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CCAC ENVIRONMENT ASSESSMENT

1988



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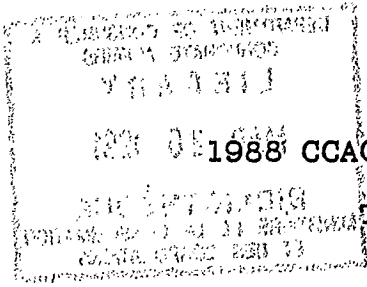


CCAC ENVIRONMENT ASSESSMENT

1988

This document has been prepared to stimulate thinking about the challenges facing CCAC over the medium-term. The views expressed do not represent established government or departmental policies.

Corporate Planning Division
Corporate Services and Research Branch
Bureau of Policy Coordination
August, 1988



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1988 CCAC Environment Assessment

Preface

The last CCAC Environment Assessment was published in August 1986. Since that time the pace of change has accelerated further, and the pressure for Canada to adjust to the new world economy has intensified.

In the interim, Corporate Services and Research Branch has restructured the tools and the framework for scanning the environment. The focus is now on identifying the key elements causing change.

A new classification has been developed to capture the nature of change. It has four principal components: changes in; production technology, information technology, demographics, and lastly, the patterns of social consensus. Coupled with conventional analytical tools, this framework has made it easier to assess the impacts of trends on Canada's "Department of the Marketplace", the "Department of Rules and Penalties".

The theme of this year's Environment Assessment is that the fundamental changes, the ones with the widest and longer term effects, are driven by technological innovation. There are five chapters in this EA structured to reflect this notion: Technological Trends; Production; Trade and Investment; Social Trends; Marketplace Trends and, finally, a "consensus" forecast with a brief report on provincial government priorities.

The implications which have been drawn from this approach are broad. The experts in various aspects of policy analysis and program delivery are in a better position to draw precise and relevant conclusions. We believe we have provided a coherent story which will provoke further thought.

Some readers may wish to have additional information on the text. They are invited to contact the Corporate Planning Division for details. Comments are encouraged. They improve our appreciation of our readers' needs.

This may be the last annual Environment Assessment Report. The rapid pace of change may necessitate the presentation of shorter, more frequent papers. Relevant material is stored in an automated database, organized by fiscal year. It can be provided to authorized departmental staff on diskette upon request. Please direct any enquiries to:

Corporate Planning Division
Corporate Services and Research Branch
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CHAPTER ONE: TECHNOLOGICAL TRENDS

Introduction

Technology has become the source of wealth and competitive advantage in modern economies. It is a constant source of change which shapes and reshapes markets. It redefines work and the role of the individual. Technology has created new markets and diminished old ones. This is changing world trade patterns and the distribution of wealth among nations. Today, most nations have implemented national technology strategies with the specific intent of increasing the share of research done by private firms. Canadian performance in this regard has ranked consistently low compared to other OECD countries. Consequently, specific attention must be paid to the process of technology transfer and the incentives for the private sector to invent.

Emerging Technologies

Researchers divide emerging commercial technologies into three groups: biotechnology, advanced materials, and electronics and intelligence technologies.

a) Biotechnology

Although the term biotechnology ranges from genetic and protein engineering to brewing, it is normally associated with the former. Biotechnology is creating markets for new drugs, new plants, new pesticides, complicated animal husbandry, sophisticated pollution monitoring, medical diagnostics, waste processing, detergents, bio-degradable plastics, and plastics with conductive properties. The forecast market values of these products vary widely. A U.S. value of \$20 billion by the year 2000 has been cited. Work is now underway on a supercomputer with a "bio-chip" modelled on human neurons. Although this is a longer range project, it may be the most revolutionary biotechnology development so far. It has the potential to bring computing power to bear on a wide range of human tasks.

Biotechnology firms are currently experiencing difficulties getting past the start-up stage. The difficulties stem from three causes: 1) long-term financing, 2) lengthy testing procedures and, 3) the appropriate delineation of intellectual property rights. Financial difficulties are forcing many American start-ups into alliances with large firms, particularly pharmaceuticals which possess financial and marketing strength. Attention to legal uncertainties is growing in policy development and in litigation. For Canada this important new market could be still-born, or become highly concentrated, if small firms continue to face these constraints.

b) Advanced Materials

Advanced materials technology replaces conventional materials with substitutes offering superior performance or a lower price than traditional materials. Four types of advanced materials are the subject of current research: ceramics, alloys, composites and polymers.

Substitution of advanced materials has steadily reduced the use of raw materials in production since the 1920's. (One example is the average weight of an American car which fell from 1727 to 1450 kilograms between 1975 and 1985). This creates both an opportunity and a challenge for commodity producers. Although raw materials are steadily losing ground to advanced materials, traditional producers have the marketing knowledge and infrastructure necessary to diversify into new materials and markets.

The application of advanced materials to manufacturing will enhance competitiveness. New materials are now used in machine tools, engines, aircraft, automobiles, computers, super conductors, and health care. This will mean better performance from automobiles, faster jets, substitutes for human tissue, and more powerful computers.

c) Intelligence Technologies and Electronics

Intelligence technologies range from artificial intelligence (AI) to automated teller machines (ATM's). They pervade modern economies. Intelligence technologies will continue to grow well into the next century, as they are applied to wider and more varied tasks. AI systems are now used for design, diagnostics, teaching and financial analysis.

AI systems are changing the nature of work and business organization. Computer aided design and computer assisted manufacture systems (CAD/CAM) have revolutionized manufacturing. Manufacturing could develop as a service which yields different products for separate companies on the same production line. Warehouse and distribution managers use systems which instantly process information from sales and transmit it to the factory to direct corresponding adjustments to production lines. The need for high inventory and for intermediate distributors is reduced. Retailing is becoming more like market research. The retail outlet will become a laboratory for testing new products.

Information technology has globalized financing, and new financial instruments have been developed. Traders can now study markets around the world, process their observations, match them with financial and economic intelligence systems and conduct large scale transactions in

minutes. Substantial arbitrage potential for traders operating simultaneously in separate exchanges (different markets) has also developed from new information technology. New issues are arising in the management of world financial markets as computer trading systems take advantage of complex interactions among stocks and specialized instruments such as stock index futures. New instruments have permanently altered the world economy (see Production, Trade and Investment).

The application of intelligence technologies shows great potential for the design of new proteins and genetic structures. The full implications are difficult to foresee. However, some experts think it could be the beginning of a market in human body implants, self administration of customized drugs and agricultural factories.

The use of parallel processing will allow researchers to develop AI systems which mimic thinking. By the year 2000 sophisticated inductive and inferential reasoning applications may be available. These will support processes such as more sophisticated translation.

While advances in microprocessors have increased processing speed over the last twenty years, major advances will be based on changes in algorithms allowing the use of new computer architectural design. Parallel processing algorithms and architecture allow different aspects of a problem to be attacked simultaneously. It is anticipated that such systems will be based on gallium arsenide chips, optical circuitry, or bio-chips which simulate the circuitry of a human neuron.

Technology Transfer and Commercialization

a) The Need to Acquire

Firms compete by applying technology to new products and product improvements. Consequently, they devote increasing resources towards achieving and maintaining a technological edge. Firms which fail to stay technologically abreast of their competitors lose market share. With technological competition the stock of existing technology and the flow of new technology are both expanding. Firms are now unable to produce and master all the technology relevant to their markets and must devote increasing efforts to acquiring external technology. This need is growing as the pace of innovation increases. Today's successful firms are those which not only produce new technologies but lead in acquiring and adapting those existing.

b) The Need to Commercialize

A return on investment in technology must be earned by embodying it in new products. To successfully commercialize technology, firms must understand market demands and use this understanding to direct the application of technology and to determine what new products and product improvements to introduce. Firms which best respond to marketplace demands succeed.

Successful firms simultaneously master the flow of technological information and the flow of marketing knowledge. The two concepts relate because mastery of information technology, such as point-of-sale retail systems and databases is used in conjunction with marketing surveys to identify and monitor specialized geographic and demographic markets. Advertising, design, packaging and servicing are all designed to create and to articulate consumer wants.

c) Current Policy and Practice

Intellectual property policy has always recognized the importance of technology and the need to earn a return on investment therein. The definition and enforcement of intellectual property rights help insure that inventors retain the exclusive right to market products based on their invention. Current policy also promotes the dissemination of new technologies through disclosure requirements and provisions for licensing. Compulsory licensing provisions in statutes address the potential abuse of monopoly power which intellectual property rights can create. The new Competition Act recognizes the need for technology exchange among firms. Section 67, for example, provides for the exemption of joint ventures in R&D. The statute spells out conditions under which exemptions from competition enforcement are granted. Exemptions are more likely to be granted if there is a specific project with a planned termination date.

d) Emerging Practices

Invention is better characterized today as a continuous process occurring rapidly throughout the world. The increased dispersion of invention requires more exchange of technological information among firms. The production process of today therefore resembles an exercise in information coordination. Firms must successfully coordinate flows of scientific and technological knowledge to develop intelligence on what can be produced. They must also coordinate flows of market knowledge to determine what consumers want. Furthermore, they must link these two types of knowledge in order to produce products. From this perspective, technology is a special type of knowledge and

technology transfer is a special form of knowledge transfer which characterizes all production. Traditional forms of knowledge exchange can no longer cope with the volume of knowledge which is generated by this process. The pace of change and complexity of the marketplace are too great to rely solely on marketing surveys to provide the necessary marketing intelligence. At the same time licensing provisions in statutes and licensing agreements among firms are proving inadequate to handle the volume of technological information which must be exchanged.

New business practices however, help to facilitate the information flows required to support modern production. There are essentially five developments in business practice which have increasing use and importance.

- i) Vertically Integrated Production. Businesses are organizing to encourage greater contact among product engineers, salespersons and customers through the use of team production schemes which integrate design and marketing functions. Such collaboration often entails the control of retailing through vertical integration. This strategy facilitates the exchange of information about customer preferences, technological capability and costs. The practice has proven very successful in helping firms market their technologies. Bausch and Lomb is an example of a firm which has deliberately organized to encourage interactions among its research, manufacturing and marketing staff.

- ii) External Alliances. Firms engaged in swiftly advancing technologies now seek to establish external alliances in order to acquire technologies. The usual types of alliance are swaps, joint ventures or licensing agreements. In swap agreements firms undertake to exchange relevant technologies or share access to research facilities. The terms of such arrangements differ depending on whether or not the parties to the agreement are rivals. The rights to patent, license and market the relevant technologies differ according to the structure of the contract. Joint ventures are more formal. They pool the research of firms or match research and marketing resources in order to develop or market a new product. Such arrangements often fill gaps which a firm may have in its knowledge base. The rights, responsibilities and eventual termination of such arrangements can create contractual difficulties. Licensing agreements are the traditional means to exchange

technology. They rely on the patent system to provide a measure of what is exchanged.

- iii) Acquisitions. Technology can also be transferred through mergers and acquisitions. These measures are typically a takeover or a minority acquisition. In the case of the former, if legal and financial hurdles can be overcome, the problem is to integrate the technologies. This usually requires considerable personal interaction among research staff. The latter case may require complicated legal agreements. Specific rights to access, to improve upon and to market basic technologies must be delineated. The details of such an agreement may depend on how patent rights have been assigned. The patents held by a firm provide an impartial measure of the quantity and the specifics of the technology which is being exchanged.
- iv) Consortia. Research consortia are usually sponsored by national governments and are designed to direct a national effort towards important new technologies. If properly organized, they pool research resources, avoid duplication, accelerate the transfer of basic research and reduce industrial espionage. Increasing competition in the international marketplace is causing many nations to study closely and to adopt consortia strategies in order to win market share. The U.S. Department of Commerce cites 100 regulatory barriers that it is seeking to remove in order to foster such alliances.¹ The Americans have established over sixty-six such consortia since the passage of the National Cooperative Research Act in 1984. The Japanese have over 225.²
- v) Trade Secrecy. It seems, given the growing tendency of firms to safeguard research internally,

¹ Dr. Bruce Merrifield, "The Challenge is Change; The Response, Collaboration" in Getting More Out of R&D and Technology, James K. Brown and Evelyn Samore, eds. The Conference Board, New York, 1987, p. 31.

