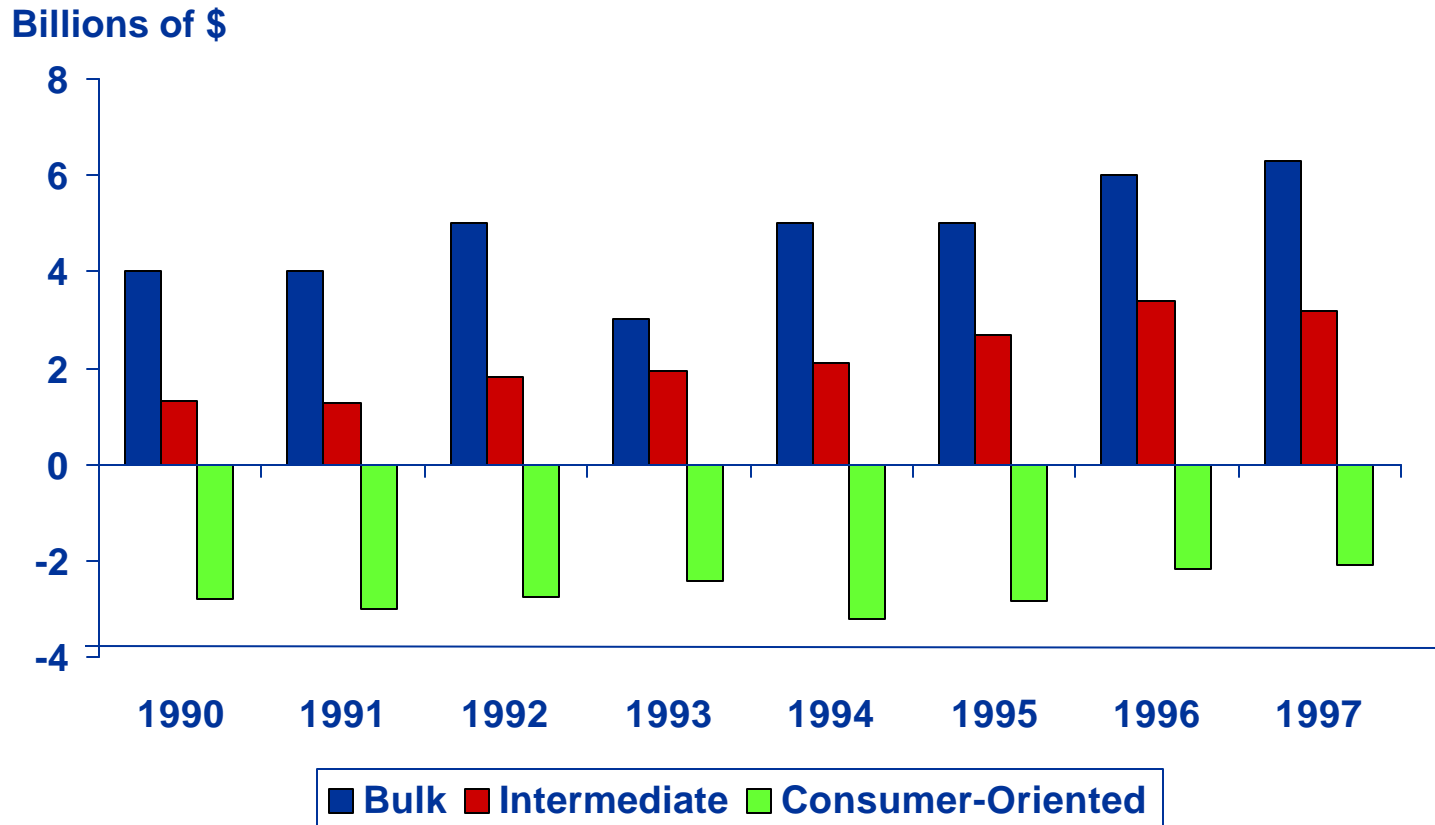
\$14.9 B



Source: AAFC Trade Database.

Graph 2-11

Canadian Agri-Food Trade Balance by Degree of Processing, 1997

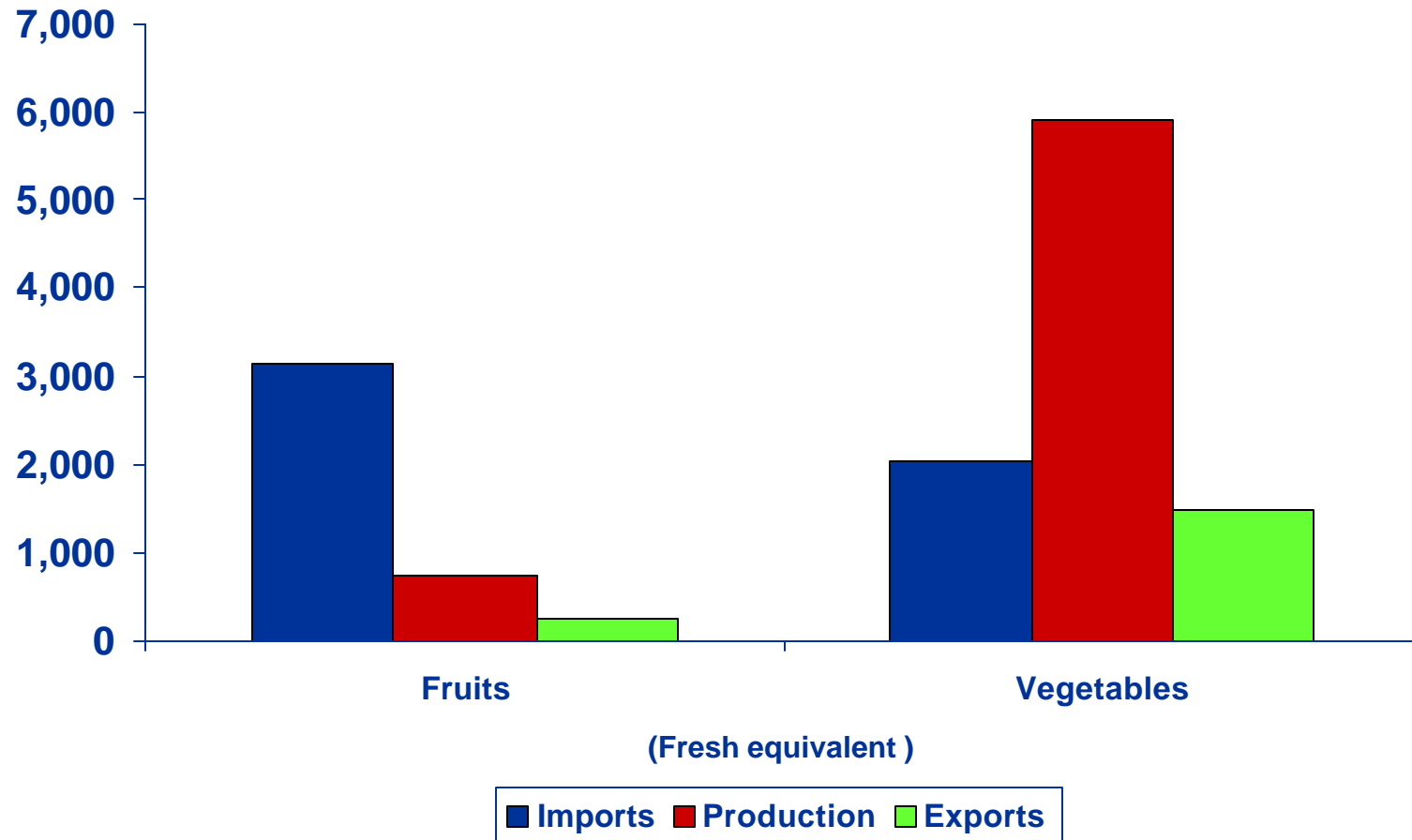


Source: AAFC Trade Database.

Canada's Food Supply - 1995

Fruits and Vegetables

Thousands of tonnes



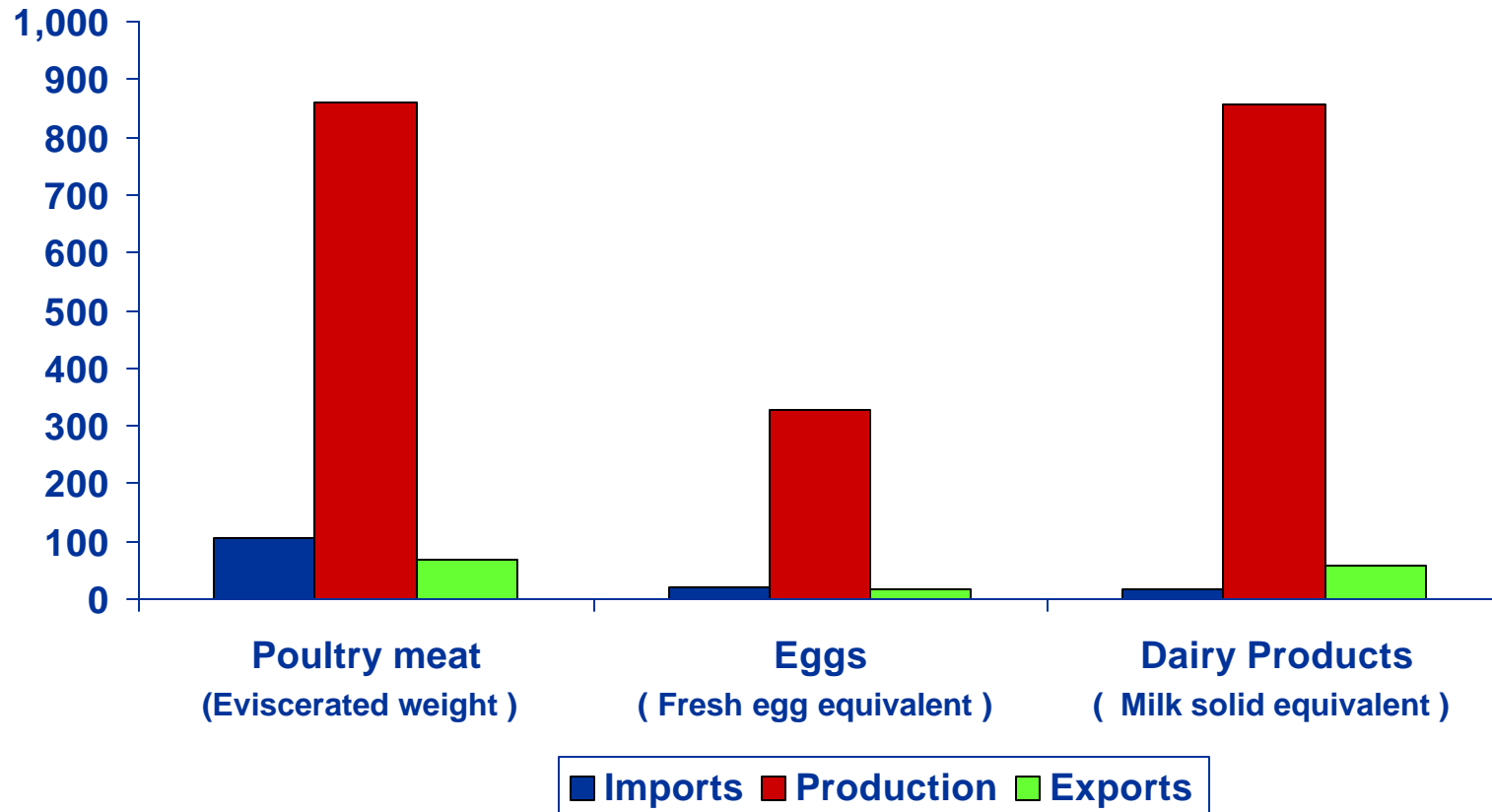
Source: Statistics Canada.

Graph 2-13

Canada's Food Supply - 1995

Poultry Meat, Eggs & Dairy Products

Thousands of tonnes

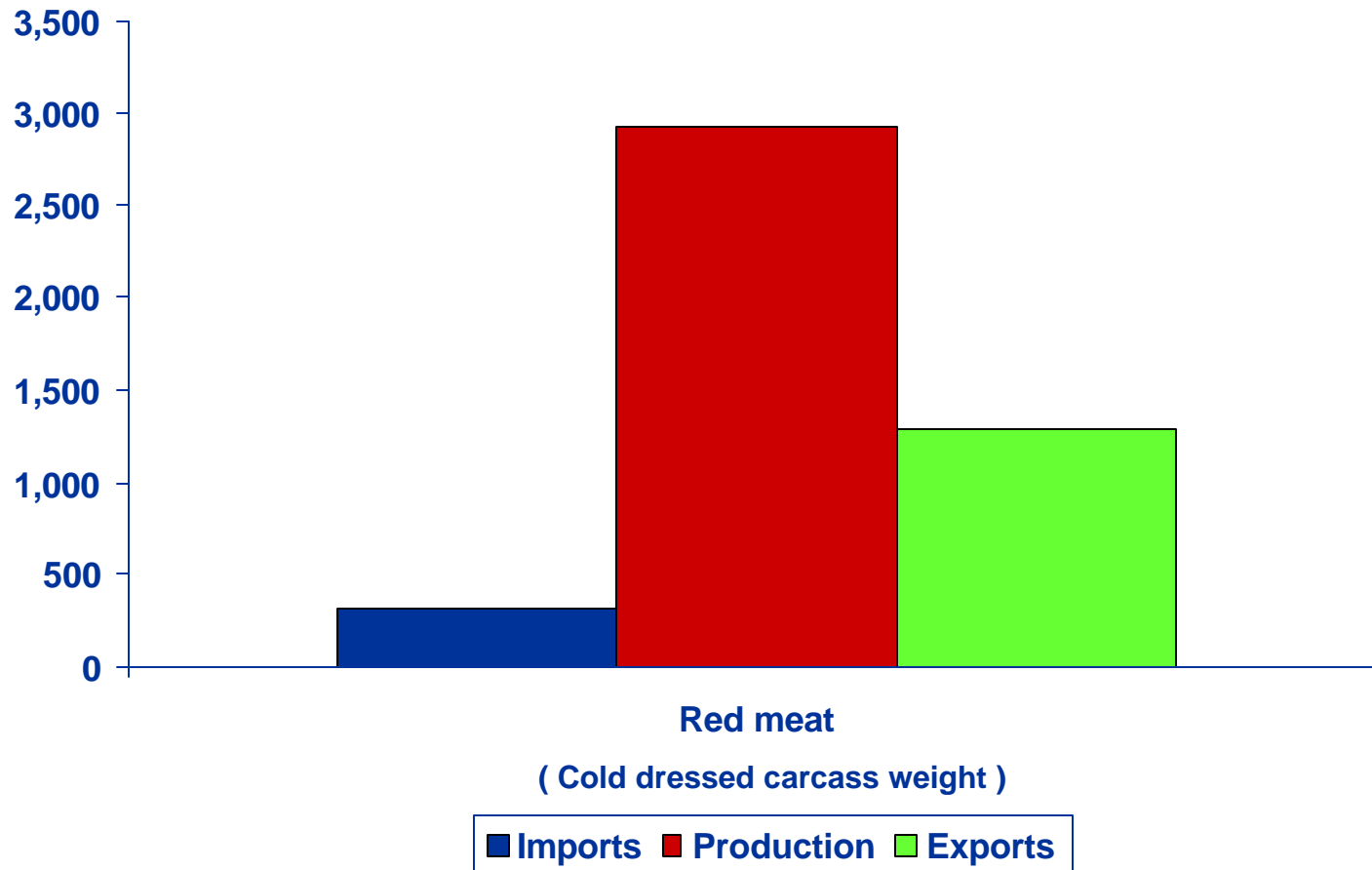


Source: Statistics Canada.

Canada's Food Supply - 1995

Red Meat

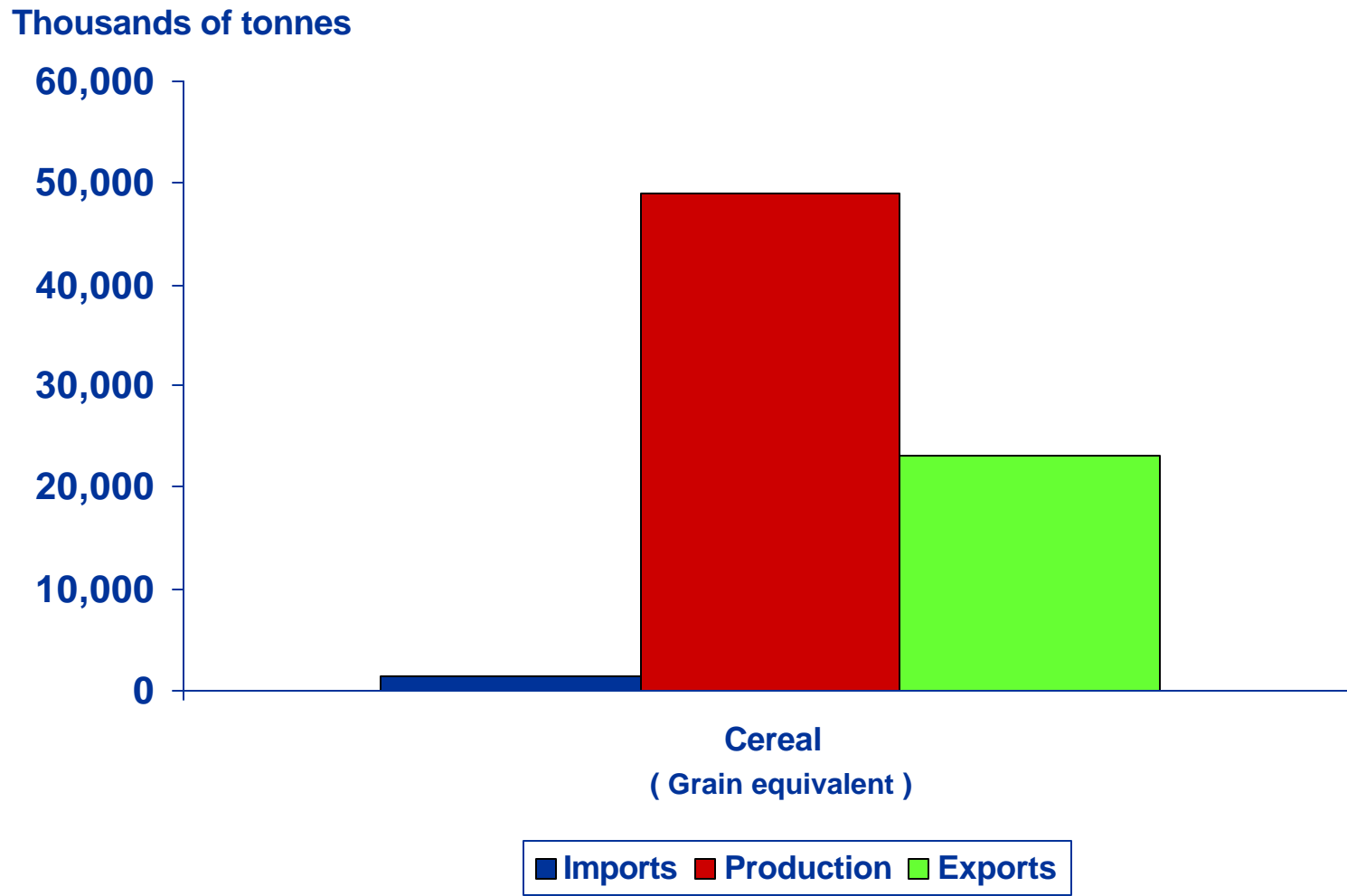
Thousands of tonnes



Source: Statistics Canada.

Canada's Food Supply - 1995

Cereal

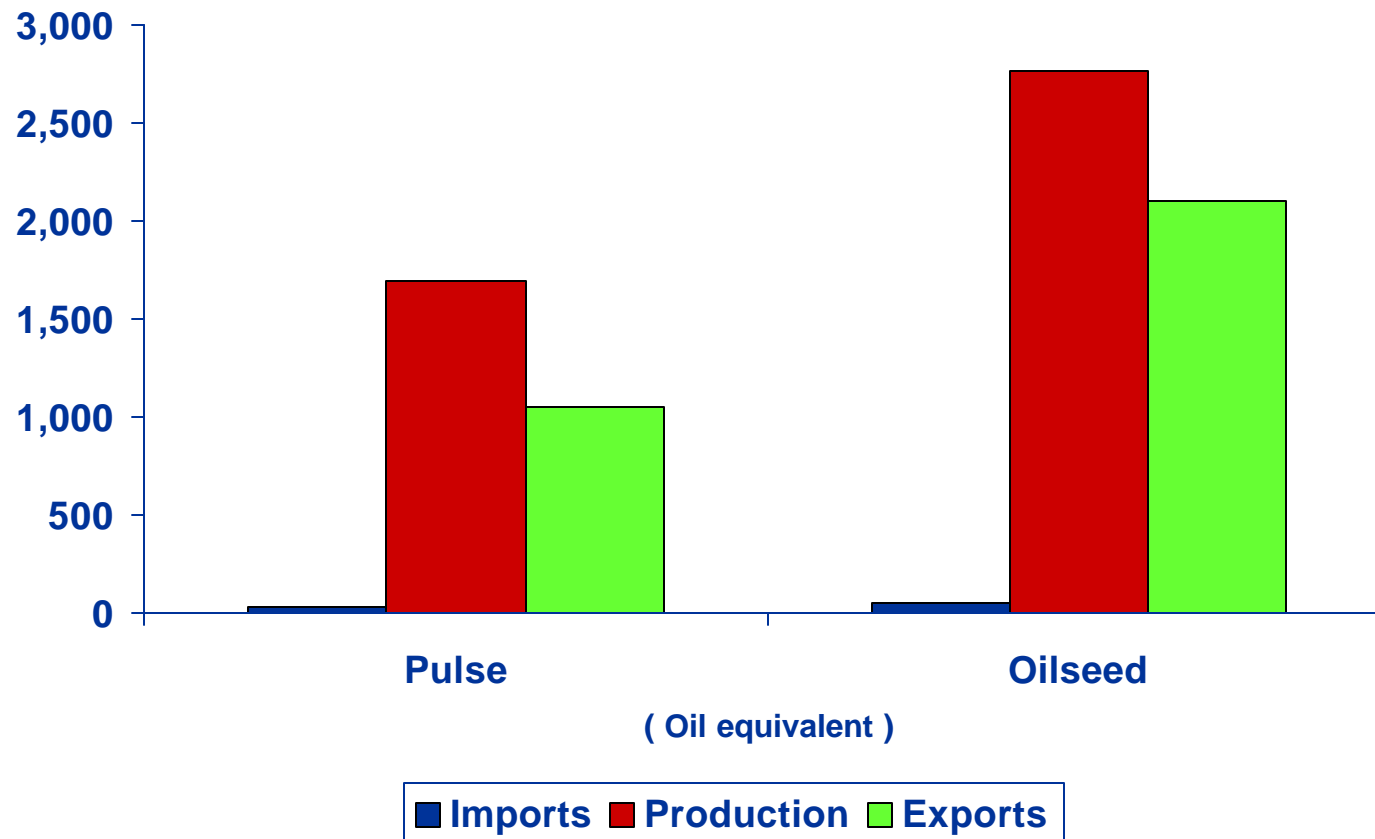


Source: Statistics Canada.

Canada's Food Supply - 1995

Pulse & Oilseed

Thousands of tonnes



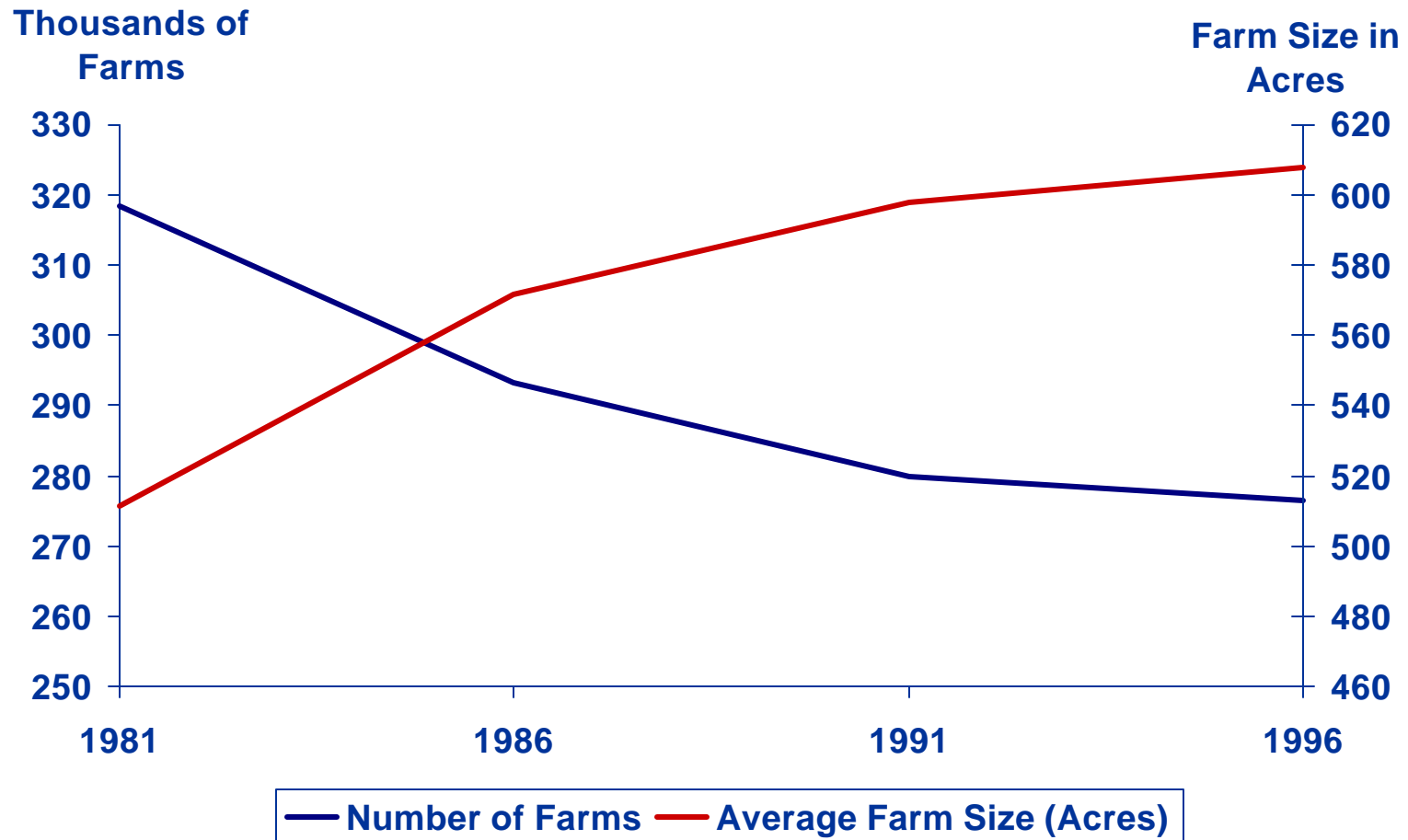
Source: Statistics Canada.

Glossary of Terms

Trade Balance	Exports less imports
Other Commodity Group	Includes potatoes & products, seeds for sowing, maple products, sugar & products, raw tobacco, vegetable fibres, plantation crops, floriculture & nursery products, essential oils, other agri-food products, alcoholic beverages, other beverages excluding juices, manufactured tobacco products, undenatured ethyl alcohol >80% vol.
Export Intensity	The value of agri-food exports as a percentage of total value received from the production of the agri-food products.

Agriculture Structure and Performance

Number and Size of Farms

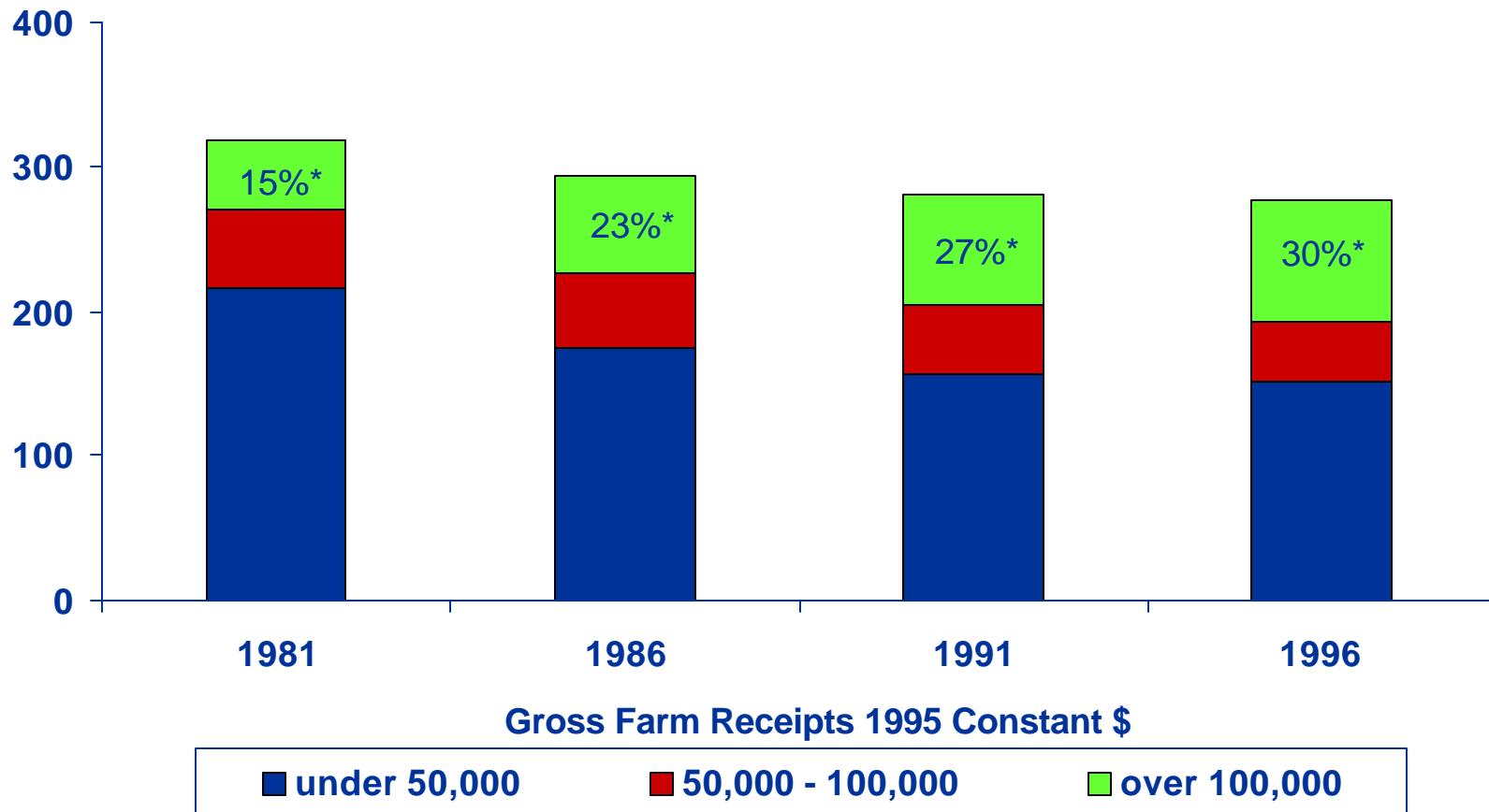


Source: Statistics Canada, Historical Overview of Canadian Agriculture.

Graph 3-1

Number of Farms by Revenue Class

Thousands of
Farms

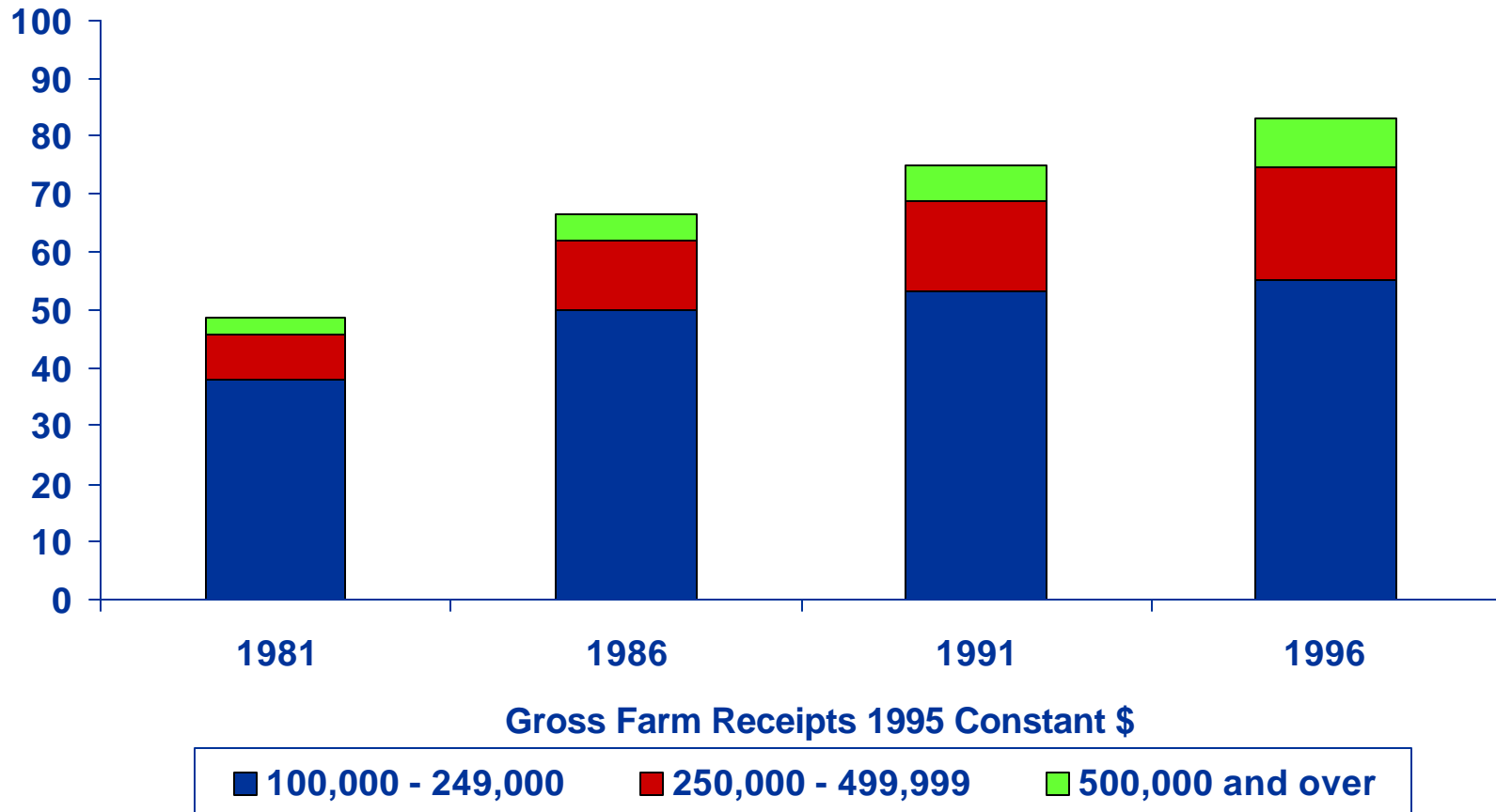


*Percentage of total number of farms for period.

Source: Statistics Canada, Historical Overview of Canadian Agriculture.

Number of Large Farms by Revenue Class

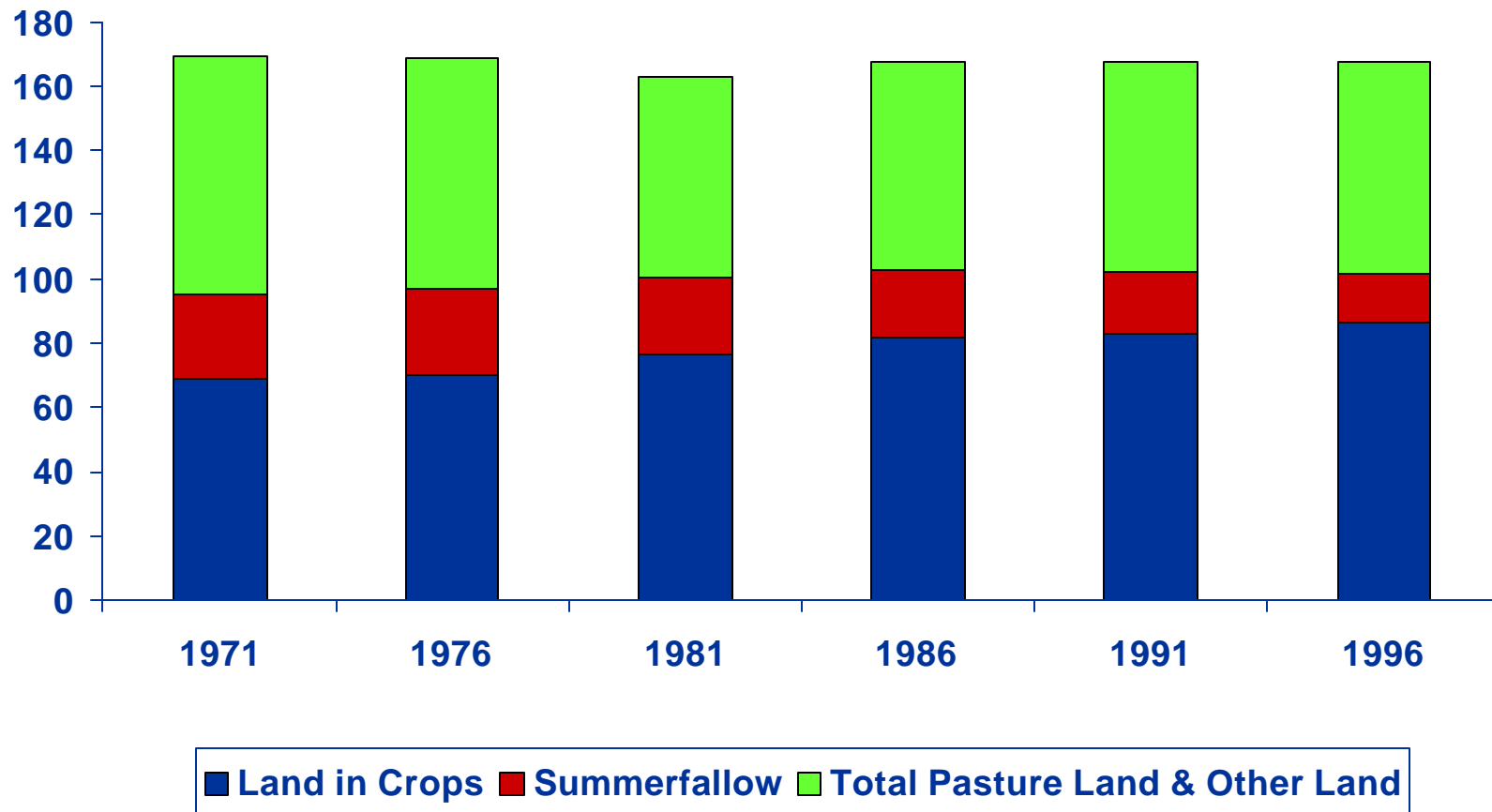
Thousands of
Farms



Source: Statistics Canada, Historical Overview of Canadian Agriculture.

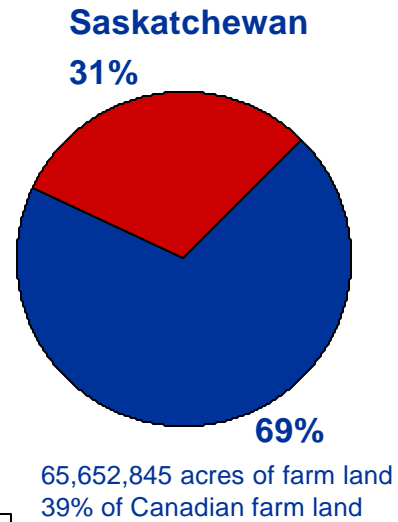
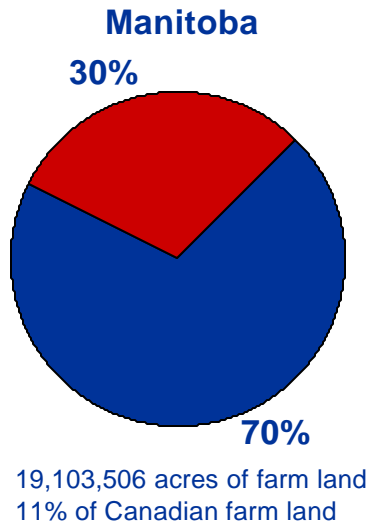
Use of Farm Land in Canada

Millions of Acres

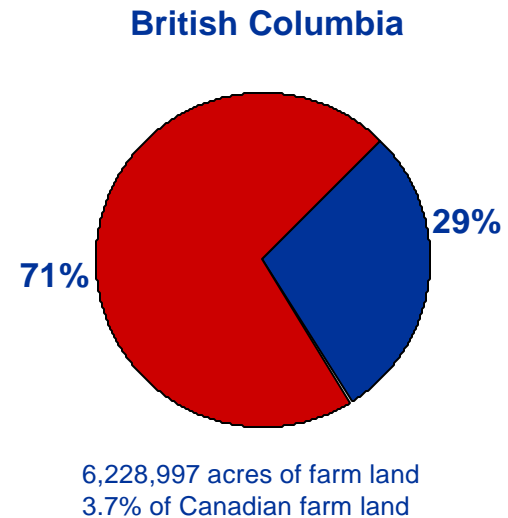
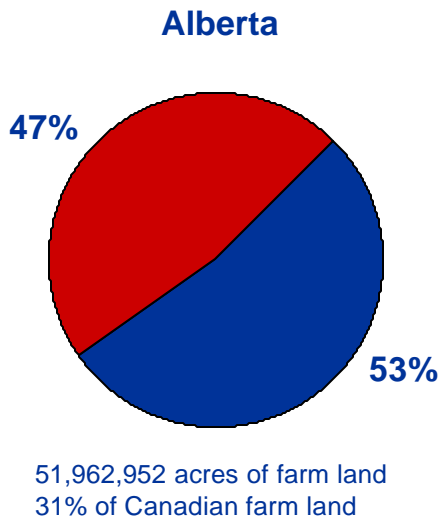


Sources: Statistics Canada - Census Overview of Canadian Agriculture: 1971-1991, 1996 Census of Agriculture National and Provincial Highlights.

Western Canada: Land Use, 1996

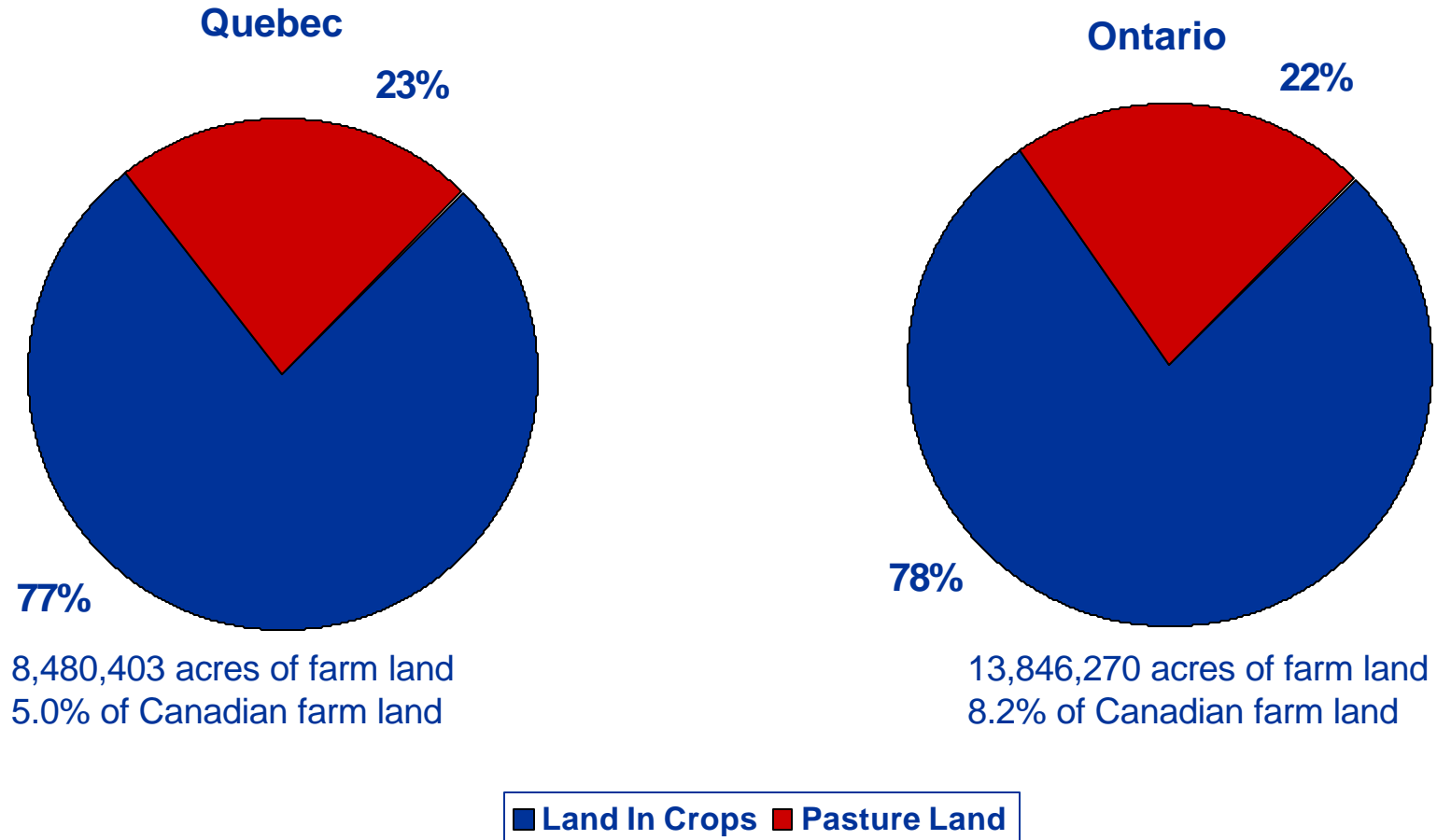


■ Land In Crops ■ Pasture Land



Source: Statistics Canada, 1996 Census of Agriculture National and Provincial Highlights.

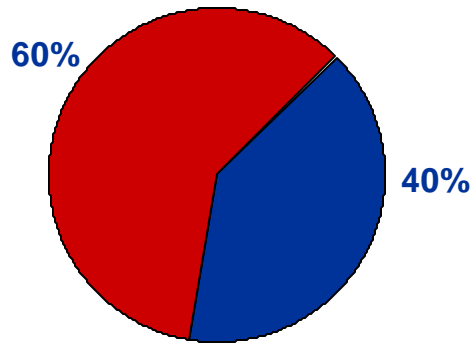
Central Canada: Land Use, 1996



Source: Statistics Canada, 1996 Census of Agriculture National and Provincial Highlights.

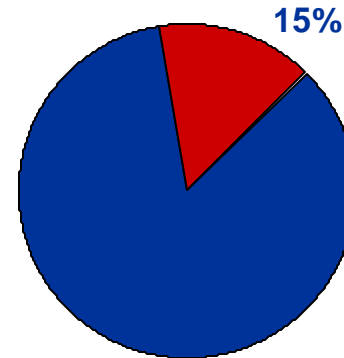
Atlantic Canada: Land Use, 1996

Newfoundland



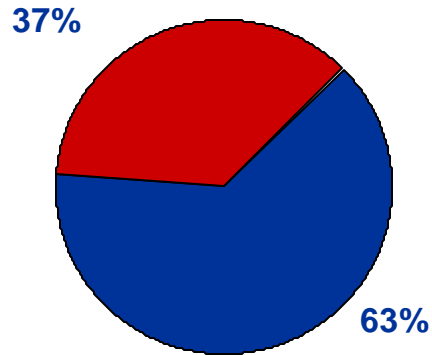
107,709 acres of farm land
0.06% of Canadian farm land

Prince Edward Island



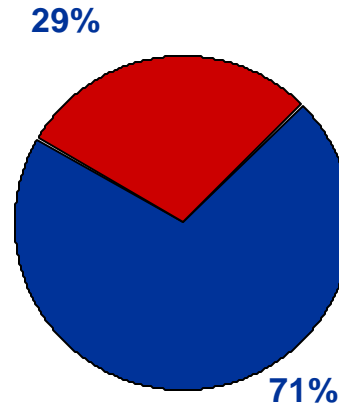
654,374 acres of farm land
0.39% of Canadian farm land

Nova Scotia



969,815 acres of farm land
0.58% of Canadian farm land

New Brunswick



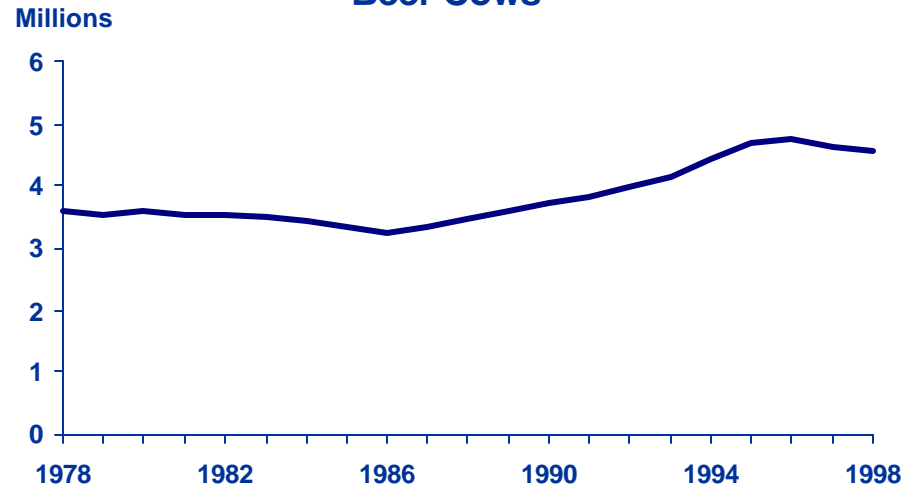
930,067 acres of farm land
0.55% of Canadian farm land

■ Land In Crops ■ Pasture Land

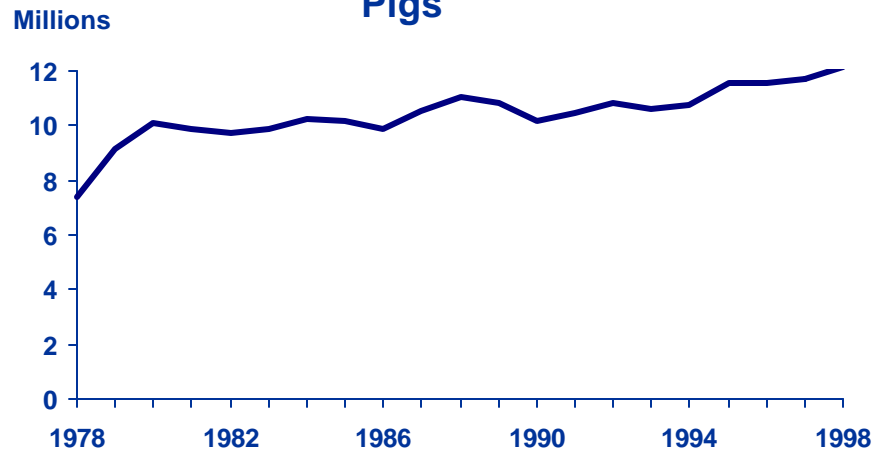
Source: Statistics Canada, 1996 Census of Agriculture National and Provincial Highlights.

Canada Livestock Population Trends

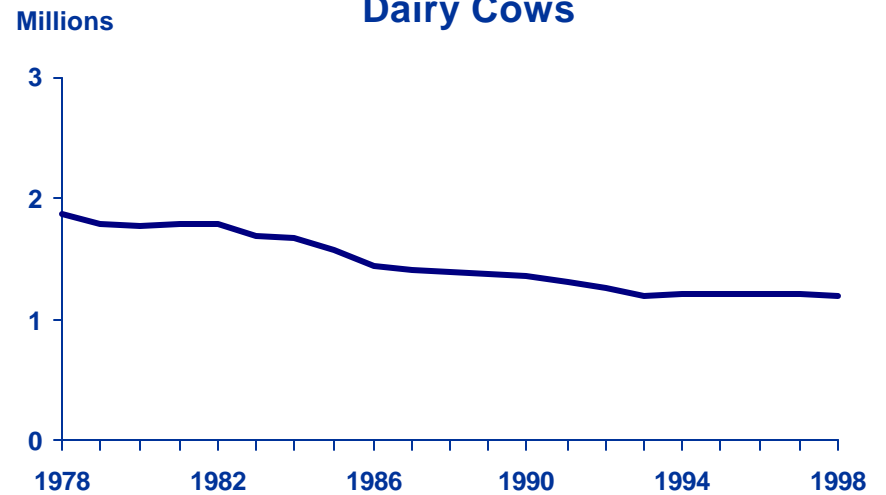
Beef Cows



Pigs



Dairy Cows

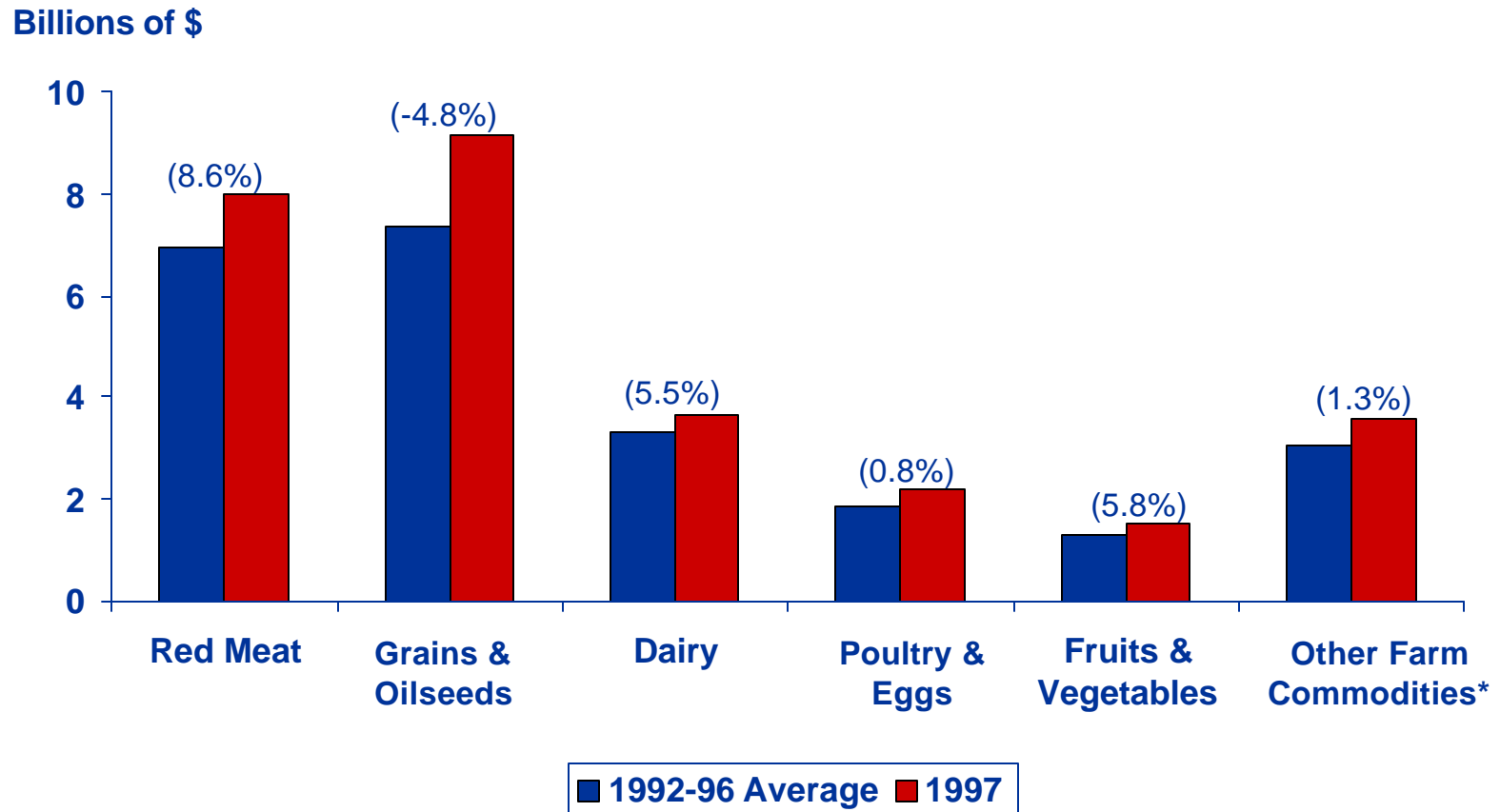


Note: All livestock numbers are as of July 1, 1998.

Source: Statistics Canada, Agriculture Division, Livestock Survey.

Canada

Farm Cash Market Receipts by Commodity Group



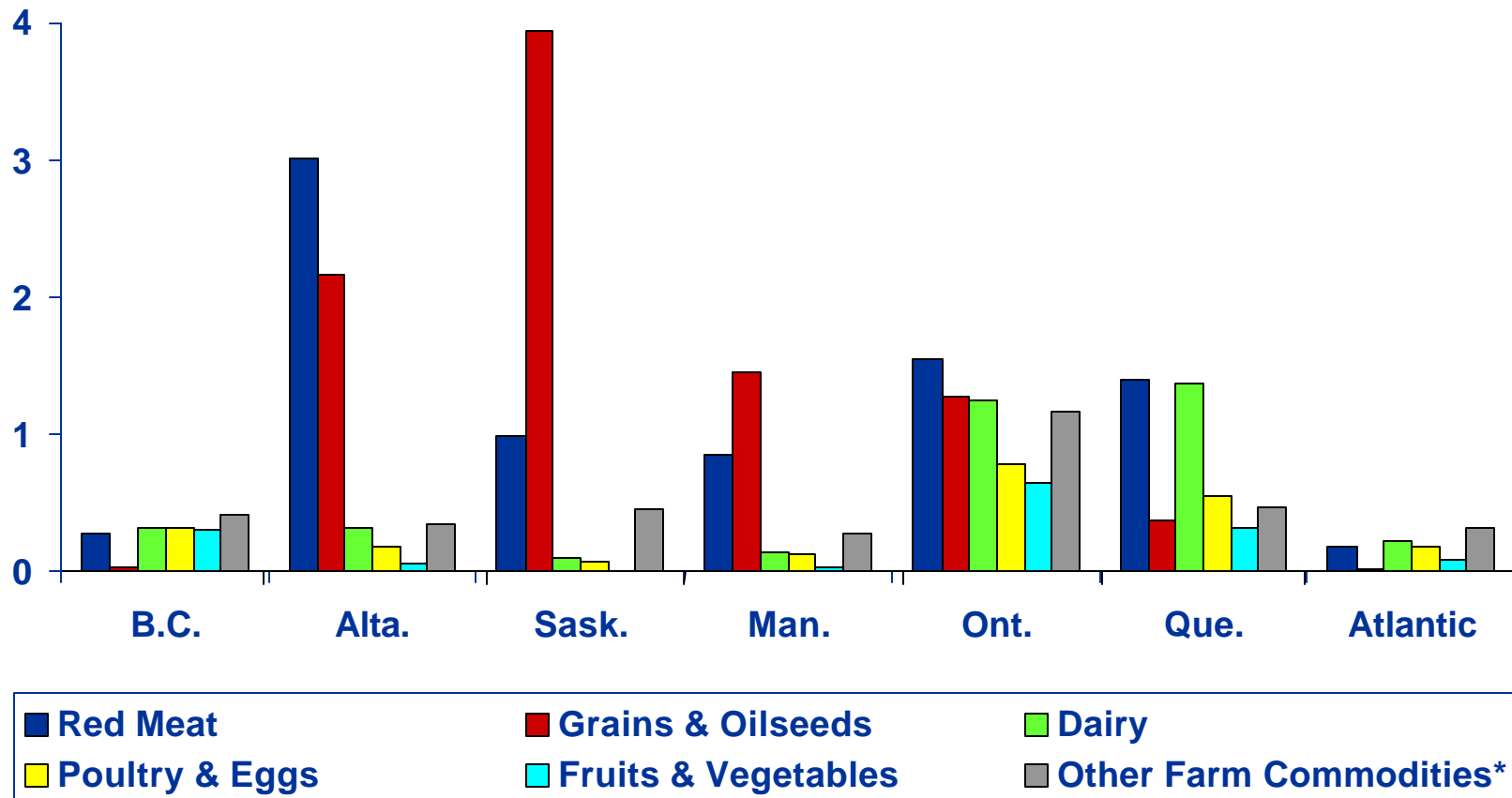
*Includes: Potatoes, Special Crops, Forage, etc.

Note: Numbers in brackets are percentage change from 1996 to 1997.

Source: AAFC Farm Income, Financial Conditions and Government Assistance Databook, February 1998.

Farm Cash Market Receipts by Commodity Group & Province, 1997

Billions of \$

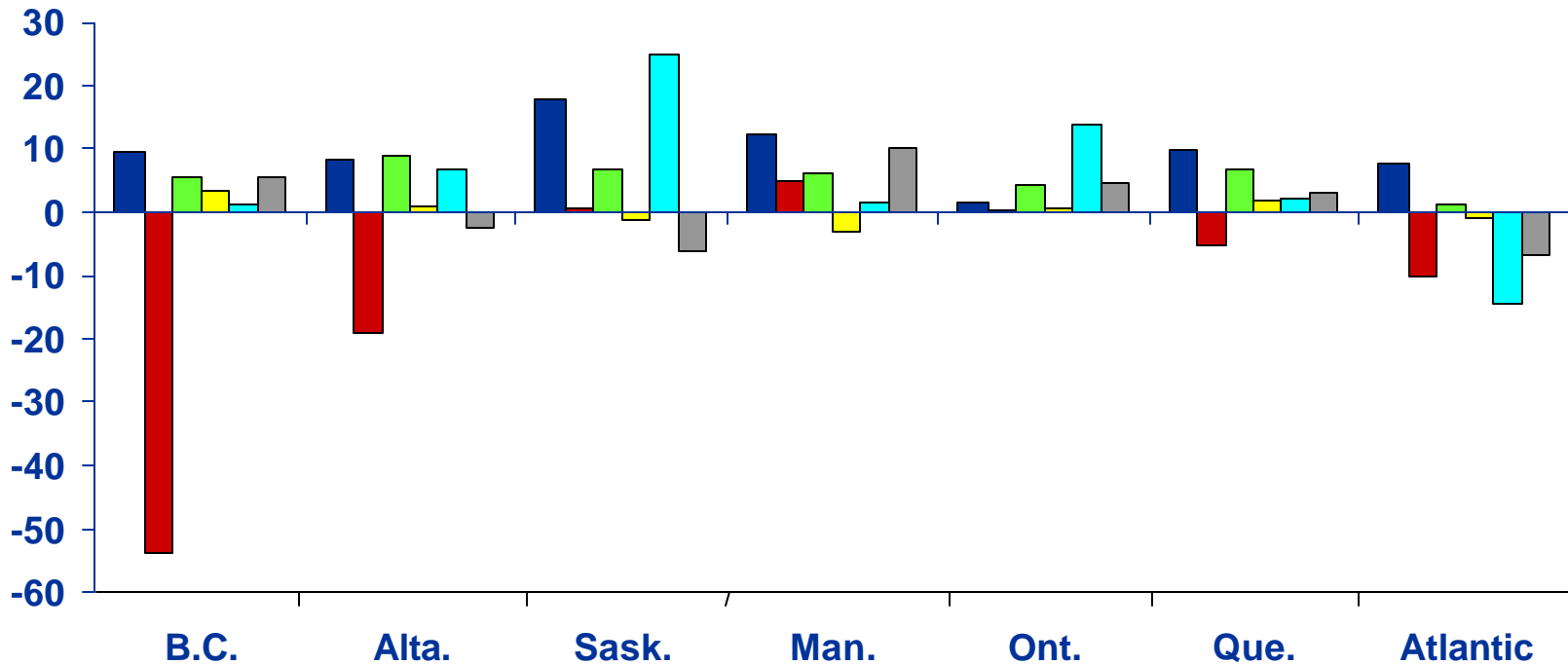


*Includes: Potatoes, Special Crops, Forage, etc.

Source: Statistics Canada, Agriculture Division, Farm Income Prices Section.

Farm Cash Market Receipts Percent Change from 1996 to 1997

Percent Change

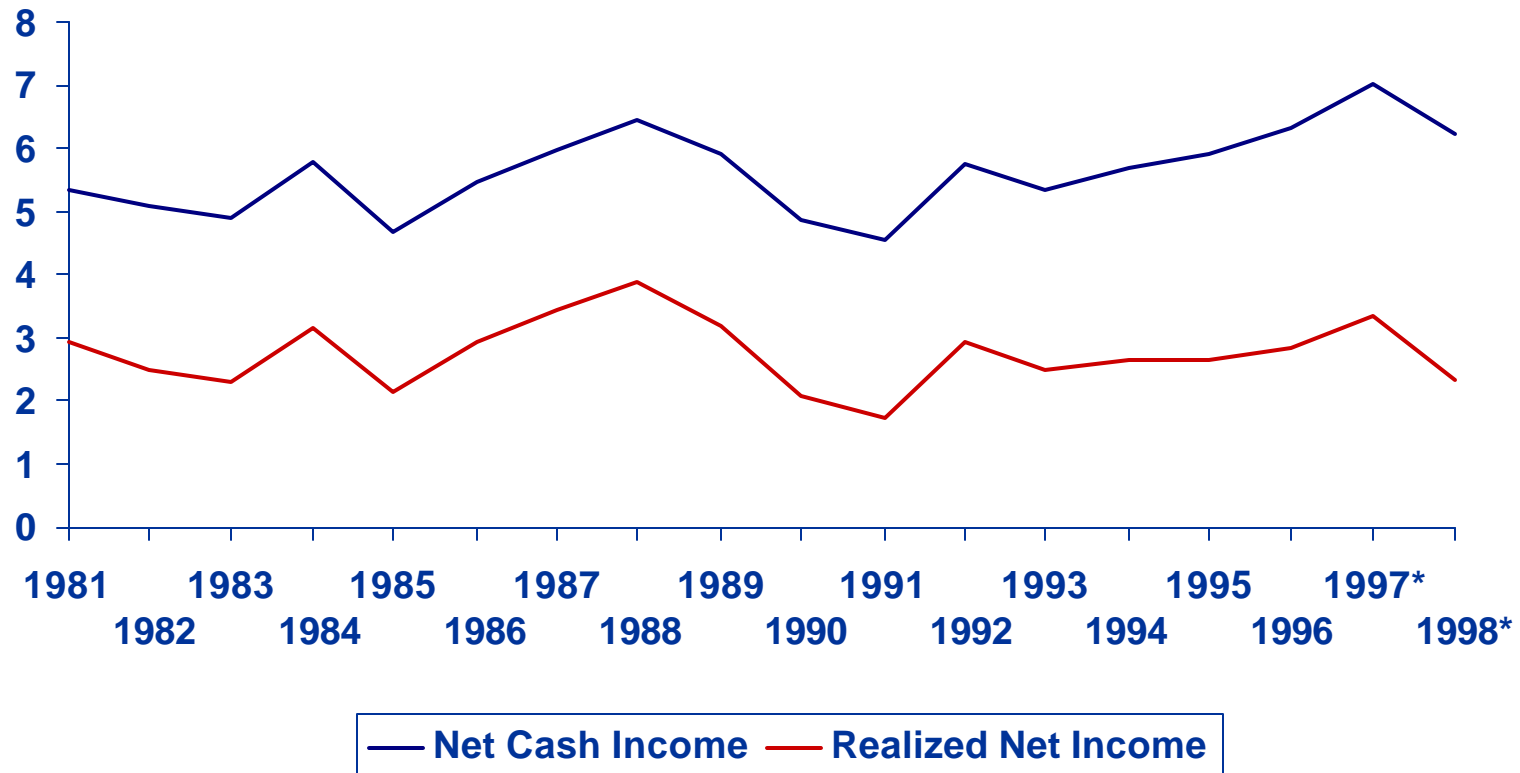


*Includes: Potatoes, Special Crops, Forage, etc.

Source: Statistics Canada, Agriculture Division, Farm Income Prices Section.

Canadian Net Farm Income

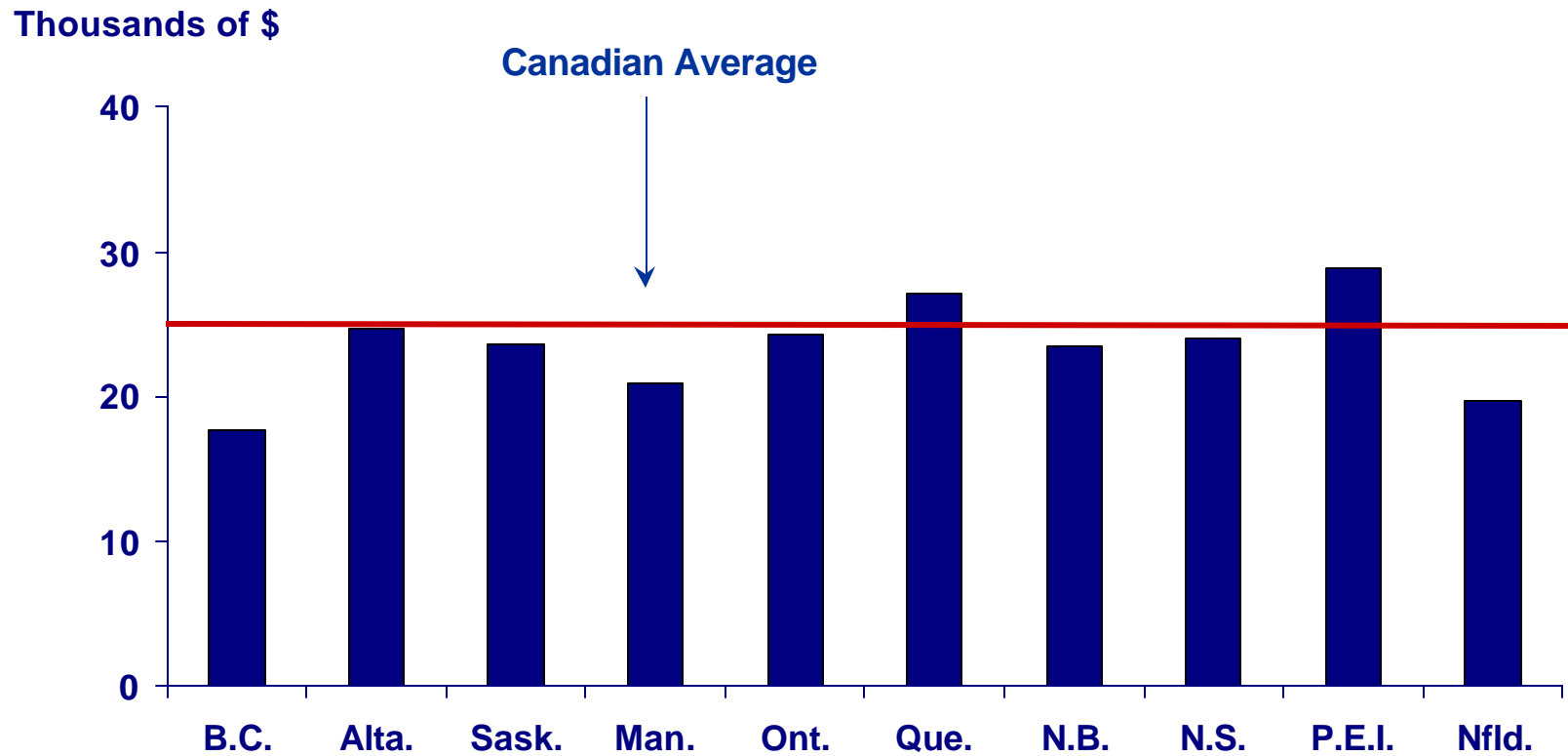
Billions of \$



*Policy Branch, AAFC, for 1997 and 1998 forecast data.

Source: Agriculture and Agri-Food Canada, Statistics Canada for historical data.

Average Provincial Net Farm Income, 1996

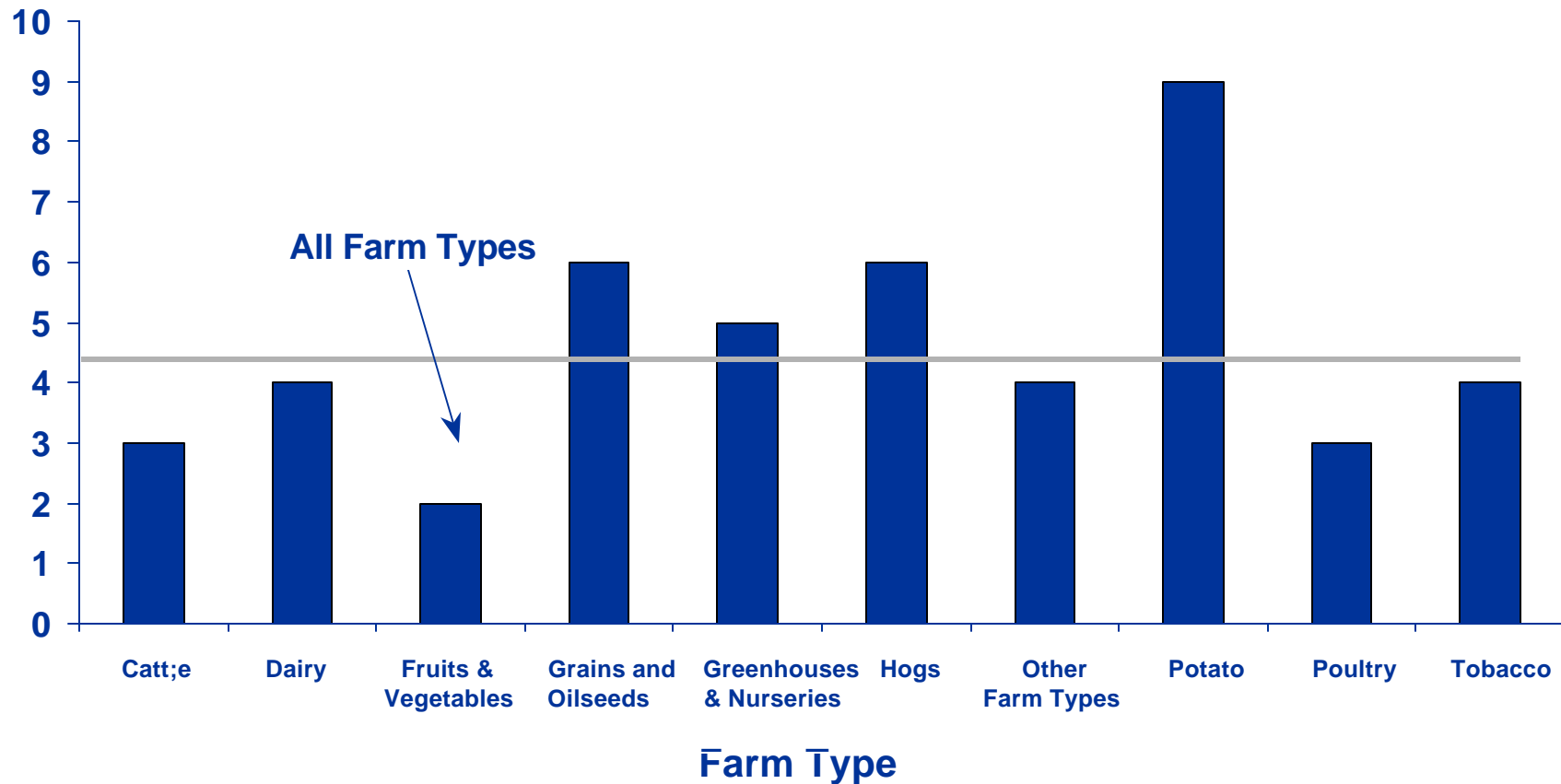


Source: Wholefarm Database.

Canada

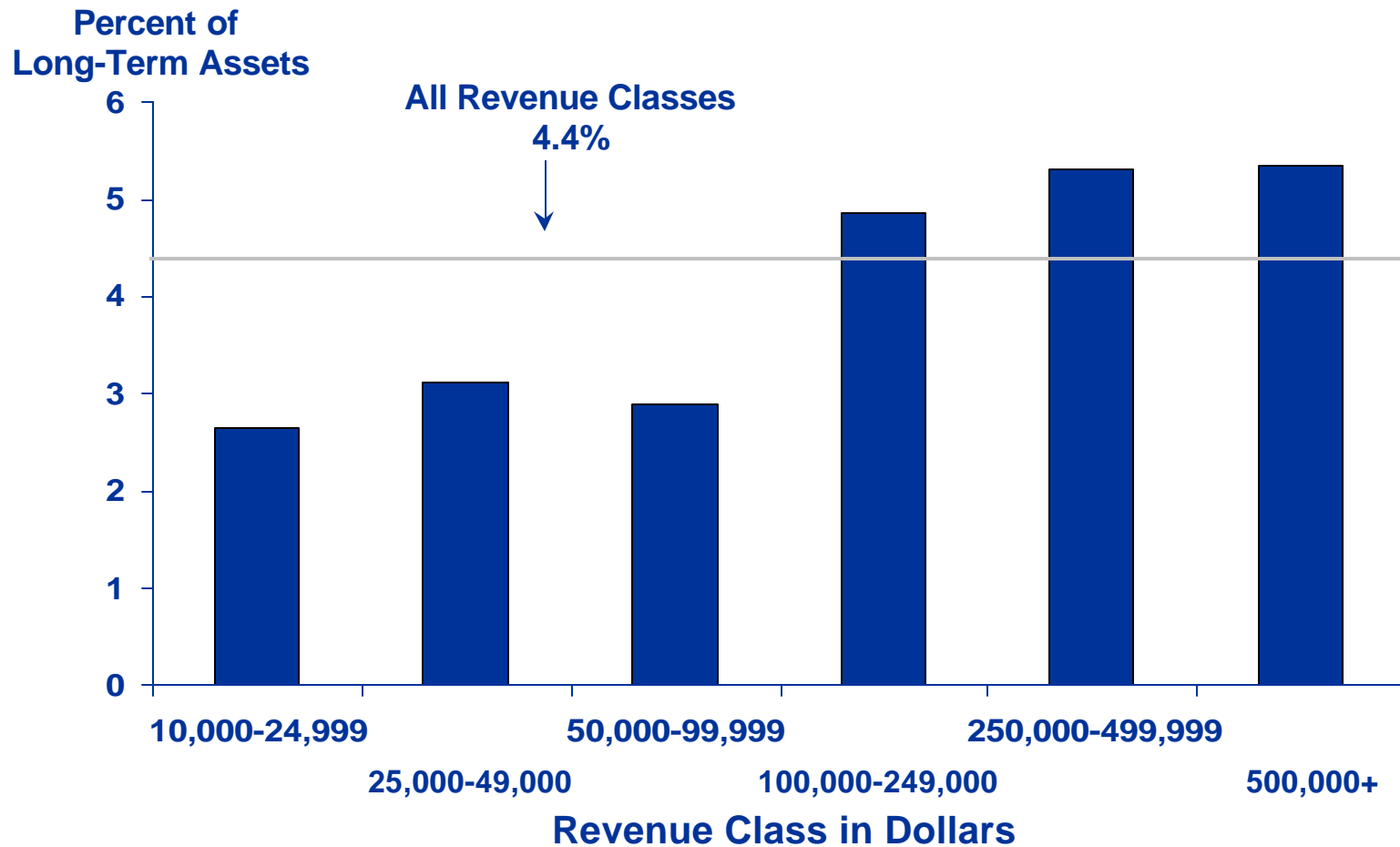
Net Capital Investment, by Farm Type, 1995

Percent of
Long-Term Assets



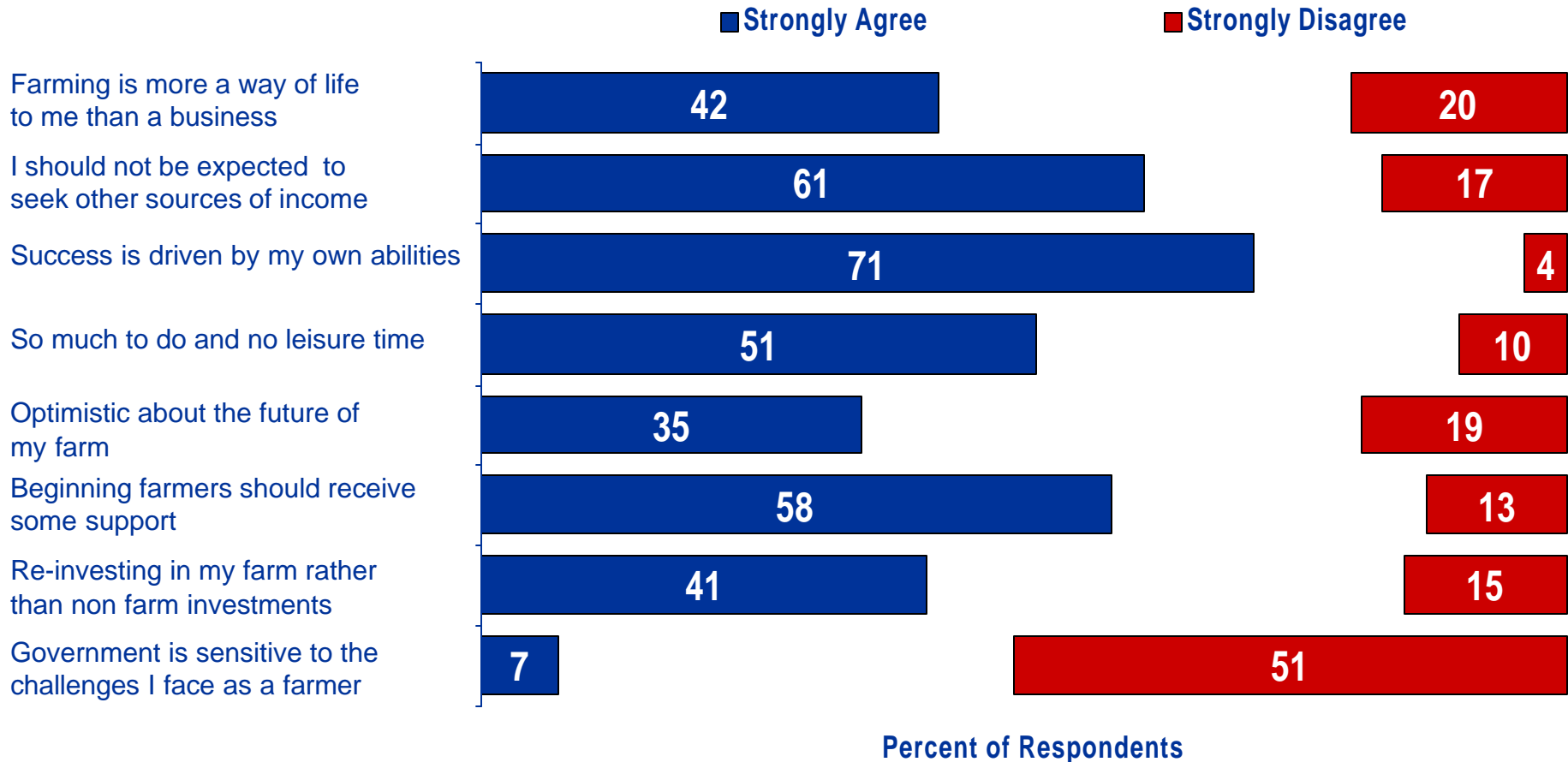
Source: Farm Financial Survey, Wholefarm Database.

Net Capital Investment, by Farm Size, 1995



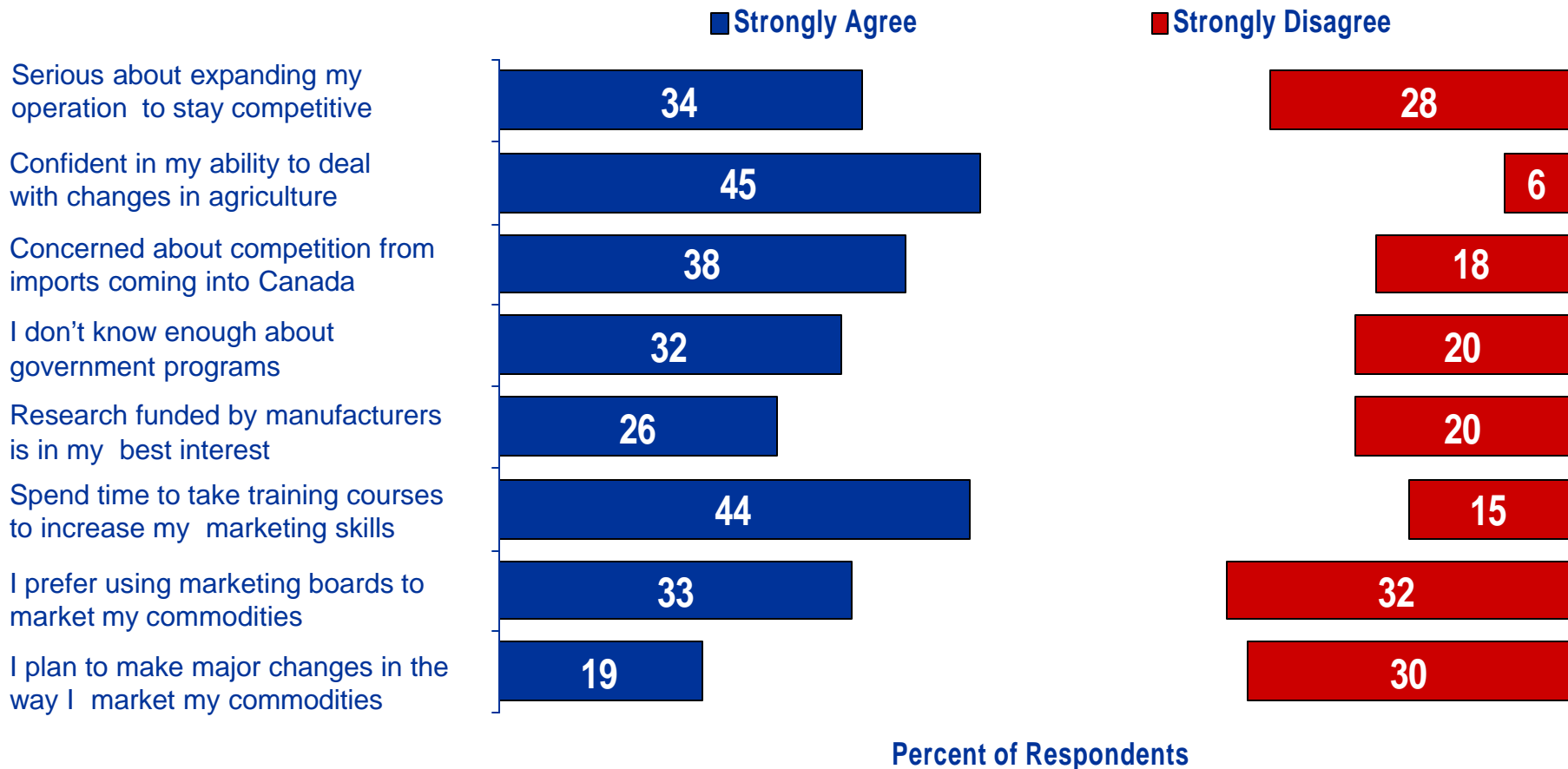
Source: Farm Financial Survey.