² Debra M. Rogers, "The Collective Challenge: Optimizing the Technology Alliance", Managing the Knowledge Asset into the 21st Century: Focus on Research Consortia. Proceedings from a Conference at Purdue University in April, 1987. (January 1988), p. 15.

either through alliances or within consortia, that the use of trade secrecy must be expanding. Because trade secrecy is difficult to monitor, policy issues arising because of its increased usage, will be difficult to resolve. It is clear that trade secrecy provides protection until patent applications can be filed and that it is used in many technology exchange agreements.

- vi) Use of Standards. The growth and complexity of emerging technology mean individual firms often work on related pieces of equipment. Frequently, firms which have no formal association with each other are developing related parts of systems such as computer hardware, peripherals and software. Setting standards to ensure compatibility provides for security of investment and at the same time serves to protect the consumer interest. Firms within an industry compete to establish standards in order to capture and control emerging markets. During the fight to establish standards, consumers are at risk of purchasing goods which may become obsolete. This can slow the introduction of new products, because consumers are risk-averse. The victors in such struggles are assured of a high return on investment in new technologies.

e) Emerging Policy Issues

Emerging practices which support knowledge transfer are raising policy issues which affect CCAC's mandate and program delivery. Biotechnology, for example, has raised the issue of what is patentable. It also raises questions of the compatibility of Canadian law with that of other industrialized countries. Current Canadian law allows patents on unicellular organisms yet American practice allows patents on higher life forms. Canada must choose whether to follow the American lead or to follow the European practice of more limited patentability.

The appropriate scope of new patent grants must also be addressed. This has particular relevance to genetic engineering. On the one hand too broad a grant of patent could frustrate the acquisition of patent rights for related but subsequent inventions. On the other hand, too narrow a grant of patent may reduce incentives to invent because disclosure could invite reverse engineering of the new product. Closely related to the issue of scope of grant is the question of second generation innovations (inventions based on the original patented work). Licencing requirements may be the critical factor in ensuring that research continues in fields such as biotechnology. The policy response to the issues of scope and second generation rights

will determine the extent to which the biotechnology industry relies on trade secrecy over patent protection. It is likely also that these questions will arise in industries other than biotechnology. Trade secrecy provides additional incentives to invent but also slows the dissemination of new technologies.

The growing collaboration among firms may result in either inadvertent or deliberate transfer of trade secrets. Any widespread growth in disclosure of trade secrets, particularly if it is unintentional, may demand a policy response with national, or even international, legislation.

Trade secrecy currently falls under provincial jurisdiction in Canada so implementing legislation could raise constitutional issues. Also, national legislation governing trade secrecy (or federal-provincial agreement) could decrease the reliance of firms on patents.

National technology strategies which rely on consortia and external alliances among firms raise competition issues. Canadian law permits exemptions from the Competition Act for joint ventures in R&D. These exemptions are provided primarily for joint ventures which aim at developing new products and are of limited duration. On the other hand, many foreign alliances prohibit the joint development of new products and are designed to support an ongoing exchange of basic research. If Canadian firms develop external alliances, this raises the possibility of increased monopoly power and the desirability of containing it. Start-up firms may find themselves unable to access relevant technologies and retail networks if such alliances are made exclusive.

An emerging policy question is the changing role of patents in a business environment where industrial alliances are increasing. Currently, the protection of invention in exchange for disclosure is the primary focus of patent policy. However, as mentioned earlier, patents are used increasingly to provide an impartial measure of exchange between firms. If this use of patents grows relative to its present purpose, it could alter current policy regarding the appropriate scope of protection.

Lastly, the impact of competition policy on technology transfer must be examined. How mergers facilitate technology transfer and the commercialization of technology warrants further investigation. Often technology transfer requires the personal interaction of research staff. Consequently, acquisition improves the efficiency of technology transfer. Among the benefits to be gained, acquisitions or mergers can provide a start-up technology with links to a retail network and thus facilitate

commercialization. Among the possibly negative effects of acquisitions and mergers (for purposes of technology transfer) are the likely increase in corporate concentration and the difficulty of small firms to defend their interests in minority acquisitions.

Impacts on CCAC

a) New Goods and Services

Because technological change is embodied in new goods and services in the marketplace, it is important to the Department's mandate. New technologies create the need for new standards or even entirely new regulatory frameworks. Standards ensure compatibility and thus facilitate the acceptance of new products by the consumer. Technologies which have generated new products, such as refrigerated prepared meals, have raised issues of product safety because of the risks of contamination. While the need continues to monitor the introduction of new products, their increasing numbers and complexity are straining governments' ability to do so. New approaches are required to simplify and disseminate information which can facilitate consumer choice and safeguard the consumer interest.

b) New Markets

Technological advances are creating new markets causing once distinct product and geographical markets either to merge or to fragment. Regulators must respond to maintain efficiency. In the above example of refrigerated prepared meals supermarkets compete with fast food chains. A parallel development has emerged with the integration of once distinct financial industries (see Production, Trade and Investment). Such changes drive re-regulation and the need to redefine markets to enforce competition law.

c) Effects on Program Delivery

Technology is changing how CCAC fulfills its mandate. Robotics and automated measurement are allowing better quality standards to be maintained. This could simplify the administration of legal metrology. Communications networks are improving access to information and allowing consumers to make a more informed choice. WHMIS, trademark and bankruptcy data services are on-line data bases at CCAC which serve business and consumer needs. Patent libraries will be possible with the implementation of the patent automation project. The potential exists for automation to greatly simplify trademark and patent searches; relational databases will allow users to search patent records more efficiently; Artificial Intelligence (AI) systems, which recognize patterns, will simplify the search of trademarks.

Electronic mail and automated work-stations will accelerate communications between management and employees. Management will need to "informate" the workplace, to enrich it by giving employees the training and responsibility to make use of the increased information which results from automation, and which alters the established routine and relationships at work.³

d) Promotion of Technology

CCAC promotes the development of Canadian technology by influencing incentives to produce, to disseminate and then to commercialize new technologies. The incentive to produce new technologies is provided through intellectual property protection. Dissemination is carried out by a firm's acquisition strategies, trade of intellectual property, external alliances (including consortia), and the disclosure requirements of intellectual property grants and registration. The choice of how to disseminate depends on the application of both intellectual property law and competition law. Since intellectual property law and competition law interact in influencing dissemination and because both are administered by CCAC, Canada can effectively coordinate their application.

Lastly, CCAC helps provide incentives to effectively commercialize new technologies by using competition law to ensure that new products have access to a retail network, and by enforcing standards and trademarks to help ensure consumer acceptance.

The challenge for the Department is to understand and effectively balance two dynamics. First, there is a need to appreciate the interactions among incentives to produce, develop and commercialize new technologies. Second, CCAC needs to be fully cognizant of how its policy tools simultaneously affect these three.

³ The term "informate" has been coined by Professor Shoshana Zuboff of the Harvard Business School to describe the process of successful adaptation of firms to the automated workplace. See S. Zuboff, In the Age of the Smart Machine: The Future of Work and Power. Basic Books, New York, 1988.

CHAPTER TWO: TOWARDS A GLOBAL ECONOMY: PRODUCTION, TRADE AND INVESTMENT

Introduction

Today, world trade and investment patterns are changing because the advent of knowledge-based production is causing a reorganization of business structures, thereby changing the patterns of production. The content of world trade is changing, with trade in commodities falling relative to trade in services. Trade flows are changing direction and this is straining the mechanisms which govern world trade. It is critical that Canada understand and adapt to these changes because trade comprises 30% of its GNP.

Impact of Knowledge on Production

The notion that production is the application and coordination of knowledge was discussed in Chapter One. The advent of this knowledge-based production is straining trading relations for two reasons. First, production relies on technology transfer which is increasingly international in scope; this transfer is testing trading rules which were never designed to govern knowledge. Secondly, the requirement for more highly trained personnel is causing a shift in the location of production. Advanced nations are supplying this skilled personnel, leaving less advanced nations supplying less skilled labour. In turn, the growing demand for a highly trained workforce in advanced nations is pushing up wages in general and causing many firms to relocate lesser skilled jobs to less advanced nations. National economies and trade mechanisms are having difficulties adjusting to this new pattern of production.

a) International Technology Transfer

All advanced economies produce new technologies. Research and development, once centred in the United States, has grown rapidly in other nations so that today firms acquire technology from wherever it exists. When technology is transferred across national borders, all the technology acquisition strategies outlined in Chapter One become more complicated to implement.

Adjudicating the ownership of intellectual property rights is more difficult when more than one regulatory jurisdiction is involved and presents an obstacle to international technology transfer. Consequently, acquisition or investment strategies are used more frequently for such transfers. Additionally, some firms take advantage of national differences in intellectual property rights to appropriate foreign technologies without compensation. Because many countries view technology as a national asset,

increasing foreign investment is strengthening nationalistic sentiment, particularly in the United States.

Many firms have responded to jurisdictional inadequacies by resorting to private contractual resolution of intellectual property disputes, such as the IBM-Fujitsu agreement of September 1987. (This agreement established an independent arbitration committee to resolve differences between the two firms over ownership of mainframe operating software.⁴)

It is not clear whether these private contractual agreements are supplanting or supporting intellectual property rights. However, it seems that such private agreements will certainly exacerbate national anxieties about technological outflows.

Such anxieties are precipitating policies which some analysts term "techno-nationalism". These policies are disrupting trade and further confusing trading relations. Techno-nationalism stems from two causes. First, as noted earlier, because rules of comparative advantage which apply to trade in commodities do not necessarily apply to trade in technology. With technology, the nations which gain an initial advantage can use this to establish permanent advantage in consumer markets. This is because such nations will dominate research which is based on the original technology. Secondly, techno-nationalism arises because many nations lack confidence in the international mechanisms which define and protect national technologies.

Techno-nationalist tools include creating national consortia, imposing trade sanctions, introducing laws which promote national control over specific technologies and establishing control over incoming foreign investment.

National consortia help national firms dominate markets by controlling relevant technologies. For example, the Americans are proposing a CONSUMETECH consortium to dominate the consumer electronics industry.⁵ Consortia membership

⁴ Michael M. Miller, "High Tech World Sees IBM Case As a Way Out of the Copyright Maze", Wall Street Journal, Sept. 18, 1987, page 1.

⁵ Jon E. Cornell, Senior Vice-President and Sector Executive, Harris Corporation's Semiconductor Sector, "Leveraging the Consortium Connection", Workshop Address to the 9th Annual Conference on R&D and

is usually restricted to national firms and is therefore a source of trade friction. The March draft of the 1988 U.S. Omnibus Trade Bill cited participation in foreign consortia as grounds for trade sanctions.⁶

Trade sanctions, or the threat of trade sanctions, are sometimes used to force resolution of intellectual property disputes between nations. There are provisions in the U.S. Omnibus Trade Bill to exercise this option.

Promising new technologies are often the target of special national efforts to protect them. Recently proposed U.S. legislation on research into superconductors is designed to curb the loss of knowledge developed at the early stages of research. The Japanese Fifth Generation computer project is a similar national effort. Trade disputes could easily arise because such national efforts are viewed as unfair subsidization.

International technology transfer has no clear operating rules. If the rules are eventually harmonized, technology transfer will vitalize the world economy, but if international agreement on rules cannot be reached, serious trade frictions will result. From the Canadian perspective, any international dispute over technology which impedes the inflow of foreign technology would jeopardize national interests because Canada imports 98% of its technology.⁷ Projections that the growth rate of trade in high-tech products will double the overall growth rate of trade during the next ten years makes the failure to harmonize the rules a serious threat to Canadian prosperity.⁸

Clearly articulated international intellectual property rules and uniform trade secrecy laws are sorely needed. These will assist in managing the outflow of national

Technology, 1988: Key Issues For Management. The Conference Board. Vista International Hotel, New York City, Feb. 29, 1988.