Attitudes Towards Farming



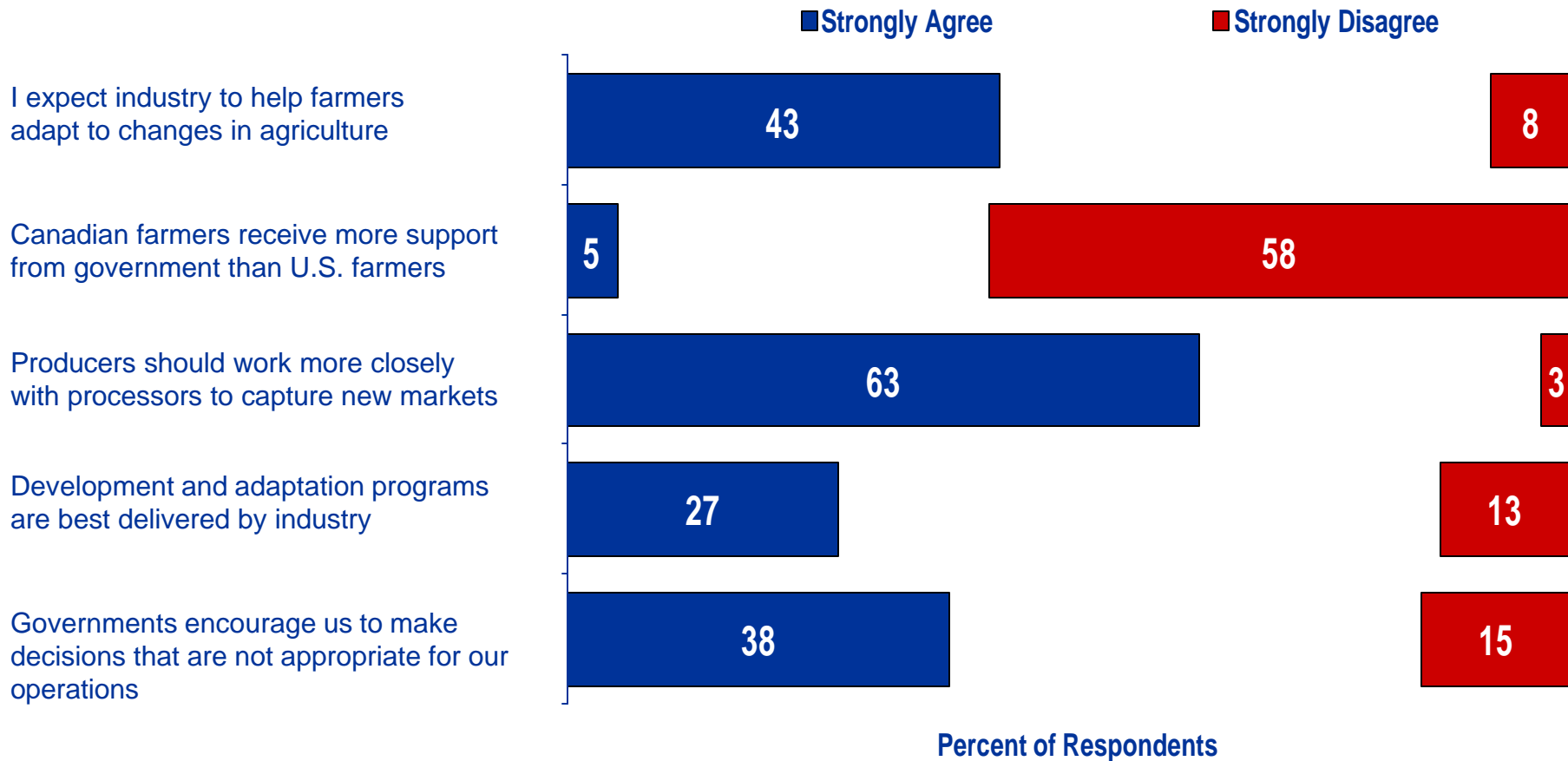
Source: AAFC - Adapting to Change and Managing Risk: A Profile of Canadian Farmer Attitudes and Behavior.

Changes in Agriculture



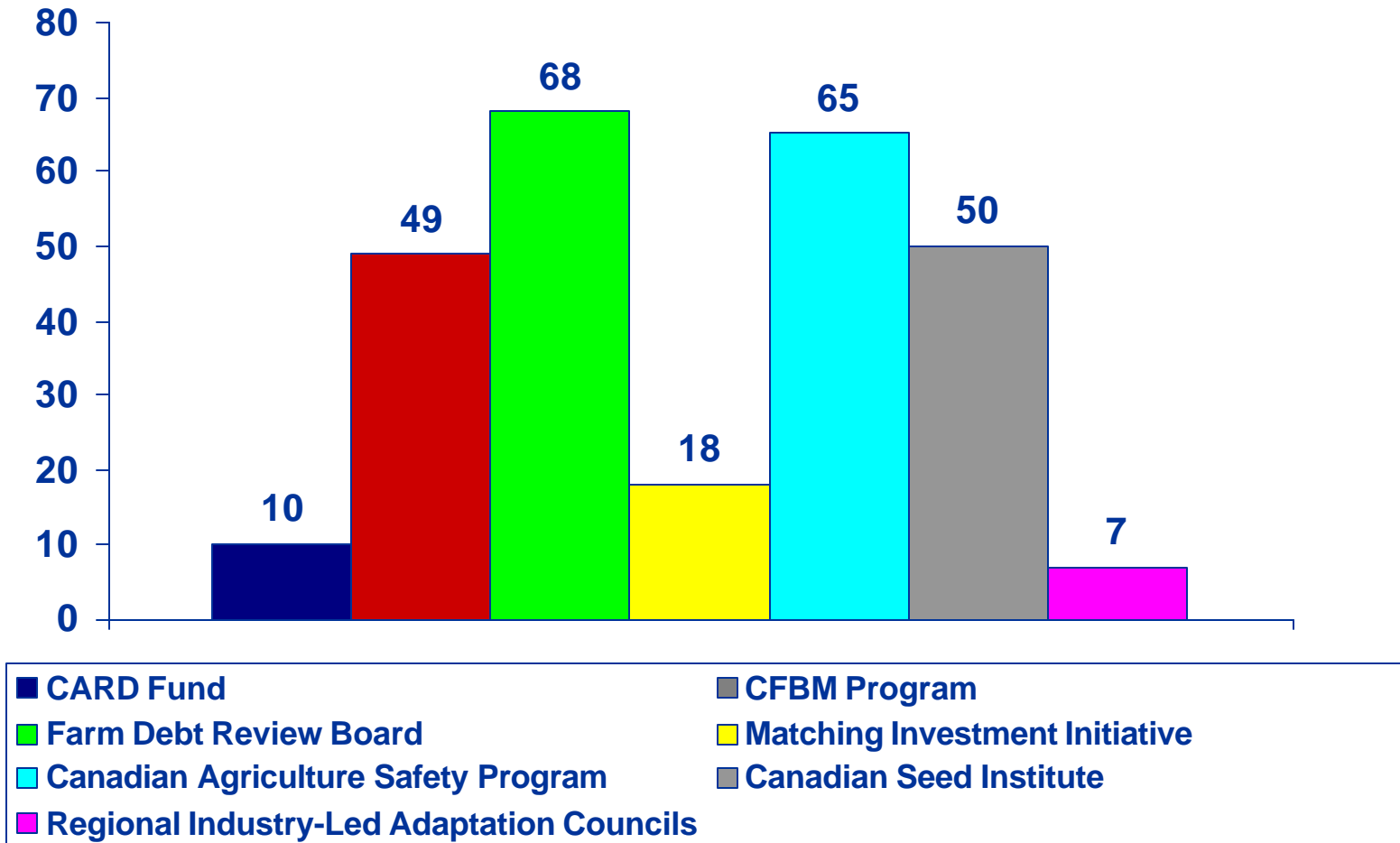
Source: AAFC - Adapting to Change and Managing Risk: A Profile of Canadian Farmer Attitudes and Behavior.

Role of Government and Industry



Source: AAFC - Adapting to Change and Managing Risk: A Profile of Canadian Farmer Attitudes and Behavior.

Awareness of Government & Industry Sponsored Initiative (Percentage of Respondents)



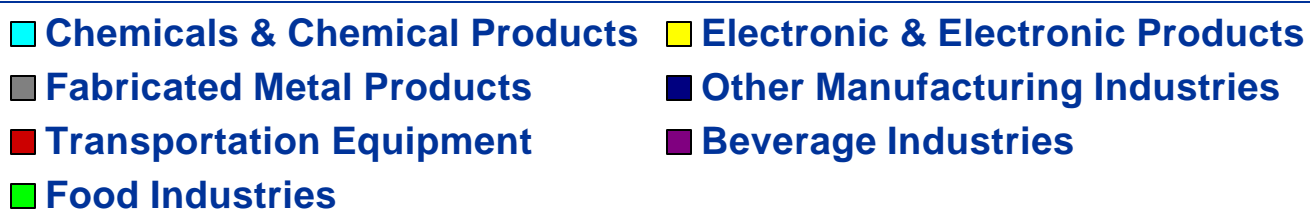
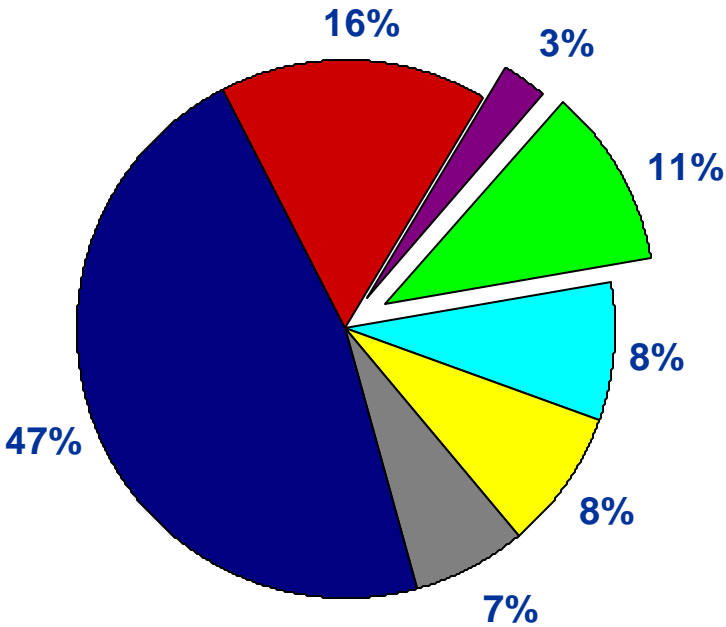
Source: AAFC - Adapting to Change and Managing Risk: A Profile of Canadian Farmer Attitudes and Behavior.

Glossary of Terms

Gross Farm Receipts	Gross farm receipts are compiled from census forms sent to all farms every five years. They include cash income from the sale of agricultural commodities as well as direct program payments to the agriculture sector.
Farm Cash Market Receipts	Farm cash market receipts are compiled from a sample of annual taxfiler data. They include cash income from the sale of agricultural commodities, but exclude direct program payments.
Land in crops	Includes field crops, vegetables, fruits & nursery crops. Since 1981, it has also included sod.
Other Farm Commodities	Includes sugar beets, potatoes, floriculture & nursery, tobacco, ginseng, mustard seed, sunflower seed, lentils, canary seed, dry beans, dry peas, forage & grass seed, hay & clover, maple products, forest products, misc. crops, wool, honey, fur, misc. livestock.
Farm Type	Commodity which accounts for 51% of the total farm cash receipts.
Farm Income	Farm income is defined as farm cash receipts less farm cash expenses. Expenses do not include non-cash items such as depreciation.

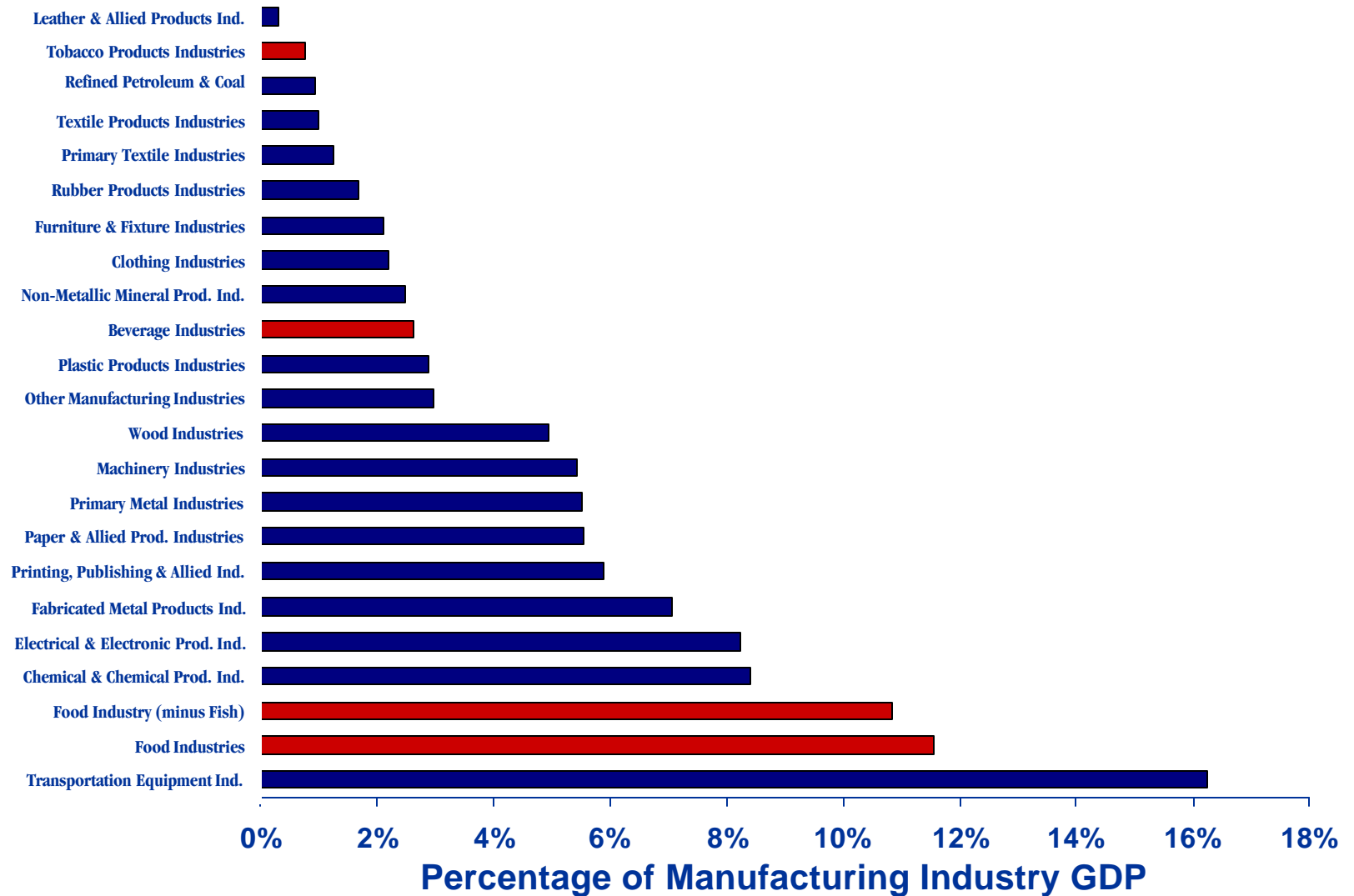
Agri-Food Processing Sector: Structure and Performance

Manufacturing Industries GDP Share, 1997



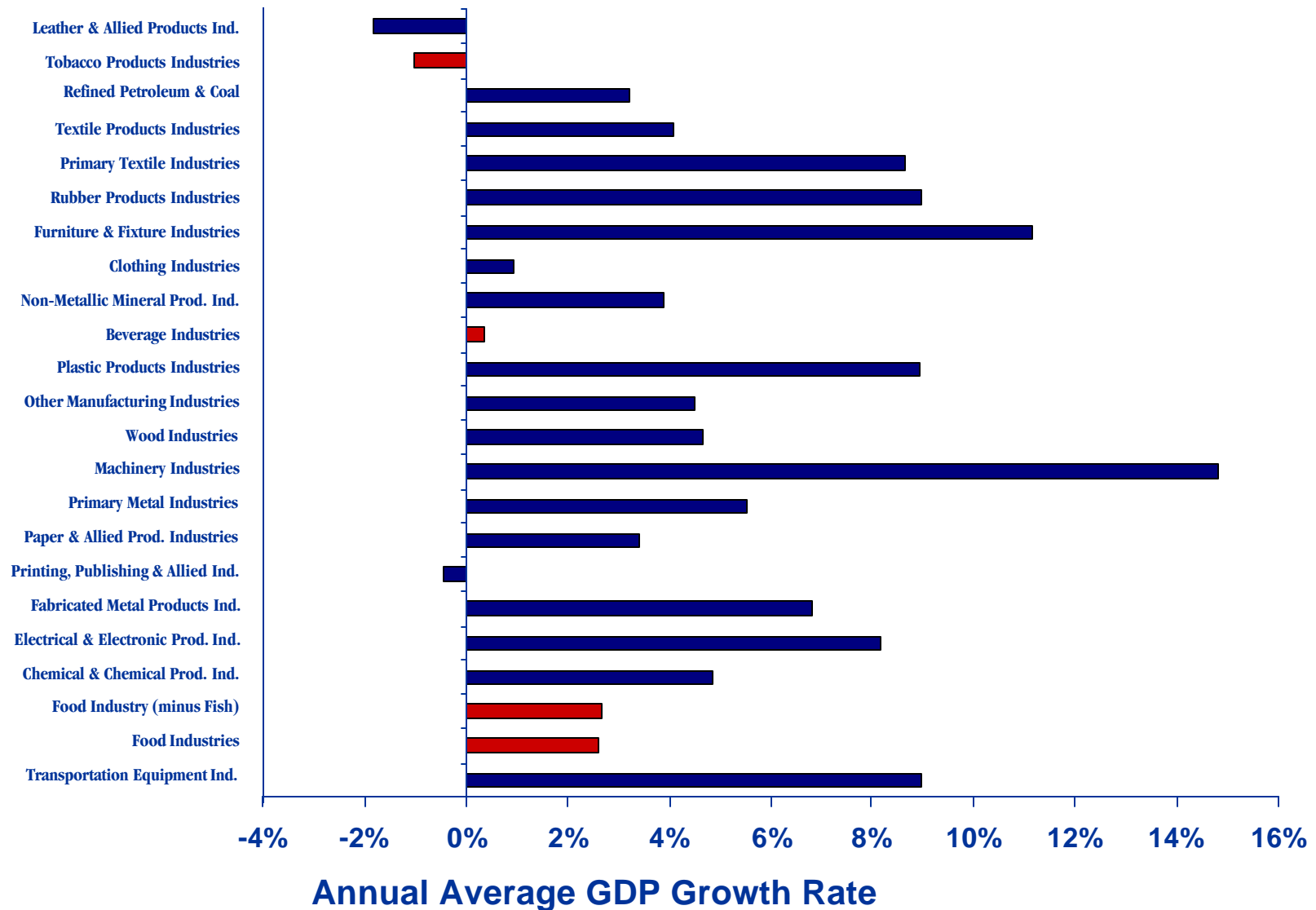
Source: Statistics Canada, Cansim.

Distribution of Manufacturing GDP by Major Industries in Canada, 1997



Source: Statistics Canada, Cansim.

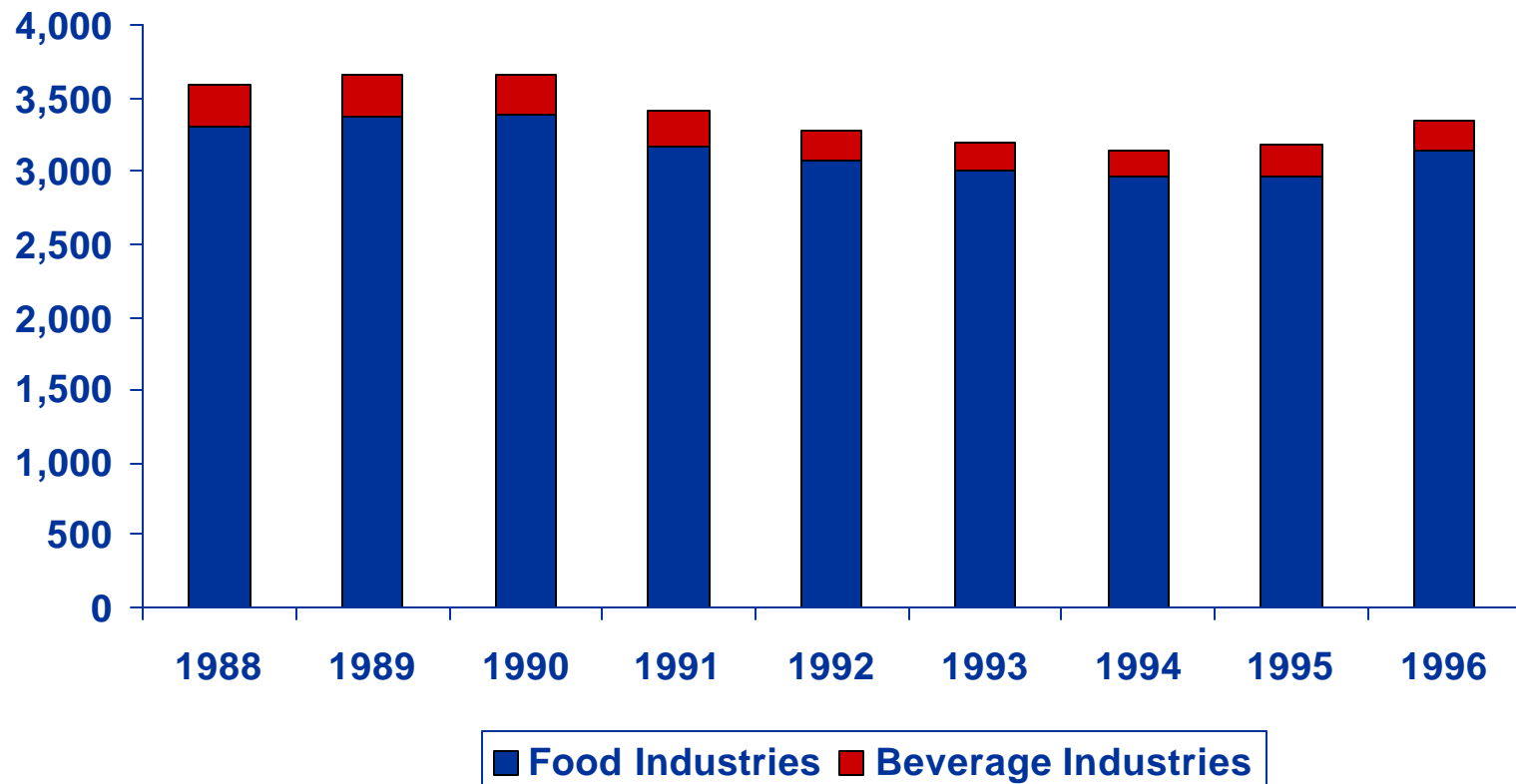
Major Industries in Canada, 1992-97



Source: Statistics Canada, Cansim.

Number of Processing Establishments Canada

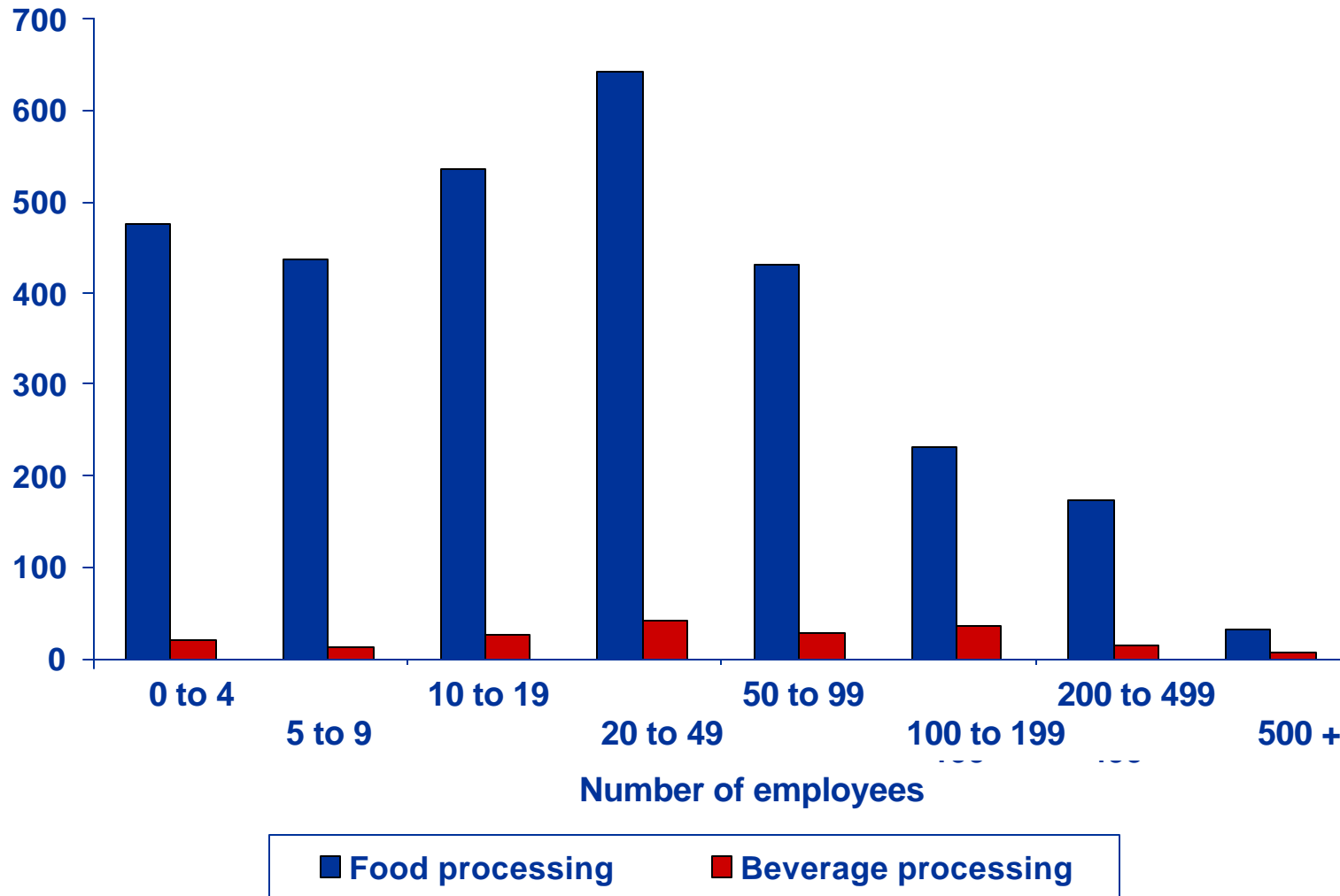
Number of plants



Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

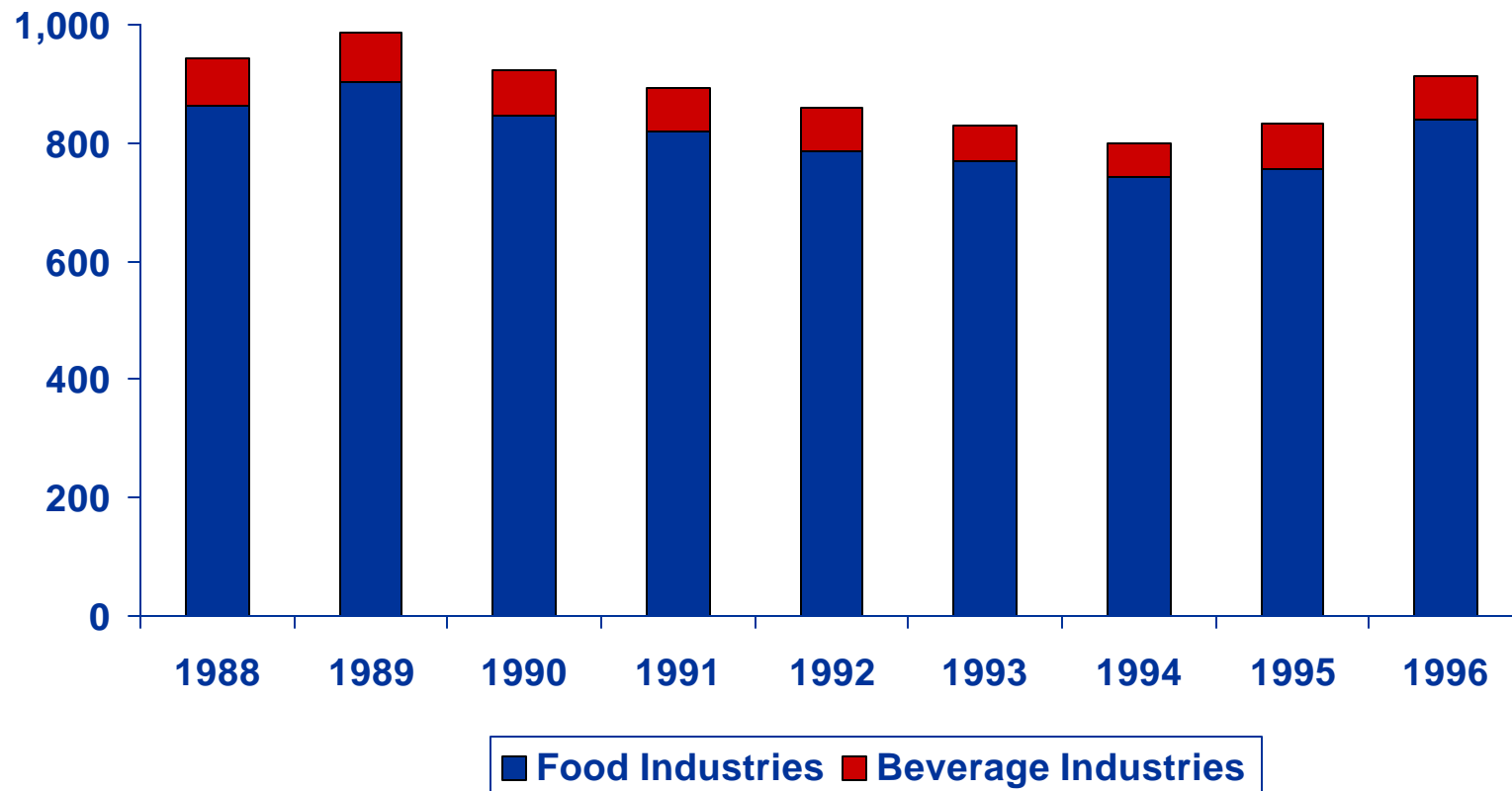
Number of processing establishments by employment size for Canada - 1994

Number of plants



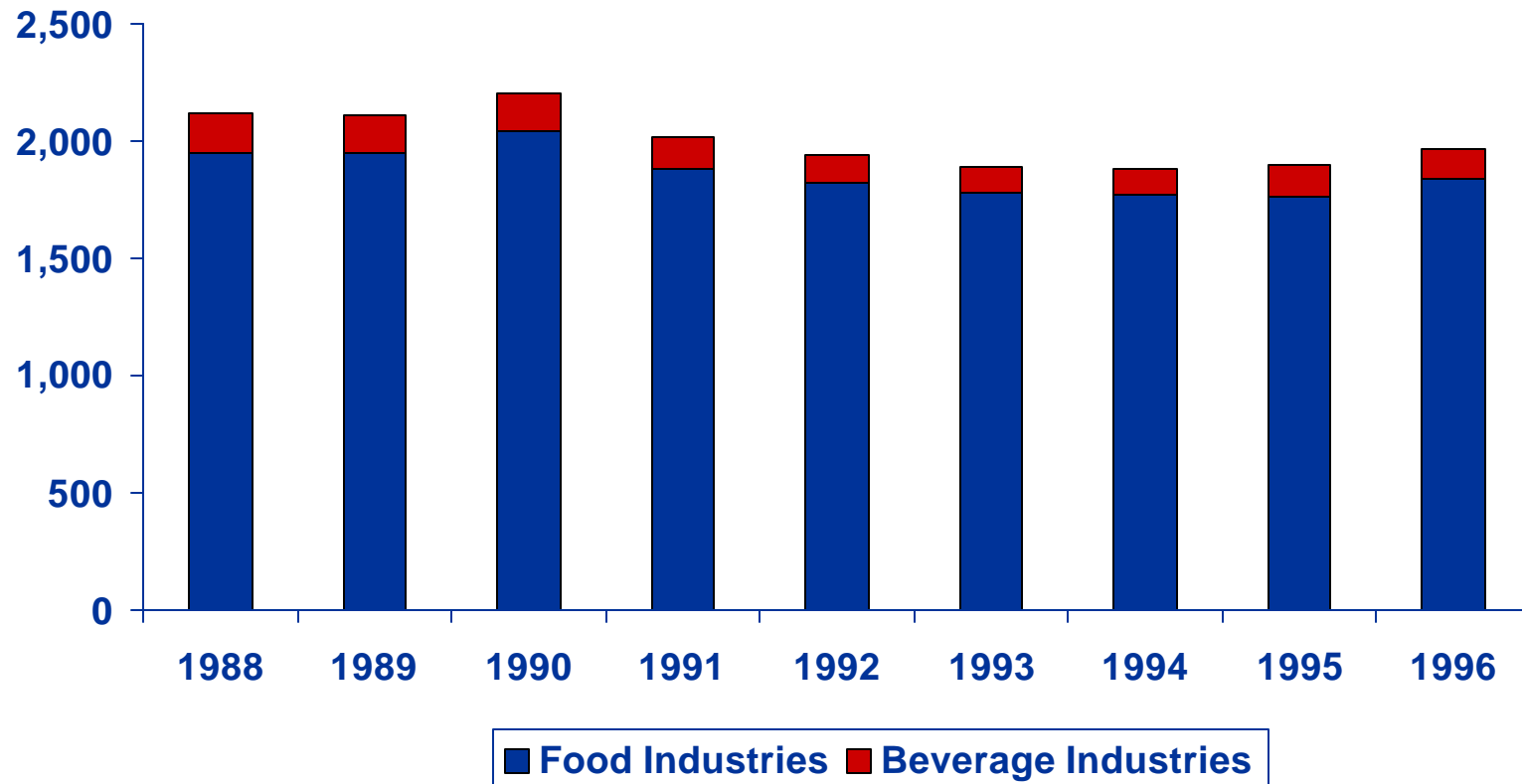
Source: FPIS, Policy Branch, AAFC and Statistics Canada.

Western Canada Number of Processing Establishments



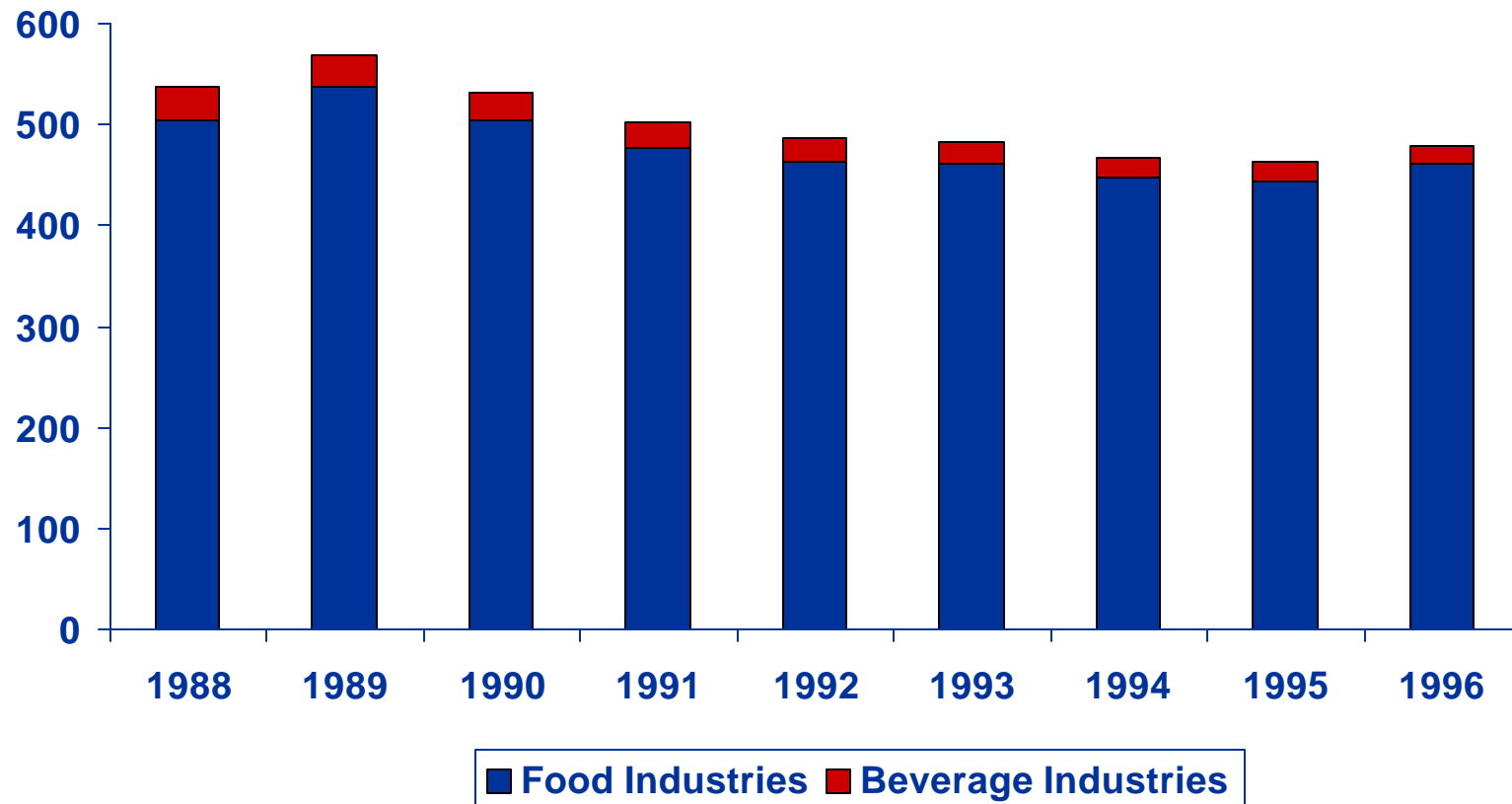
Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

Central Canada Number of Processing Establishments



Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

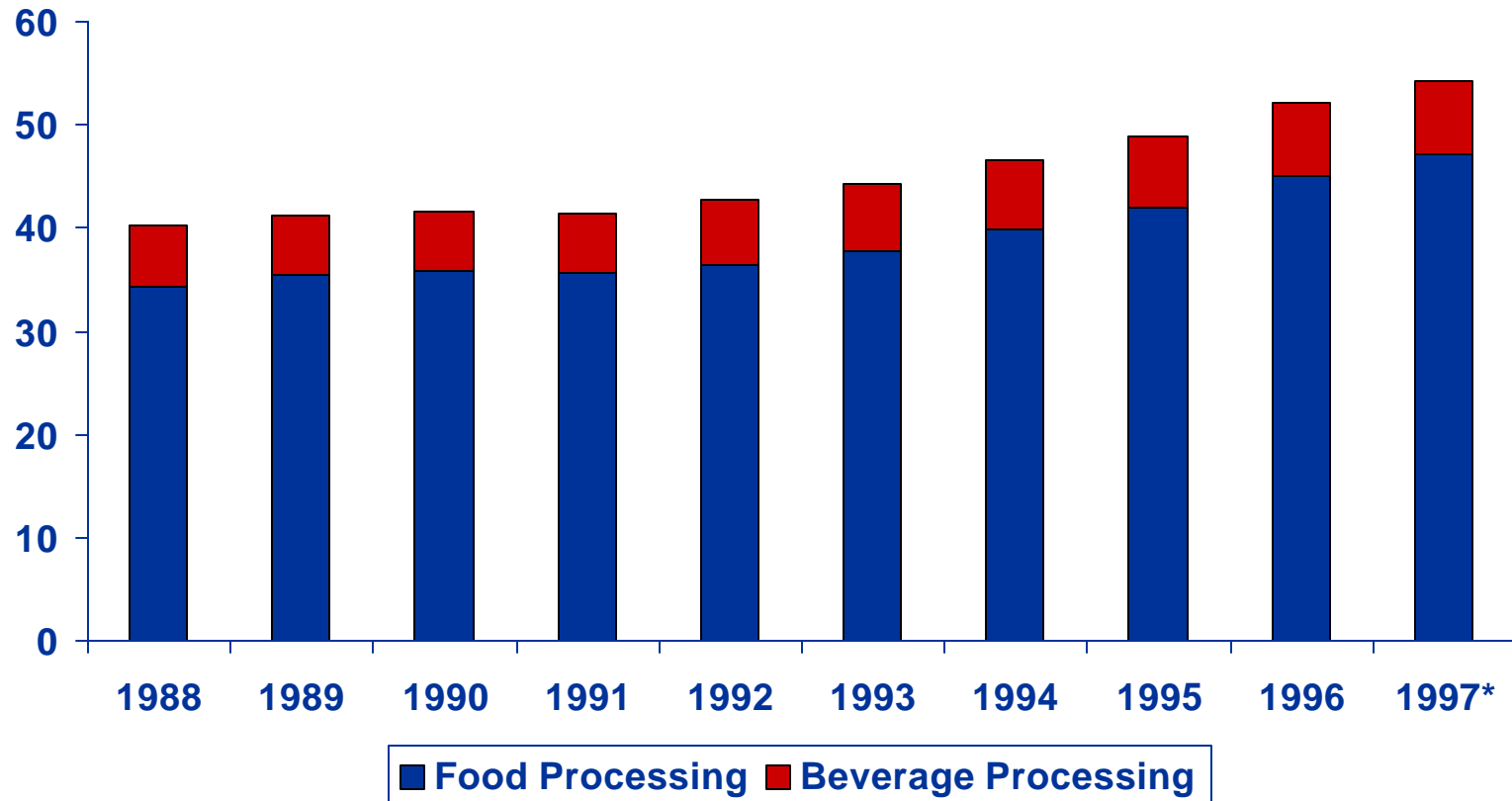
Atlantic Canada Number of Processing Establishments



Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

Value of Shipments Canada

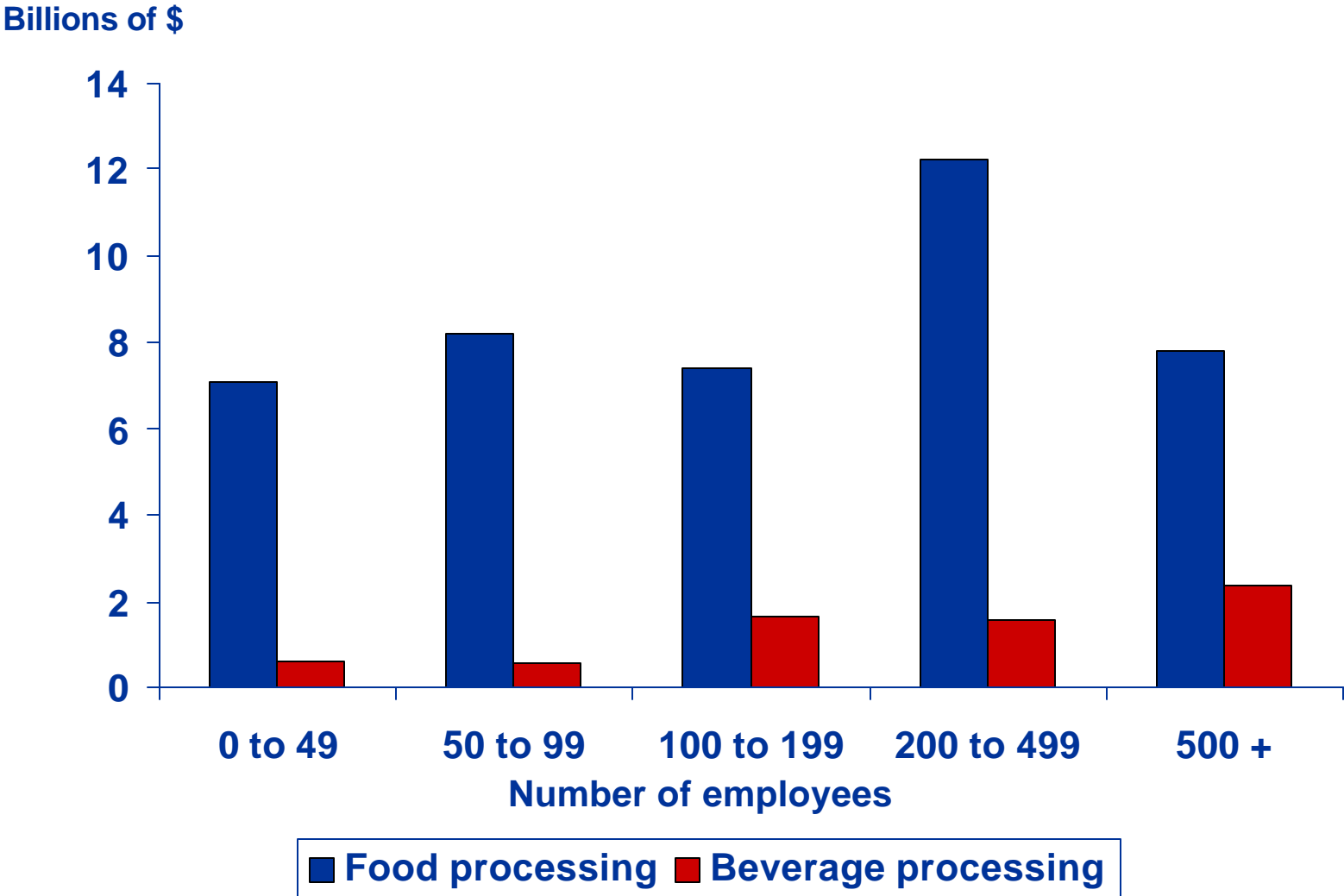
Billions of 1986 \$



*1997 figures based on seasonally adjusted monthly shipments.