6 Marcia Langley and Walter S. Mossbert, "Congressional Conferees Clear Majority of Big Trade Bill, But Veto is Possible", Wall Street Journal, April 1, 1988, p. 3.

7 Roger Voyer, "It's High Time High Tech Had a High Profile", Globe and Mail, May 23, 1988, p. A7.

8 Ibid.

technologies and minimize disputes in international transfers.

The challenges in achieving international consensus on intellectual property rules and trade secrecy are the different political systems of countries, the pace of technological development and divergent national interests.

The need to reconcile different political systems is a major problem. Balancing a domestic consensus with an international consensus is a protracted exercise. The rapid pace of technological advance quickly renders an international consensus inadequate. New technologies are constantly raising new issues regarding what is patentable, what is the appropriate scope of patent protection and how to enforce patent rights. Recent efforts to achieve international agreement on Plant Breeders Rights and Semiconductor chips illustrate this point.

Consensus is proving difficult to achieve because the interests of advanced and less advanced nations differ. Advanced nations are pressing for a broader scope of protection which is strictly enforceable. Nations which produce little technology are resisting this pressure.

The difficulties in achieving multilateral consensus are sometimes circumvented by bilateral trade agreements. However, bilateral solutions may contravene multilateral agreements. The U.S.-Japanese Semiconductor Agreement was found to contravene certain provisions of the GATT. In this light, it is not clear how bilateral trade arrangements work.

b) Shifting Comparative Advantage

Chapter One characterized production as the development and application of knowledge. Statistics illustrating strong growth in the services and information industries confirm this. The transition to knowledge-based production is occurring in all advanced nations. The popular press sometimes cites this as the beginning of the service economy.

Although blue collar labour costs for most goods are now less than ten percent of total production costs,⁹ this does not necessarily confirm a true decline in manufac-

⁹ Peter F. Drucker, "From World Trade to World Investment," Wall Street Journal, May 26, 1987, p. 32.

turing. Rather, the distinction between services and manufacturing is fading, so that a large percentage of services is actually the application of specialized knowledge to the production of goods.

The growing use of services in production presents two trade problems for Canada. First, the shift of production towards use of specialized skills is reducing the input of blue collar labour and raw materials. This shift suggests a long term decline in the relative trading value of traditional Canadian exports such as natural resources, basic manufacturing and agricultural products. Furthermore, the growth in advanced services has produced higher wages in advanced economies and so comparative advantage in most low technology manufactures and assembly work is shifting towards newly industrialized countries (NIC's). This trend is illustrated by border industries in Mexico and the emergence of South Korea, Brazil, India, Taiwan and Hong Kong as manufacturing powers.

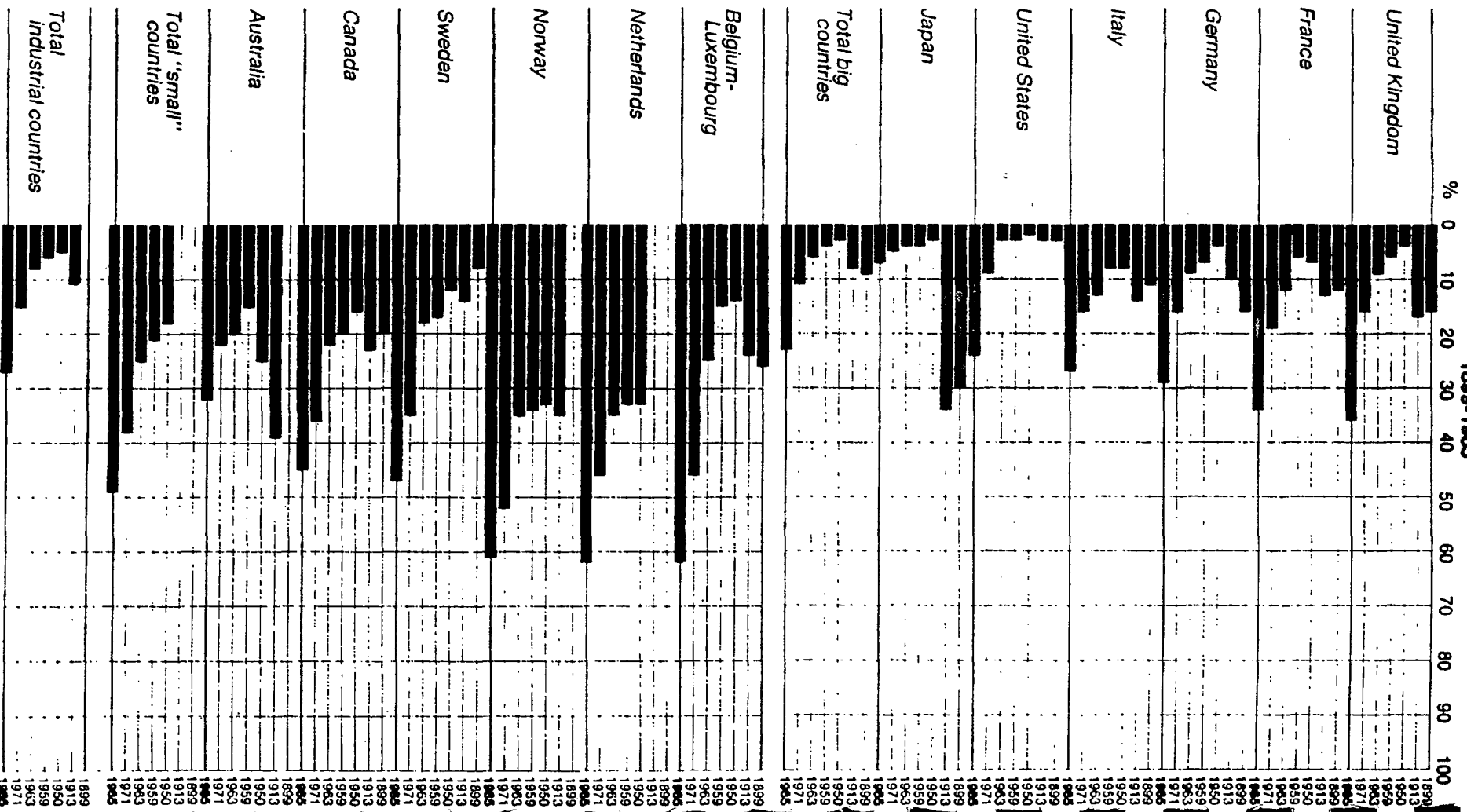
The shift in comparative advantage is being resisted by advanced economies which use domestic subsidies, supply management and other measures (including tariffs and quotas) to protect industries where they are losing their trade advantage. Current trade disputes over agricultural subsidies, the growth of marketing boards and of non-tariff barriers are best understood in this context. These measures are slowing necessary adjustment. Resistance is exacerbating debt problems in Third World countries.

Advanced economies are experiencing labour shortages in the information, research, marketing and management industries while their low technology manufacturing industries continue to lose trading advantage. (Steel and textiles are two examples.) The continued protection of low technology industries in advanced nations will cause more disputes similar to the Hyundai Anti-dumping Case. Concerted government effort will be required to ensure that the consumer interest is represented in similar impending trade disputes.

The problems posed by de-industrialization are similar to those caused by agricultural subsidies. Because advanced nations are reluctant to quit those stages of production in which they have lost comparative advantage, trade and investment mechanisms are strained by the shifts in production. Traditional trade mechanisms were designed for easily measured goods and services. The developed rules are inadequate for the exchange of goods and services used in knowledge-based production, but new trading rules have not kept pace with market developments. Intricate contractual relationships among firms have developed to fill this vacuum. Such relationships vary from the expansion of the

IMPORT CONTENT OF SUPPLIES OF FINISHED MANUFACTURES¹
1899-1995

Source: The OECD Observer, No.149 - December 1987/January 1988, p.16



1. For definitions, see report.

Source: Estimates by Mazzi A. *Industrial Growth and World Trade*, Cambridge 1963, for 1899-1959 (1955 prices); by Batchelet R.A. *et al.*, *Industrialisation and the Basis for Trade*, Cambridge 1980, for 1963 (1955 prices); by the OECD, *National Accounts for 1971 and 1985* (current prices). Australia is not included in total "small" countries nor in total industrial countries in the Mazzi and Batchelet figures.

firm across national borders to detailed contracts with suppliers and retailers. These tightening relationships help explain the trend towards globalization.

Globalization of business organizations

The globalization of production has been the natural consequence of, a broader technological base, the greater use of advanced services to produce specialized components and the rising costs of blue collar labour. As well, the need to have an understanding of consumer markets is causing a globalization of retailing. This process is resulting in changes in international law, domestic regulations, financial markets and business structures.

With business operating on a worldwide basis, national jurisdictions are hardpressed to control transnational organizations. National authorities cannot regulate an international institution strictly to national standards for fear that competing countries may offer more favourable business conditions to establish in or to relocate to. Consequently, regulators must actively participate in international fora to set harmonious international standards for business conduct. For example, the U.S. Securities Exchange Commission has negotiated agreements with virtually all industrial nations to ensure the enforcement of regulations in all securities markets.

Globalization is exerting pressure on countries to harmonize product and technical standards, liability and licensing requirements, bankruptcy, enforcement of competition policy and investment provisions. This reduces the independence of each country to set its own principles of marketplace behaviour. Labelling or technical standards which are at odds with the rest of the world could be perceived as barriers to trade and invite retaliatory sanctions.

Globalization has made it difficult to characterize large firms as belonging to a particular nation. These firms are responsible to shareholders from all over the world, recruit personnel worldwide and locate production in facilities in many different nations. Accordingly, it is becoming more difficult to attribute nationality to a company and its product, and more difficult to apply trade rules according to nationality.

Both production and retailing are expanding globally. While most products can be efficiently produced within relatively few industrialized countries, they can, at the same time, be efficiently retailed throughout the world. This suggests that two types of trading relationships will emerge. One will be among nations which are integrating

their production processes (for example, the integration of the European communities by 1992 and American bilateral trade agreements with Canada and Mexico). Such integration could one day allow disputes over dumping and disputes over predatory pricing to be adjudicated by a common authority. The second type of emerging trading relationship will be among larger trading blocs. These latter relationships will be more adversarial as each vies for dominance in large consumer markets such as automobiles, electronics and banking.

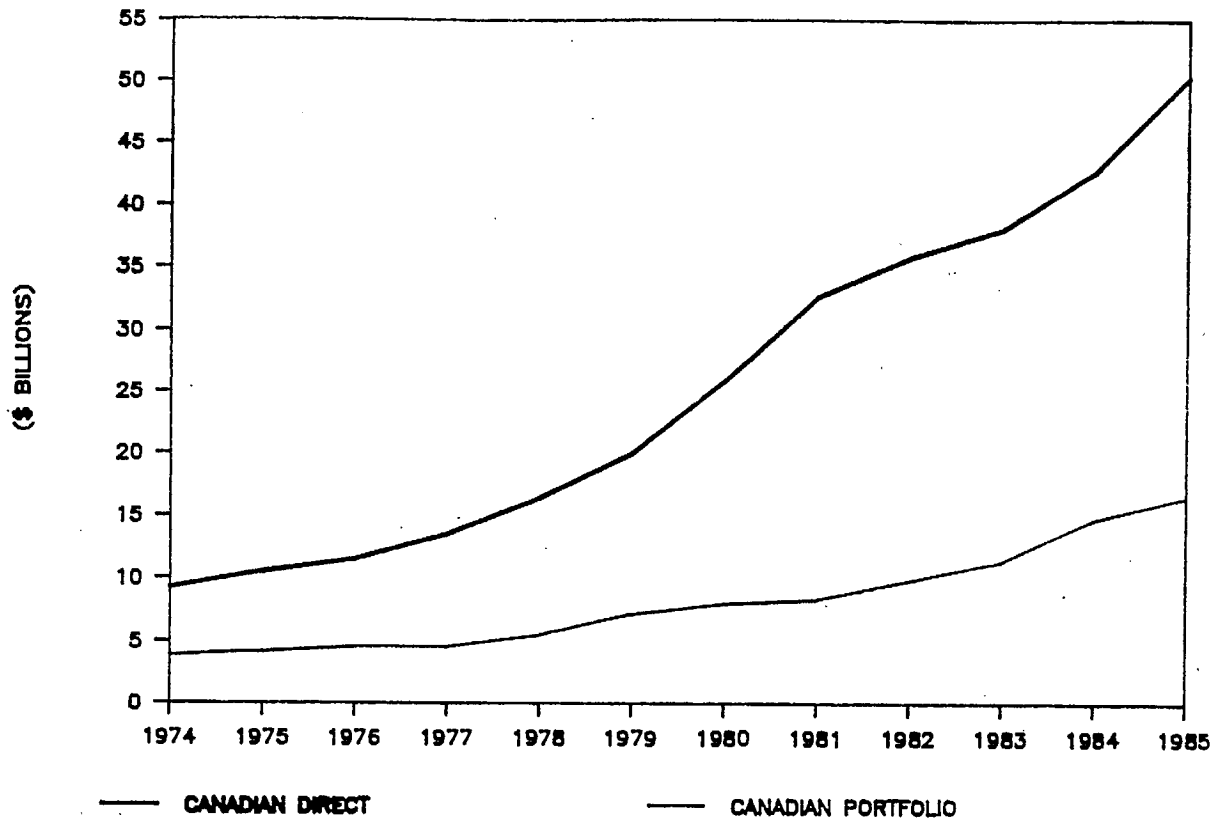
Financial Innovation

Coincident with the overseas expansion of business has been the growth of international direct investment. This has been accompanied by the expansion of previously national financial institutions. The institutions are using the experience gained in expanding the business operations of their clients to gain an increasing hold in foreign capital markets. This penetration has created large movements in international portfolio investment. It has considerably eroded the independence of fiscal and monetary authorities to set macro-economic variables for fear of precipitating sudden movements of foreign capital. For example, many analysts believe the October stock market crash was partially triggered by the sudden withdrawal of Japanese investment.¹⁰ International capital movements have contributed to global imbalances such as the U.S. budget and trade deficits. The U.S. dollar in the early 1980's was strongly influenced by international capital inflows which supported the budget deficit. Short term support of a foreign national debt can cause an artificial appreciation followed by a depreciation of the borrower's currency. Thus, inflows caused the American dollar to appreciate to 250 yen by early 1985. Eventually American currency values began to reflect the value of traded goods and services and the U.S. dollar fell. The American experience of the 1980's can be repeated wherever there is a strong net inflow of foreign capital.

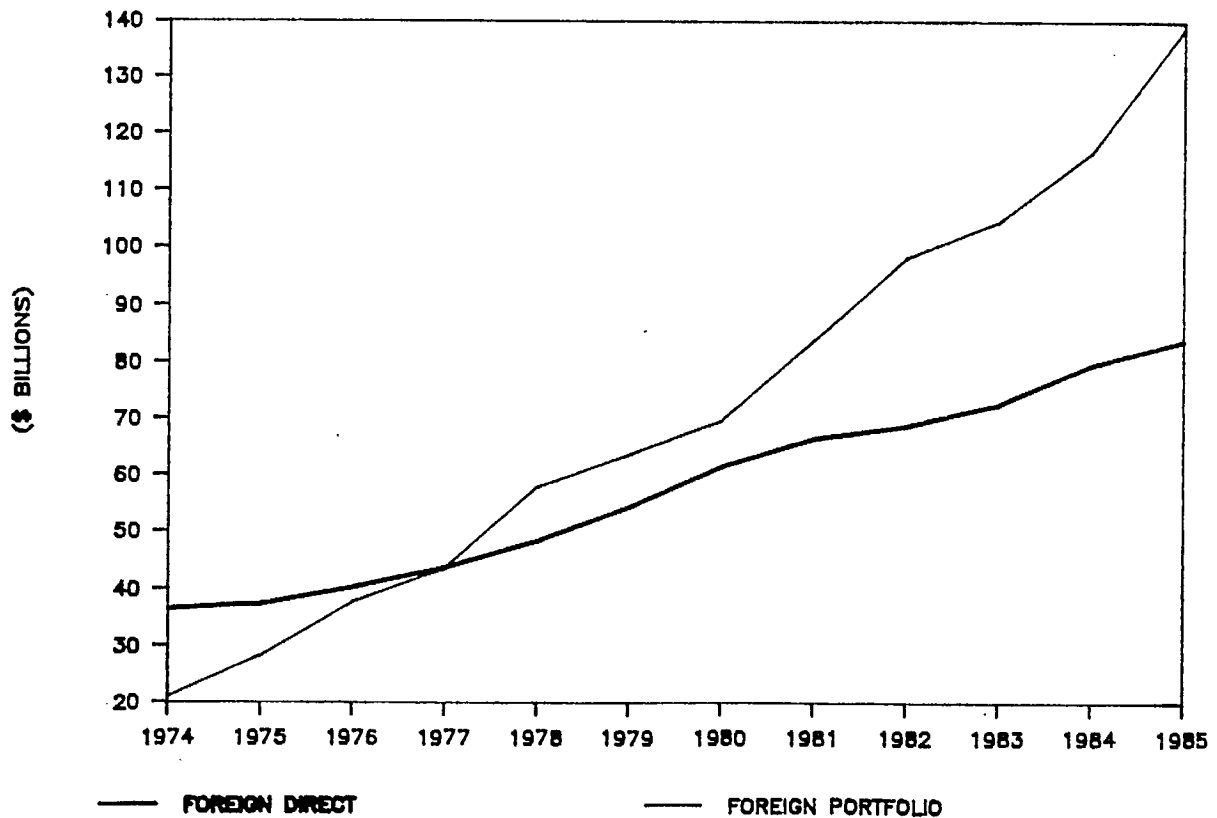
Two problems emerge. The first is currency fluctuations which can cause rapid shifts in trading advantage. This can provoke industrial dislocation and trade disputes. The second problem is the potential for foreign creditors to become over-exposed. This can distort world capital markets and lead to solvency problems.

¹⁰ Vartanig E. Vartan "Foreign Views of U.S. Stocks" (Marketplace), New York Times, October 20, 1987.

CANADIAN INVESTMENT ABROAD



FOREIGN INVESTMENT IN CANADA



Source: Statistics Canada, Canada's international investment position,
Cat.# 67-202. Annual, selected issues.

International capital markets are now characterized by new financial instruments, institutionalized savings and advanced communications systems. New financial instruments used in both debt and equity markets, have revolutionized the financial industry. In equity markets traditional instruments (e.g. stocks) interact with new "derivative" instruments (e.g. portfolio futures, options). Often these instruments are sold on separate exchanges. Institutional investors, taking advantage of different rules of operation among the exchanges, move funds quickly among various traditional and derivative instruments causing considerable market volatility. This is keeping small investors out of the market. It may eventually suggest a need for an agreement among existing regulatory agencies or for expanding the jurisdiction of a specific regulatory agency. In addition, many of these new instruments require new specific rules to govern their use and to ensure market stability.

Financial entrepreneurs continue to devise innovative debt instruments to better match the needs of borrowers and lenders. This process, known as financial engineering, allows financial institutions to take inventory and then repackage the risk associated with different loans. Thus, they are able to arbitrate differences in risk aversion among their customers.

The new financial instruments have created the need for large financial institutions to carry the higher levels of risk and to manage the complex interactive effects among instruments. This creates difficulties for small firms. Speculation is that the financial industry will come to be dominated by a handful of international financial conglomerates. Currently, many small financial institutions in the United States are facing insolvency although the Canadian experience has been limited, to date, to the failure of a few small regional institutions.

The complex interactive effects of financial instruments make it possible for a specific instrument to be a hedge or a speculative position, depending on the composition of the portfolio. Auditors, regulators and investors have all experienced difficulties in assessing a firm's risk

as a result.¹¹ Even experienced dealers have taken losses because they did not fully understand these complexities.

Finally, these new financial instruments have caused a merging of commercial and investment banking markets. Regulators throughout the world have been obliged to recognize this development and to dissolve regulations prohibiting banks from operating in securities markets. Many large firms now issue their own securities, thereby increasing competition in this newly merged market.

The financial industry is undergoing a large scale rationalization stemming from the dissolution of geographical and functional distinctions. There are serious concerns this rationalization will lead to excessive concentration in the financial industry, foreign domination, a reduced ability to influence consumer spending, and a wide range of misleading marketing practices. The U.S. has seen the vigorous pursuit of very risky corporate debt as a result of competitive pressures. In Canada, this competition has so far been limited to consumer debt. The competition is not over the traditional price of loans and deposits, but rather is centred on creating new products, new ways of raising money and a range of new deposit instruments. Innovations such as personal lines of credit and home equity loans have been developed. The real costs of these offerings are often obscured by a range of penalty charges, service charges, restrictions on use and entry fees. This is creating confusion for consumers.

In summary, the Canadian financial industry is adjusting to a world financial market. The Canadian market is witnessing steady entry by foreign firms which are pressing for still greater access. Conversely, Canadian industries are also expanding abroad and supporting expanded Canadian trade and investment. This is leading to negotiations with foreign financial regulators to determine the rules of access. The consumer interest and the assurance of competition will need to be closely monitored as such changes proceed. Extensive multilateral negotiations have been undertaken regarding ownership and reserve requirements.

¹¹ Charles A.E. Goodhart, Bank of England, "Innovation in International Financial Markets" a Workshop on Financial Institutions sponsored by the Economic Council of Canada, Place Vanier, Ottawa. May 27, 1987. See also C.A.E. Goodhart, "Financial Innovation and Monetary Control" Oxford Review of Economic Policy. Vol. 2. No. 4. Winter 1986 pp. 89-102.

At the same time, the entry of foreign financial firms may be necessary to support the establishment of foreign firms which will then supply technology and manufactured components which the domestic economy needs. The Department is well mandated to orchestrate the balance between facilitating technological inflow, advocating the benefits of expanded trade and protecting the consumer interest.

The evolving economic forces compel Canada to increase its efforts at international harmonization, with special attention to the need to accept international codes for the regulation of financial institutions. An agreement of this nature has been achieved respecting insider trading. Reserve requirements, regulations for institutional savings and for the provision of banking services will also have to be harmonized over the long term.

CHAPTER THREE: SOCIAL TRENDS: THE GROWING DIVERSITY

Demographics, Immigration and Labour Force

Canada's social and economic structures reflect changes in demographics, labour supply, social systems, and world economic conditions. The long run decline of mortality rates and the declining birth rate are causing a gradual aging of Canada's population. Although current birth rates are below those needed to maintain a stable population, overall population growth is projected to continue past the year 2000 because of increasing immigration and longer life expectancy.

In fifteen years time there will be a strong increase in the portion of the labour force aged 45 to 64 and the percentage accounted for by 25 to 44 year olds and 15 to 24 year olds will gradually decrease.

An aging population will begin to draw down its assets. This could decrease their value and strain pension plans depending on how strongly productivity grows. Payroll contributions may not be adequate in the long term to meet the pension obligations to workers in declining industries. Current pension liabilities to retired workers from these industries are raising solvency concerns among some firms, for example, the U.S. steel industry.