Source: Statistics Canada, Cansim.

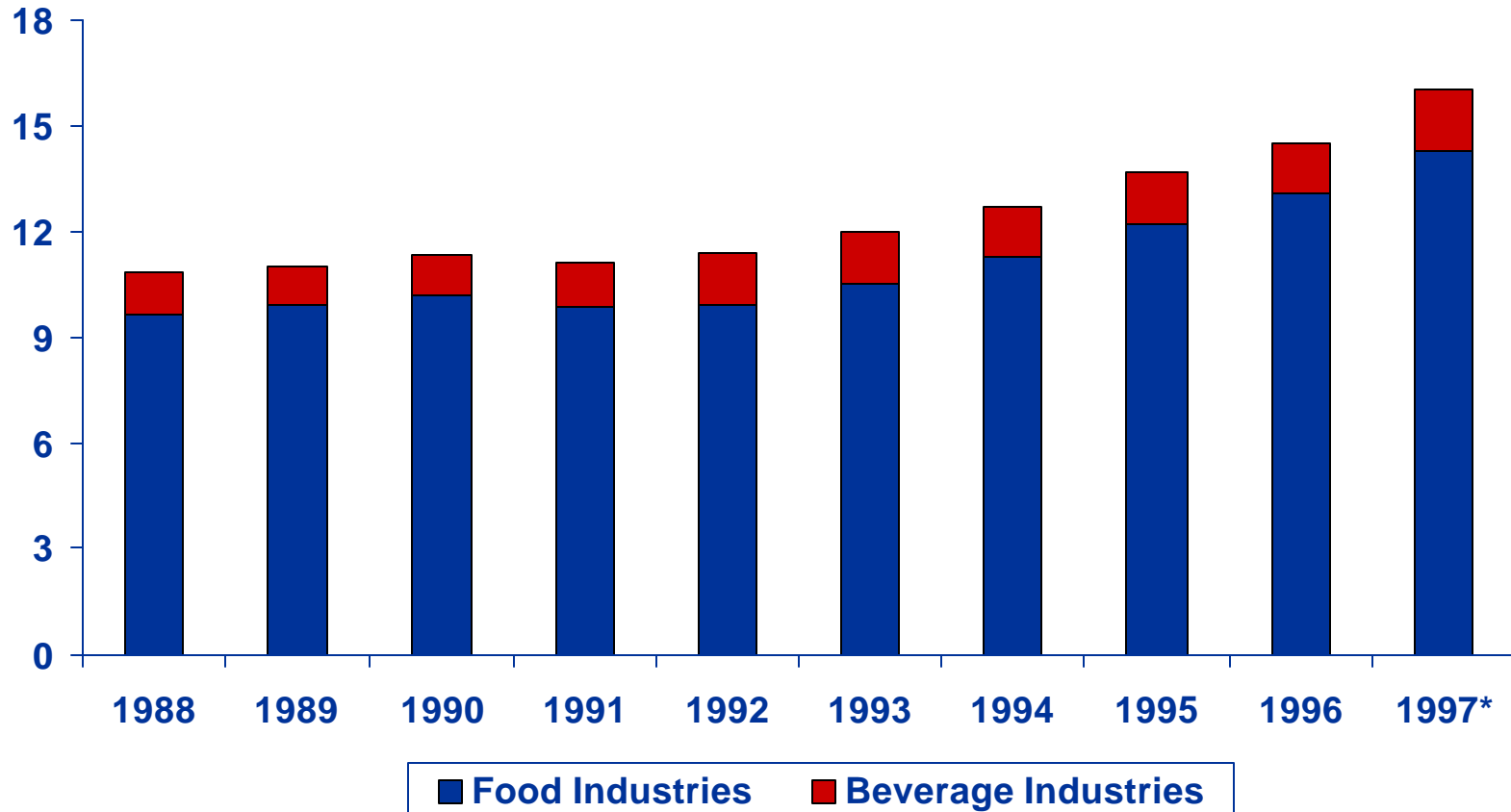
Value of Shipments by Establishment Employment Size for Canada - 1994



Source: FPIS, Policy Branch, AAFC and Statistics Canada.

Western Canada Value of Shipments

Billions of \$

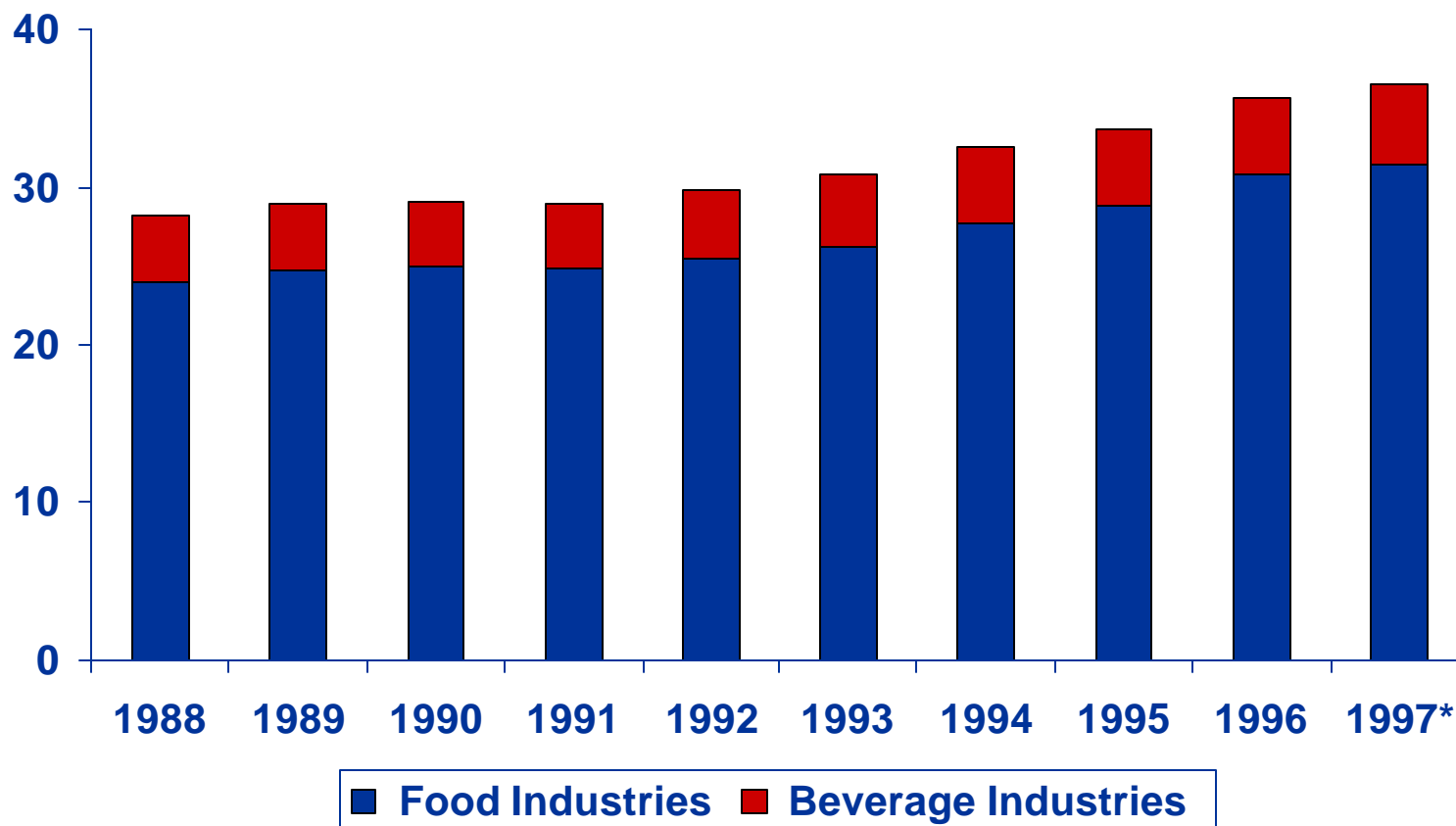


*1997 figures based on seasonally adjusted monthly shipments.

Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

Central Canada Value of Shipments

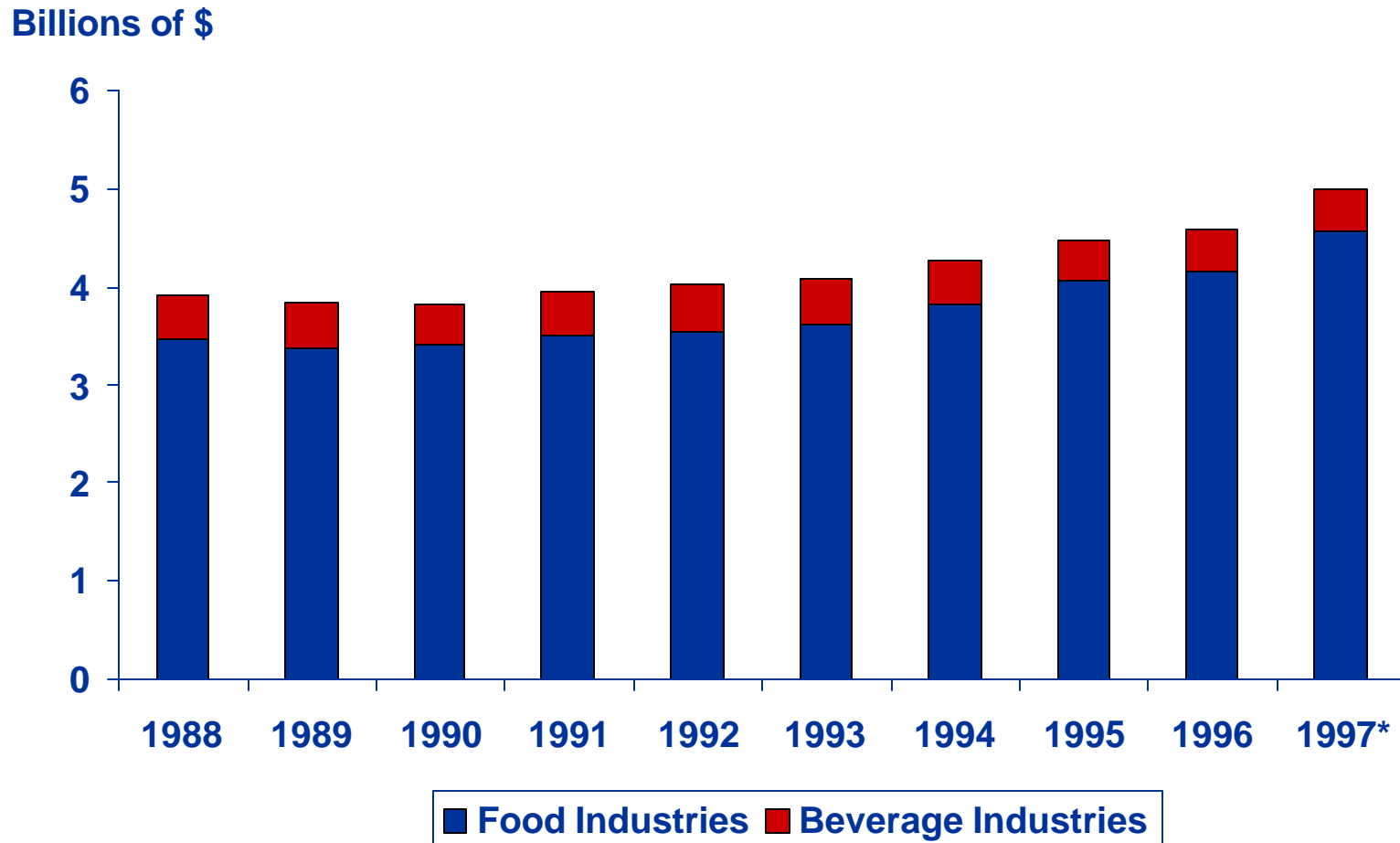
Billions of \$



*1997 figures based on seasonally adjusted monthly shipments.

Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

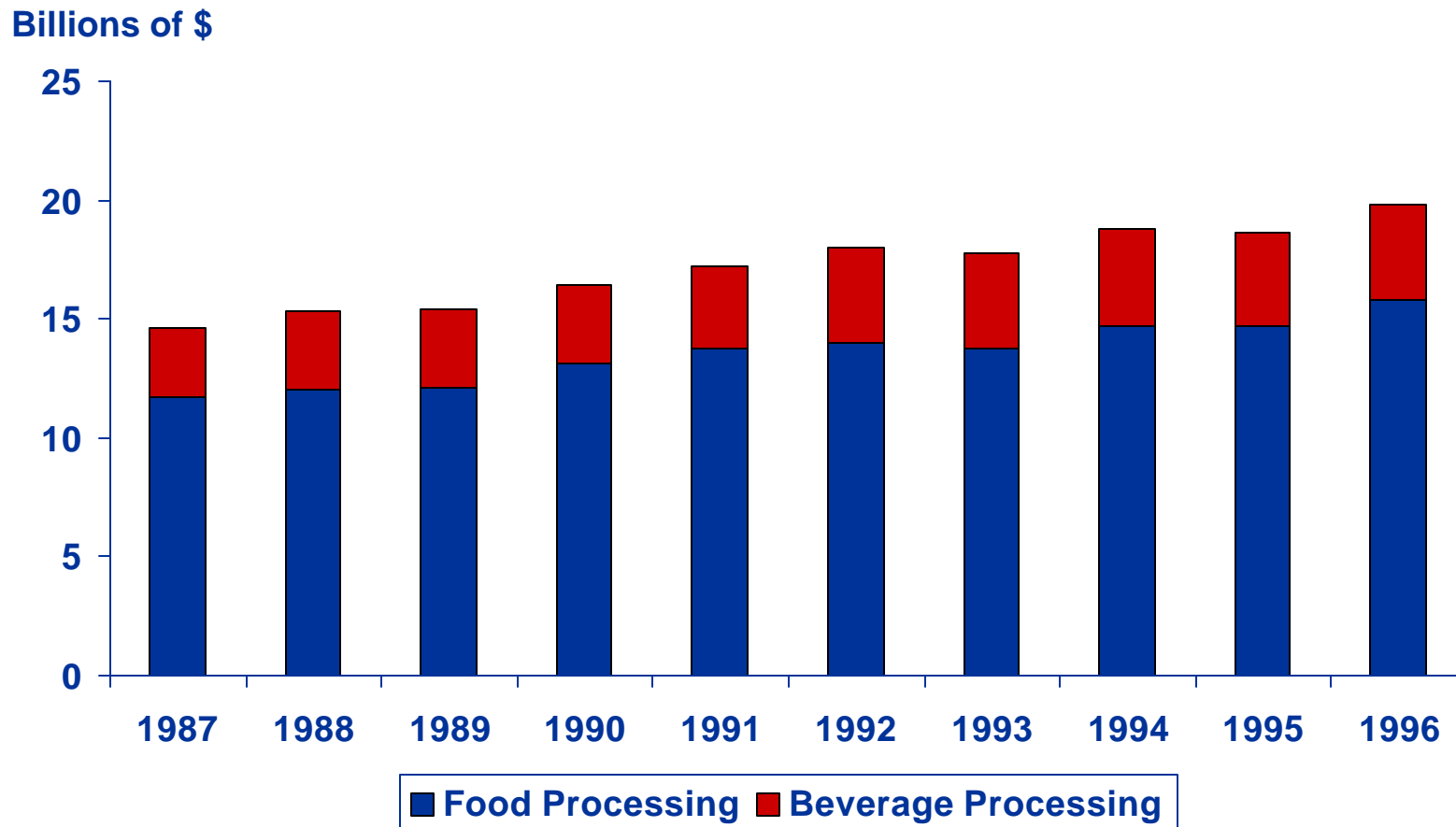
Atlantic Canada Value of Shipments



*1997 figures based on seasonally adjusted monthly shipments.

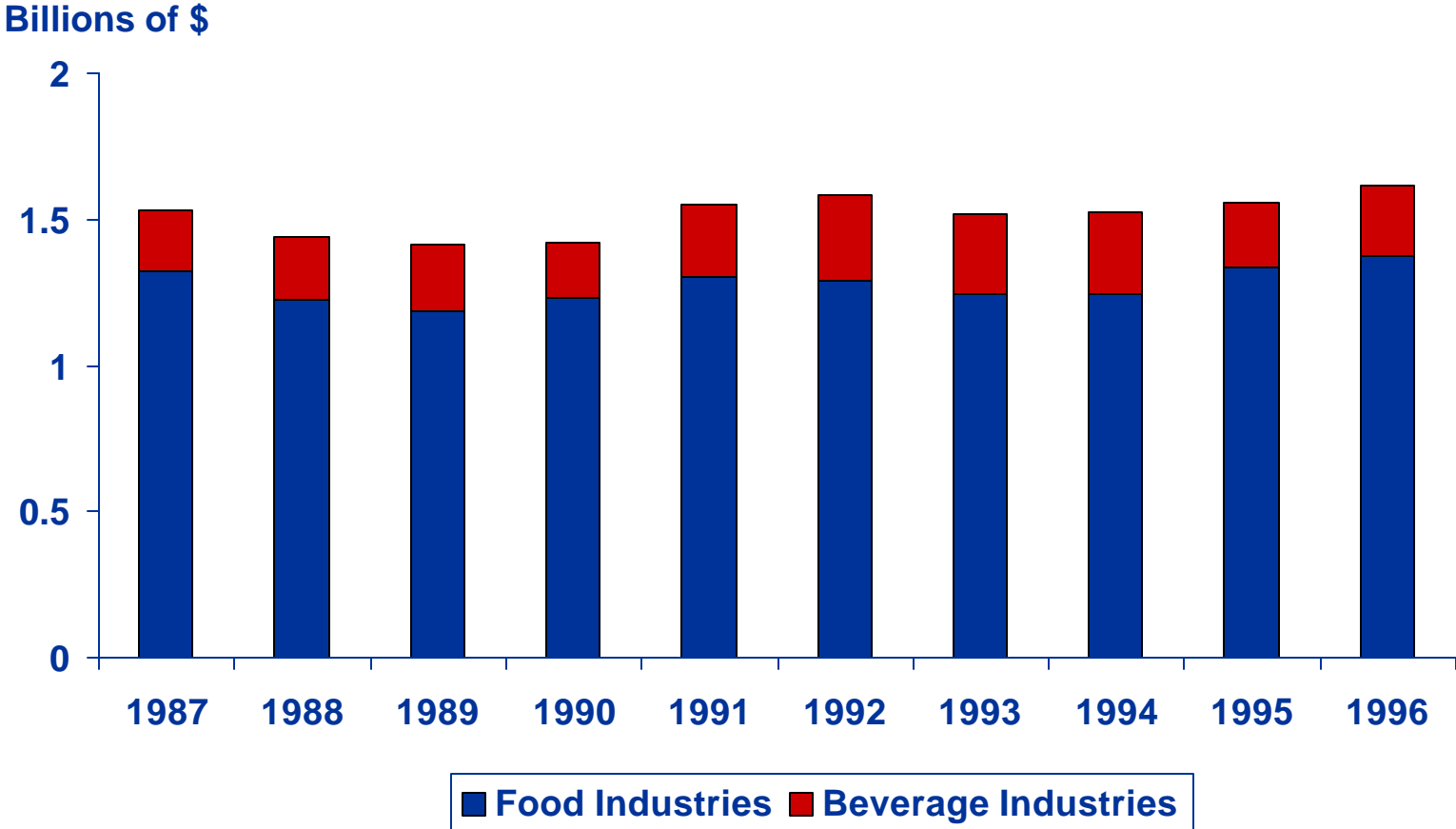
Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

Canada Manufacturing Value-Added



Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

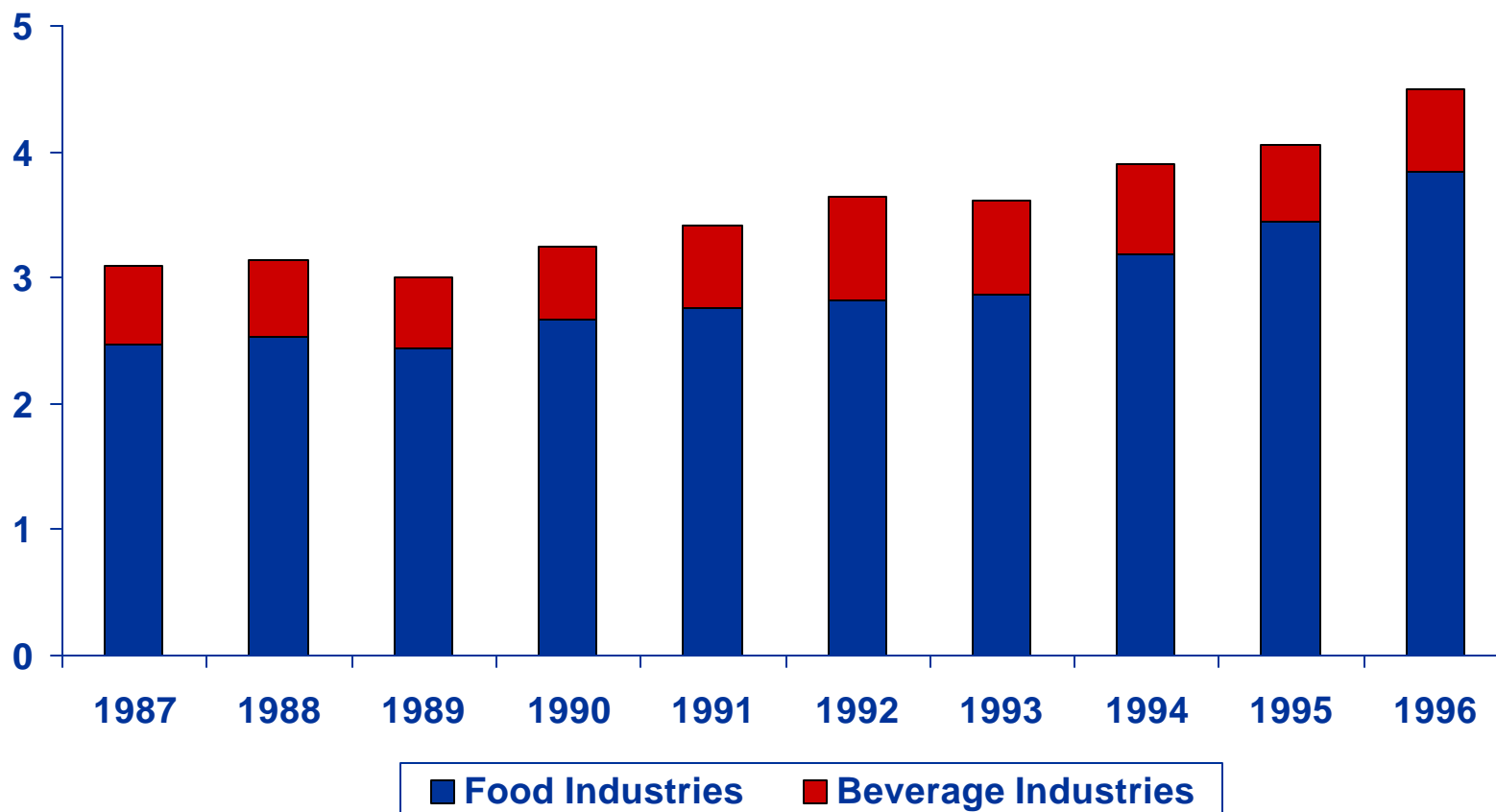
Atlantic Canada Manufacturing Value-Added



Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

Western Canada Manufacturing Value-Added

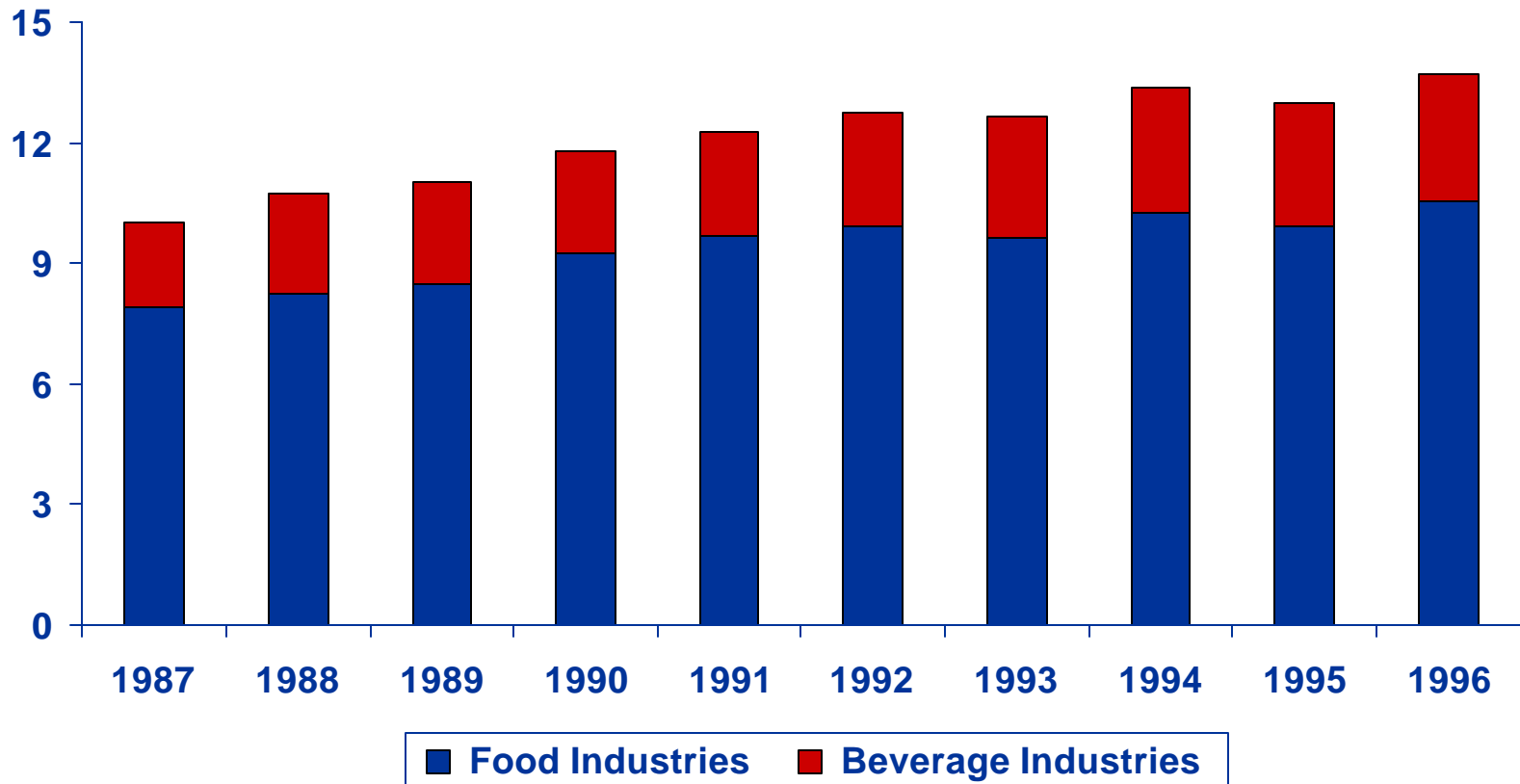
Billions of \$



Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

Central Canada Manufacturing Value-Added

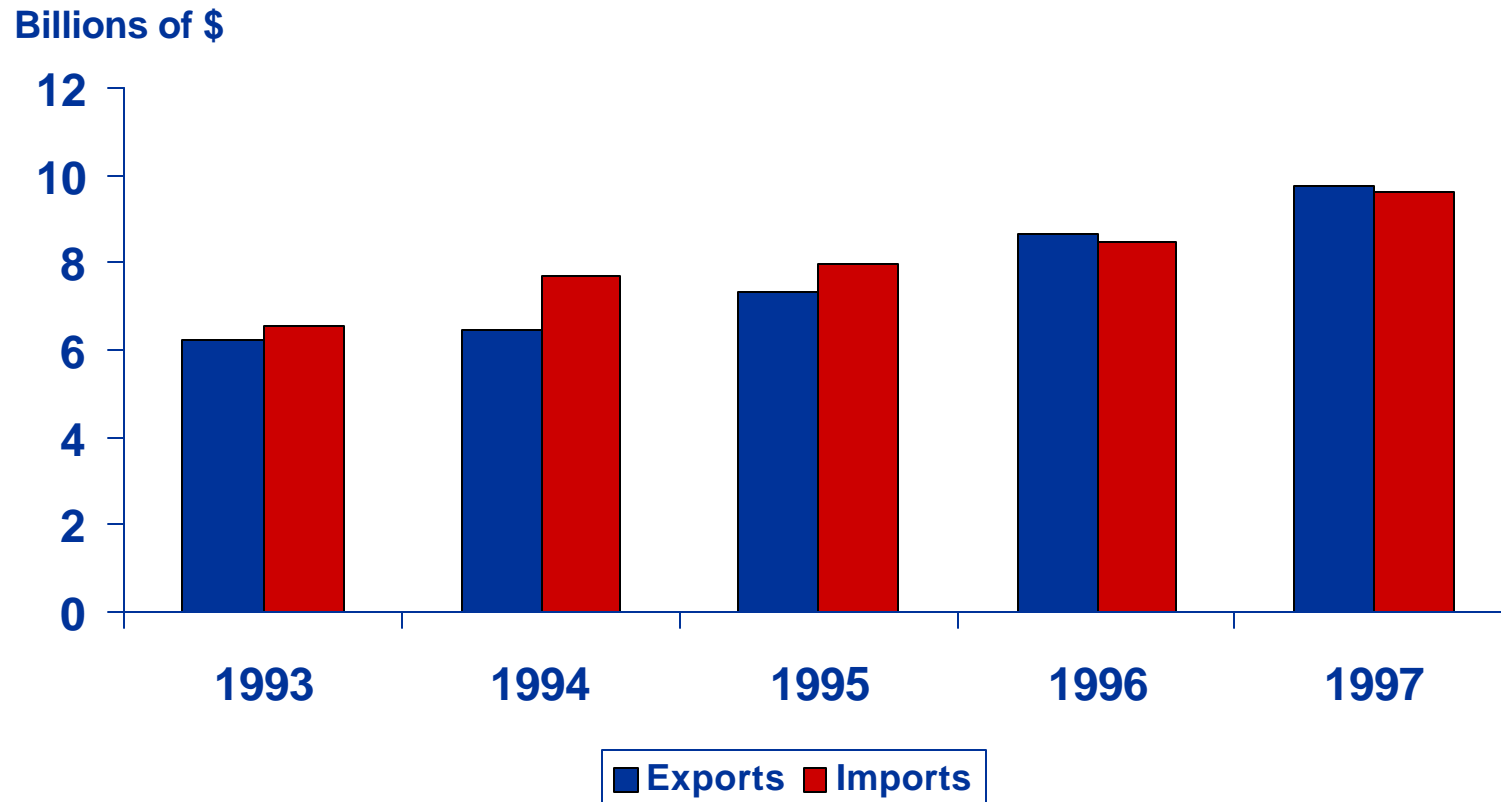
Billions of \$



Source: Cansim Matrix 5379 & 5401, Annual Survey of Manufacturers.

Value of Trade

Agri-Food Processing Sector*

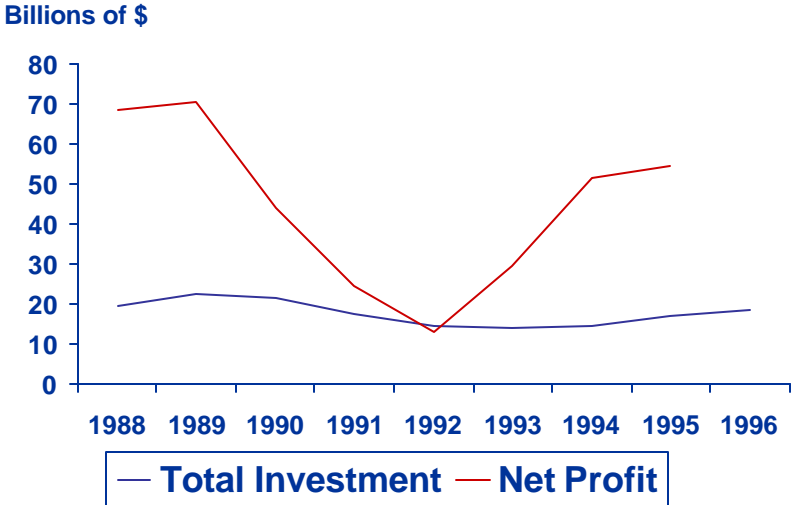


*Includes: food (excl. fish) & beverage processing and tobacco products.

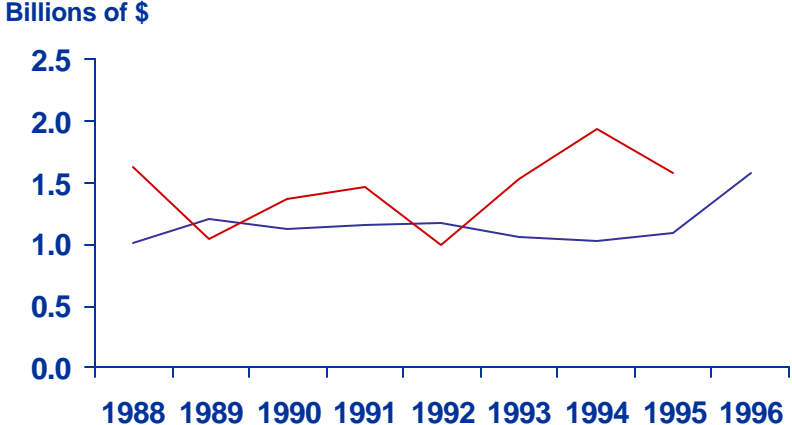
Source: Statistics Canada's Merchandise Trade Data.

Investment and Net Profit

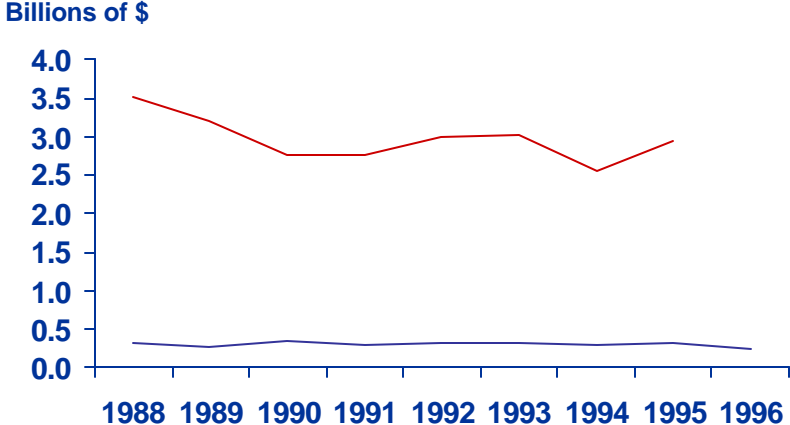
Total Manufacturing



Beverage Processing

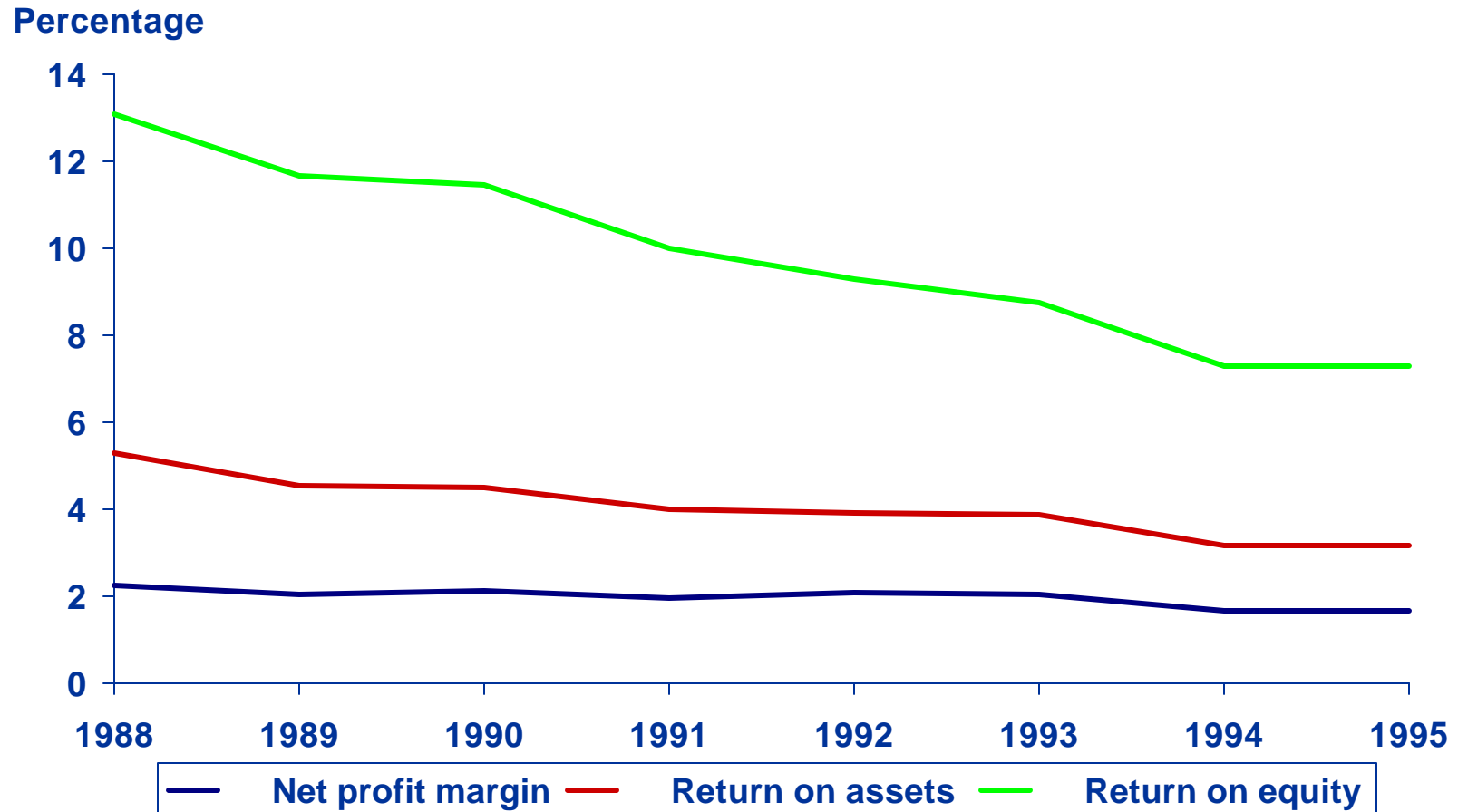


Food Processing



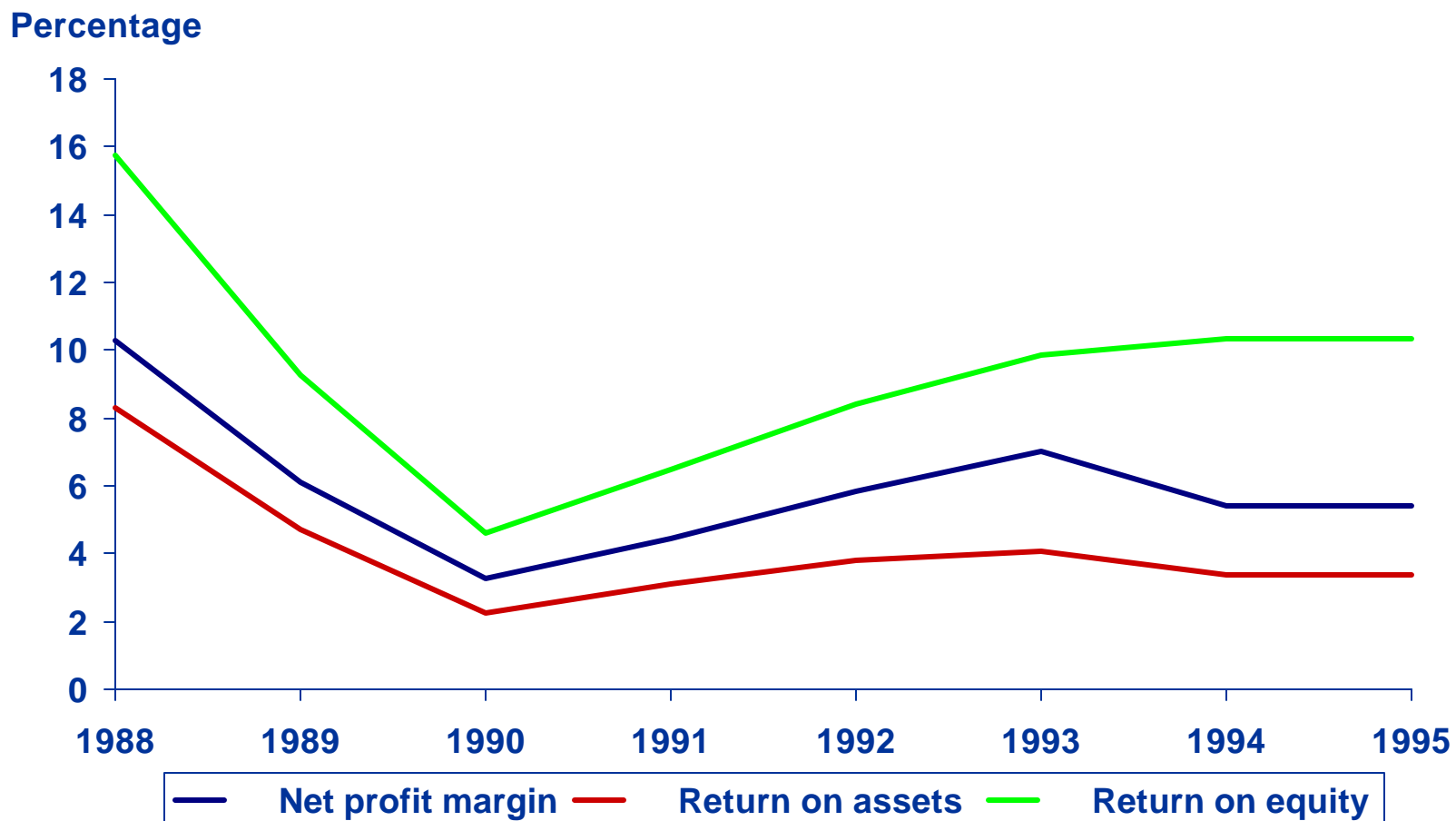
Source: Statistics Canada, Cansim.

Canadian Food Processing Sector Profitability Measures



Source: Special Tabulations obtained from Business Finance and Taxation, Statistics Canada.