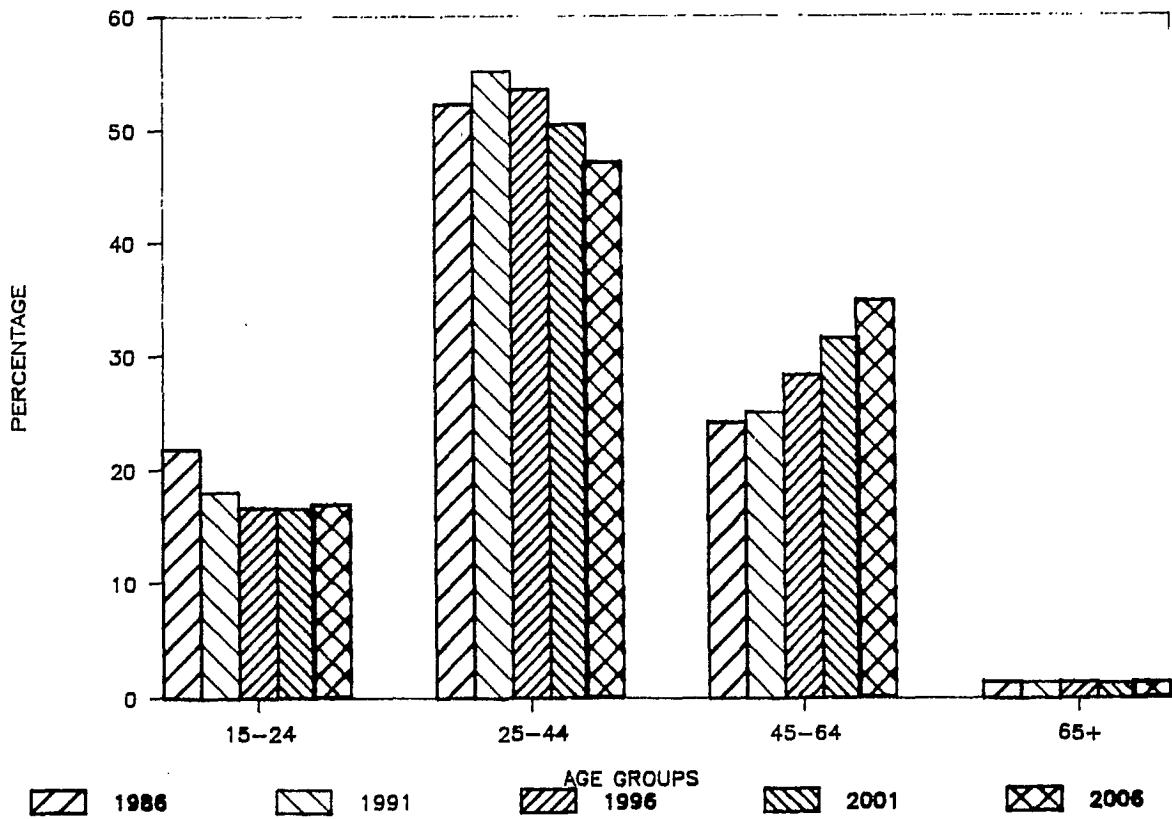
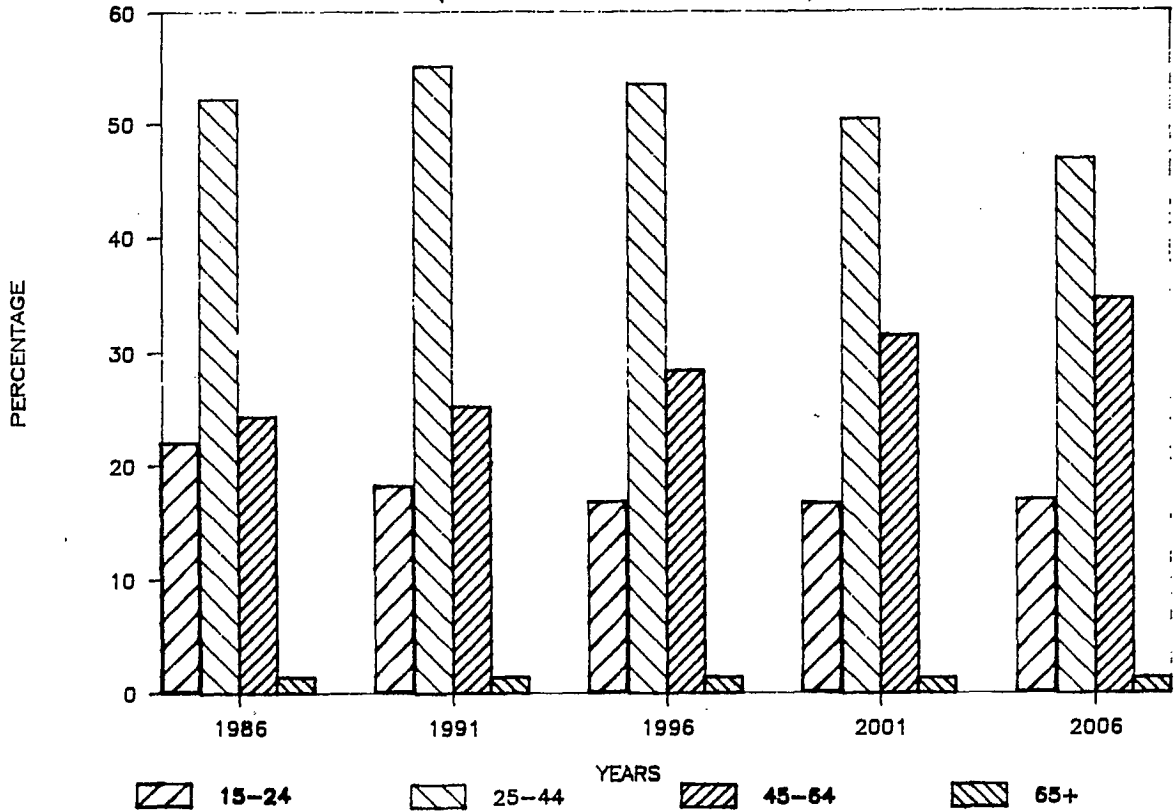
By the turn of the century, there may be a shrinking working age population to provide revenue for social services. However, this future dependency burden may not be a serious economic problem, although delivery systems will have to be redirected towards the aged.

Immigration policy may encourage more young skilled people to move to Canada. Annual immigration planning ranges have risen from 115,000 to 135,000 between 1985 and 1987. Actual immigration, including cases pending administrative review, has gone from 84,000 to 152,000 during the same period.¹² Current policy forecasts gradual increases for the future. Immigrants today represent 16 per cent of the population with a shift towards immigrants of Asian origin. Over half of new immigrants settle in Toronto, Montreal or Vancouver. Immigrants make up almost a quarter

¹² Department of Employment and Immigration, Immigration Statistics, Planning and Program Management, Immigration Group.

PROJECTED LABOUR FORCE OF CANADA

(AS A PERCENT OF TOTAL BY YEAR)



Source: Frank Denton, Quantitative Studies in Economics and Population, Research Report No. 187

of the population of Ontario and British Columbia compared to a national average of 15.6 percent.¹³

Increased immigration levels will pose questions about health care and social support systems as immigrants arrive from different cultural backgrounds. For example it is currently estimated that 101,000 school age immigrants are not fluent in English or French, and this is posing problems for the school system.¹⁴

The need to attract investment to Canada has increased the importance of recruiting more business immigrants. These people will likely be entrepreneurial, well educated, and have a working knowledge of at least one of Canada's official languages. The children of these immigrants will probably be easily integrated into the mainstream of Canadian society, and be able to take advantage of opportunities to attain a high level of education.

Immigrants will bring a range of new practices and products to the marketplace. These could be difficult to monitor and complicate enforcement procedures. Language and content labelling requirements are obvious concerns for CCAC. Less obvious and more sensitive issues are any significant growth in unrecorded importation of goods or an increase in local manufacture, especially of foodstuffs.

Financial Distribution and Social Opportunities

The disposable income of Canadian consumers has grown more slowly than consumption over the last few years because salary increases have not kept pace with inflation and taxes.¹⁵ As a result, personal debt loads have increased and the savings rate has decreased. The trends of declining savings rates and constant levels of consumption are expected to continue throughout 1988.¹⁶ Savings as a percentage of personal disposable income are now 7.5 per cent, the lowest level since the late 1960s. The level of mortgage debt and consumer credit is now close to 74 per

¹³ Statistics Canada The Daily April 20, 1988 Catalogue no. 11-001 E, p. 4.

¹⁴ David Vienneau, "Generation of Illiterate Youth Predicted". Toronto Star, July 10, 1988, p. B4.

¹⁵ John S. McCallum, "Canada in the Jaws of Debt", Business Quarterly, Spring 1988, p. 63.

¹⁶ "Canada's Business Climate" Dept. of Economic Research, TD Bank, Spring, 1988.

cent of disposable income. The historical high was 75 per cent in 1979,¹⁷ preceding the recession. Consequently, there is potential for hardship if an economic downturn occurs.

There has been little growth in personal income since 1980, but increases in household incomes are forestalling declines in consumption. Household incomes have not fallen because participation rates for women and those aged 15 to 24 have risen by five percentage points since 1982.¹⁸

Unemployment throughout the country, has fallen gradually in the last five years. It remains lowest in Ontario and highest in Atlantic Canada. The national unemployment rate is 8 per cent while youth unemployment is 12 per cent, well down from the 21 per cent peak in 1982. Despite these improvements, pockets of high unemployment remain and growth has been uneven among regions.

Canada remains heavily in debt. Total outstanding debt in 1987 was 2.1 times GNP compared to 1.9 in 1981 and 1.6 in 1974. Debt service obligations may seriously impair future social support programs and increase a transfer of wealth to the present generation at the expense of future generations. The level of affluence among Canada's retired has reached an historic high. The current generation of retired have gained from a strong appreciation of assets and a large working age population to support social programs. The retired have low debt loads. People over 50 account for 25 per cent of the population, yet they control half the discretionary spending power and 70 per cent of assets in Canada.¹⁹ They have completed their acquisition of houses and most durables. Consequently, a larger portion of their income is spent on recreation, charities, leisure and investments. Nonetheless pockets of poverty exist among the elderly. Among single people over 65, 46 per cent of females and 32 per cent of males have incomes under the poverty line.²⁰

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- 17 Eric Beauchesne, "Business, consumers take on debt". Globe and Mail, June 28, 1988, p. B6.
- 18 Statistics Canada The Daily, April 20, 1988, pp. 11-12.
- 19 Rona Maynard, "Were They Better Off Than We Are?" Globe & Mail, Report on Business Magazine May 1988, p. 44.
- 20 National Council of Welfare, Poverty Profile, 1988, p. 40.

Products and advertising are beginning to target the elderly as their numbers and wealth grow. The growth in products for the elderly may require special labelling and control over advertising claims. Some producers are soliciting doctors' support for their products with promotional literature. Telemarketing, financial planning and financial services may require special attention. The high levels of wealth among the elderly make them attractive targets.

Most Canadians are becoming more educated, although pockets of illiteracy remain. The number of university degrees granted grew by 26 per cent from 1981 to 1986; master's degrees increased by 32 per cent and doctorates by 20 per cent in the same time period. In 1986, 72 per cent of those people aged 15 or over had some high school education. For the first time more young women under 25 hold university degrees than men of the same age.²¹

The strong growth of service industries has provided women with increased opportunities to work outside the home. Women are assuming increasingly more responsible positions within organizations. Despite these positive trends women's wages are, on average, only 65.5 per cent of male employment earnings. In addition, seventy per cent of part-time workers are women.²² Pay equity legislation may reduce discrepancies however, many small businesses may not be able to raise wage rates because of the risk of insolvency.

The dominant buying group in the next decade will be Canadians currently aged 35 to 44, and advertisers will gear campaigns to this large cohort. However, accommodation is taking an increasingly large share of household income and this may limit their discretionary spending.

Younger age groups face an uncertain future, with rising housing prices and a need for continuing education. By 1990 more than 50 per cent of all jobs will require some advanced education or technical training.²³ Disparities in access to education for the young could pose problems and current shortages of specialized skills may grow.²⁴

21 Statistics Canada, The Daily, March 1, 1988, p. 15.

22 Statistics Canada, The Daily, April 20, 1988, pp. 11-17.

23 Business Week, May 2, 1988, p. 125.

24 Lester C. Thurow, "A Surge In Inequality", Scientific American, May 1987. Volume 256, Number 5. pp. 30-37.

The pace of technological change will force several job changes throughout working lifetimes and result in a much more mobile population. These job changes will trigger demand for portable pensions and as a result, the need to monitor financial planners and financial advisory services will be greater.

Vulnerable Consumers

Education and poverty are strongly correlated. 4.2 per cent of families headed by a person with a university degree live below the poverty line compared with 14.5 per cent of persons with a high school education and 16.7 per cent of families with only elementary schooling.²⁵ One in six Canadian children grows up in poverty and such children are one third less likely to graduate from high school. In the population under 25 years of age, 30.2 per cent of heads of households and 47.7 per cent of unattached individuals have low incomes.²⁶ The Senate Committee Report on Youth suggests that 700,000 unemployed youth in Canada may be permanently locked out of work opportunities due to a lack of skills.

Among women, poverty afflicts hardest single parents and the unattached elderly. The proportion of poor Canadians who are women has not changed during the 1980's although the proportion of low-income households led by women has increased over the last 25 years. In 1961 only 13.2 per cent of poor households had a woman as head compared to 35.1 per cent in 1987.²⁷ Three out of four of these women had less than a secondary school education.

Lifestyles

Lifestyles are hard to define or measure statistically, but they still influence CCAC because they affect product choice, program delivery and the demand for government services. High debt loads and greater uncertainty have postponed decisions about home purchases, marriage and child

²⁵ National Council of Welfare, Poverty Profile, 1988, pp. 114-115.

²⁶ Income, as defined by Statistics Canada, is all money income received by all family members 15 years and older from; wages and salaries, self-employment, investment income, government transfer payments, pensions and other miscellaneous income before taxes. (Poverty Profile, 1988, p. 9)

²⁷ Poverty Profile, 1988, pp. 114-115.

bearing. People are pursuing more varied goals and adopting different lifestyles.

Today it is often necessary for both parents of a family to work in order to support a traditional lifestyle. Households with two working spouses were the only household type to maintain their real incomes from 1980 to 1985.²⁸ More women can be expected to work a greater portion of their lives in the future.

It is no longer possible to characterize Canada as a society of traditional families. The proportion of traditional households has steadily declined. The divorce rate is rising as is the number of unattached persons. The average household size is decreasing. Non-traditional, smaller households are likely to lead to significant changes in product demand as less money is devoted to traditional family purchases and is used instead for discretionary items.

It is widely observed that traditional mass markets have broken down into many niches and specialty markets. Marketers are paying far greater attention to consumer demands and product designs. Specialty stores and brand name producers, who have intimate knowledge of market niches, are experiencing strong growth. They adjust their product lines to meet discrete changes in demand.

Varied lifestyles are causing a gradual shift in the purpose of purchases towards meeting needs such as personal identity and entertainment. One social commentator notes that people are now shopping for "experiences".²⁹ The search for experiences is reflected in growth of shopping as a leisure activity and greater diversity in product lines.

Changes in lifestyles are increasing volatility and complexity in the marketplace. It is difficult to meet consumers' need for identity. It is difficult to determine how consumers' demands for information have changed. The consumers' need for identity is increasing attempts to use advertising and sponsorship to link products and lifestyles.

These changes are creating difficulties in monitoring the marketplace, providing consumer information, and controlling advertising. All these are more fully analyzed in Chapter Four.

28 Statistics Canada, The Daily, April 20, 1988, p. 12.

29 "Shopping as a pastime", Wall Street Journal. July 30, 1987, p. 7.

CHAPTER FOUR: MARKETPLACE TRENDS: THE CROWDED CHOICE

Introduction

The Canadian marketplace is changing because of technological advances and shifts in consumer attitudes. Consequently, consumers require new, appropriate information to make rational choices. The Department and other consumer agencies are hard pressed to respond. The pressure comes at a time when CCAC is downsizing and when traditionally supportive agencies are experiencing difficulties with funding and recruitment. With these constraints in mind, it is still necessary to understand the changes taking place in the Canadian marketplace.

The marketplace is changing because new goods and services embodying new technologies are offered to consumers more often than they have been in the past. These products are more complicated and they have a shorter design life than traditional products. They offer greater choice and respond more precisely to a variety of consumer demands. Multiple advertising campaigns target select groups of consumers for these new products. This advertising relies extensively on sponsorship and specialty magazines.

Product Advances

The competitive focus on producing quality goods is also changing the marketplace. Much competition today centres around incorporating new technologies into existing products as well as developing new products with new technologies. Technological advances have created compact disc (CD) players and camcorders. Advances have also greatly increased the technical complexity of traditional products such as automobiles and financial advice. For the most part consumers are finding many new products difficult to assess and more complicated to use.³⁰ There are, however, cases such as computer software, where advances make a product easier to master.

Consumers often must make decisions about products they do not understand. Consumers lack the expertise to accurately assess quality and may not know which new features will best serve their needs. Questions about product compatibility, lifespan, cost of service and availability of parts or related equipment are all more difficult for the consumer to weigh. Products such as home computers are good examples of

³⁰ Paul Carroll, "High-Tech Gear Draws Cries of 'Uncle,'" Wall Street Journal, April 27, 1988, p. 29.

this complexity of choice. As technological complexity increases this problem is becoming characteristic of other product markets.

Increased complexity is not limited to goods. It is also found in specialized products such as legal or financial services. Financial innovations have created new deposit instruments and greatly increased the amount of information needed to make appropriate choices. The consumer must either accept greater uncertainty in his/her purchases or invest more effort in making a choice.

Because the design life of most products is shorter, consumers have less time to acquire expertise and are less able to rely on previous experience. As a result, they hesitate to enter many new markets. Such delays reflect a lack of confidence in a fast moving marketplace. This uncertainty may impede advances in technology and slow the development of a higher standard of living in Canada. Canadian technological advances depend critically on the development of Canadian markets for advanced products.

Market Segmentation

The growing divergence of lifestyles is causing consumer markets to fragment. Producers are catering to newly emerging lifestyles with new products and services. Global producers monitor discrete markets to identify new market opportunities.

More specialized products and wider product lines are now available. Modern manufacturing technologies allow producers to cater to diverse wants. Customized products can be manufactured on a mass scale. The result is greater competition in design and marketing.

The proliferation of different lifestyles has also led to strong growth in specialty services and boutiques in very limited markets. To be successful, they must often rely on brand names and franchising. Established producers of brand names are also setting up their own retail outlets to monitor changing consumer tastes. Because of this segmentation large department stores have lost market share. They are fighting back with their own brand names and by setting up specialty boutiques on their premises.

Products are emerging which reinforce a consumer's identity or make a personal statement. Often they rely on sponsorship and advertising. Close ties are developing between traditional producers such as the beverage industry and the sports and entertainment industries. Joint

advertising campaigns are more frequent and new forms of advertising have developed such as the use of brand name products in feature films. Strong growth can be expected in sponsorship markets and in alliances between the sport and culture industries and traditional products.

The growing importance of brand names increases the risk of counterfeit. It is difficult to measure the extent of this trend. In any event, when the consumer cannot distinguish authentic goods from imitations the value of trademarks as a signal of quality falls and his information requirements increase. The growing proliferation of new products, product lines and reliance on brandnames and trademarks will also increase allegations of trademark infringement. The dispute in Winnipeg between Brick's Fine Furniture and Brick's Warehouse illustrates this trend. The global retail market will require more international harmonization of trade mark laws. The alternative to strictly enforcing property rights in trademarks is to accept strong growth in the retail outlets of specific brand names. The retail outlet can then guarantee the authenticity of its products.

Specialized advertising media are targetting distinctive market niches. There has been strong growth in the number of magazines and television channels which cater to specialized consumer wants. Advertisements are appearing on ski slopes, in movie lineups, and in church bulletins. New advertising medias and new approaches to advertising will make it more difficult to monitor misleading advertising. Magazines and programming are often sponsored by a specific product line. This creates a situation where advertising is sold to the consumer as news so that distinction between the two is fading. This is adding to consumer uncertainty.

Children have been targetted as a special market because of their increased discretionary income. This poses a unique problem because they are more susceptible to inappropriate advertising campaigns. Children have shown a tendency to form brand loyalties at a very early age. The growth in television programming as an advertising medium and other forms of advertising targetted exclusively at children could become an issue.

Market segmentation also permits the introduction of new products designed deliberately to confuse the consumer. The growing proliferation of services offered at financial institutions and the introduction of home equity loans which carry high risk in the event of default suggest this possibility.

Information processing and communications systems allow ready transformation of sales data into marketing information. New point-of-sale (POS) and credit card systems can relay sales information more quickly to producers and planners. This information can be packaged in databases, analyzed by market researchers, and sold to other users. It also allows producers and retailers to identify new markets and segment existing markets by geographical location, age cohort, sex, spending patterns and income levels. Thus, product lines and marketing strategies can be modified to match target groups.

The growing use of sales data to target markets raises a number of concerns for CCAC, including privacy, vulnerable consumers, misleading advertising and a continuing need for regional representation.

Services

The large number of personal services offered in today's marketplace poses special problems for marketplace fairness. Services cannot generally be inspected before or after they are rendered. This makes it difficult to agree on what contractual obligations have been made and whether they have been fulfilled.

The growth of services reflects an increasing demand for quality leisure time. In the last twenty years increases in service prices have considerably outstripped increases in the price of goods. Labour markets are responding to this shift in price by moving into services. The problems of guaranteeing quality of service are retarding the trend. The following new mechanisms are emerging to better guarantee quality of service.

a) Para-professionals

Para-professional organizations are growing because of the sharply rising costs of professional services. Para-professionals are less skilled practitioners yet they are able to handle some of the duties traditionally performed by professionals. Understandably, professionals are putting up some resistance. However, the trend towards more para-professional services seems irreversible because of their lower labour costs. The questions are the extent to which they will be self-regulating (such as Quebec's recently formed association for financial planners) and how they will be reconciled with existing professional bodies.

b) Franchises

The growth in franchising is very strong in Canada. In part, this results from a mature U.S. market in franchising.³¹ Although there are many franchises offering personal services it is difficult to determine the extent of their growth. These services are difficult to inspect because the franchise often serves as a guarantee of quality. The franchisor becomes responsible for the standards of the franchisee in such a case. The growth in franchising is more visible with home services than with professional services, although law offices and dental services are showing an increasing tendency to franchise. As franchising grows in Canada, competition issues may arise, although the country may benefit from the discipline already provided by the intervention of several American states to regulate excesses which occurred there.

c) Services packaged with goods

Services are increasingly sold in a package with goods. This is particularly true of technical goods such as computers, communications equipment and often cars. Unfortunately, the cost of such services is often obscured in the arrangements. Complaints have occurred in the United States over some of these practices although such packages may be inevitable in a marketplace of growing complexity. Excessive markups in the price of some of the components in these packages could result.

d) Services delivered through traditional retailers

Insurance agents are selling more varied services. As well, traditional firms such as large retailers and banks are administering services. Banks now render services such as payment of bills and financial advice. They have moved into the sale of securities and are seeking to move into the sale of insurance. Department stores are doing automobile repairs, acting as travel agents or providing cosmetic services. Competition issues may arise as banks or large retailers attempt to move into small service niches. Recent attempts by banks to assist in the sale of job loss insurance and by automobile makers to sell financing disguise the price of these services to consumers. Nevertheless,

³¹ Marilyn Ronald, "Foreigners Move Into Franchising Across Canada" The Toronto Star, June 6, 1988, p. B6.

consumer demand for convenience may lead them into these markets. Public pressure for uniform disclosure rules can be expected to grow.

Today's marketplace is characterized by changes which better identify consumer demands and by changes which are creating greater uncertainty in purchasing decisions. The increased accessibility to sales and survey data and the growth of market research are allowing consumer markets to be better targetted. Conversely, greater complexity, greater quantity, greater variety, shorter design life, and the growth of services in the product mix are creating more consumer uncertainty.

Consumers are genuinely confused. They are unable to objectively collect and analyze all the information needed to make their best choice. It is not a dearth of information that is causing this. A proliferation of warning labels and product claims have often served to confuse the consumer. According to recent estimates, the average consumer is exposed to 5000 advertising messages a day.³² The problem is to simplify this information enough to permit a decision in a reasonable period of time.

Information can be simplified in many ways. Many consumers do not feel they should assess product safety because they believe products should be screened by regulatory authorities to ensure that unsafe ones do not get on the market. Measures taken to standardize product claims and allow easier comparison also simplify the marketplace. This is happening with bank service charges. It may become necessary in other markets such as registered savings funds with their range of commissions, entry fees and service charges. Care must be taken to distinguish between new products which genuinely serve consumer needs and those which are designed to increase confusion. Specific items such as deposit instruments are now coming under close scrutiny for this reason.