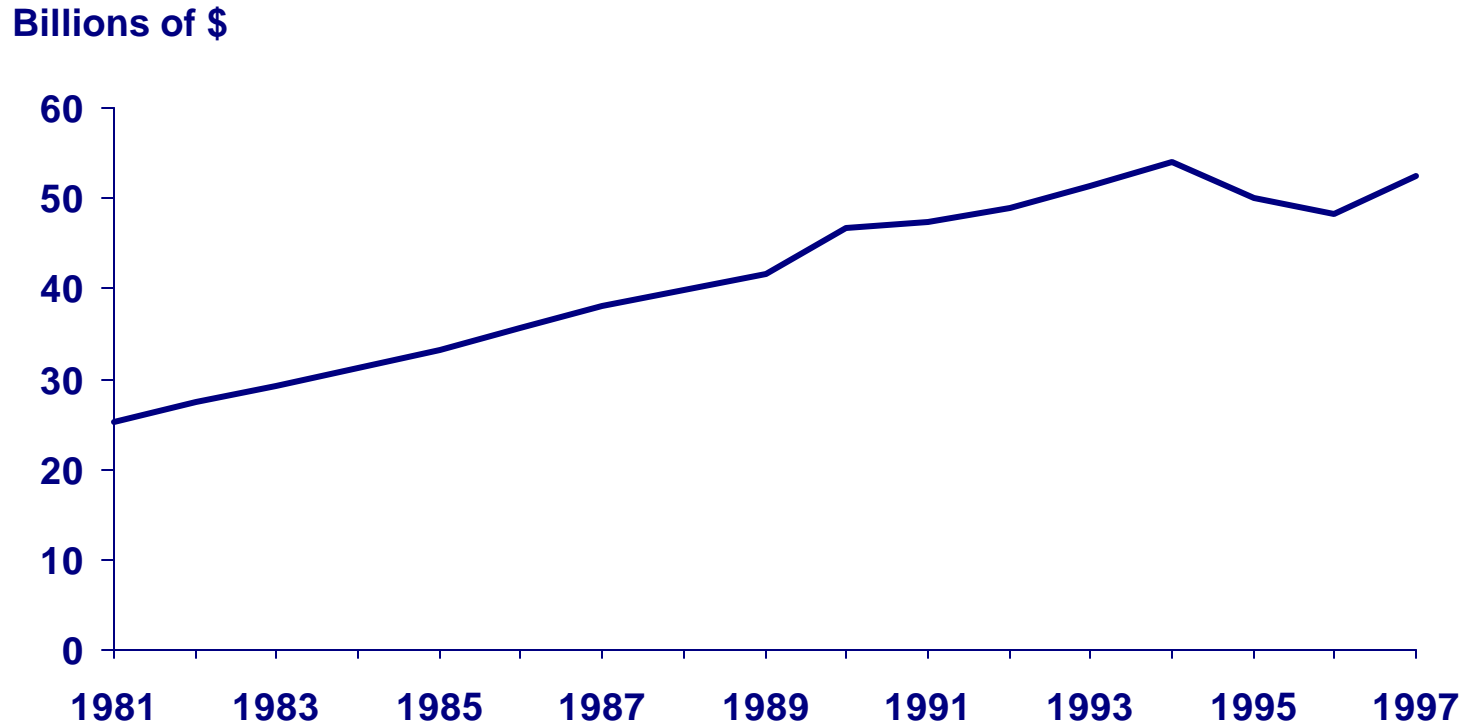
Canadian Beverage Processing Sector Profitability Measures



Source: Special Tabulations obtained from Business Finance and Taxation, Statistics Canada.

Retail and Food Service Structure and Performance

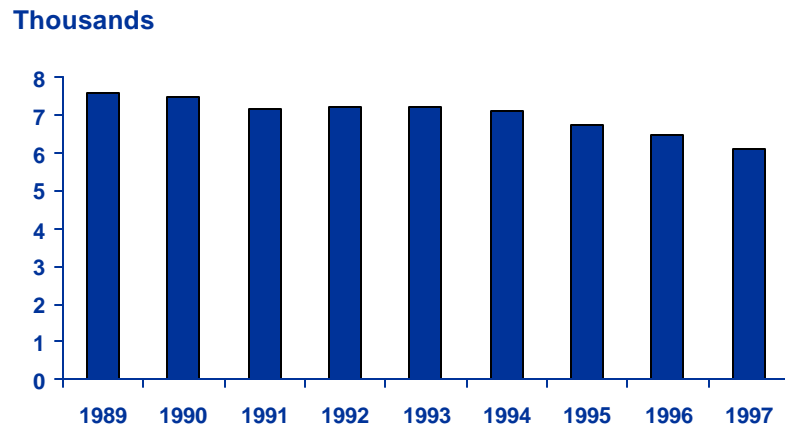
Canadian Retail Food Store Sales



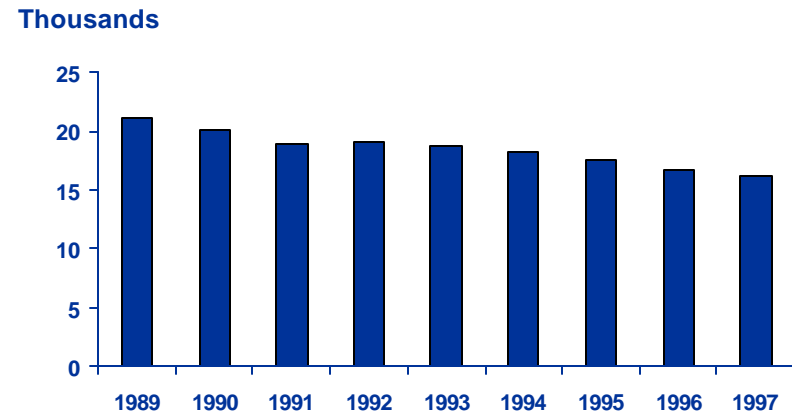
Source: Canadian Grocer, Annual Survey of Chains and Groups, February 1998.

Number of Retail Food Outlets

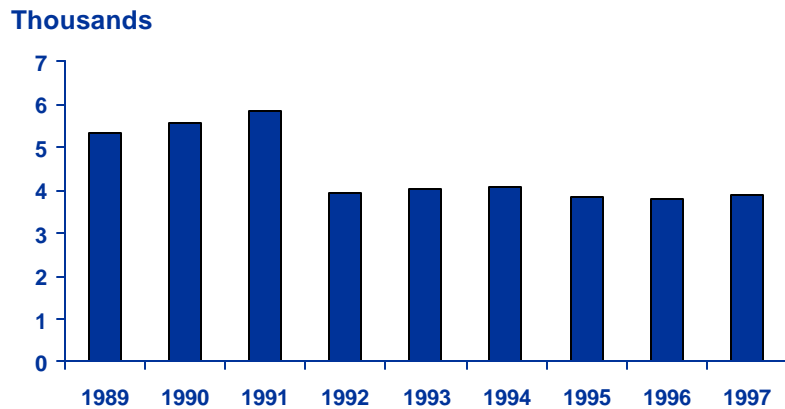
Western Canada



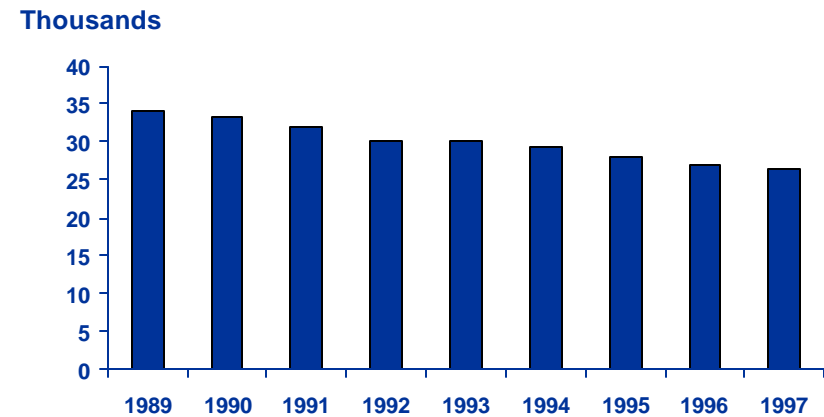
Central Canada



Atlantic Canada

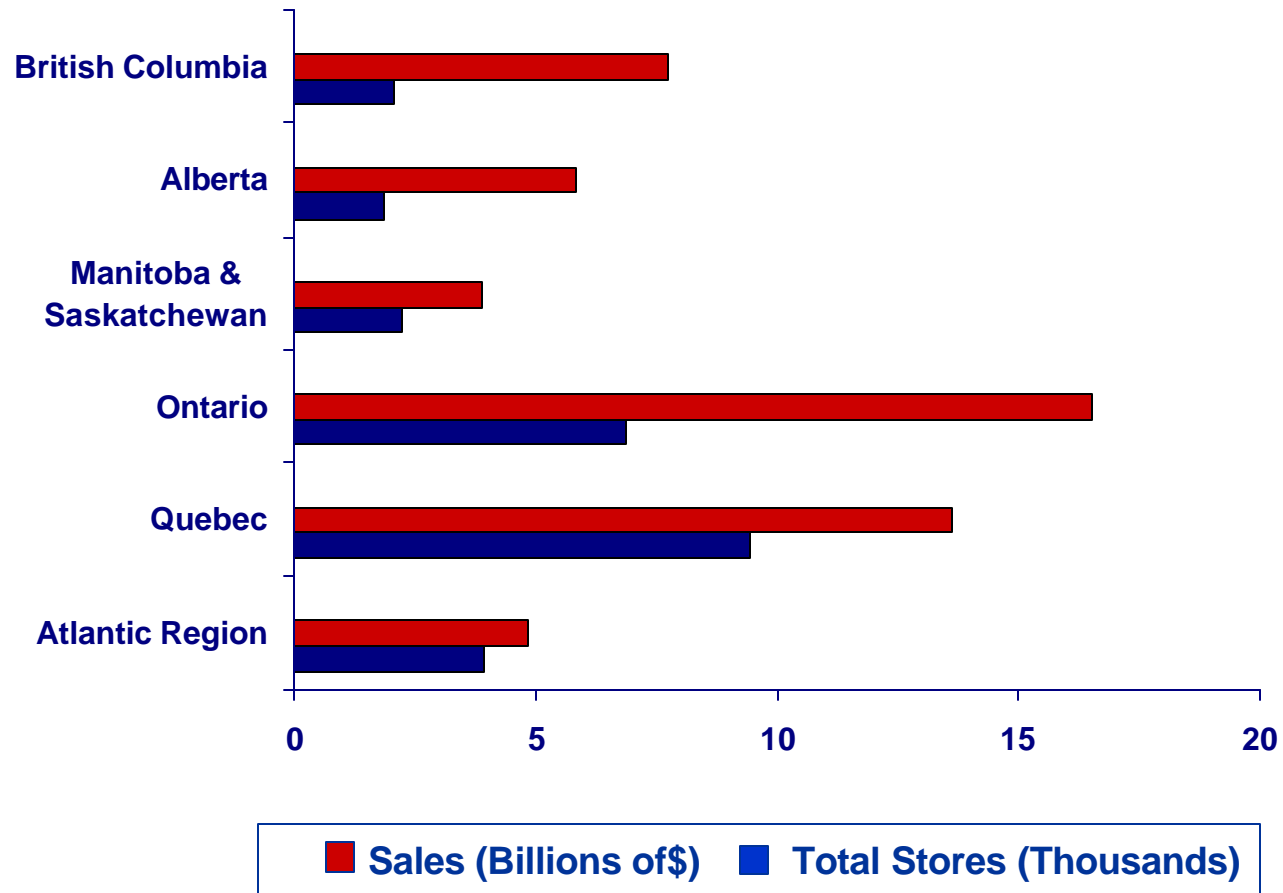


Canada



Source: Canadian Grocer, Annual Survey of Chains and Groups, February 1998.

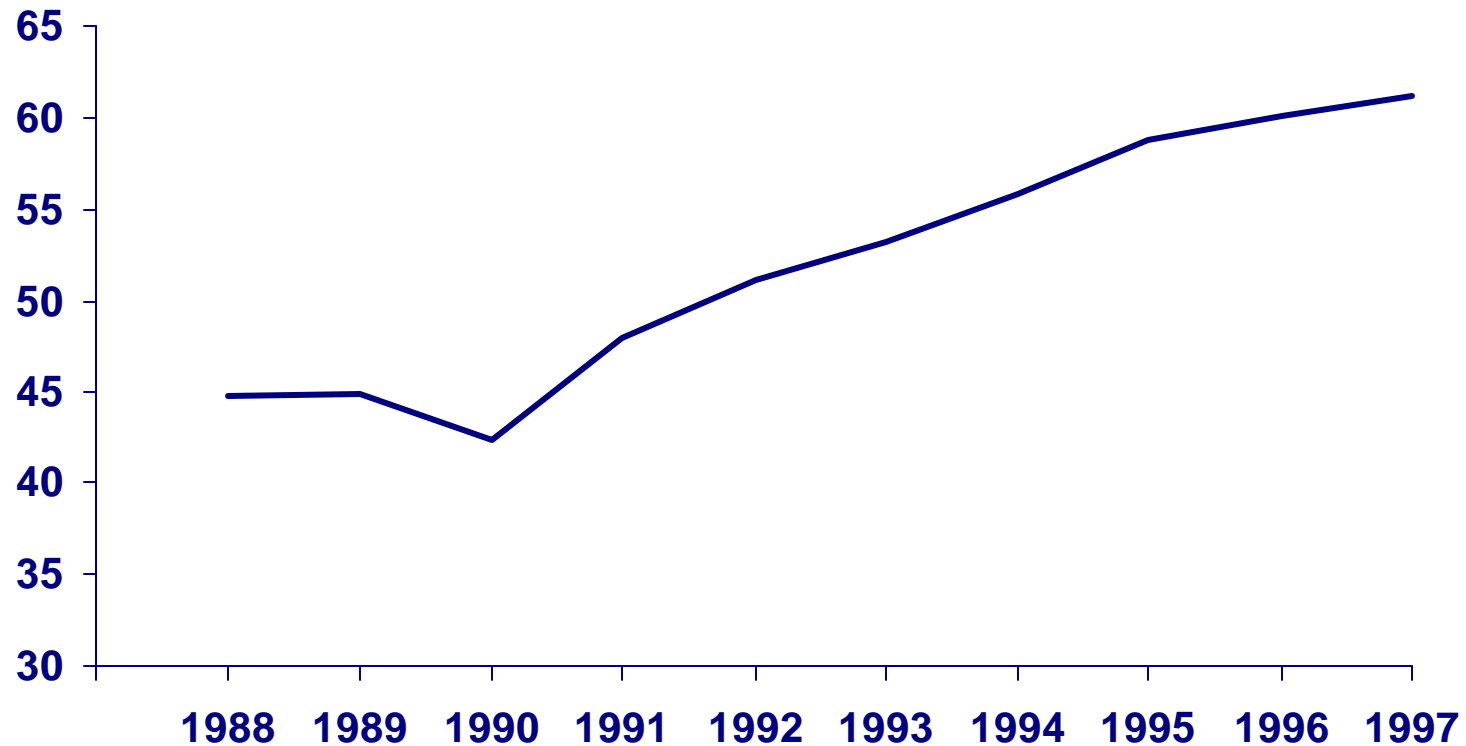
Canadian Food Store Sales, 1997



Source: Canadian Grocer, Annual Survey of Chains and Groups, February 1998.

Number of Commercial Food Services* Establishments

Thousands

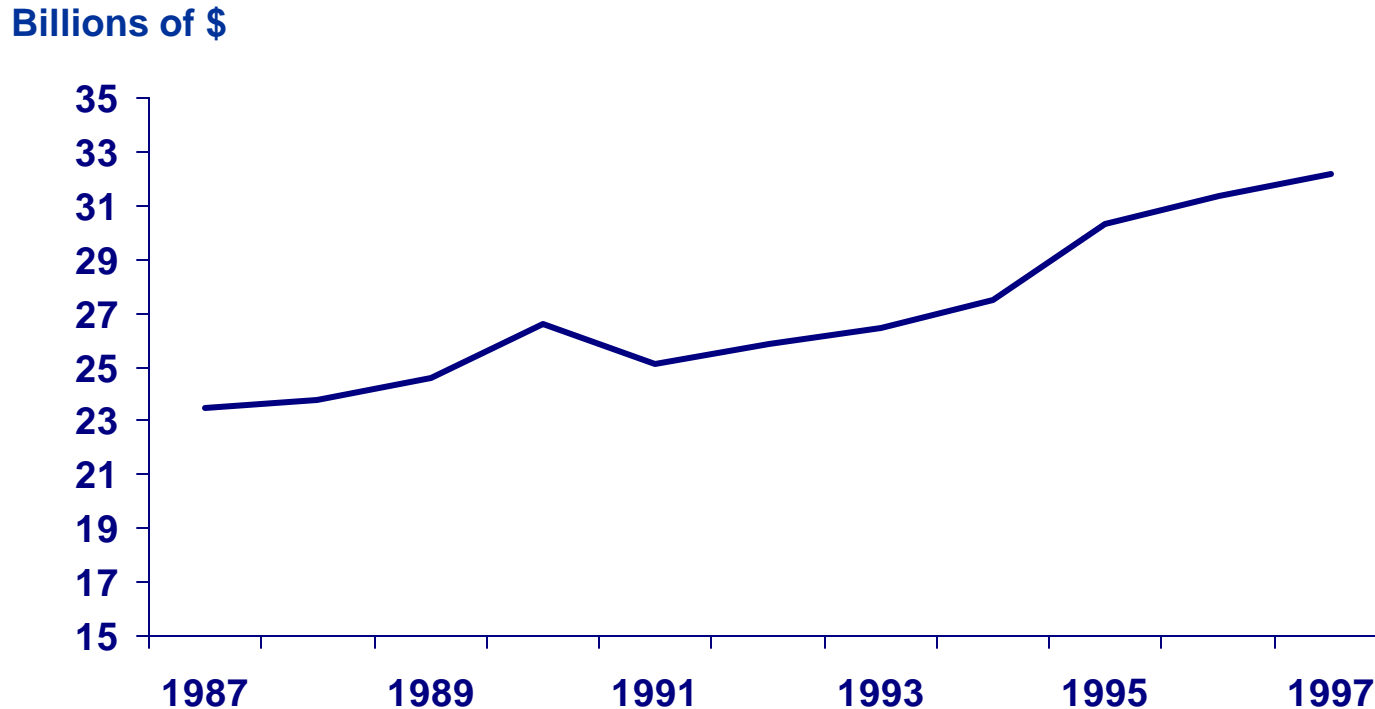


Note:

1) *Restaurants (licensed and unlicensed), Take-out & Delivery, Social/Contract Catering and Pubs/Taverns/Lounges.

Sources: CFRA's InfoStats and Statistics Canada.

Commercial and Institutional Food Services* Sales



Notes:

- 1) *Includes Restaurants, Pubs/Taverns, Vending, Hotel/Motel, Take-out & Delivery, Leisure Industry, Department Stores (but not Drug Stores), Social/Contract Caterers, Institutions.
- 2) 1997 data are estimates only.

Sources: CFRA's InfoStats and Statistics Canada.

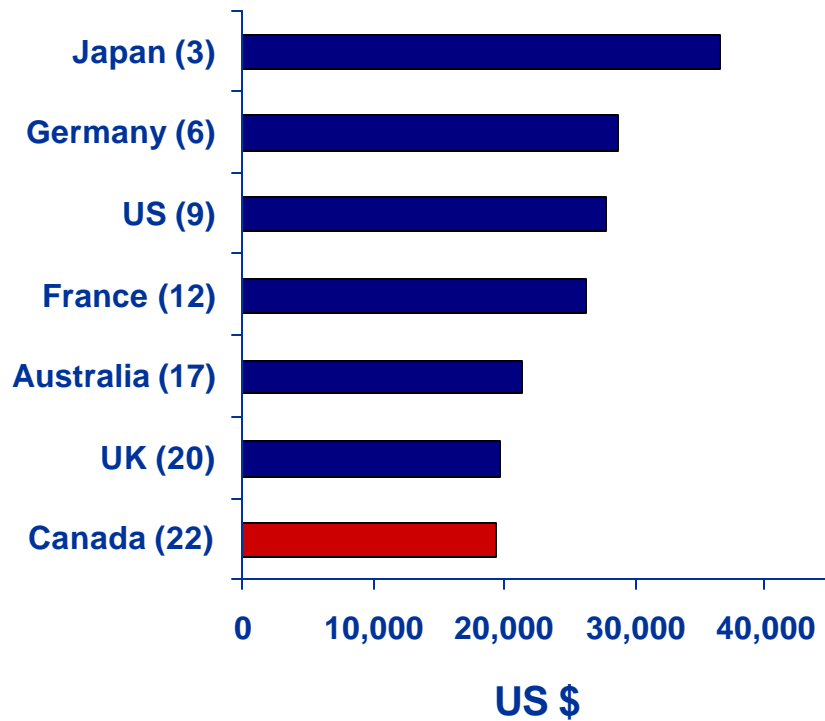
Glossary of Terms

Commercial & Institutional Food Sales	Includes sales from restaurants, pubs and taverns, vending, hotel/motel, take-out and delivery, leisure industry, department stores, social/contract caterers, institutional foodservices.
Food Service Establishments	Includes restaurants (licensed and unlicensed), take-out and delivery, social/contract caterers, and pubs/taverns/lounges.
Food Store Sales	Includes chain stores, independents, but does not include food sales through department stores or specialty stores (i.e., bakeries, butchers, etc.).
Retail Food Sales	Includes chains, independents, department stores, all other food stores (specialty food stores, butchers, warehouse clubs, bakeries, etc.) but does not include food sold through drug stores (estimated at 2.4% of retail food sales).
CFRA	Canadian Foodservice and Restaurant Association.

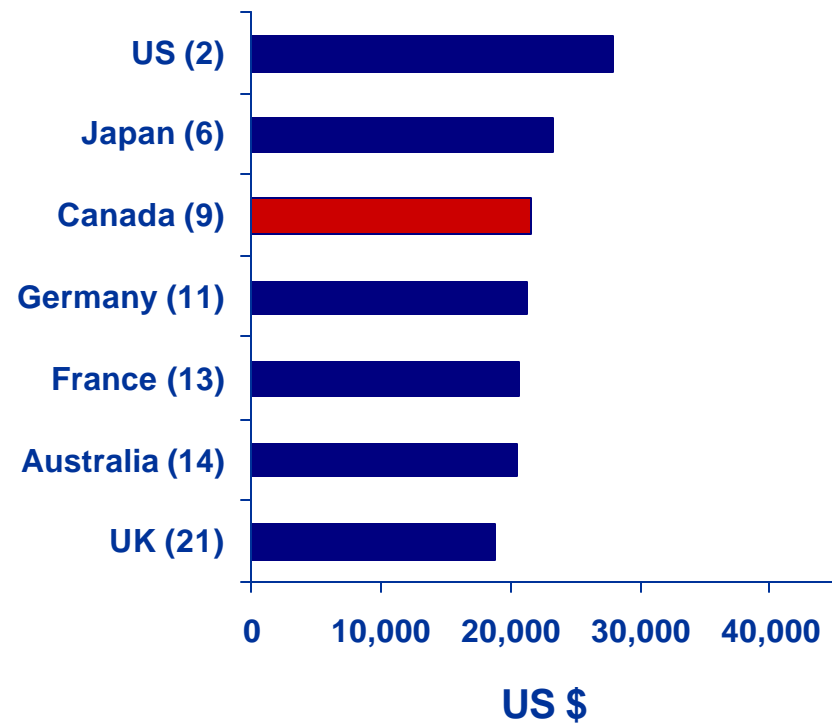
International Economic and Agricultural Performance Indicators

GDP - 1996

GDP Per Capita Exchange Rate Basis



GDP Per Capita Purchasing Power Parities Basis

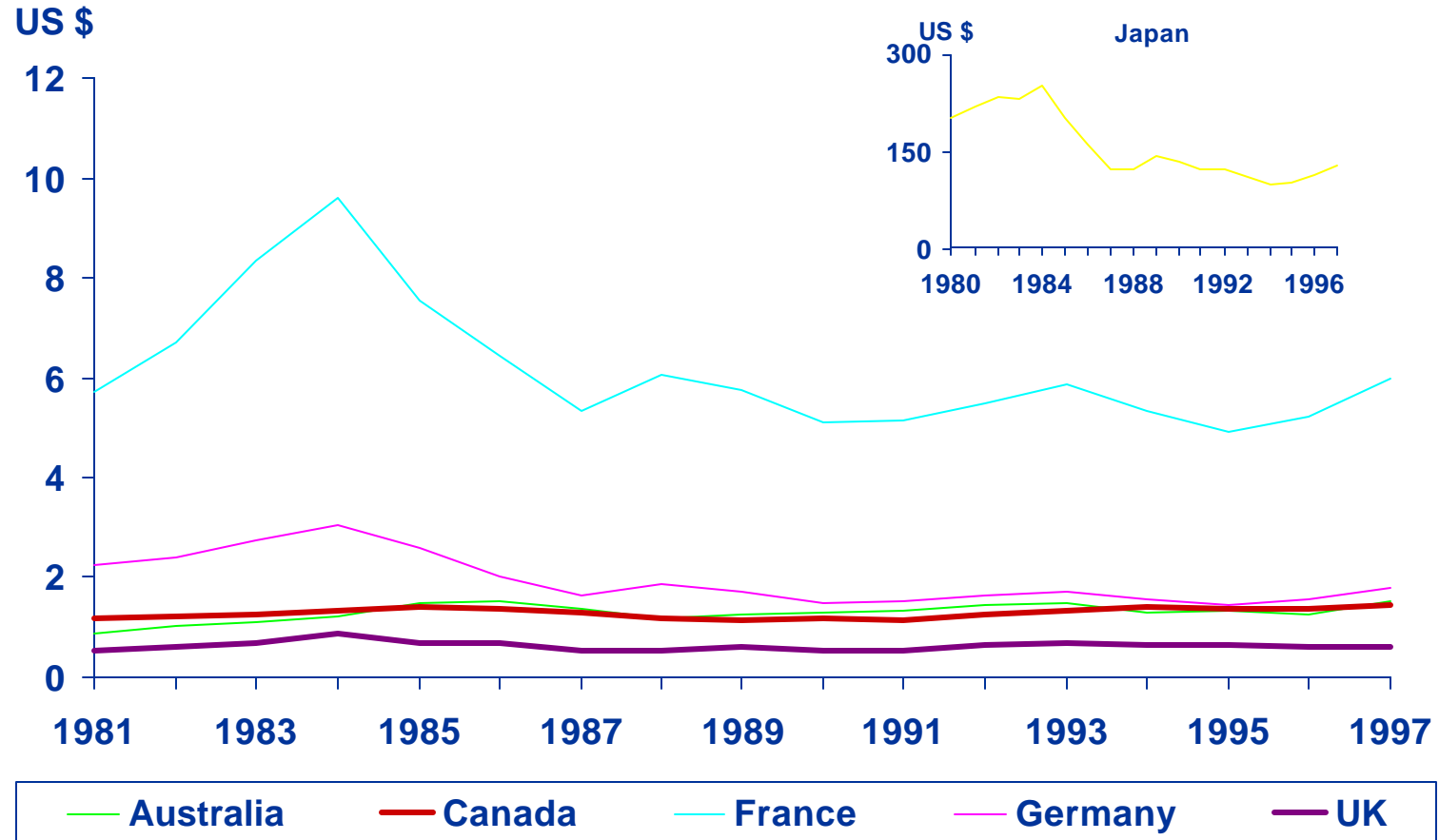


Note: Numbers in brackets represent OECD ranking.

Source: OECD National Accounts, Main Aggregates, Vol. 1, January 1998.

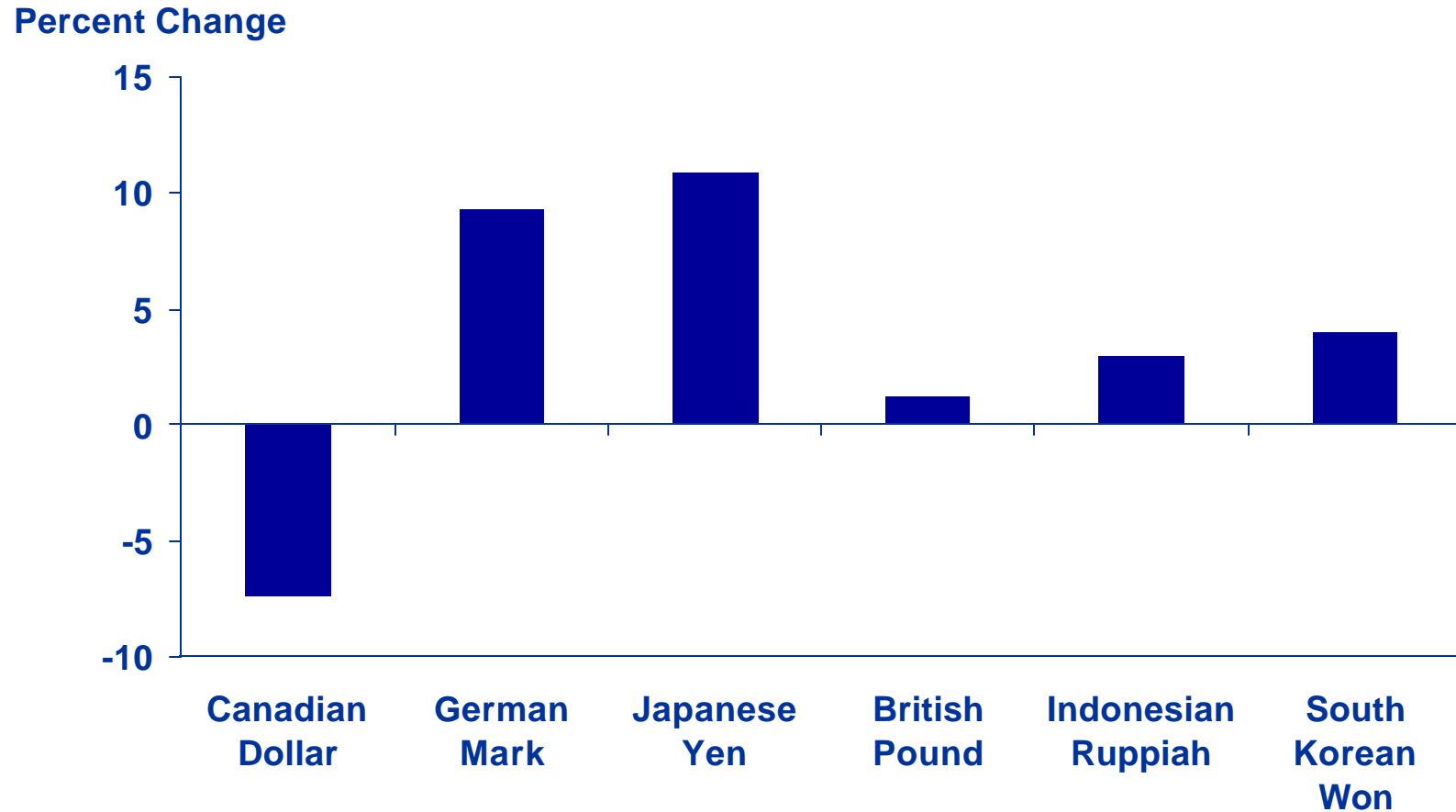
Graph 6-2

International Exchange Rates



Source: The World Bank, World Development Indicators 1998.

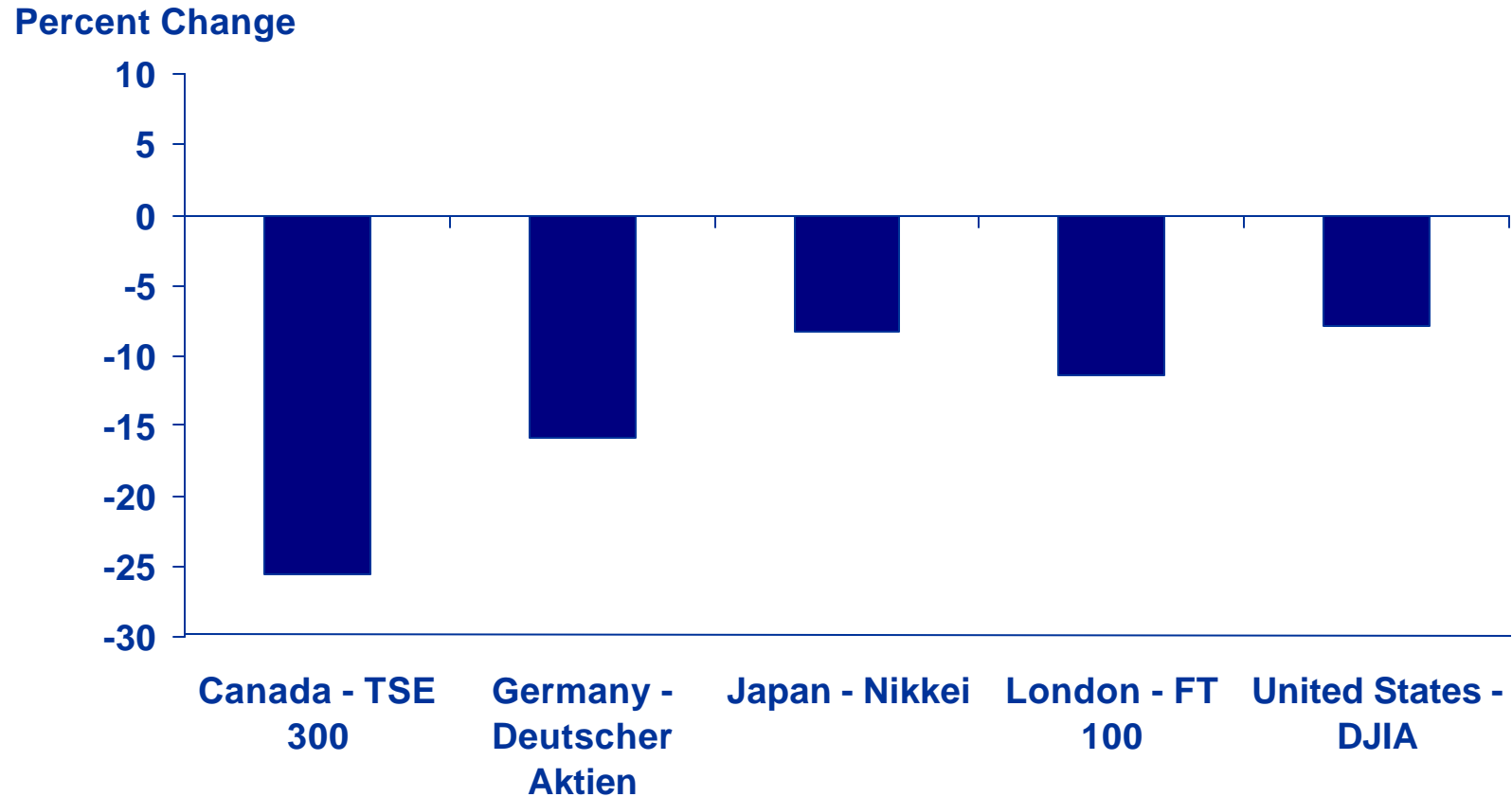
Exchange Rate Changes (relative to US\$) April 22 - October 22, 1998



Source: Telerate, Morgan Stanley Capital International.

Graph 6-4

Equity Value Changes April 22 - October 22, 1998

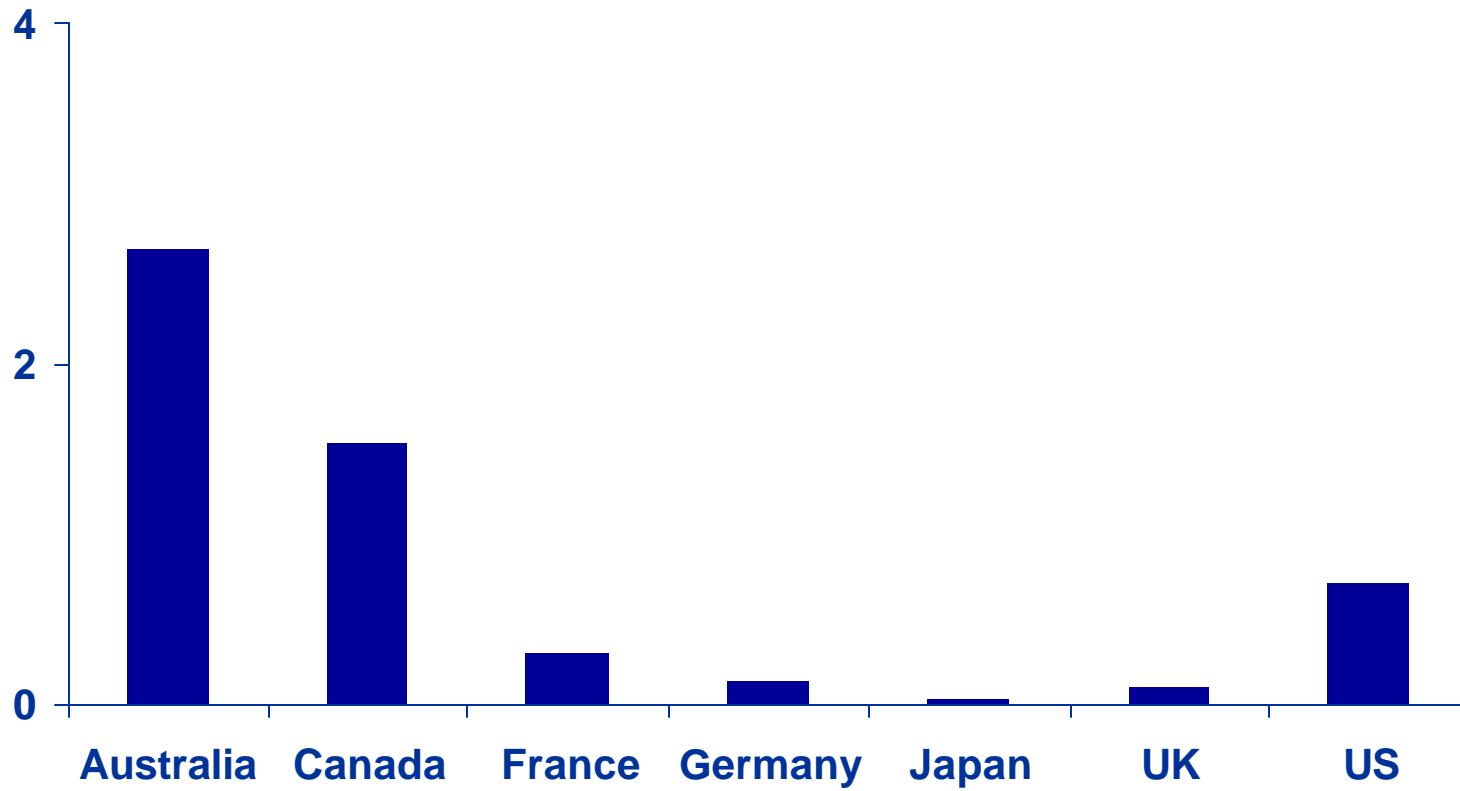


Note - Currency values have a large impact on these percentages.

Source: Telerate, DRI@INDEXDATA database, Reuters.

Arable Land - 1995

Ha per person

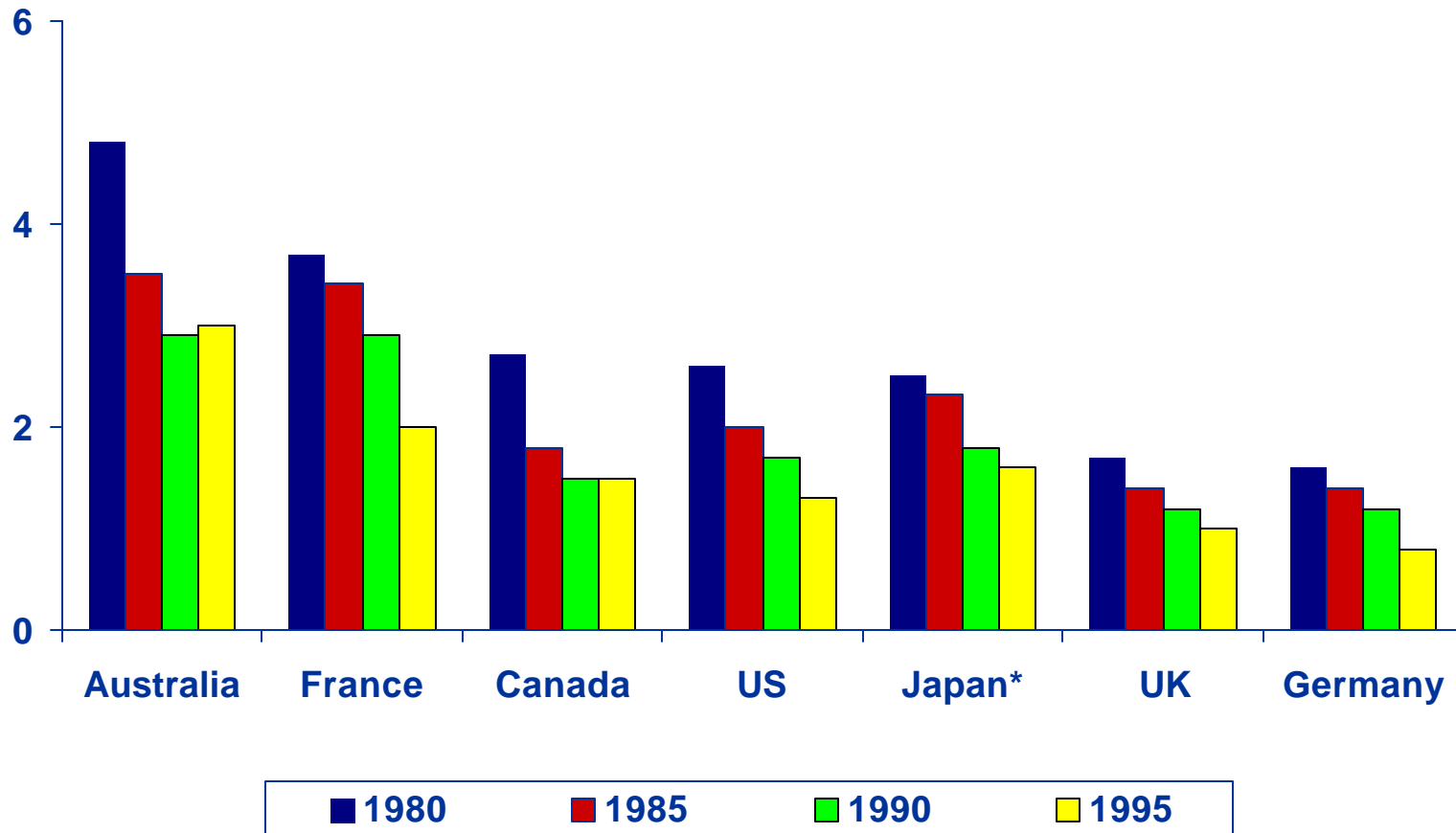


Source: World Bank, World Development Indicators, 1998.