It would be helpful for consumers to know when they are at great risk in their choice of products. This may entail close attention to pricing practices and reporting to consumers with information prepared by the Department. Consumers have the least information on highly technical products and infrequently purchased services. Generally, large purchases or investment decisions place consumers at

³² New York Times, February 18, 1988. p. D1.

considerable risk. Yet there is evidence to suggest that unjustified markups are widespread in small and infrequent purchases and in services such as drycleaning. The inflation rate of such products has been disproportionately high. This may reflect the fact that consumers are simply unable to devote time to consideration of these purchases. In discrete units, these purchases are insignificant, but in the aggregate they become important. The introduction of new products will usually create special problems for consumers because it is not always possible to determine quality at the early stages of marketing.

There continues to be strong public support for government to promote a fair marketplace. Survey data suggests this is the most popular of government activities.

A failure to reduce the information burden on the consumer will ultimately undermine confidence in the marketplace and make enforcement actions more difficult. Over time such a failure would impede technological advance and reduce the standard of living. If consumers are obliged to rely primarily on their own judgement and ability to acquire information for their major purchases, many smaller markets will simply not emerge and this could slow job growth.

CHAPTER FIVE: THE PROVINCIAL PERSPECTIVE

Introduction

The gradual improvement of the overall economic situation which has taken place since 1983-84 and the prospect of continuing recovery until the early 1990s were seriously disrupted by the stock market crash of October 19, 1987, and, in particular, by the international trade imbalances behind it. The American budget deficit and trade deficit, the rise in interest rates during 1987, and the heavy debt burden carried by many countries had seriously undermined investor confidence. Since the crash, however, forecasts have been repeatedly revised upward and, in the end, 1988 and 1989 may prove to be growth years.

Central Canada continues to act as the country's driving economic force, but stronger prices for some commodities are helping establish a better balance in provincial economic development.

The Atlantic

The gap between the growth rate for the Atlantic provinces and the Canadian average should continue to shrink somewhat, although growth in general will be less than in 1987. The rate of exchange between North American currencies and those of Europe and Japan still favours a number of Atlantic industries which compete directly with European producers. The fisheries sector, which performed quite well in 1986 and 1987, will experience a slight decline in prices. A transition is under way from a sellers' market to a buyers' market, with surplus supply, the introduction of new products and keen competition putting pressure on prices which had been somewhat overestimated.³³

Newfoundland may benefit considerably from an increase in mining production resulting from high prices for raw materials, especially iron, zinc and gold. Meanwhile, negotiations have secured private-sector participation in the Hibernia project. Newfoundland newsprint factories are operating at full capacity, and continuing strong demand is currently causing prices to rise. However, after five good years of expansion, the lumber industry in general must expect a slowdown in the construction sector.

³³ Fisheries and Oceans forecast, June 15, 1988, according to Bob Huson; 993-2401.

The 1988 budget proposes a stock savings plan and a venture capital tax exemption program for individuals who invest in businesses using capital stock. According to the Conference Board,³⁴ Newfoundland will witness real growth of 2.2 per cent in 1988 and 2.6 per cent in 1989. The unemployment rate is expected to fall to 17.5 per cent in 1988 and 17.1 per cent in 1989, compared to the 1987 rate of 18.4 per cent. This will, however, be accompanied by rises in inflation to 4.2 per cent and 5.0 per cent, and a decline in personal disposable income.

Improvements in the road system and in the supply of electricity are among Prince Edward Island's economic priorities. Forecasts for potato growers are discouraging, because of falling prices. However, pork producers will continue to enjoy strong prices. Tourism may bring less revenue, given the rising trend of the Canadian dollar. Finally, a number of provincial government projects will stimulate activity in the construction sector.

Free trade will mean a gradual expansion of markets, primarily for potato growers and processors, and for manufacturers of fish-processing equipment and eyeglass frames. Estimates have the real GDP declining by 2.9 per cent and 2.0 per cent in 1988 and 1989, respectively, with inflation climbing to 4.6 per cent and 5.2 per cent. However, a rise in personal disposable income and a drop in unemployment to 13.1 per cent in 1988 and 12.7 per cent in 1989 are expected.

The current priorities in Nova Scotia are shipping (which may be hurt by the free-trade agreement), iron, coal, oil development, education, communications, technological development and, of course, fisheries. In addition, the industrial base may benefit from federal tax reform, and Nova Scotia's gas, forestry and service industries are expected to come out ahead with the Free Trade Agreement.

Nova Scotia's manufacturing sector may grow and diversify in 1988 and 1989, insofar as it is stimulated by a stock savings plan introduced in 1987. Investment will rise by 38.8 per cent but, as in New Brunswick and Newfoundland, will be mainly concentrated in non-residential construction. Given the current price of a barrel of oil (approximately US\$18), offshore exploration activities can be expected.

³⁴ Provincial Outlook, Conference Board of Canada, Spring 1988, Vol 3, No 2.

The 1988 budget provides for deficit reduction, lower income tax for most taxpayers and considerable spending on road improvement and environmental protection. Nova Scotia also plans to establish market opportunities programs to encourage manufacturing and service businesses to establish long-term ties outside the Atlantic region. In sum, forecasts are for real GDP growth of 2.6 per cent in 1988 and 2.2 per cent in 1989, inflation rates of approximately 4.1 per cent and 4.8 per cent, and a decline in disposable income, although the unemployment rate should fall to 10.6 per cent in 1989 from the 1988 level of 10.8 per cent.

New Brunswick, meanwhile, is making every effort to encourage small business, the vitality of its main port (Saint John), and research and development. The pulp and paper industry is currently running smoothly, and the future of this sector looks bright. The winning of frigate construction contracts will contribute to a revival of the suppliers to the shipbuilding industry, but only in the short term, since this sector may be weakened by free trade. According to Harrison McCain, a leader in the Canadian food product industry, Canada's agricultural price stabilization policies, along with the inevitable rise in the value of our dollar, will undermine Canada's ability to compete with the United States in the area of processed food under the Free Trade Agreement.³⁵ However, free trade is expected to be beneficial for forestry and energy exports.

The bankruptcy of United Maritime Fishermen represents a very heavy blow to the workers and to total fisheries production in the province. Related businesses will also feel the impact. Notwithstanding this grave problem, New Brunswick will see its unemployment rate decrease to 11.8 per cent and 11.3 per cent in 1988 and 1989, despite declines in real growth of the GDP to 3.2 per cent and 2.4 per cent. Inflation rates for the same two years will be 4.4 per cent and 4.9 per cent, while the fairly strong growth of disposable income will drop to 7.7 per cent and 7.5 per cent.

In short, the situation in the Atlantic region looks quite good, although increased equalization payments will not help reduce deficits because of expansionist budgets. However, the new Atlantic Canada Opportunities Agency will help establish the region's priorities and undoubtedly boost

³⁵ Peter C Newman, "Adventures in the Pizza Trade," Maclean's, June 6, 1988, Vol 101, No 24, p 46.

the vitality and diversity of their economies. Finally, investment in the region will rise by 31 per cent over last year, with a record increase of 62.4 per cent in New Brunswick.³⁶

Quebec

In Quebec, more than a decade of structural transformation is coming to a close. The province's economic base has been substantially modified, moving away from a preponderance of activity in the primary and secondary sectors to increased emphasis on the tertiary sector. In general, the future of the aerospace, hydro-electric, transportation, communications and data-processing industries looks promising. Pulp and paper factories are operating at full capacity and this sector appears to have a bright future.

The opening of the Biotechnology Research Institute in Montreal should attract other related industries. In addition, the creation of La Francophonie will open the door to fresh markets in, for example, Africa, in the case of cultural industries and telecommunications. Positive repercussions are also expected from federal actions on the Patent Act, the international banking centre in Montreal, deregulation of electricity exports and the possible location of the space agency in Montreal. The mining sector will benefit not only from lower costs, but, above all, from current strong prices for metals and from intensive exploration activities. Moreover, for 1989 and 1990, Ottawa is replacing the mining depletion allowance with a new formula which will produce virtually the same effects for both investors and small exploration companies.

Because the economic situation has produced continuously rising revenues, the 1988-89 budget provides for a substantial reduction in the income tax paid by individuals and businesses. The main effect of this budget, which aims to encourage population growth, overhaul the stock savings plan and reduce the deficit, will be to make Quebec taxation more competitive by reducing the gap between the tax burden in Quebec and Ontario.

Some uncertainties remain with respect to the lumber industry, Montreal's economic role, the increasing value of the Canadian dollar and the decline in the birth rate. In

³⁶ Pipa Alison, "Companies Plan Spending Spree Despite Warnings Survey Finds", Globe and Mail, June 30, 1988, p.B2.

addition, the future of Quebec's proposed reforms with regard to provincial financial institutions bear watching. Already, one conglomerate has requested permission to transfer its charters from Ottawa to Quebec City because of the federal government's refusal to approve close associations between industrial and financial corporations.

Commercial markets for metals, ceramics, forest products, pork, and veal will be expanded by the Free Trade Agreement. Growth of the real GDP is estimated at 4.2 per cent for 1988 and 2.4 per cent for 1989. Inflation will reach 4.4 per cent this year and 5.1 per cent in 1989, whereas disposable income will increase by 8.0 per cent in 1988 and 8.3 per cent in 1989, compared to 6.3 per cent in 1987. Finally, the unemployment rate is expected to drop to 9.0 per cent this year and 8.7 per cent in 1989.

Ontario

In Ontario, sustained growth, although at a slower pace, is expected in manufacturing, transportation, retail trade, and public and commercial services. The manufacturing industry, particularly automobile manufacturing - which accounts for 27 per cent of all manufacturing production in Ontario - will continue to grow, but more slowly because of a decline in consumption, inventory growth throughout North America and extremely keen competition. According to DRIE, investment spending in 1988 will show a 10.6 per cent increase, the lowest in Canada. In other sectors, investment spending is expected to increase, but at less than the national average. With the encroaching obsolescence of some manufacturing activities, new investment and, possibly, federal government funding, will be required to speed up the modernization process. In the pulp and paper sector, for example, many new pulping techniques introduced elsewhere have yet to appear in Ontario. However, the iron, steel and chemical industries profess great optimism after several years of modernization. The province will also benefit from the replacement for the mining depletion allowance.

Although the housing construction sector has been buoyant, a decline in housing investment is expected. However, the optimistic spirit which pervades the economy, despite the magnitude of the Stock Market Crash, is expected to sustain the current level of activity in the non-housing sector. Financial firms in Ontario could experience a more stable situation because of the Canada-Ontario agreement on securities regulation.

The Ontario Government is apprehensive of the impact of the Free Trade Agreement on the "traditional" manufacturing (consumer goods) sectors. In fact, Ontario sees the

agreement as a threat to the manufacturing sector in general.

A study by the Economic Council of Canada estimates that, on average, Canadian manufacturers are 25 per cent less efficient than their American counterparts.³⁷ The small Canadian market simply does not allow manufacturers to attain optimum production levels. Until now, this disadvantage has been offset in Canada by favourable exchange rates and greater productivity in certain sectors, particularly extraction of primary resources, construction and public services. It is the Council's view that, under the Free Trade Agreement, competition from the United States could result in a net fall in production and employment in many sectors unless domestic productivity increases.³⁸ However, reorganization and rationalization of operations will lead to overall gains. The province will then profit from economies of scale, and many new investors, particularly those outside the country, will undoubtedly take an interest in Ontario. The deregulation of financial markets and free trade, seem to favour the larger centres, especially Toronto.³⁹ In the end, the Economic Council predicts Ontario will benefit.

Ontario's April 1988 budget provides for increases in the sales tax and in personal income tax. These tax increases coupled with an overheated economy could contribute to higher inflation expectations. Overheating is currently boosting salaries in the metropolitan Toronto area and, many businesses are considering setting up shop in other locations in an effort to keep costs down. The budget also proposes a reduction in the deficit, and other measures, such as those intended to facilitate access to and construction of housing, and new tax provisions designed to encourage investment in R&D and equipment.