Graph 6-6

Agriculture Value Added Share of GDP

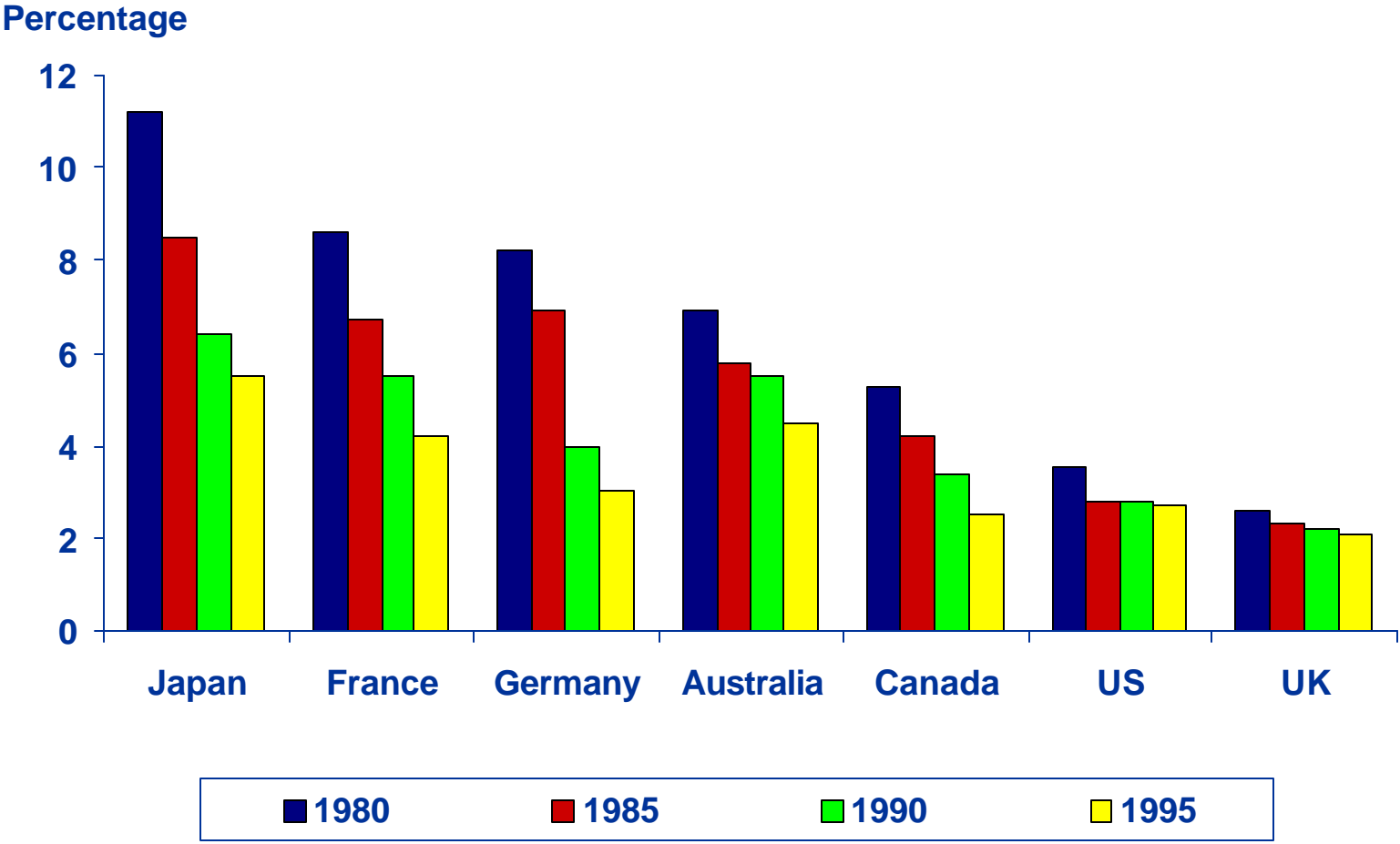
Percentage



*Note: Japan's value shown for 1995 is actually 1994 data.

Source: OECD - Economic Accounts for Agriculture, 1998.

Agricultural Labour Force Share of Total Labour Force



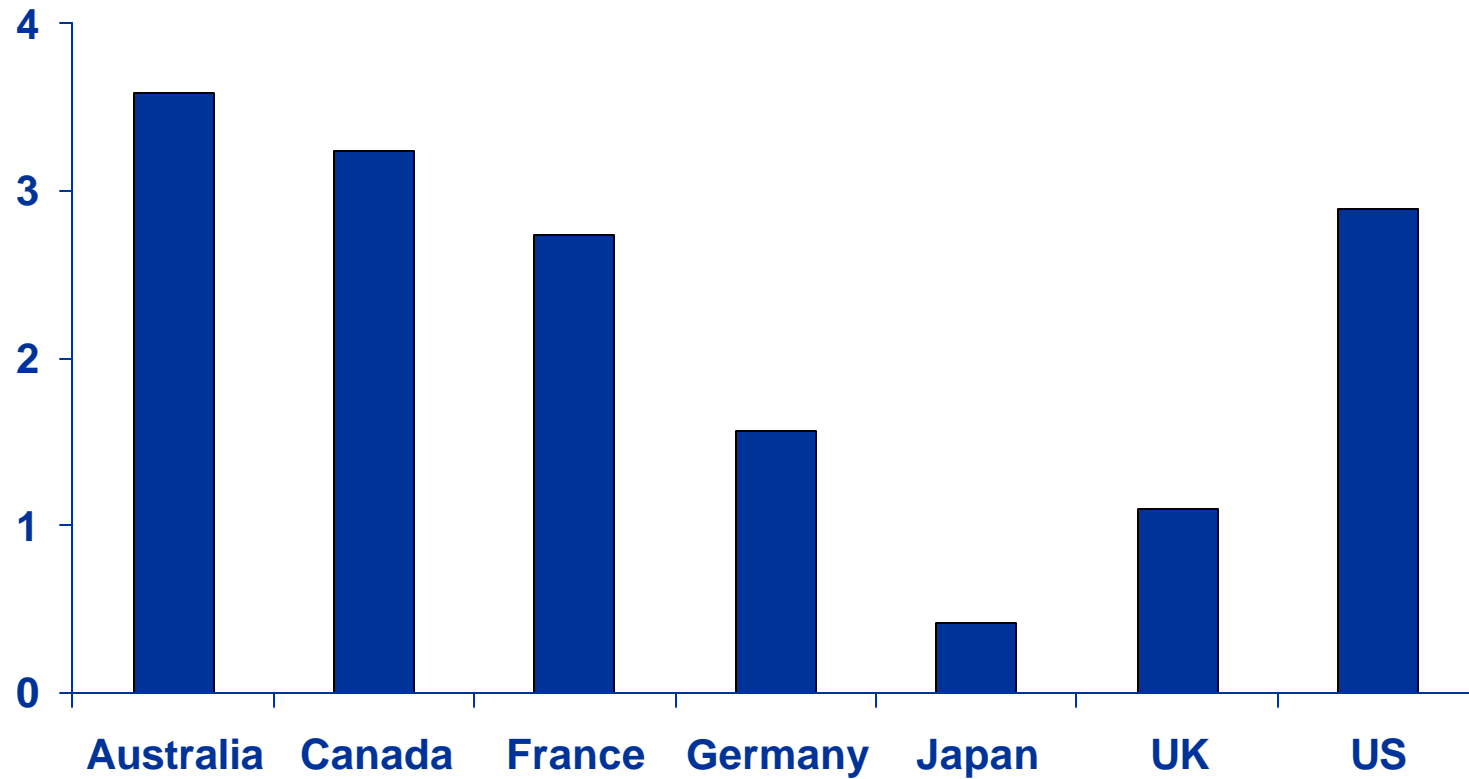
Source: 1980-1990: FAO Yearbook - Production, Vol. 44, 1990.
1995: FAO Yearbook - Production, Vol. 50, 1996.

Graph 6-7

Graph 6-8

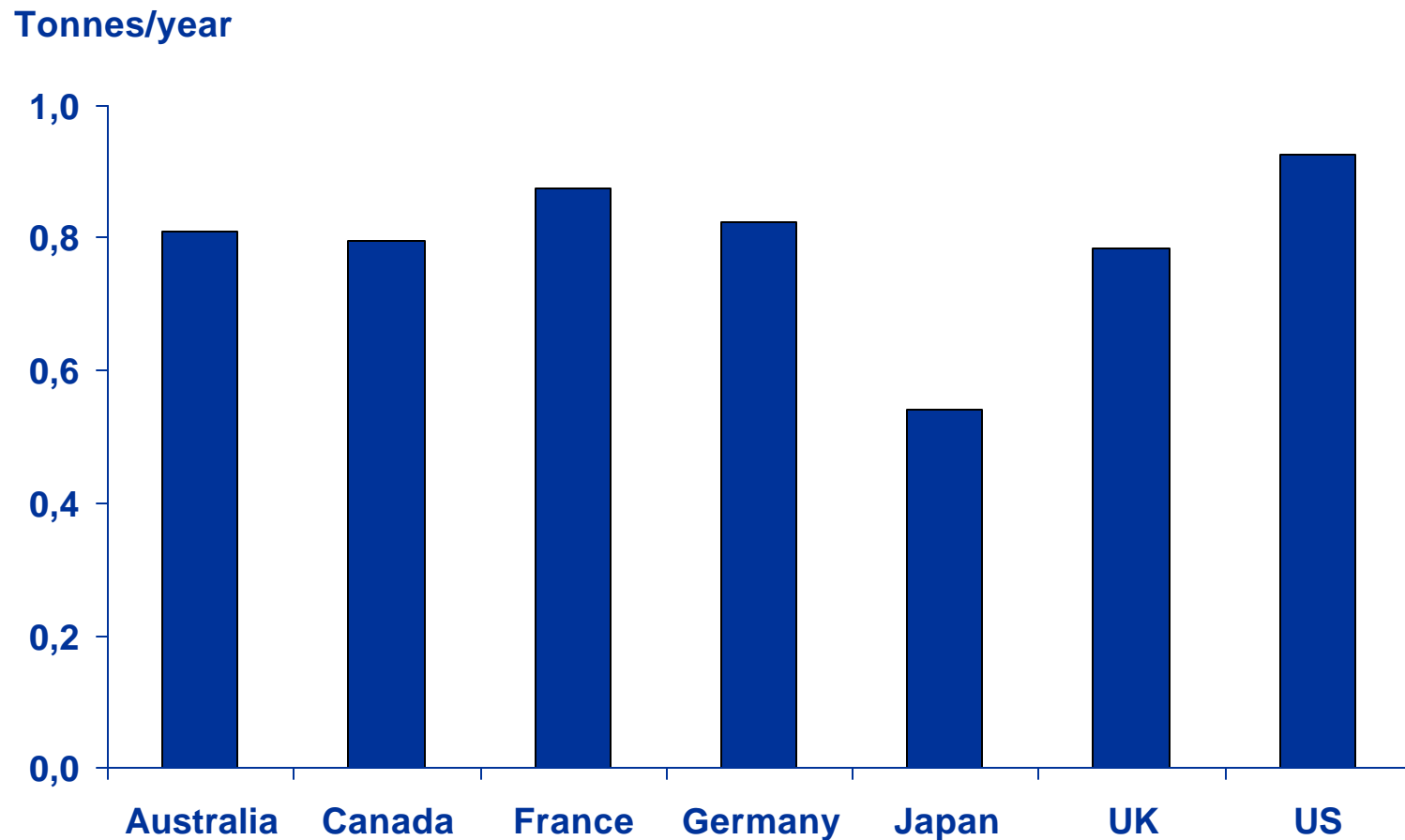
Per Capita Food Production - 1998

Thousands of tonnes/year



Source: FAOSTAT, and UN Social Indicators.

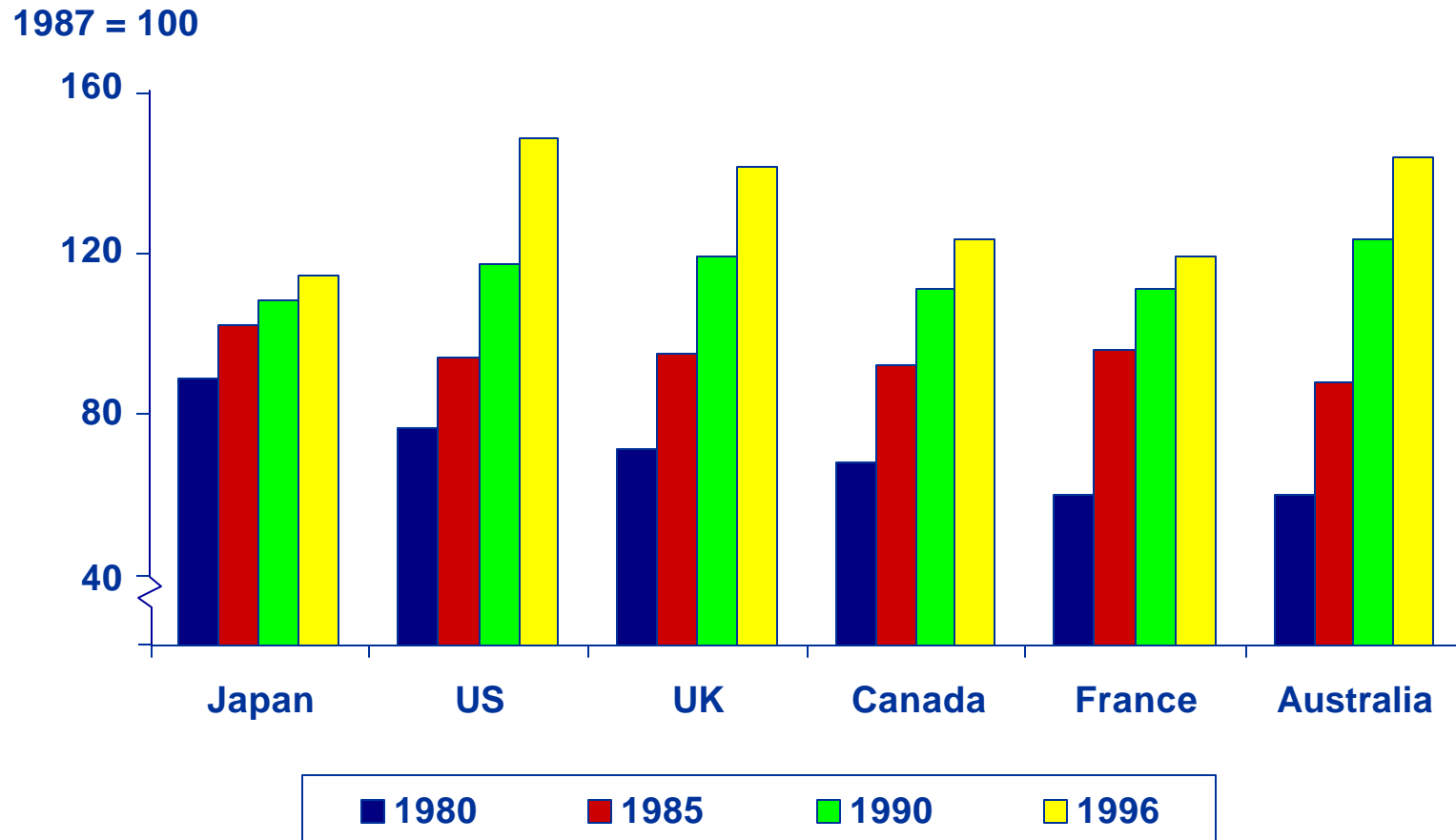
Per Capita Food Consumption - 1996



Source: FAOSTAT, and UN Social Indicators.

Graph 6-10

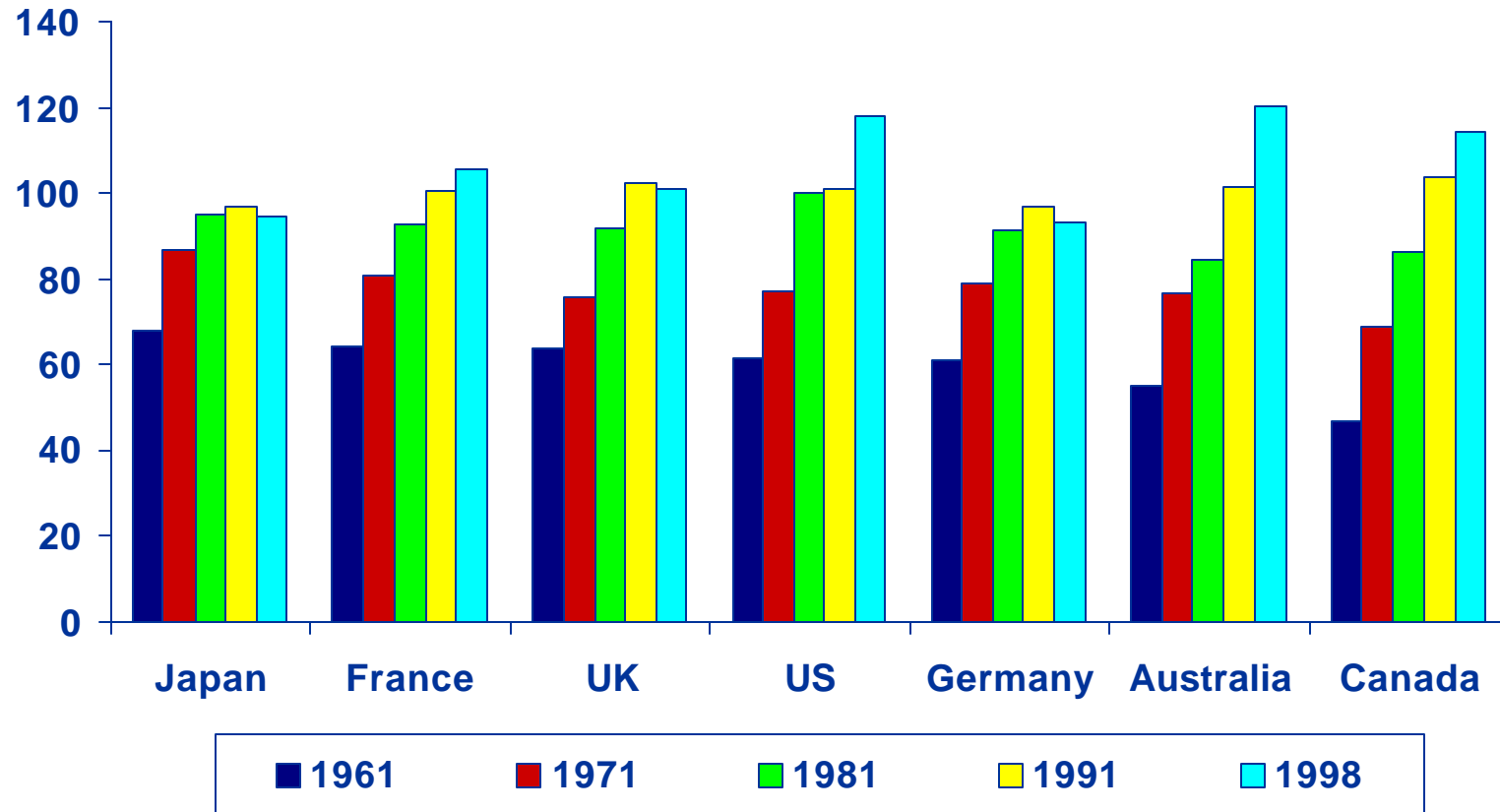
Food Price Indices



Source: The World Bank, World Development Indicators 1998.

Agricultural Production Indices

1989-91 = 100

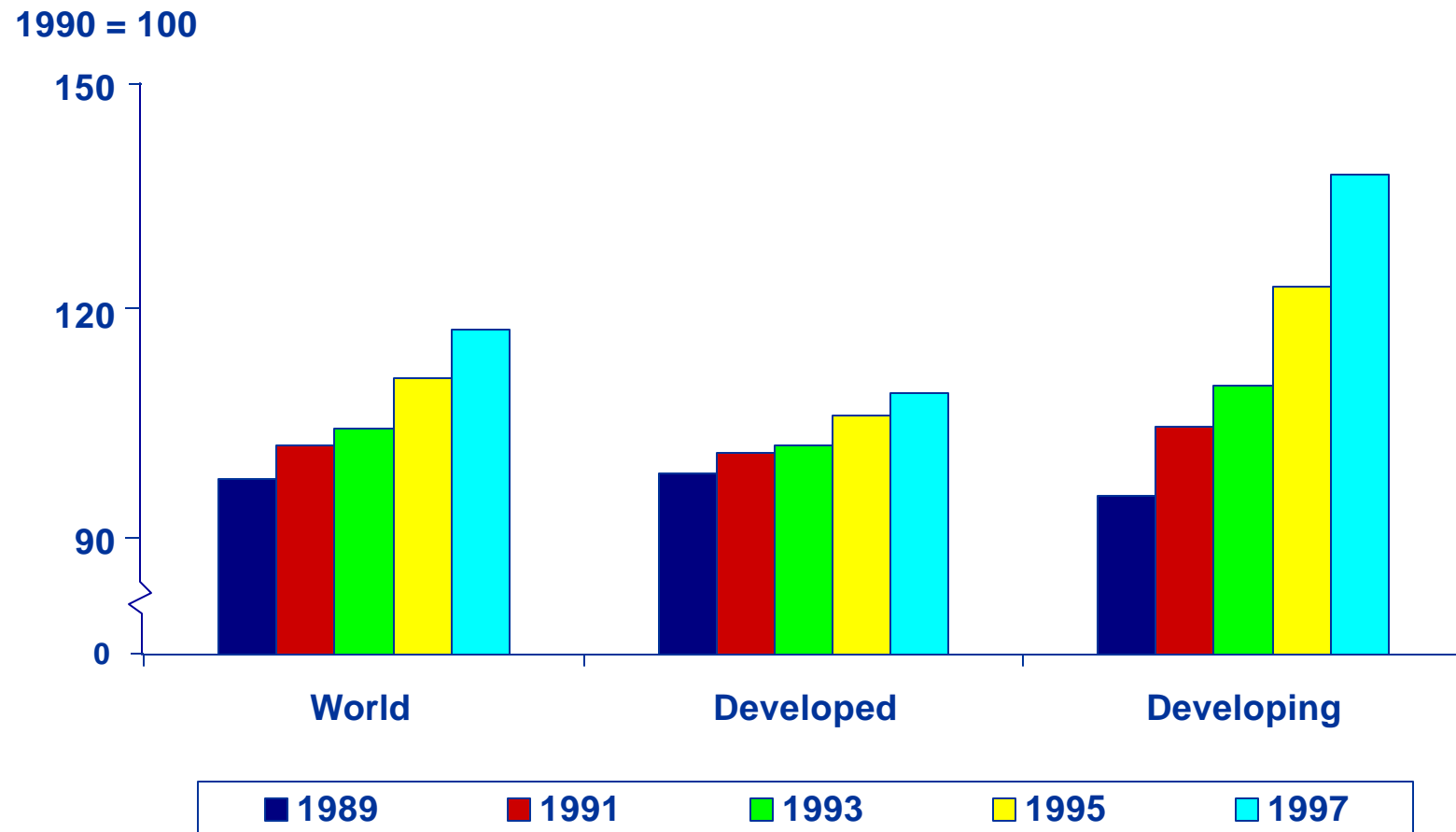


Source: FAOSTAT.

Graph 6-12

Index of World Industrial Production

Food, Beverages and Tobacco

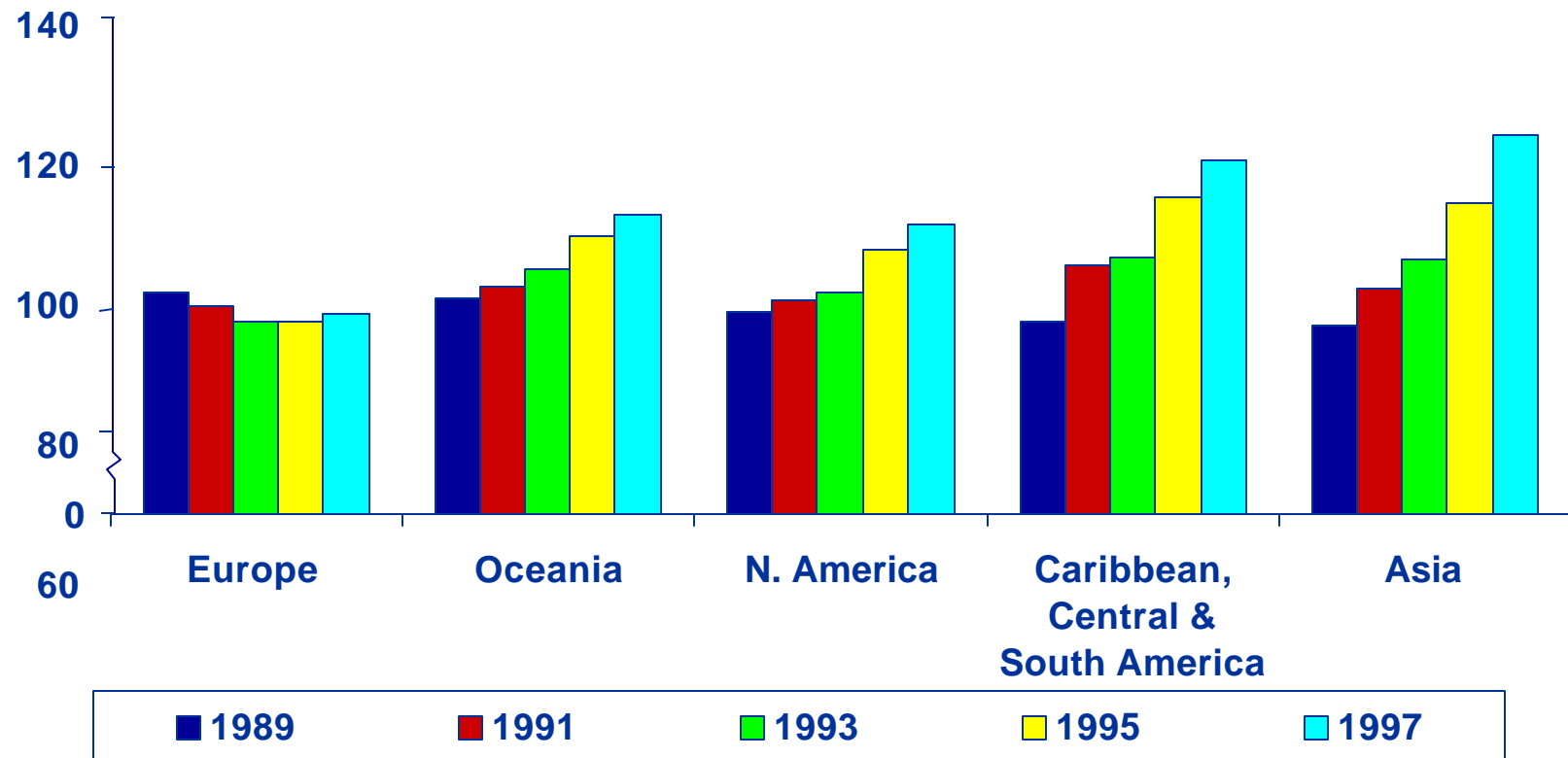


Source: United Nations, Monthly Bulletin of Statistics, Vol. 8 - August, 1998.

Index of World Industrial Production

Food, Beverages and Tobacco

1990 = 100

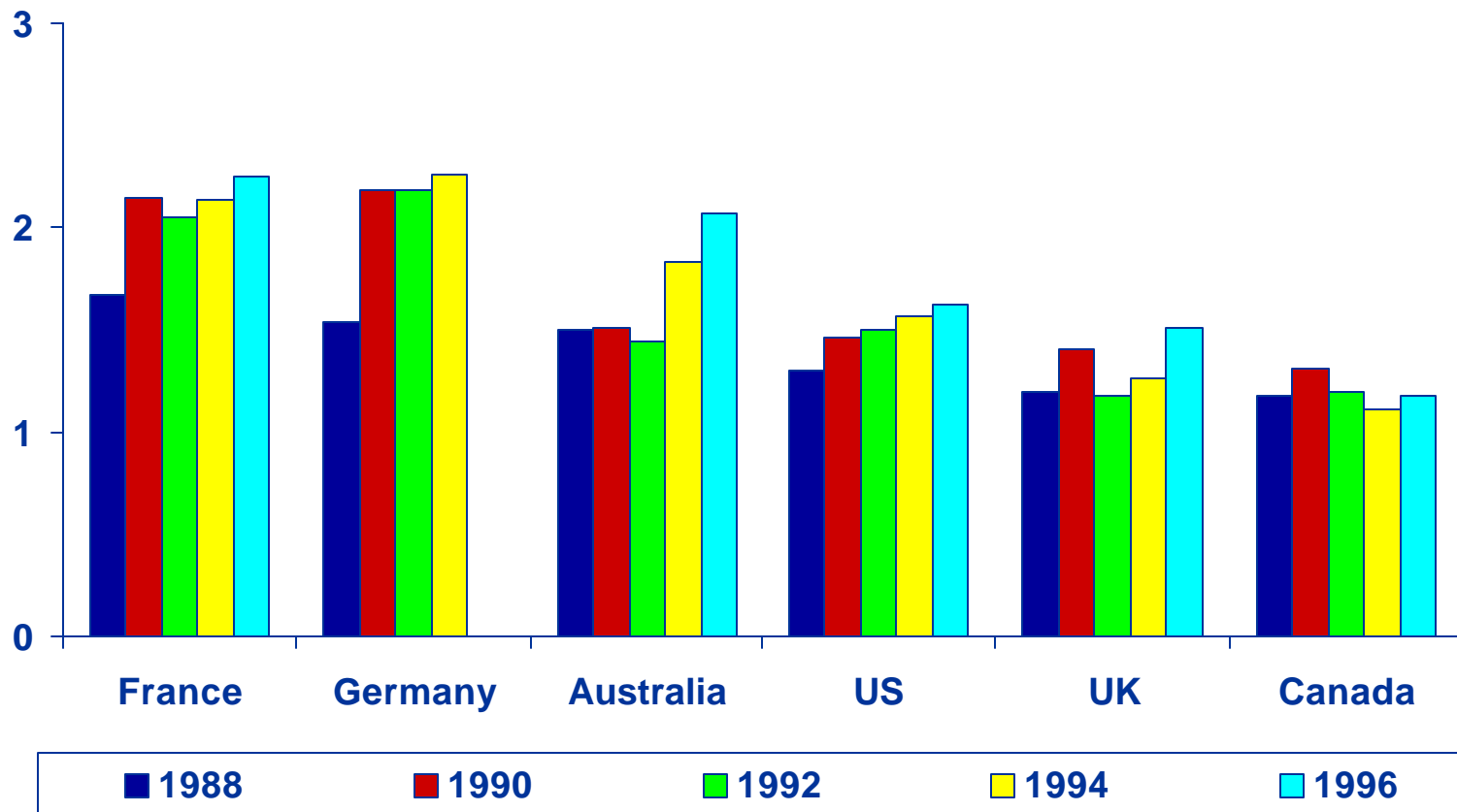


Source: United Nations, Monthly Bulletin of Statistics, Vol. 8 - August, 1998.

Graph 6-14

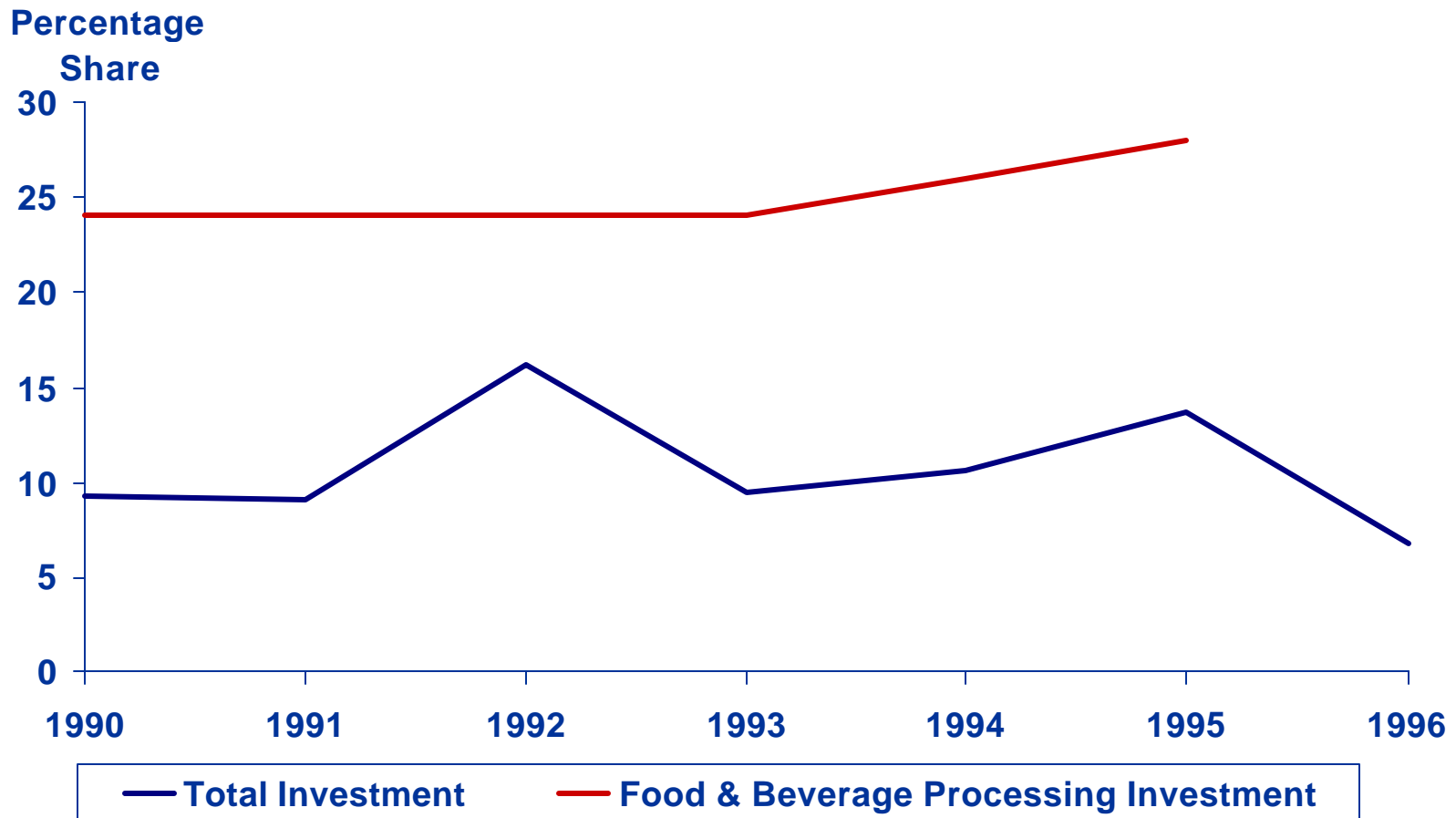
Per Capita Amount Spent on Food & Non-alcoholic Beverages

Thousands of US \$



Source: OECD, National Accounts, Detailed Tables, Vol. II, 1984-1996, 1998 edition.

Foreign Direct Investment Inflows - Canada's Share of NAFTA



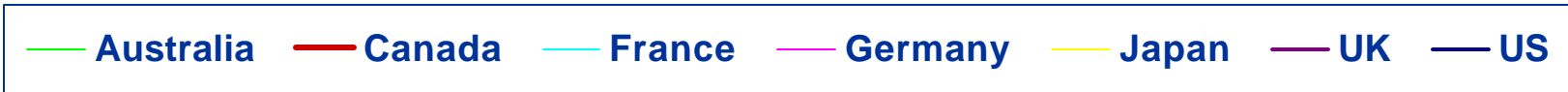
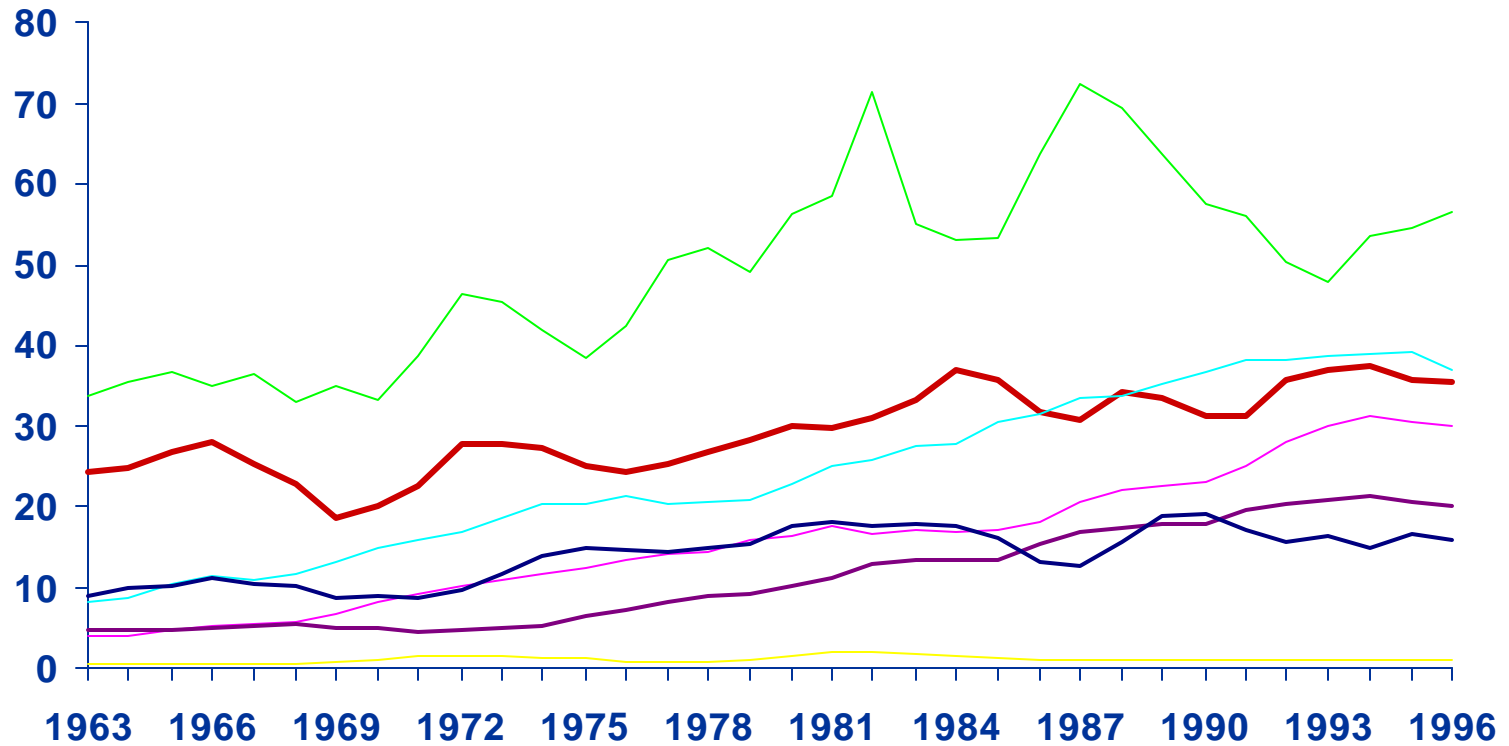
Source: Total Investment - World Investment Report, 1997.

Food & Beverage Processing Investment - OCED International Direct Investment Statistics Yearbook 1997.

Graph 6-16

Export Propensity* - Agri-Food Trade

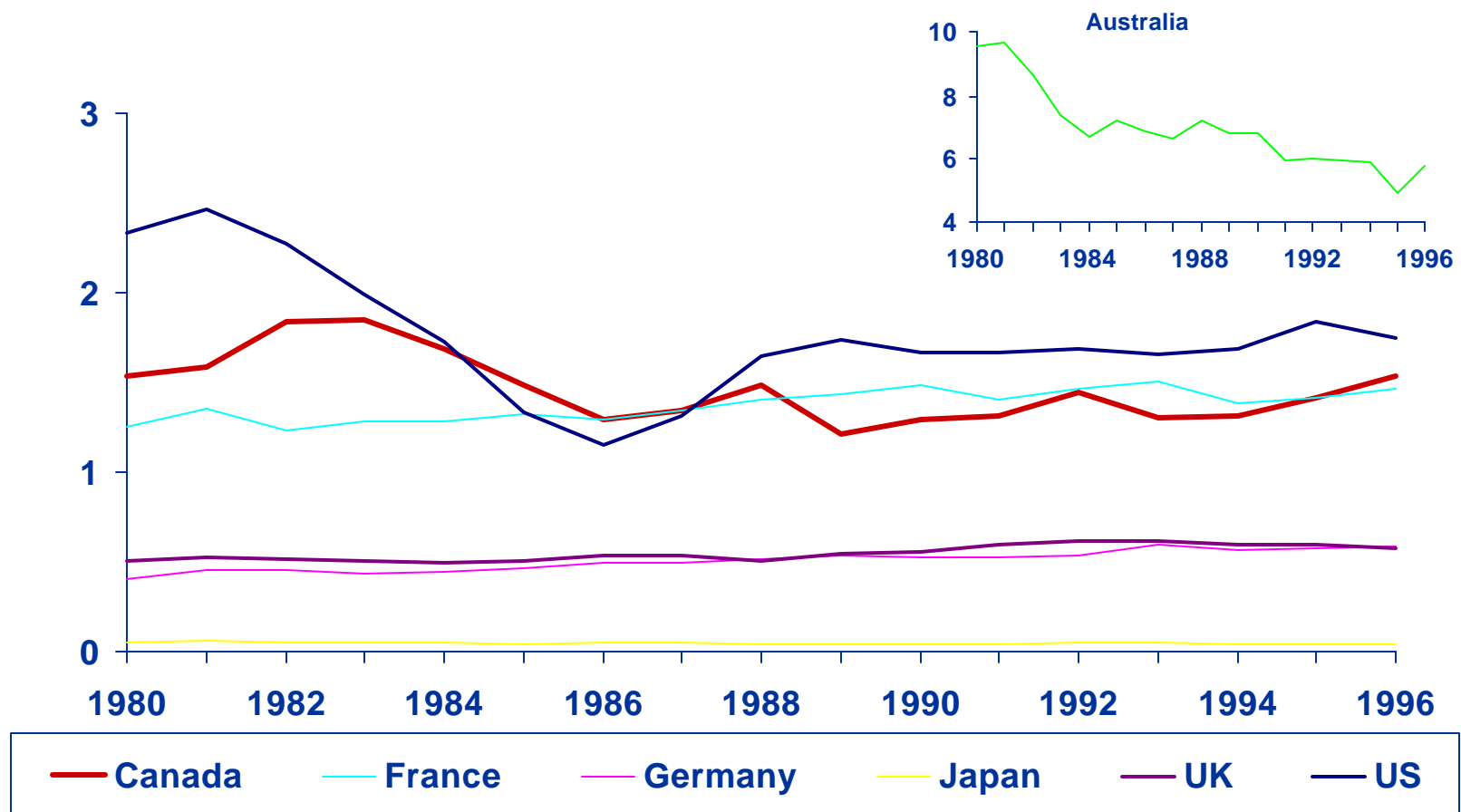
Percent of Production



*Based on 3 year moving average ratio of exports to production (quantities).

Source: FAOSTAT.

Terms of Trade*



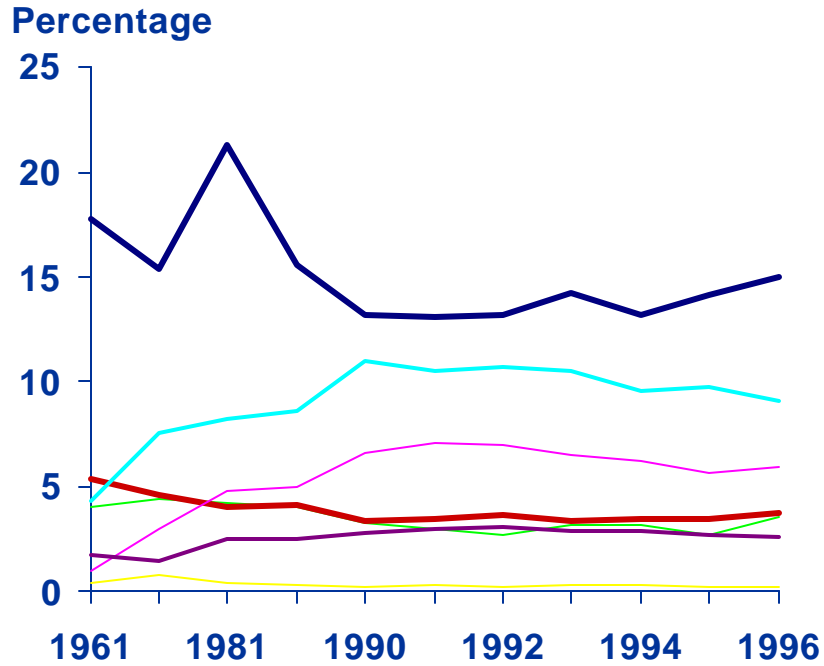
*Exports to imports ratio.

Source: FAOSTAT.

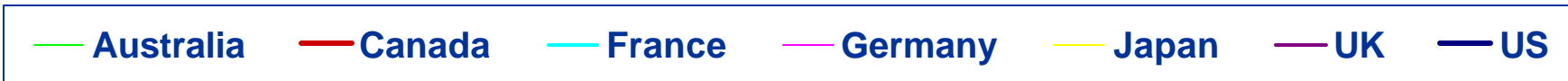
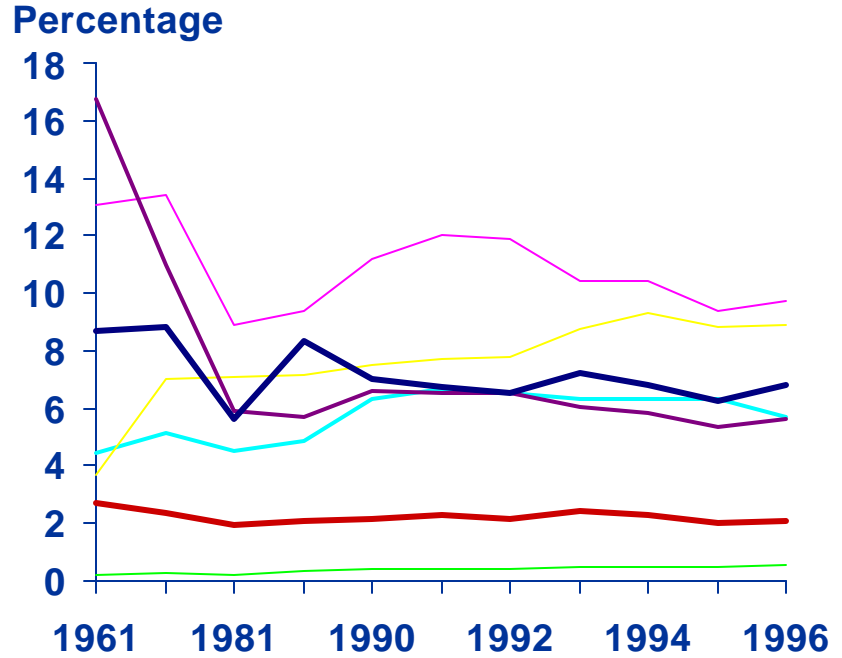
Graph 6-18

Share of World Food Exports and Imports

World Food Exports



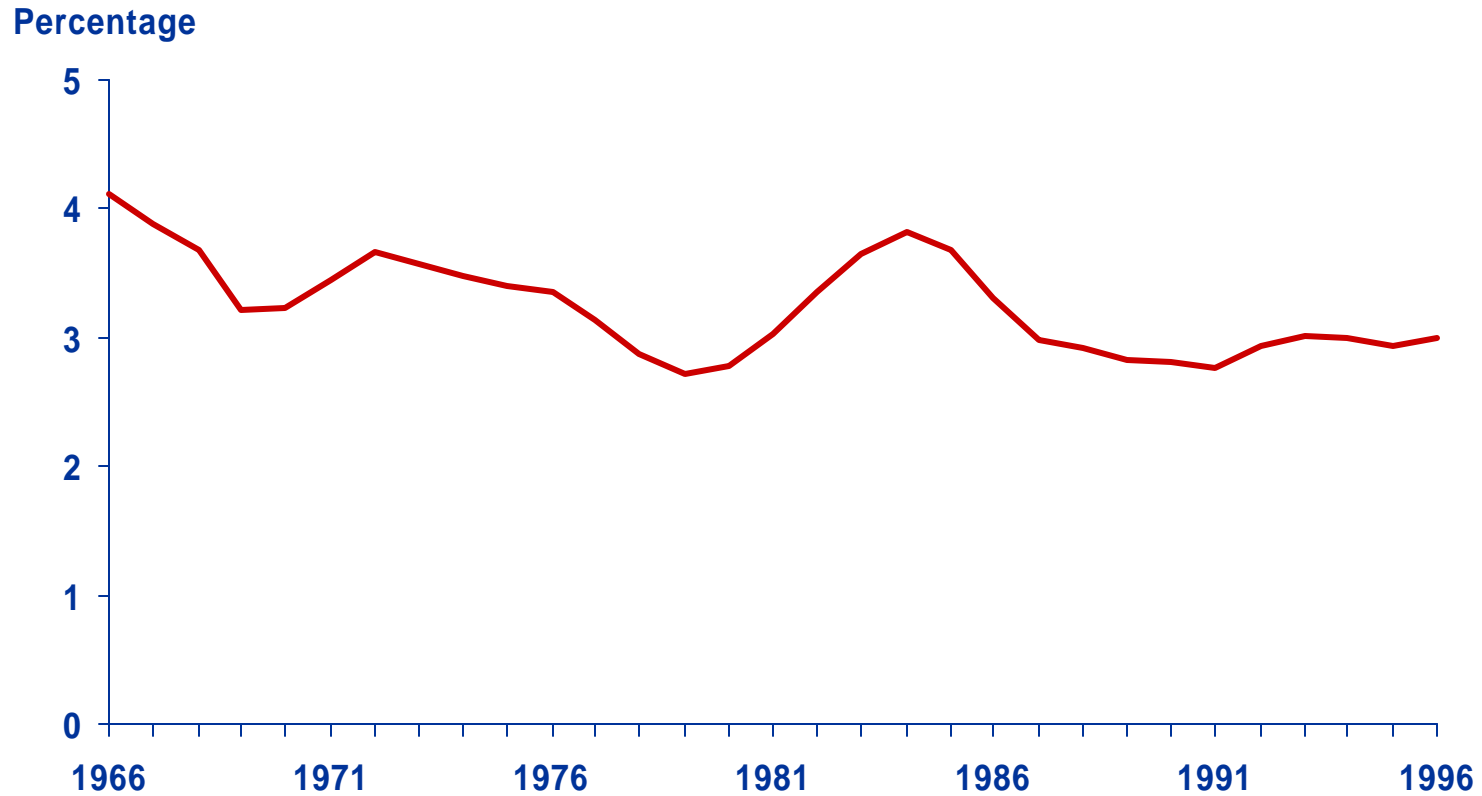
World Food Imports



Source: FAOSTAT.

Canada's Share of World Exports*

Agricultural Products

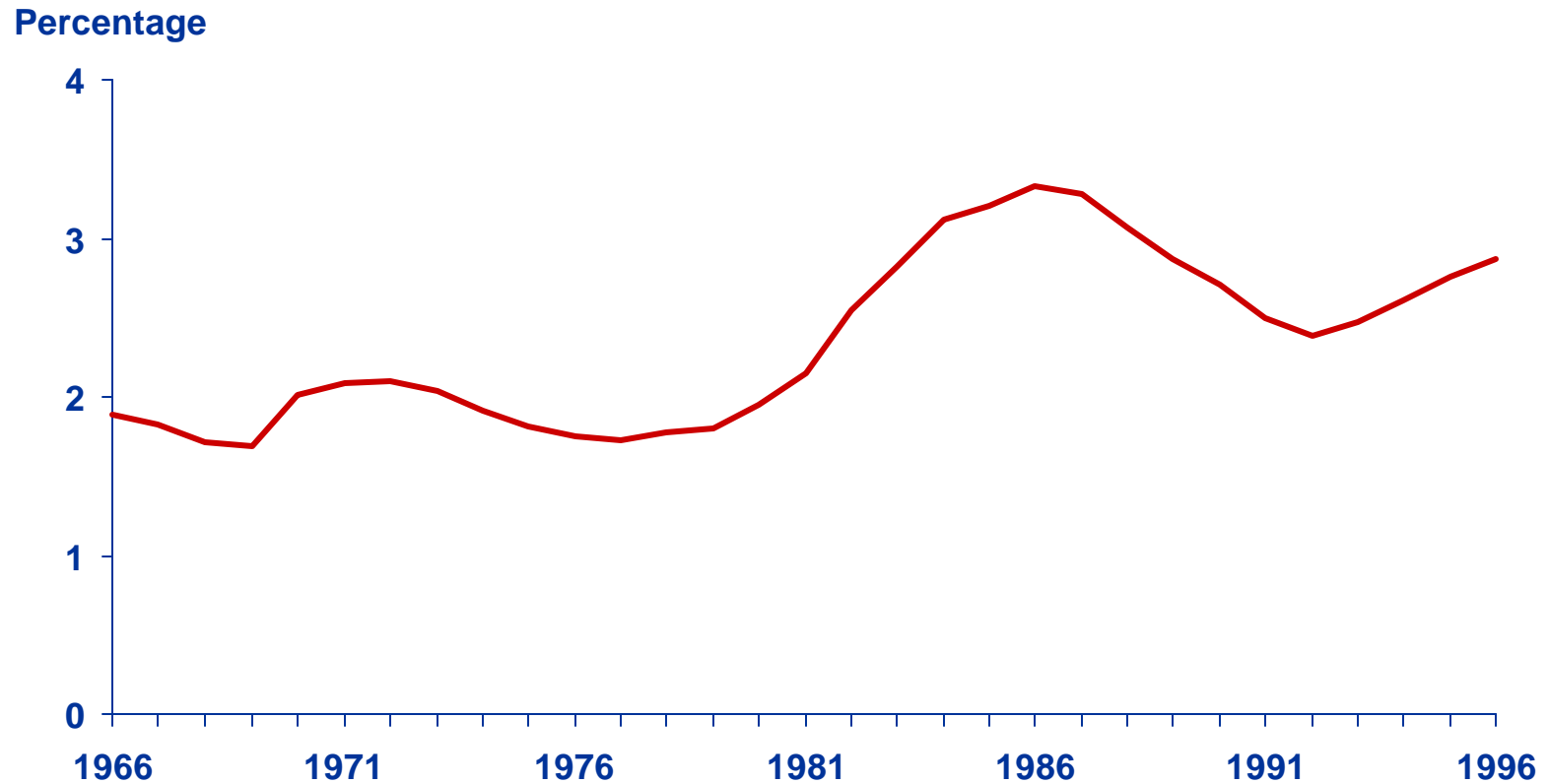


*Based on a three year average.

Source: FAOSTAT.

Canada's Share of World Exports*

Meat and Meat Products

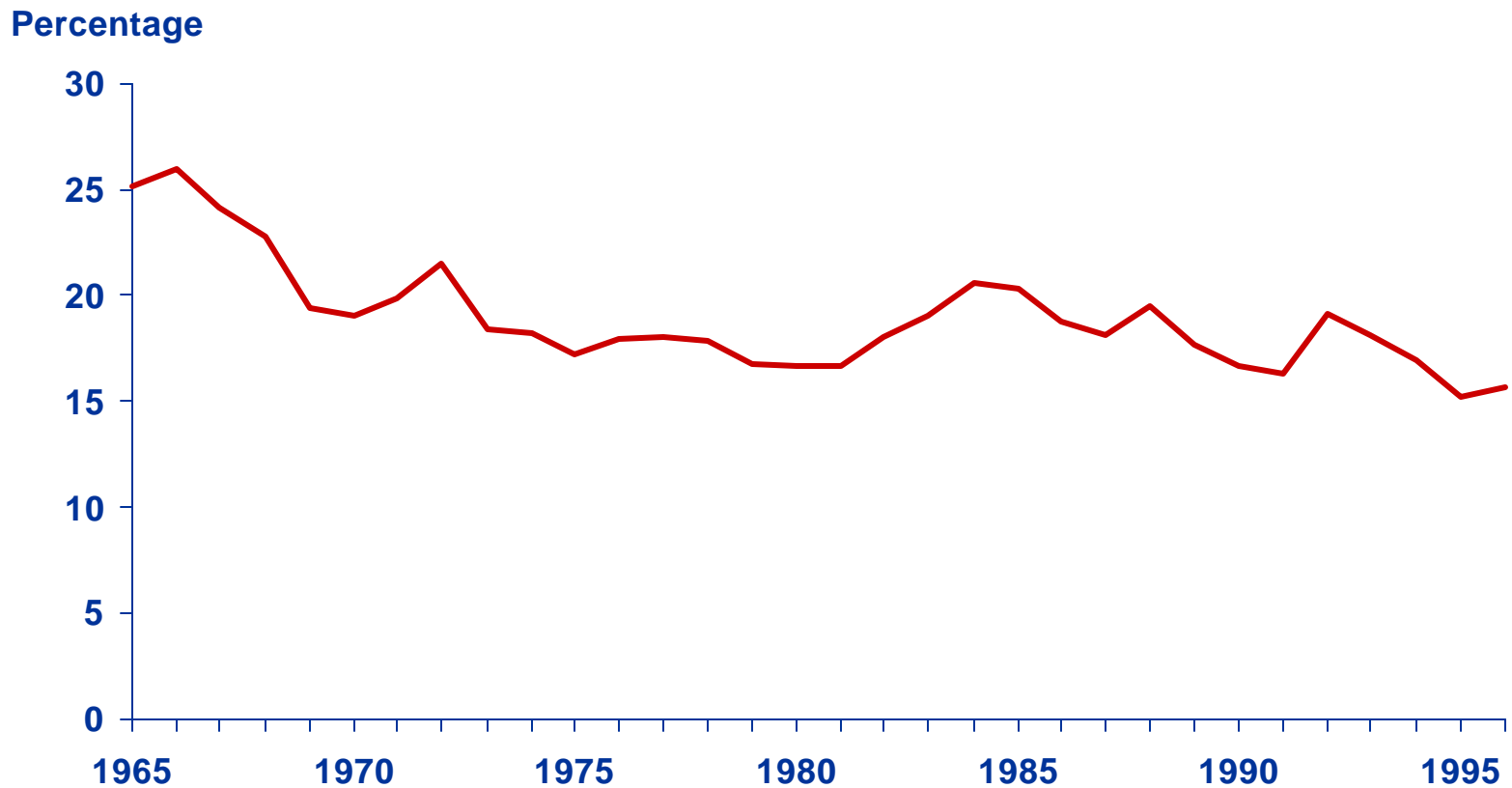


*Based on a three year average.

Source: FAOSTAT.

Canada's Share of World Exports*

Wheat and Wheat Products

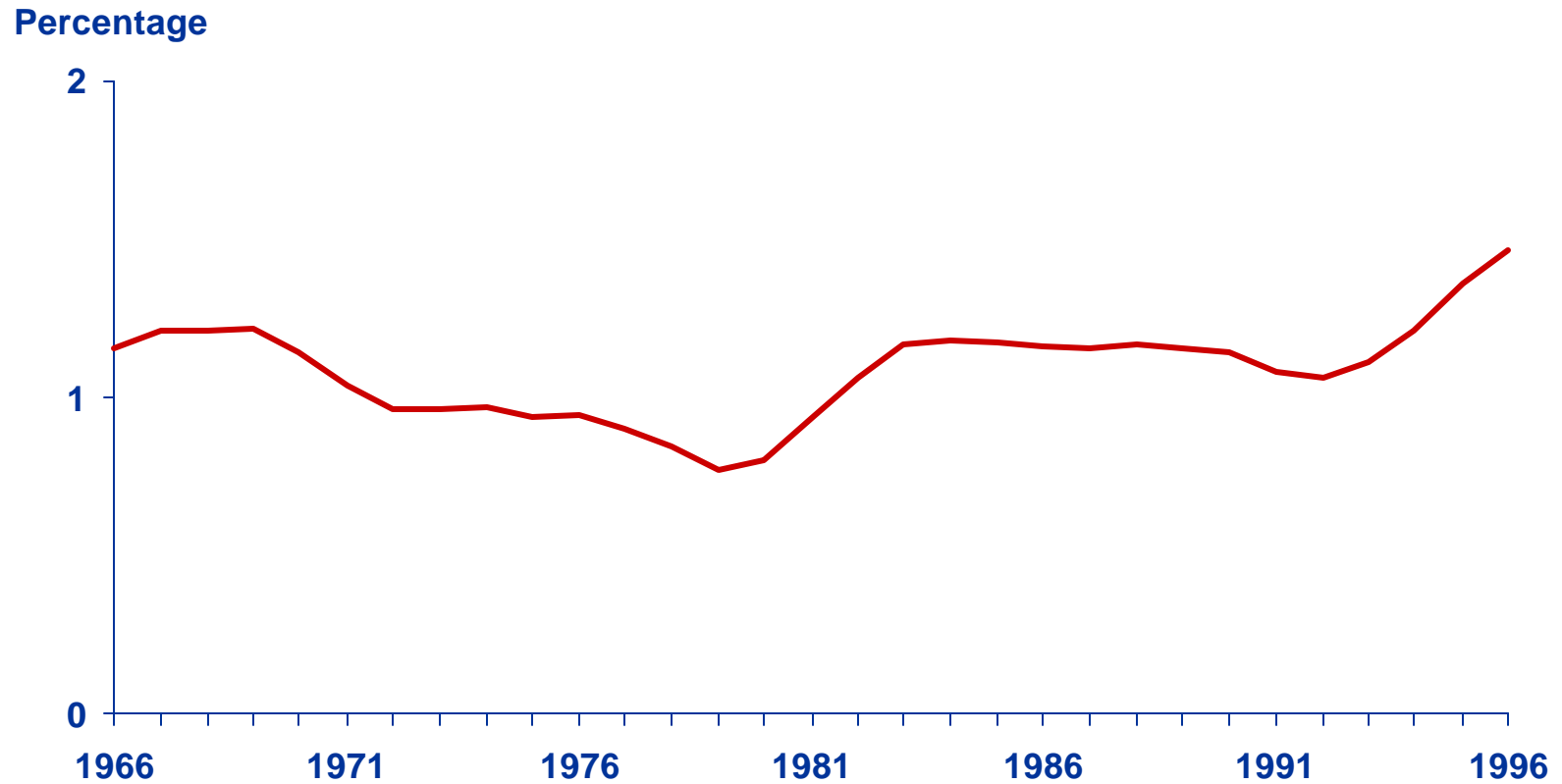


*Based on a three year average.

Source: FAOSTAT.

Canada's Share of World Exports*

Fruit and Vegetable Products

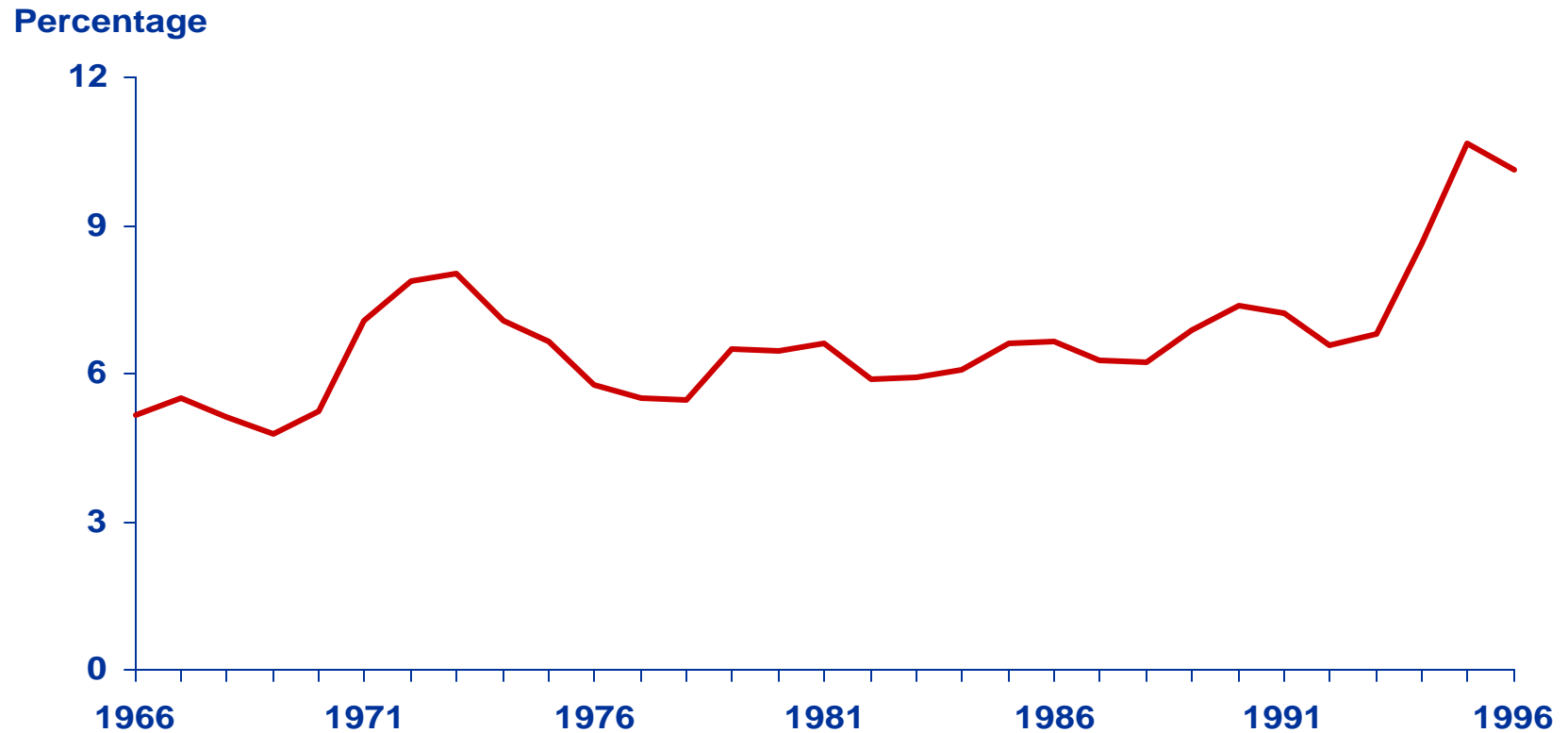


*Based on a three year average.

Source: FAOSTAT.

Canada's Share of World Exports*

Oilseeds



*Based on a three year average.

Source: FAOSTAT.

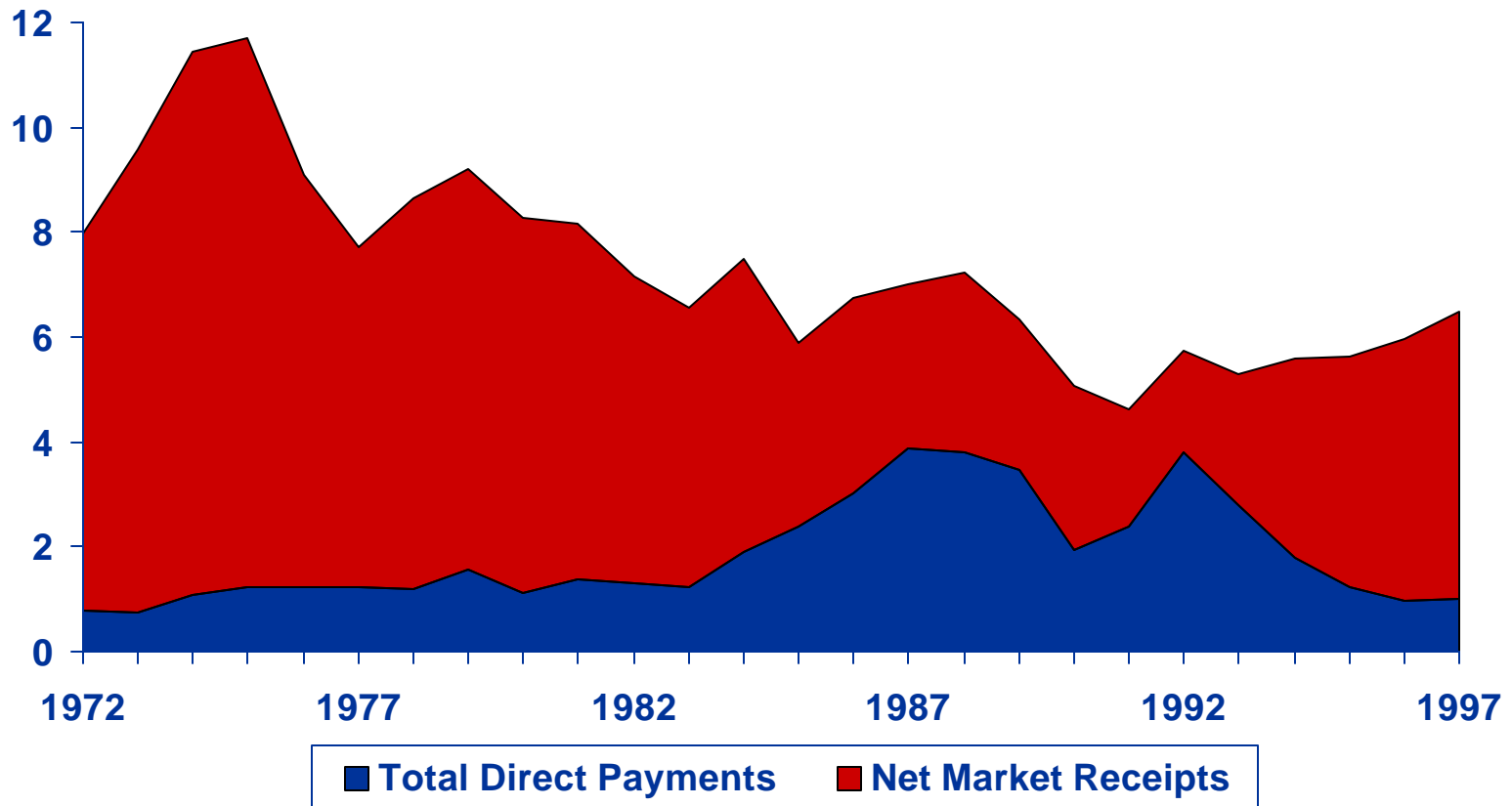
Glossary of Terms

Export Propensity	Export values as a percentage of the value of production.
Foreign Direct Investment (FDI)	Investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy by an enterprise resident in another country's economy.
Inward FDI	Comprises capital provided (directly or indirectly) by a foreign investor to a FDI enterprise. May consist of three components: equity capital, reinvested earnings, and intra-company loans.
Production Index	Based on the sum of price-weighted quantities of all agricultural commodities produced except seed and feed (to avoid double counting). The Geary-Khamis formula is used to determine "international dollars" to assign a single price for each commodity for all countries. Processed and semi-processed goods have been excluded.
WIR	World Investment Report 1997 - Investment, Trade and International Policy Arrangements, published by United Nations.

Government Support of Agri-Food System

Farm Market Income and Direct Government Payments - Canada

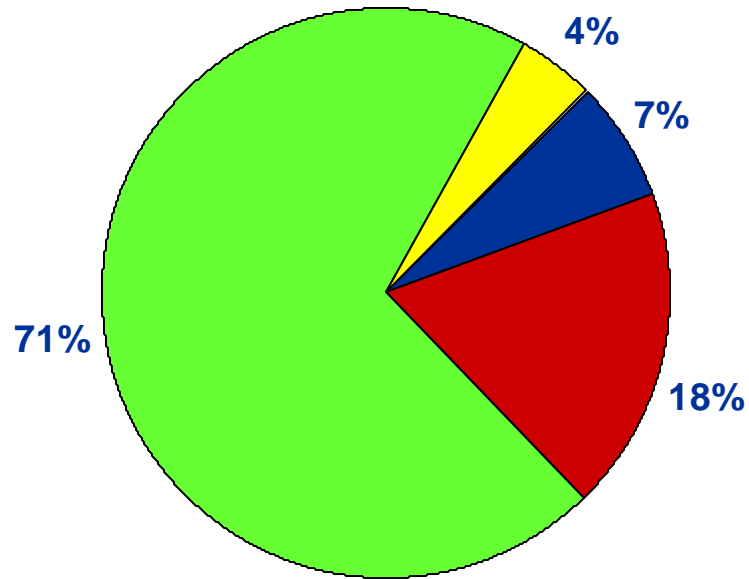
Billions of 1992 \$



Source: Farm Income Database, AAFC.

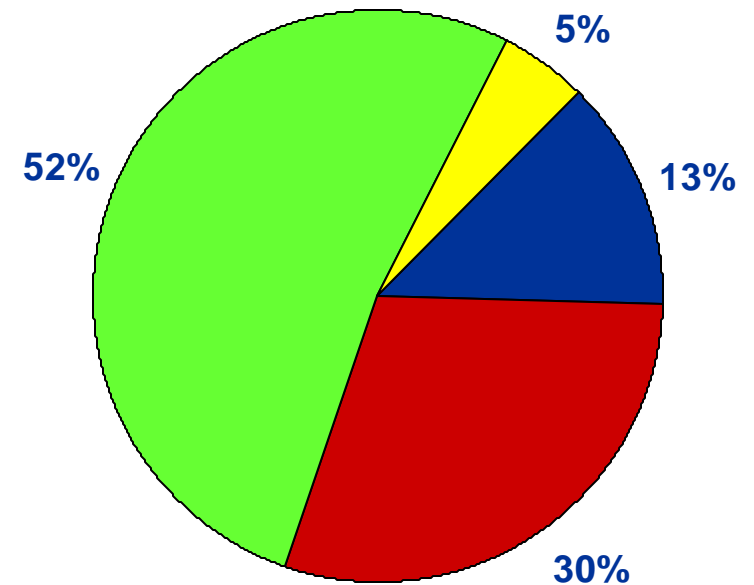
AAFC Expenditures by Business Lines

1997-98 Estimate



\$1.6 B*

2000-01 Planned



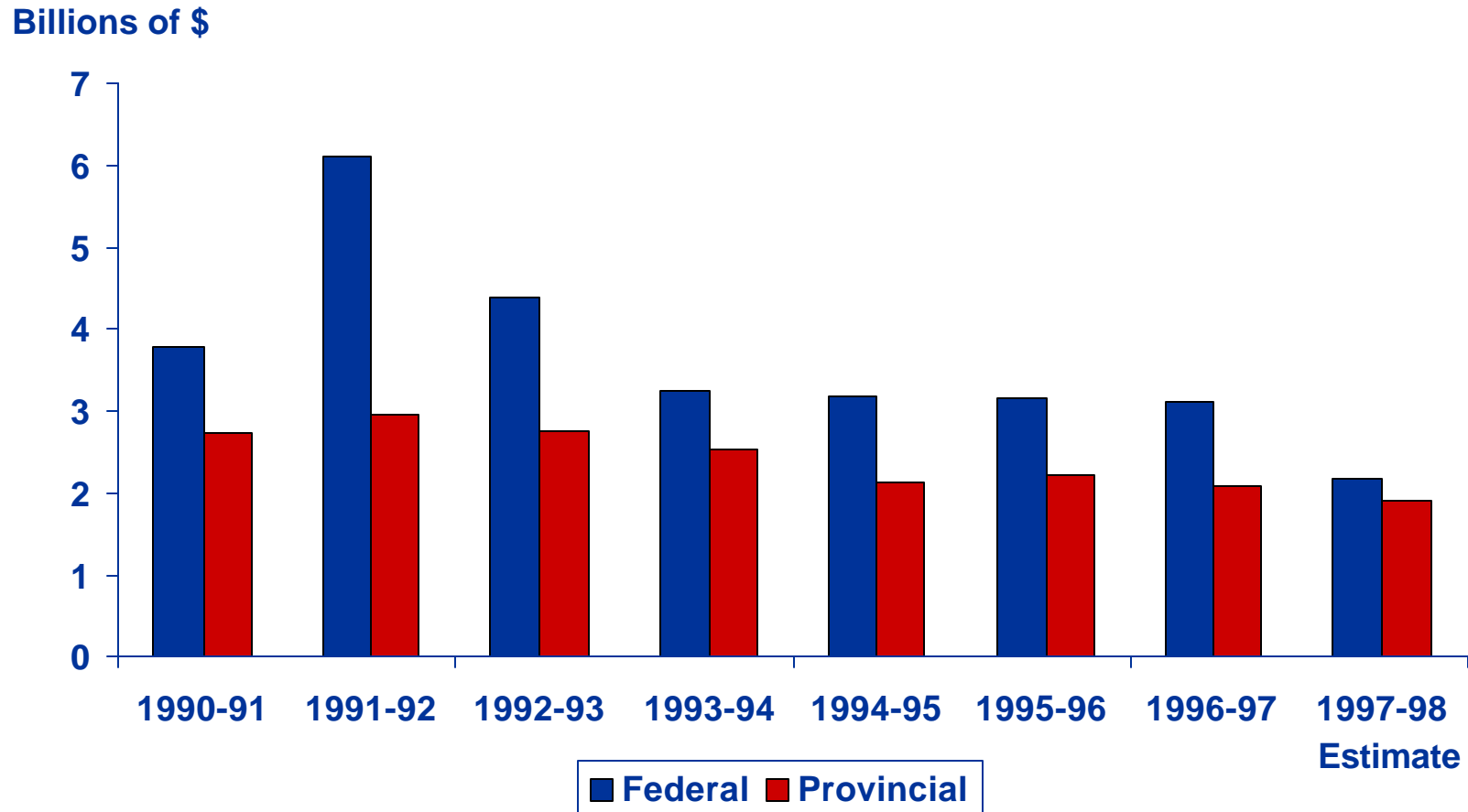
\$1.0 B*



*Does not include Canadian Food Inspection Agency.

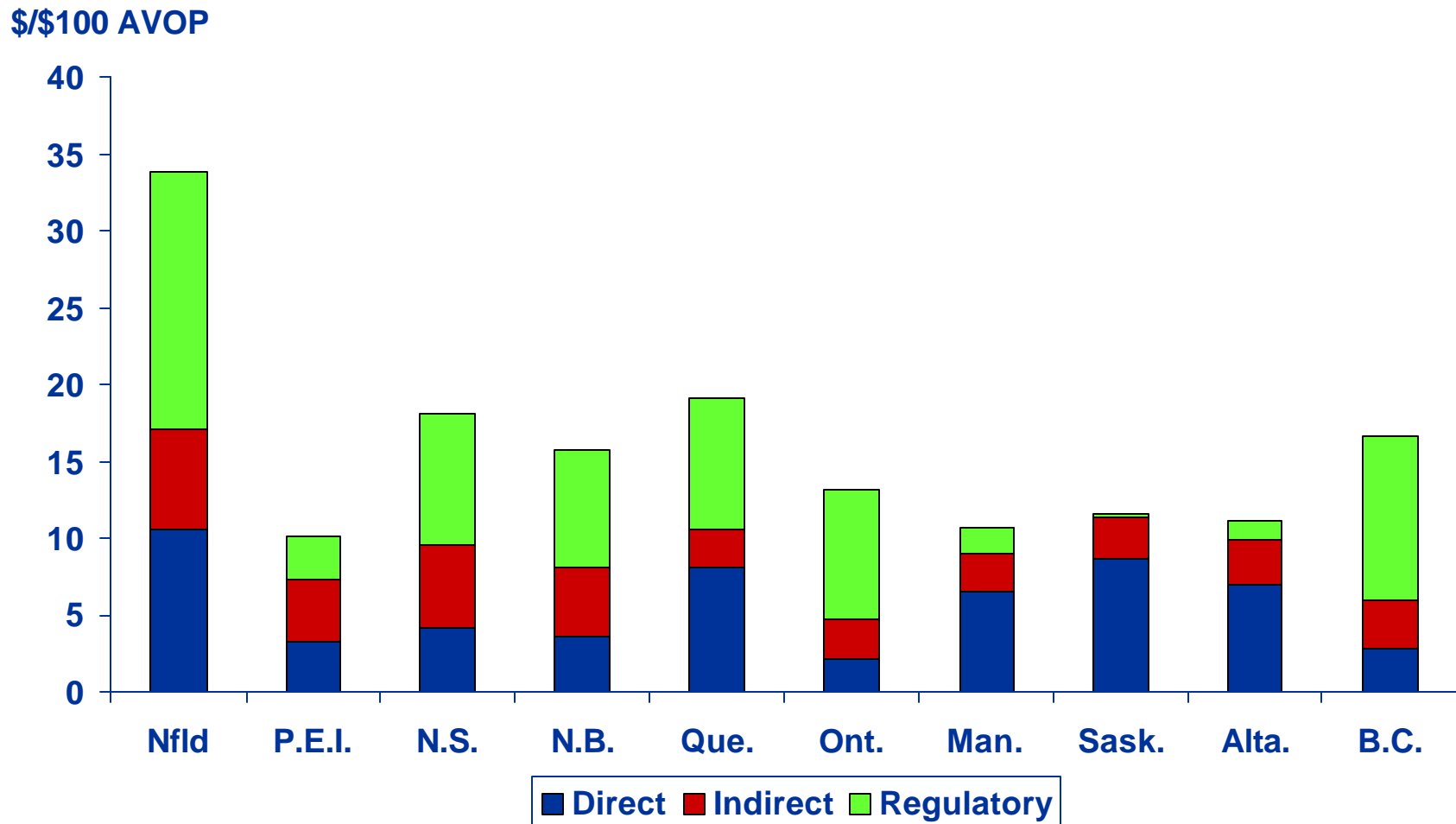
Source: AAFC - 1998-99 Report on Plans and Priorities.

Government Expenditures in Support of Agri-Food System



Source: AAFC - Farm Income, Financial Conditions and Government Assistance Data Book, February 1998.

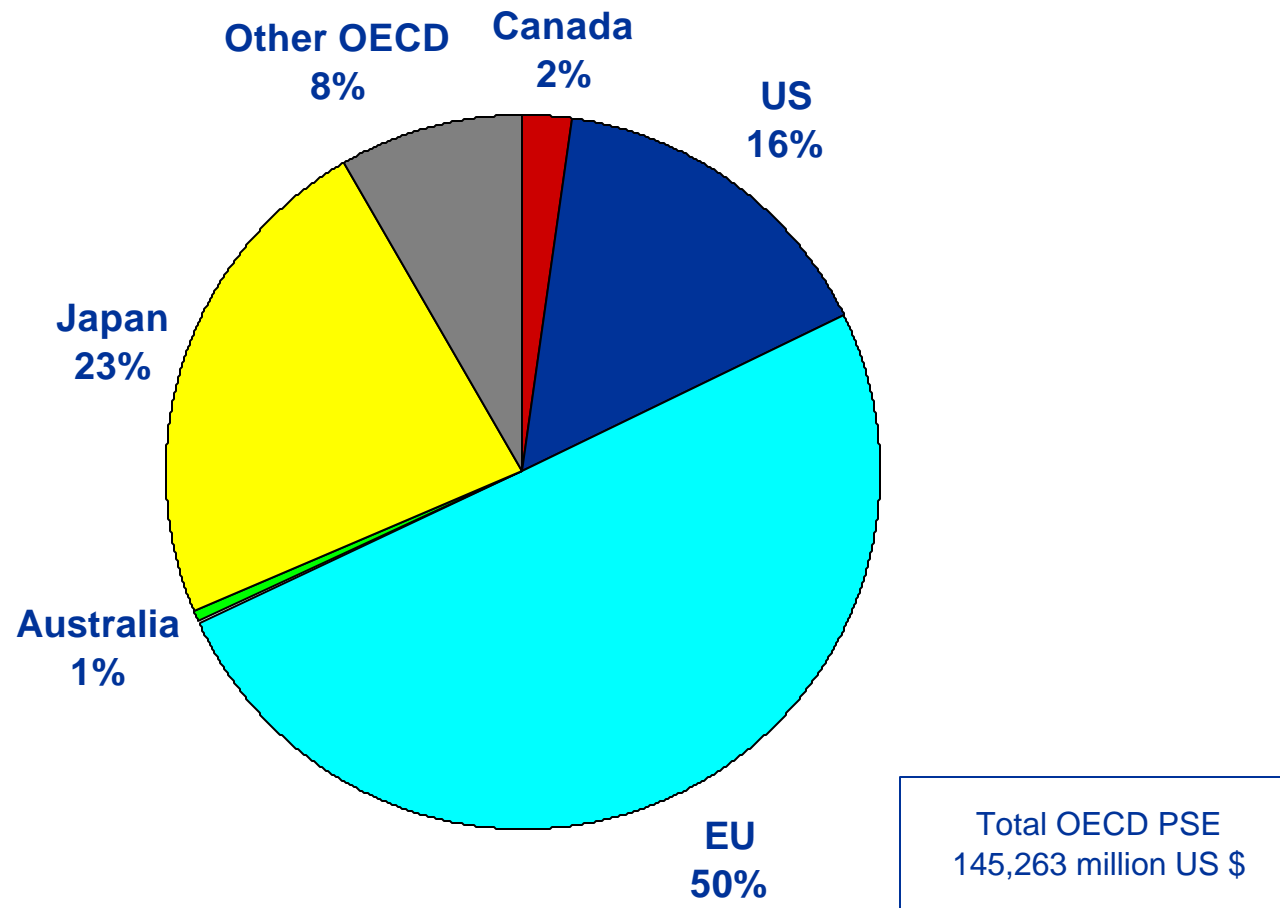
Government Transfers by Type of Transfer, 1996-97



AVOP - Adjusted Value of Production.

Source: AAFC - Farm Income, Financial Conditions and Government Assistance Data Book, February 1998.

Distribution of Total OECD PSE by Country 1997

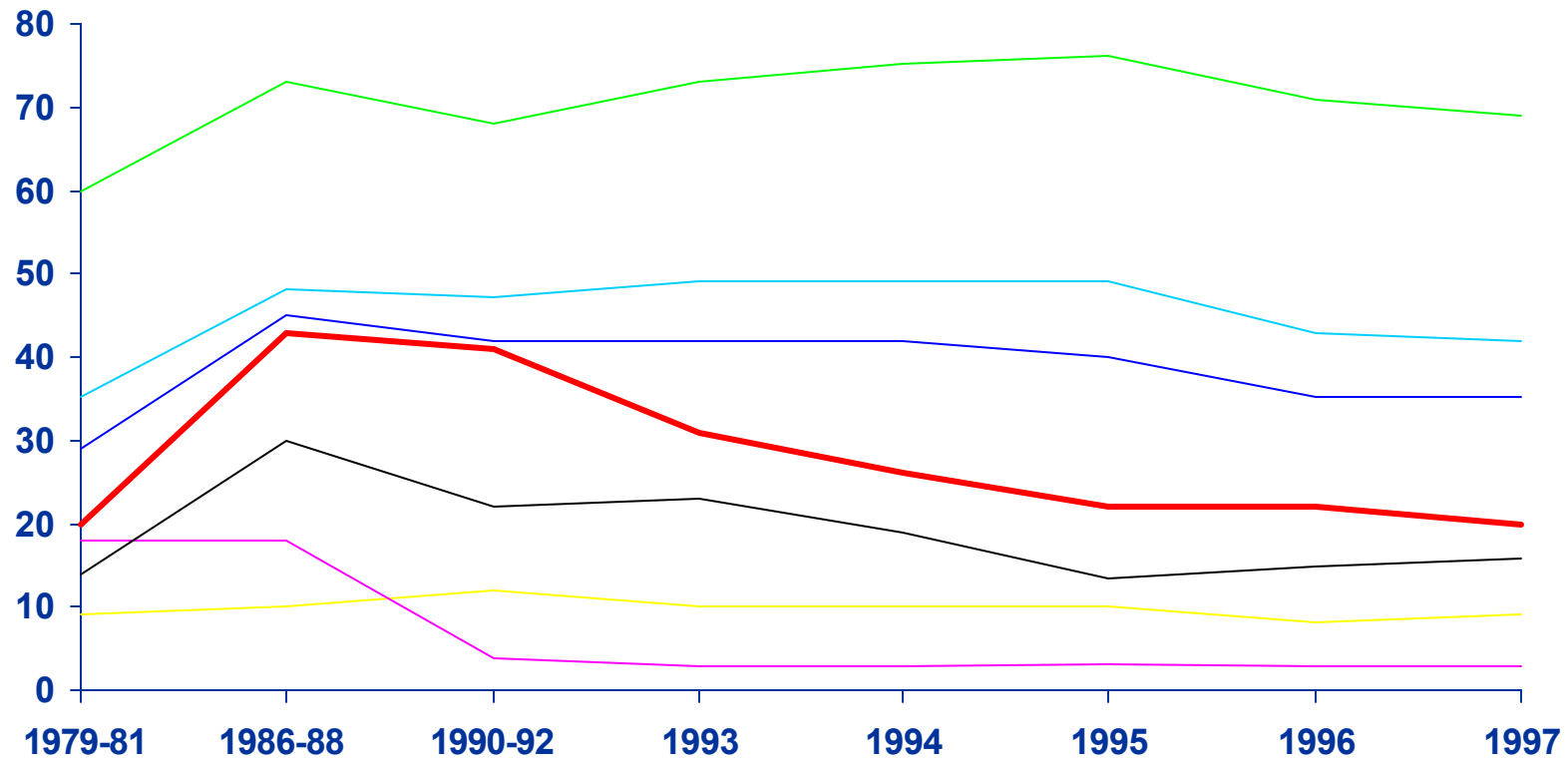


PSE (Producer Subsidy Equivalent) - An indicator of the value of the monetary transfers to agriculture resulting from agricultural policies in a given year (developed by the OECD, Paris).

Source: OECD, Monitoring and Evaluation 1998 (draft).

Percentage PSE, Selected Countries

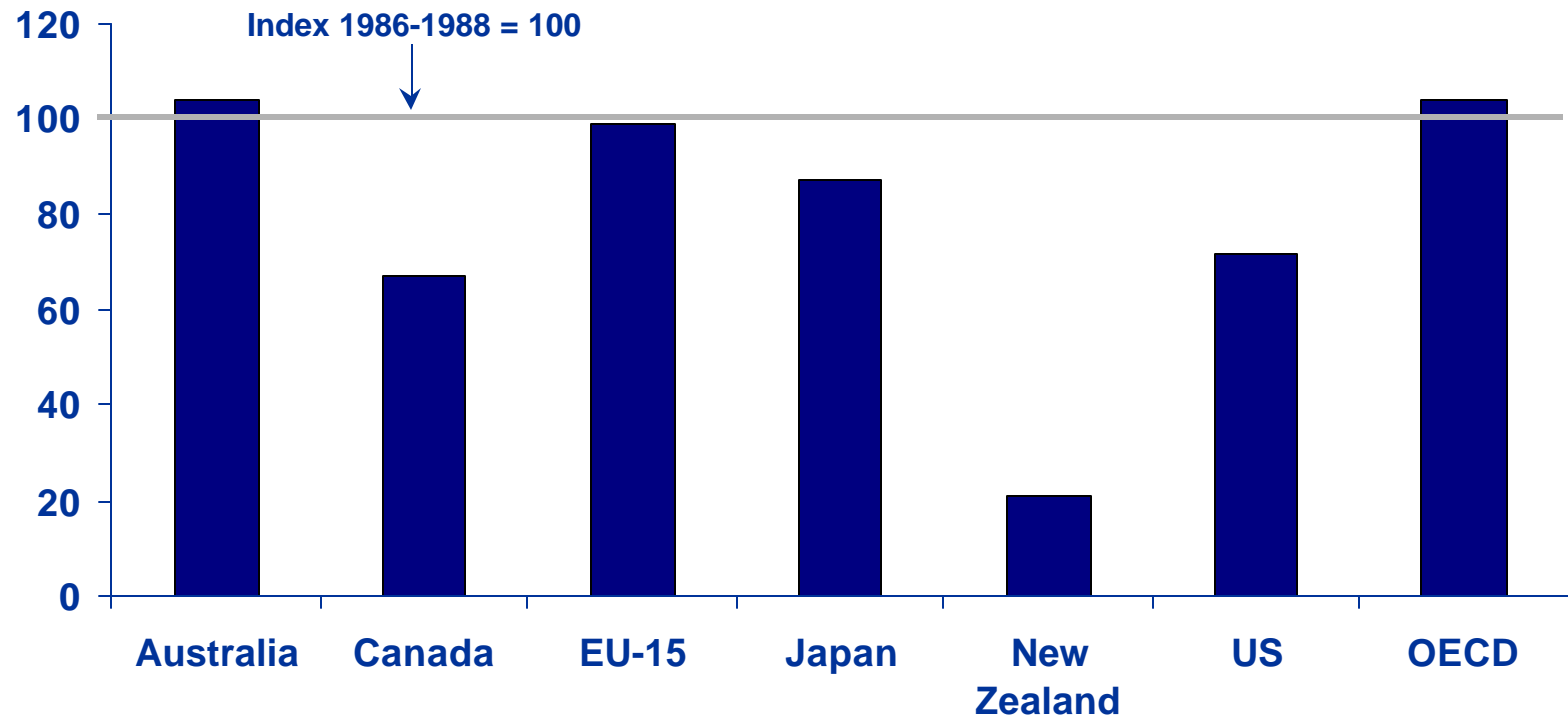
Percentage
of Production



— Australia — Canada — EU — Japan — New Zealand — OECD — US

Sources: 1979-94: OECD, PSE Database (diskettes), 1997.
1995-97: Monitoring and Evaluation, 1998 (draft).

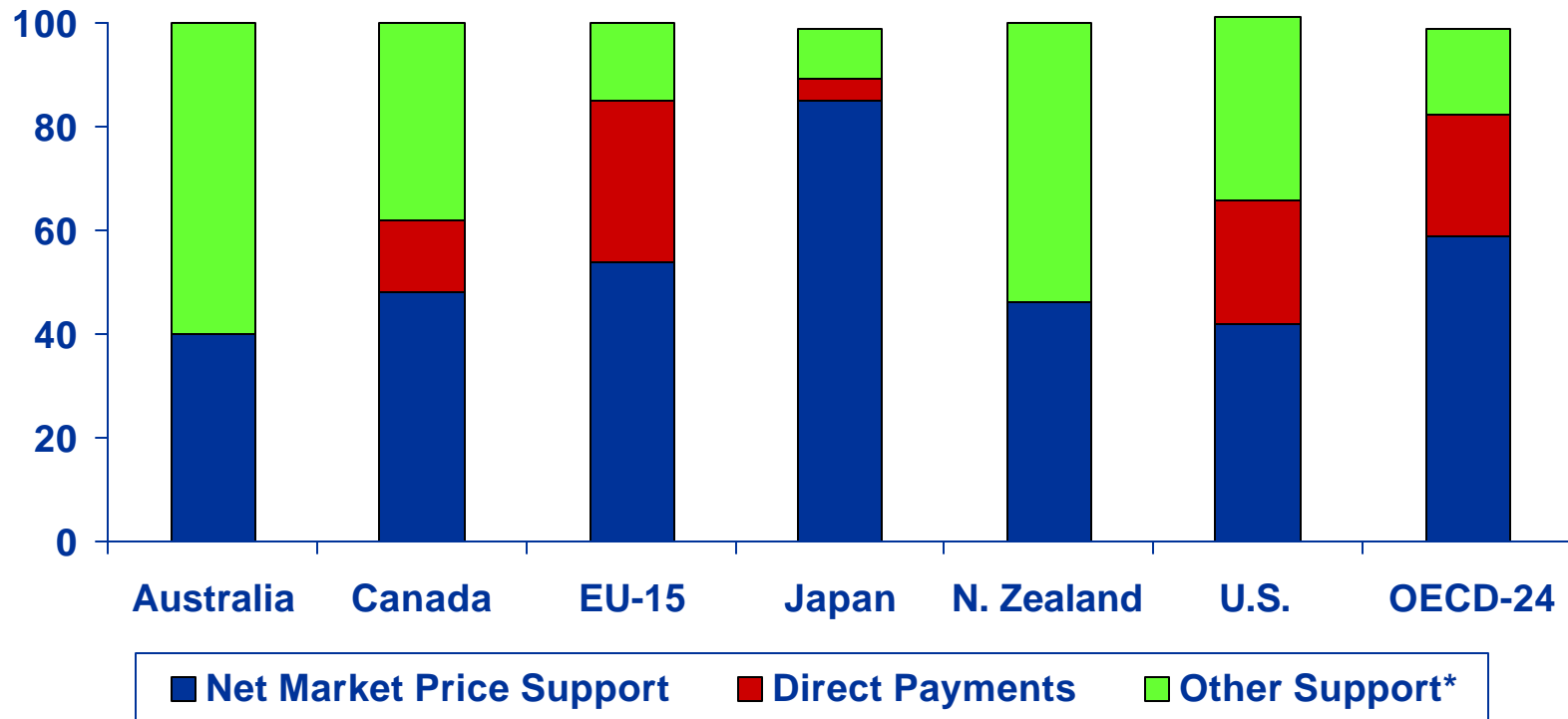
Index of Total PSE - 1997



Source: OECD, Monitoring and Evaluation, 1998 (draft).

Composition of Support in Selected Countries, 1997

Percentage



*includes input cost reduction and other services provided by government to the agri-food sector.

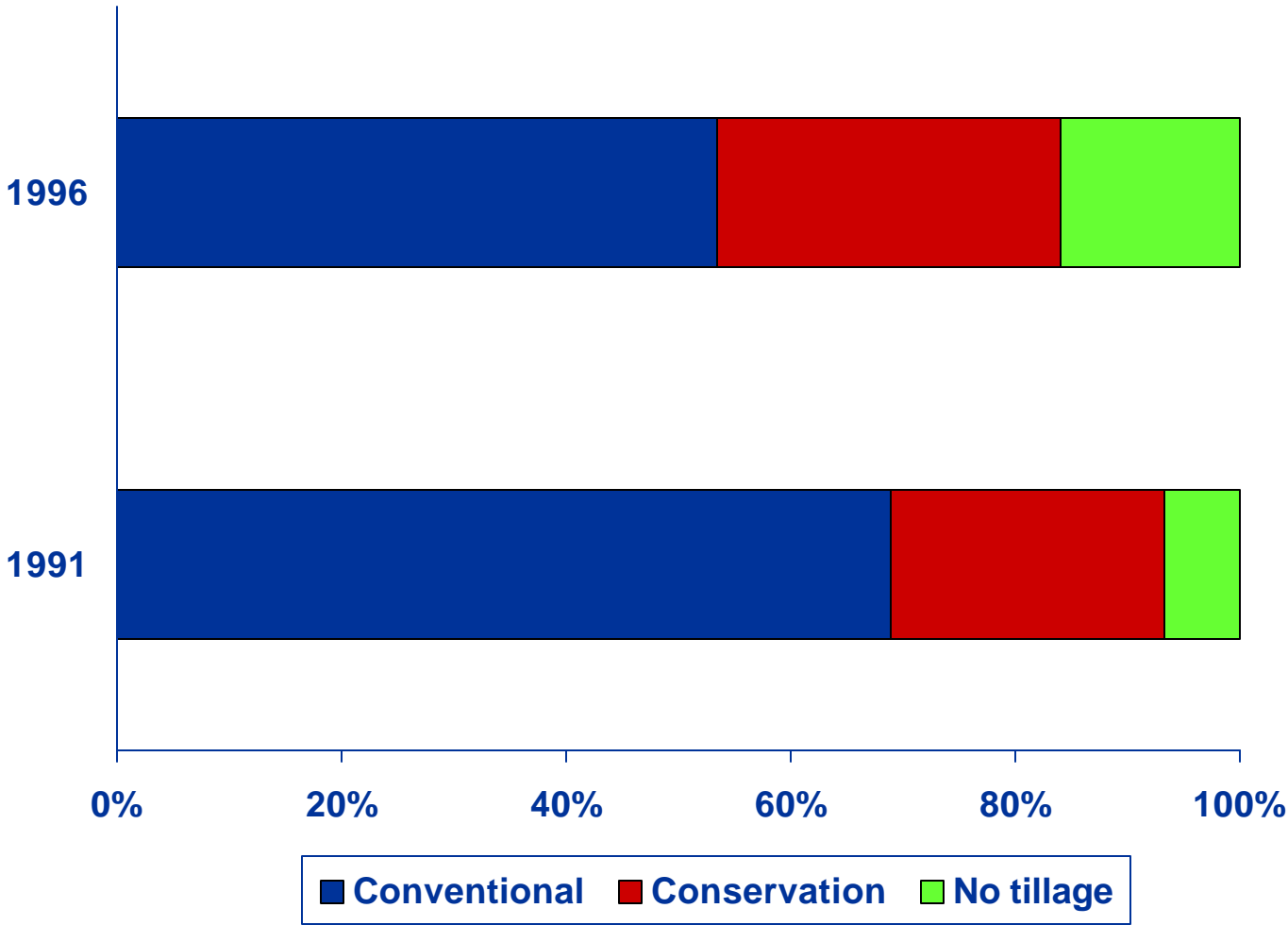
Source: OECD, Monitoring and Evaluation, 1998 (draft).

Glossary of Terms

PSE (Producer Subsidy Equivalent)	An indicator of the value of the monetary transfers to agriculture resulting from agricultural policies in a given year (developed by the OECD, Paris).
Farm Market Income	Market receipts which do not include direct program payments, less cash operating expenses.
Total direct payments	Include gross payments paid directly to producers under federal, provincial and municipal programmes.
AVOP (Adjusted Value of Production)	Sum of three year moving average value of production plus current year's total direct transfers.
Government Expenditures	Government spending (at all levels) on agriculture and the food and beverage processing industries in a year, both indirect and direct, to individuals, agencies or associations.
Government Transfers	To agriculture only, including direct expenditures plus the effect of government regulations or policies on producers' market returns.
Net Market Price Support	Transfers to agriculture resulting from measures (i.e., tariffs, administered prices) that raise prices to consumers of farm commodities, net levies and feed adjustments.
Other support	Includes explicit and implicit subsidies on purchased farm inputs, farm credit, and government transfers to agriculture research and development, extension services, training and agricultural infrastructure.

Environmental and Sustainability Measures

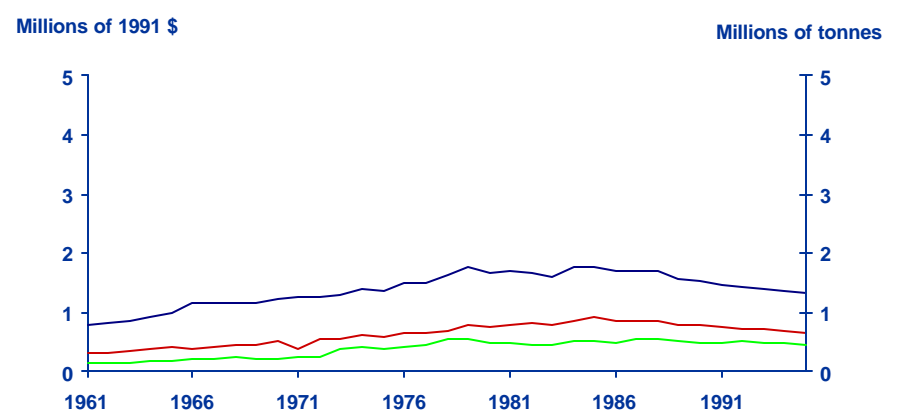
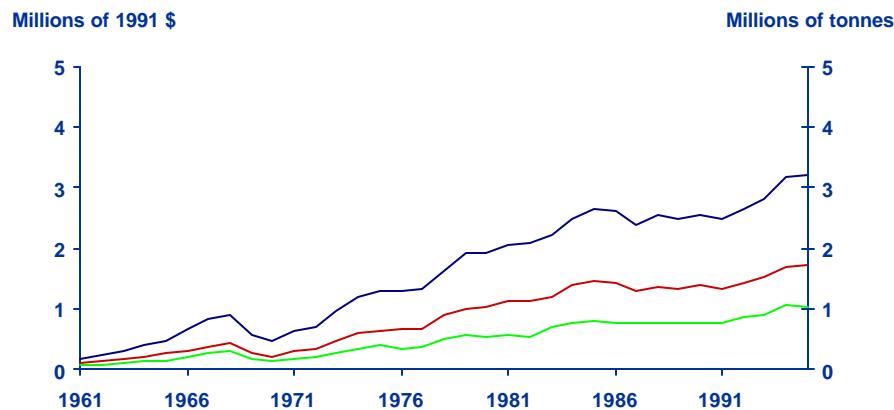
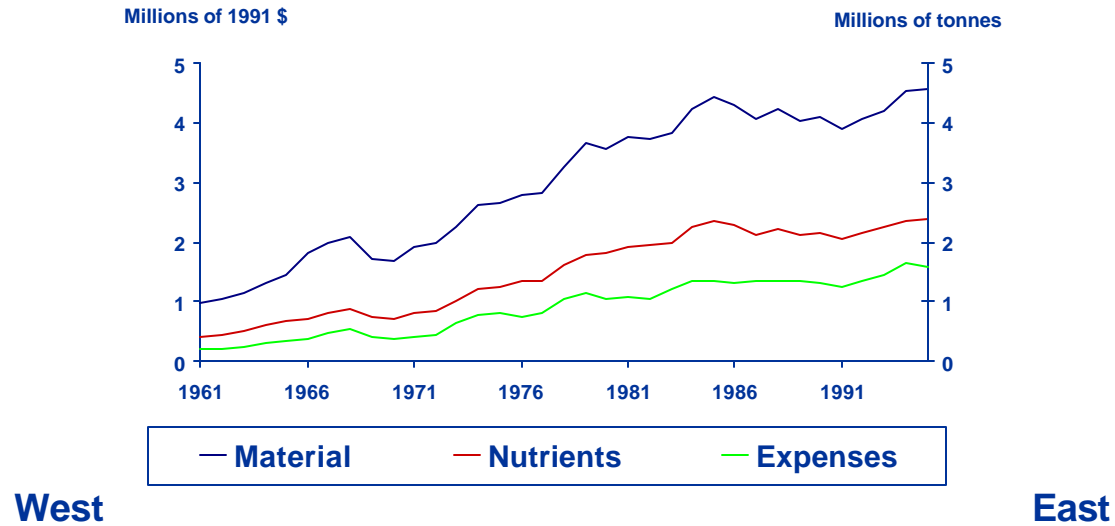
Tillage Practices 1991-1996



Source: Statistics Canada - 1996 Census of Agriculture National and Provincial Highlights.

Farm Fertilizer and Lime Expenses, Fertilizer Material Sold, and Fertilizer Nutrient Content

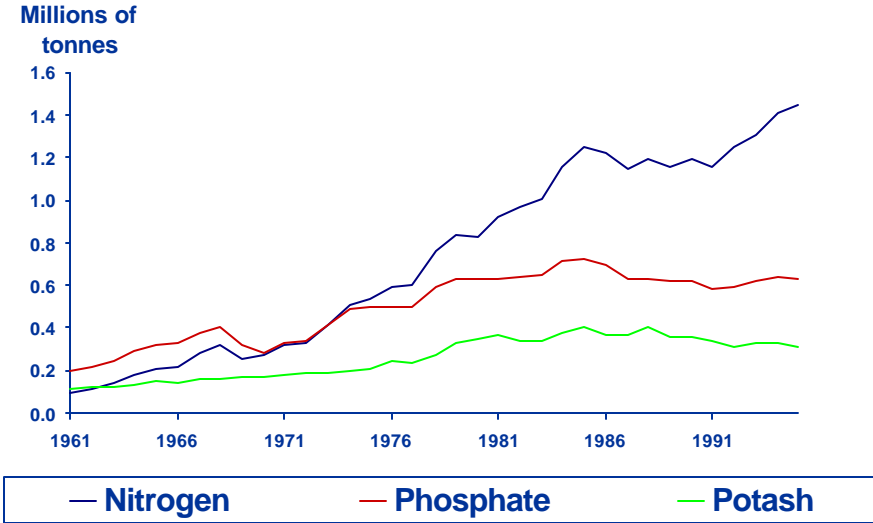
Canada



Source: Statistics Canada, Agriculture Division.

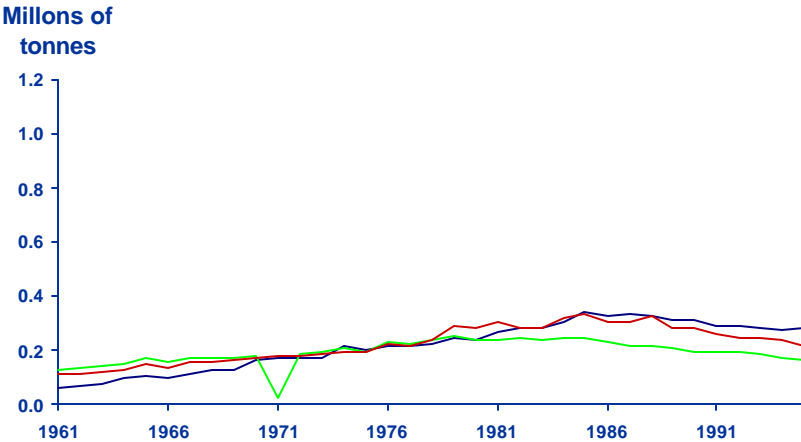
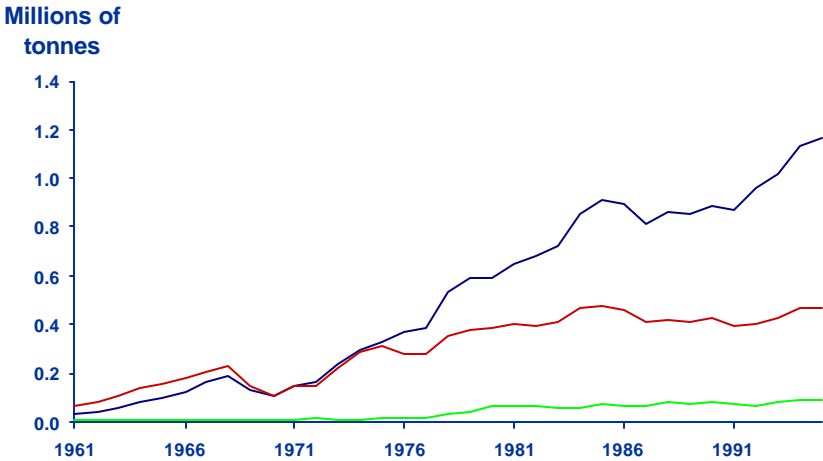
Nutrient Content of Fertilizer Material Sold

Canada



West

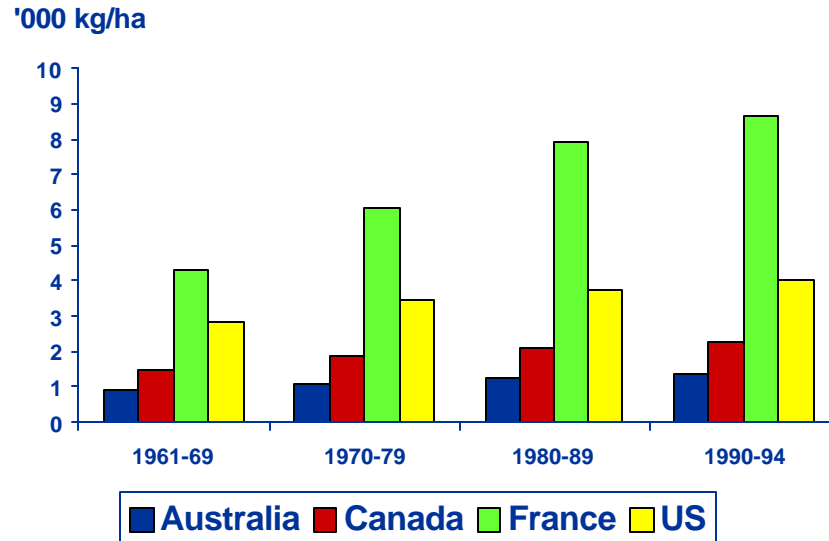
East



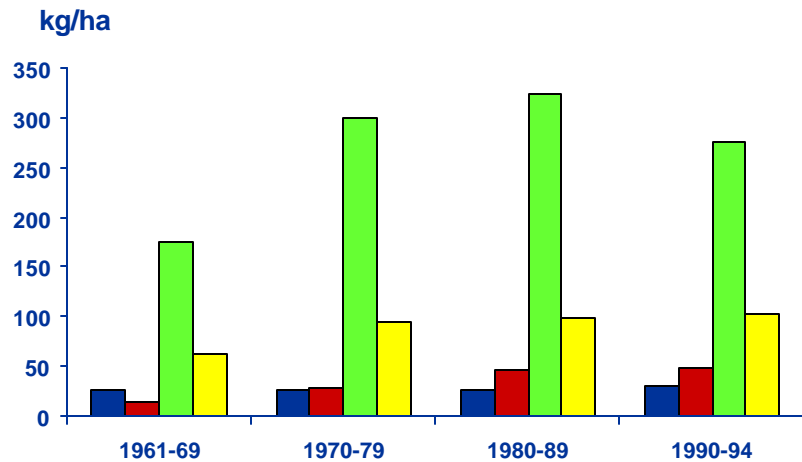
Source: Statistics Canada, Agriculture Division.

Fertilizer

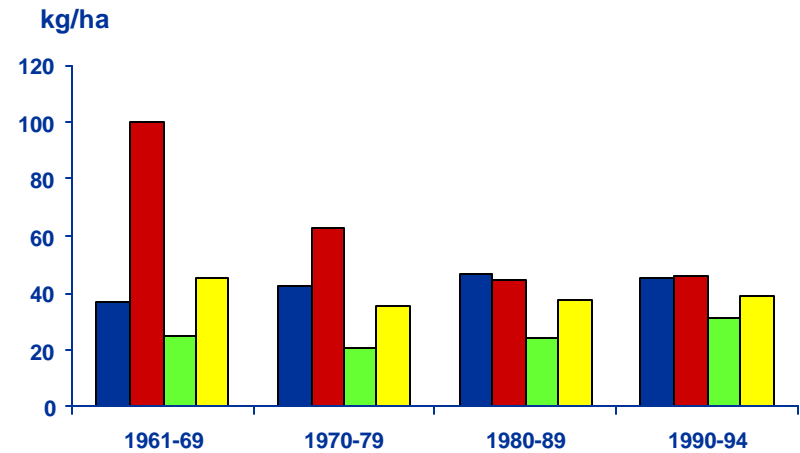
Average Primary Crop Production



Average Fertilizer Usage

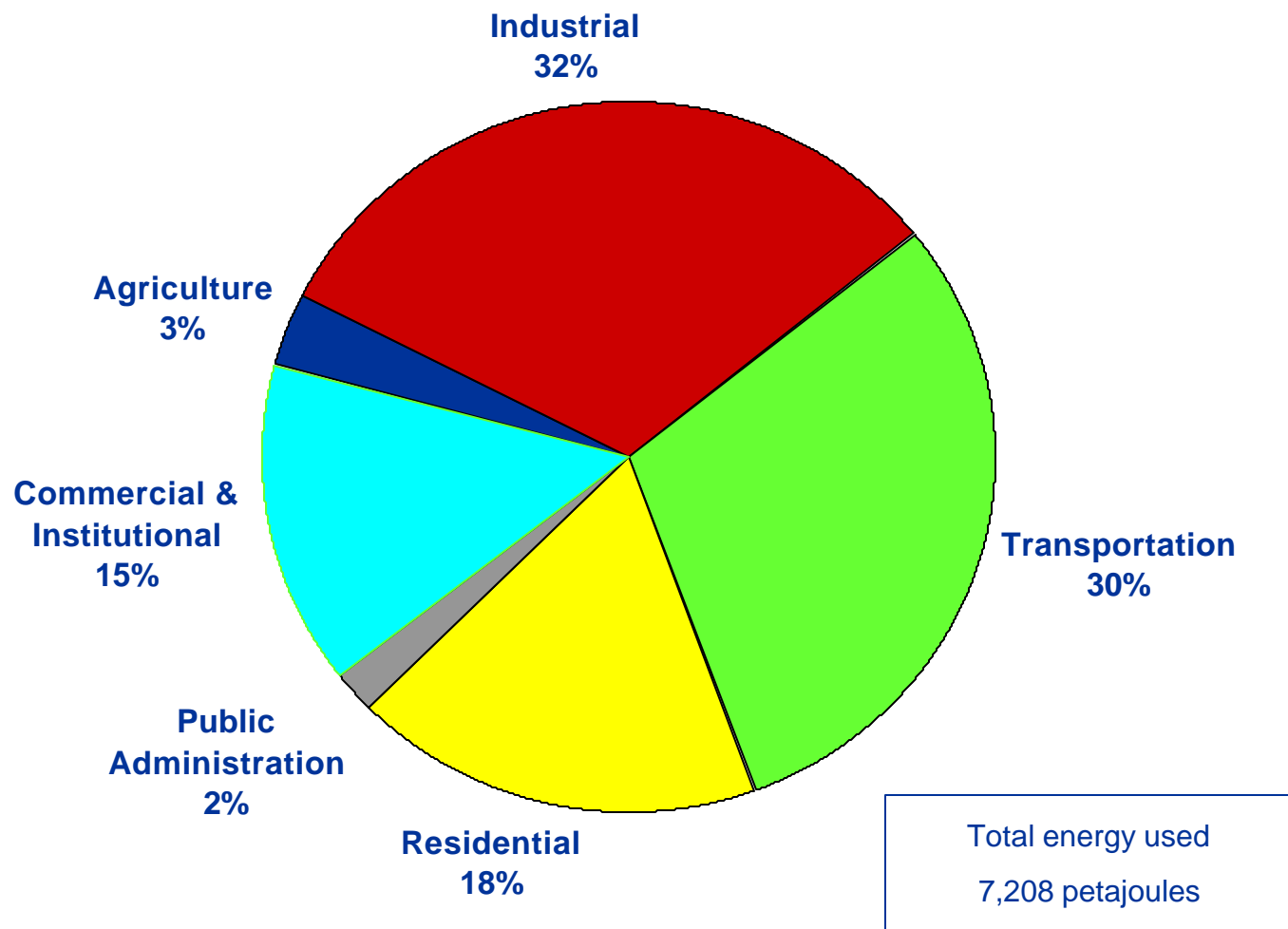


Fertilizer Response - Yield to Fertilizer Use Ratio



Source: FAOSTAT.

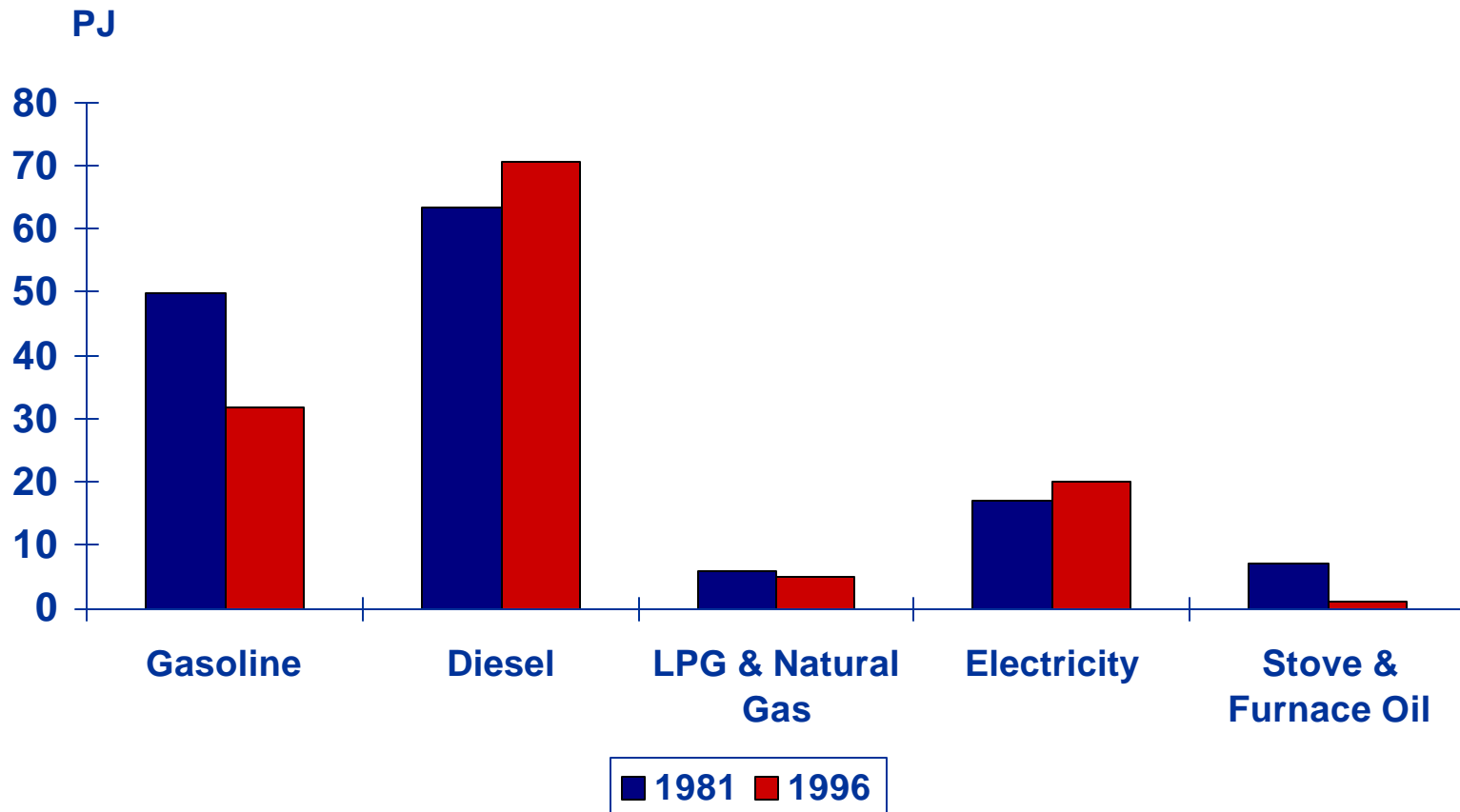
Energy Usage by Sector - Canada 1997



Source: Statistics Canada, CANSIM.

Energy Usage, Farming only, Canada 1981 vs. 1996

(in petajoules)

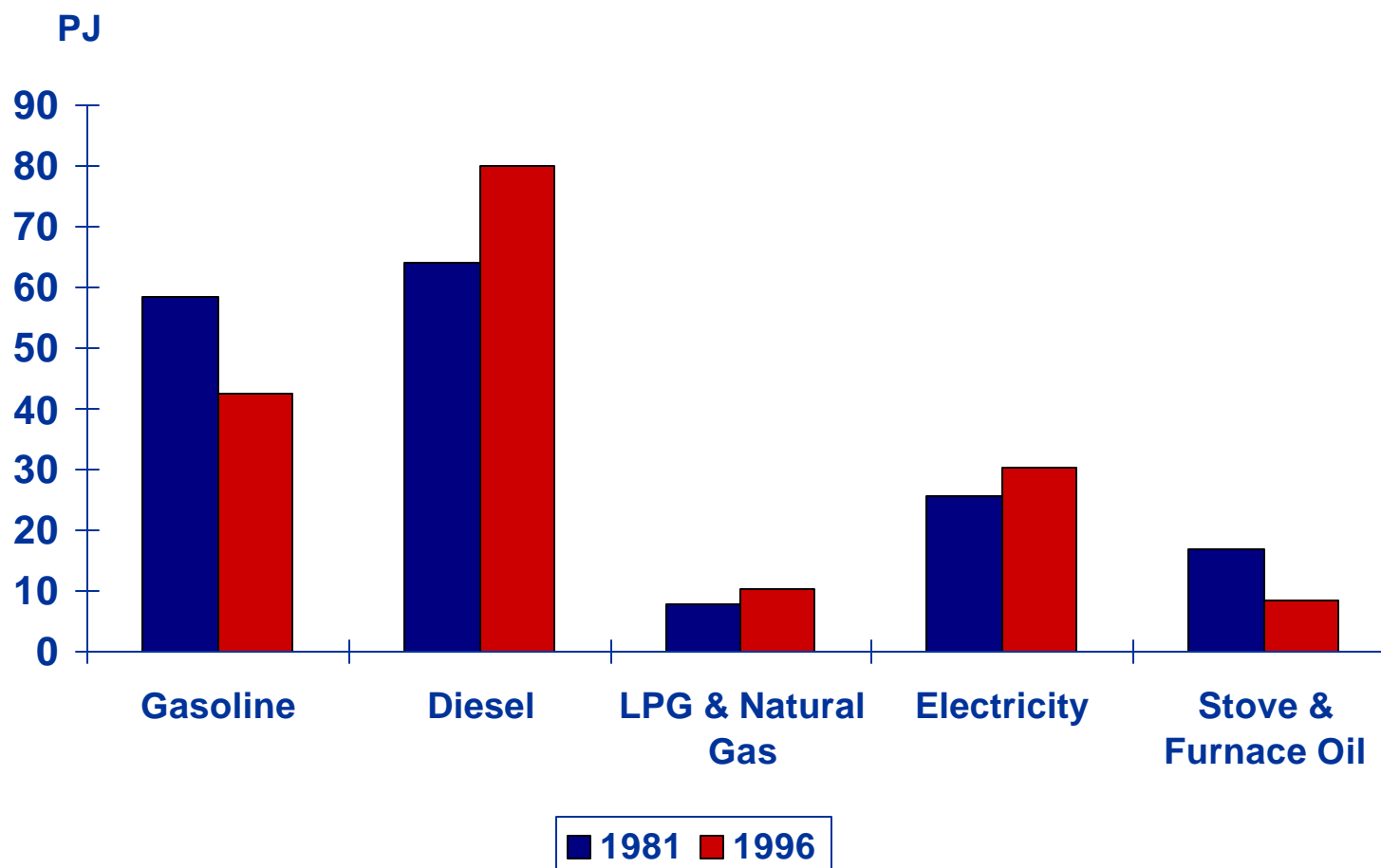


*Note: A 30 litre gasoline fill-up contains about one gigajoule of energy. A petajoule is one million gigajoules.

Source: The 1996 Farm Energy Use Survey.

Total Energy Used on Farms, Canada 1981 vs. 1996

(in petajoules)

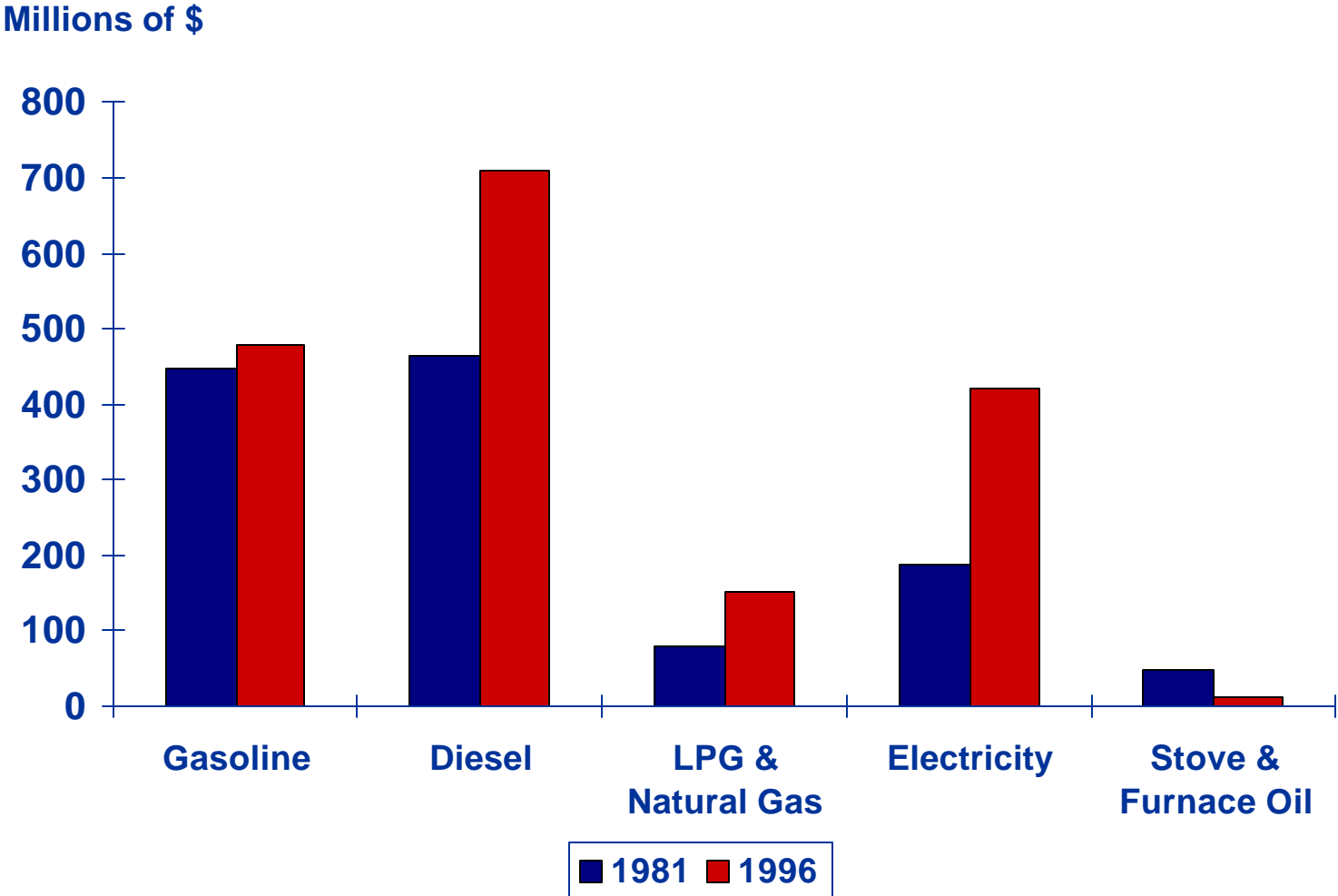


*Note: A 30 litre gasoline fill-up contains about one gigajoule of energy. A petajoule is one million gigajoules.

Source: The 1996 Farm Energy Use Survey.

Energy Expenditures for Farm Use Only, Canada 1981 vs. 1996

(in millions of \$)

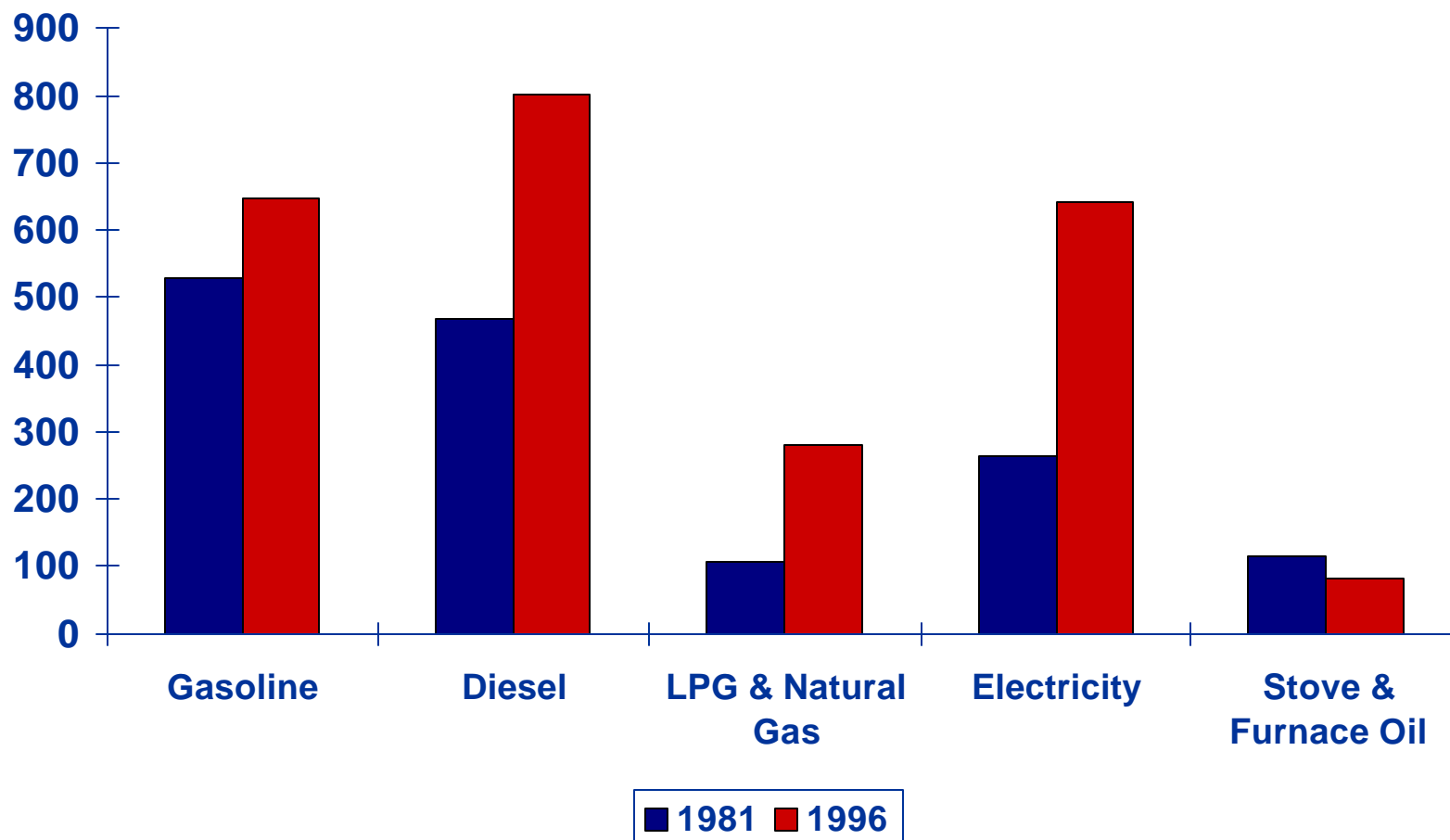


Source: The 1996 Farm Energy Use Survey.

Total Energy Expenditures by Farms, Canada 1981 vs. 1996

(in millions of \$)

Millions of \$



Source: The 1996 Farm Energy Use Survey.