The unemployment rate in Ontario is expected to be 5.2 per cent this year and 5.1 per cent in 1989. However, growth in the real GDP will decline, probably from the 1987 rate of 4.7 per cent to 4.0 per cent in 1988 and 2.6 per cent in 1989. The increase in disposable income will likely

³⁷ Venturing Forth: An Assessment of the Canada-US Trade Agreement, Economic Council of Canada, 1988, p 19.

³⁸ Ibid, p 24.

³⁹ See "Report on Ontario," The Globe and Mail, May 23, 1988, p B13.

level off at 8.7 per cent for 1988 and 1989, whereas inflation will drop from the 1987 rate to 4.5 per cent this year and 4.8 per cent next year.

Prairies

In the Prairies, the new National Transportation Act, 1987 should end higher prices for merchandise shipped from the east. As well, western businesses will benefit from lower eastward shipping rates. These changes will heighten the impact of the Western Diversification Initiative, which is designed to reduce the dependence of these provinces on the primary sector. However, grain prices are expected to remain low although the drought may reduce production and, push up the prices of agricultural products. The drought is causing economists to revise downward their forecasts for the Prairies. Saskatchewan, the hardest hit, may have no real growth at all in 1988.⁴⁰

Many producers are facing financial difficulties. Their income is falling, their debts are increasing and the value of their land is diminishing. Many are considering crop diversification. Others are asking for more generous government subsidies, while migration to the cities or other provinces continues.⁴¹ In short, low grain prices mean a reduction in household spending, in investment, and in the strength of related sectors, such as farm machinery. It is estimated that in ten years the number of farm equipment dealers has dropped from 2,000 to 600 and that this figure could further fall.⁴²

In Manitoba, the Limestone hydro-electric project should support non-residential construction. Meanwhile, health initiatives are being given priority attention by both levels of government. The federal government is establishing a national centre for disease control in Winnipeg.

40 See "Report on Ontario," The Globe and Mail, May 23, 1988, p B13.

41 See "Report on Ontario," The Globe and Mail, May 23, 1988, p B13.

42 Jill Vardy, "Drought dashes prairies' prospects", The Financial Post, July 18, 1988, p. 5.

Fiscal measures implemented in 1987 will allow farmers to lease their farms with a repurchase option in case of bankruptcy.

Mining activity in Manitoba will increase in 1988 and 1989, sustained by strong prices for gold, silver and nickel. The food-processing and aeronautics sectors will also expand. However, manufacturing activity and the commercial service sector will grow less rapidly, partly because of a relative drop in household spending. Capital spending in Manitoba will rise 20.2 per cent over 1987. In the longer term, free trade is poorly perceived in the food and beverage sectors, furniture, transportation, clothing and agriculture. Manitoba's real GDP will grow by 3.2 per cent this year (up from the 1987 rate) and 2.3 per cent next year. Inflation will be 4.1 per cent this year and 4.7 per cent in 1989, while the unemployment rate will be 7.2 per cent and 6.8 per cent. Disposable income will grow at 7.8 per cent in both 1988 and 1989.

In Saskatchewan, food, fertilizers, biotechnology, electronics and communications constitute new industrial avenues. Mining production should increase, supported by the rise in potash sales to China.

New investment is being made although investment in electrical and electronic machinery is expected to drop. Overall, however, Saskatchewan is expected to experience a rise of 45.4 per cent in investment over last year.

In the March 1988 budget, Saskatchewan provided for increases in health and educational programs, as well as programs for senior citizens. Through various diversification measures, the government is also seeking to minimize the importance of fragile agricultural prices. Although Saskatchewan's 1987 grain harvest was good, the government is considering allowing agricultural businesses to issue shares to obtain more secure financing. A reduction in the provincial deficit is expected and lower taxes for businesses are proposed. The forecasts for provincial economic growth were all made without factoring in the drought. This might be expected to reduce GDP growth. Real GDP was expected to grow by 3.4 per cent in 1988 and 1.2 per cent in 1989. Unemployment rates were forecasted at 8.2 per cent and 8.1 per cent, inflation at 4.9 per cent and 3.8 per cent and growth in personal disposable income at 8.2 per cent and 6.3 per cent.

In an effort to diversify its economy, Alberta is turning toward high technology, tourism and forestry. Three major pulp and paper projects, representing a billion dollar infusion into the economy, are now under construction. Strong production is expected in the areas of forest

products, non-metallic minerals and transportation equipment. Livestock production, fuels, petrochemistry and electrical equipment will all benefit from free trade, although processed meats and dairy products may not.

The province is currently considering a program to ease the debts carried by farmers when prices drop. In the 1988 budget, education is a priority. The budget also proposes a reduction in personal income tax and increased assistance to the agricultural sector.

Cattle farmers in Alberta can expect stable and slightly rising prices, inasmuch as a federal-provincial agreement to subsidize grain producers rather than shipping companies may reduce the cost of raising livestock. Most analyses indicate that the price of a barrel of oil will remain at about US\$18 in the medium term and increase in the longer term. Current talks among the OPEC members, and non-member producers, hint at a drop in production and possibly a new target of US\$20 a barrel in 1989. At this price, it is conceivable that some government assistance for exploration and development activities will be replaced by private investment. This trend opens up the possibility of a bright future for the Canadian petroleum industry, which performed well, all told, in 1987. Alberta apparently saw as much drilling activity as ever before.

Optimism thus seems the order of the day. Non-housing investments are once more on the upswing. DRIE predicts an increase of 43 per cent in capital spending over 1987. If the trend continues, the real GDP is expected to grow 4.0 per cent in 1988 and 1.9 per cent in 1989. Unemployment is forecasted at 8.6 per cent in 1988 and 8.7 per cent in 1989. Inflation is expected to be 4.4 per cent in 1988 and 5.0 per cent in 1989. Finally, growth in personal disposable income will rise from 3.9 per cent in 1987 to 7.6 per cent this year and 8.0 per cent in 1989.

The Pacific and the North

British Columbia is seeking to become a focal point for commerce and trade with the countries of Southeast Asia. Efforts to diversify its economy are centering on microelectronics, the film industry and development of an international banking centre. The aquaculture industry is undergoing rapid growth. At the same time, construction of the Polar 8 icebreaker will bring valuable benefits to the shipbuilding industry.

The federal tax on softwood lumber exports has not had the feared effect, since the revenues garnered through this tax are returned to the producing provinces, softening the impact of the downward trend in demand. In addition, signs

of a revival of local investment in the non-housing construction sector and an increase in the production of paper and related products and in mining activity will offset the weakness of forestry and tourism. Investments in the order of \$2.5 billion are expected, a rise of 31.9 per cent over 1987.

In its 1988 budget, the British Columbia government announced its intention to reduce income tax on small businesses from 11 per cent to 9 per cent. Taxes on automobile insurance are increasing by 33 per cent and the tax on gasoline by one cent a litre. Privatization continues and will produce additional revenue. Other plans include the modernization of legislation on credit unions, trust companies and automobile insurance in an effort to increase consumer protection and boost the confidence of the financial sector.

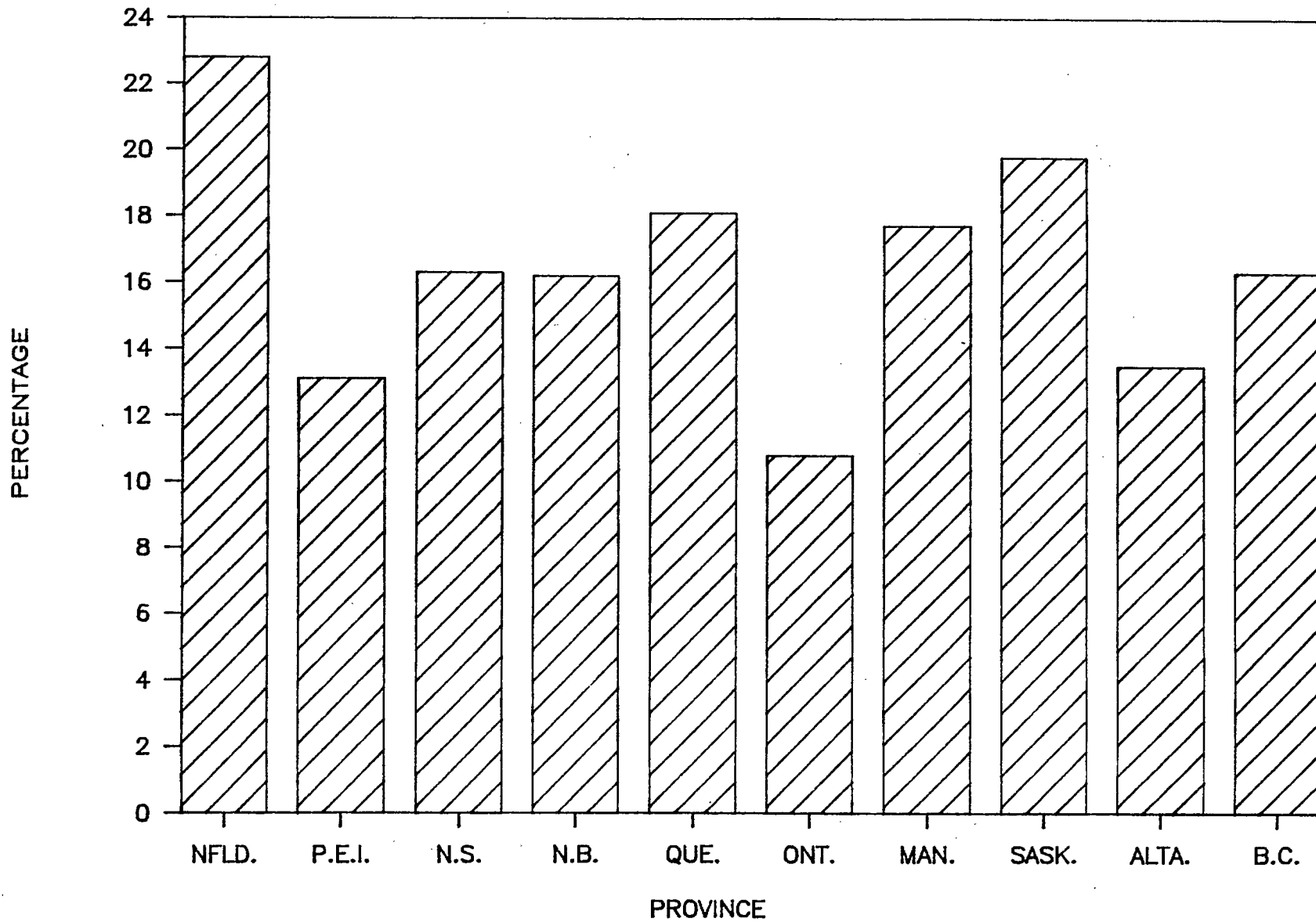
Free trade is viewed primarily as a guarantee against American protectionism, although gains in some manufacturing and service industries are expected. British Columbia's economic growth will fall from 3.5 per cent in 1988 to 2.3 per cent in 1989, with inflation rates of 4.4 per cent and 5.0 per cent respectively. The unemployment rate will decline from 10.1 per cent in 1988 to 9.8 per cent in 1989, while growth in personal disposable income will drop from 8.9 per cent to 8.4 per cent.

The governments of the Yukon and Northwest Territories have ambitious growth plans for the future. They are the largest employers in the region and consider more autonomy is necessary to improve economic development.

One example of such autonomy is the letter of intent signed between the Federal and Yukon governments in June 1988. This would transfer responsibility for inland fisheries to the Yukon with the Federal government providing administration funding. Both the Yukon and Northwest Territories can be expected to press for more responsibilities.

The territorial governments see an undeveloped transportation system as the greatest barrier to development. Nonetheless, in 1988 and 1989 strong prices for some metals will stimulate exploration and production. Upward pressure on oil prices should allow continued exploration in the Beaufort Sea. Forestry and tourism will be strong in the Yukon, while trapping and fishing are expected to be weaker.

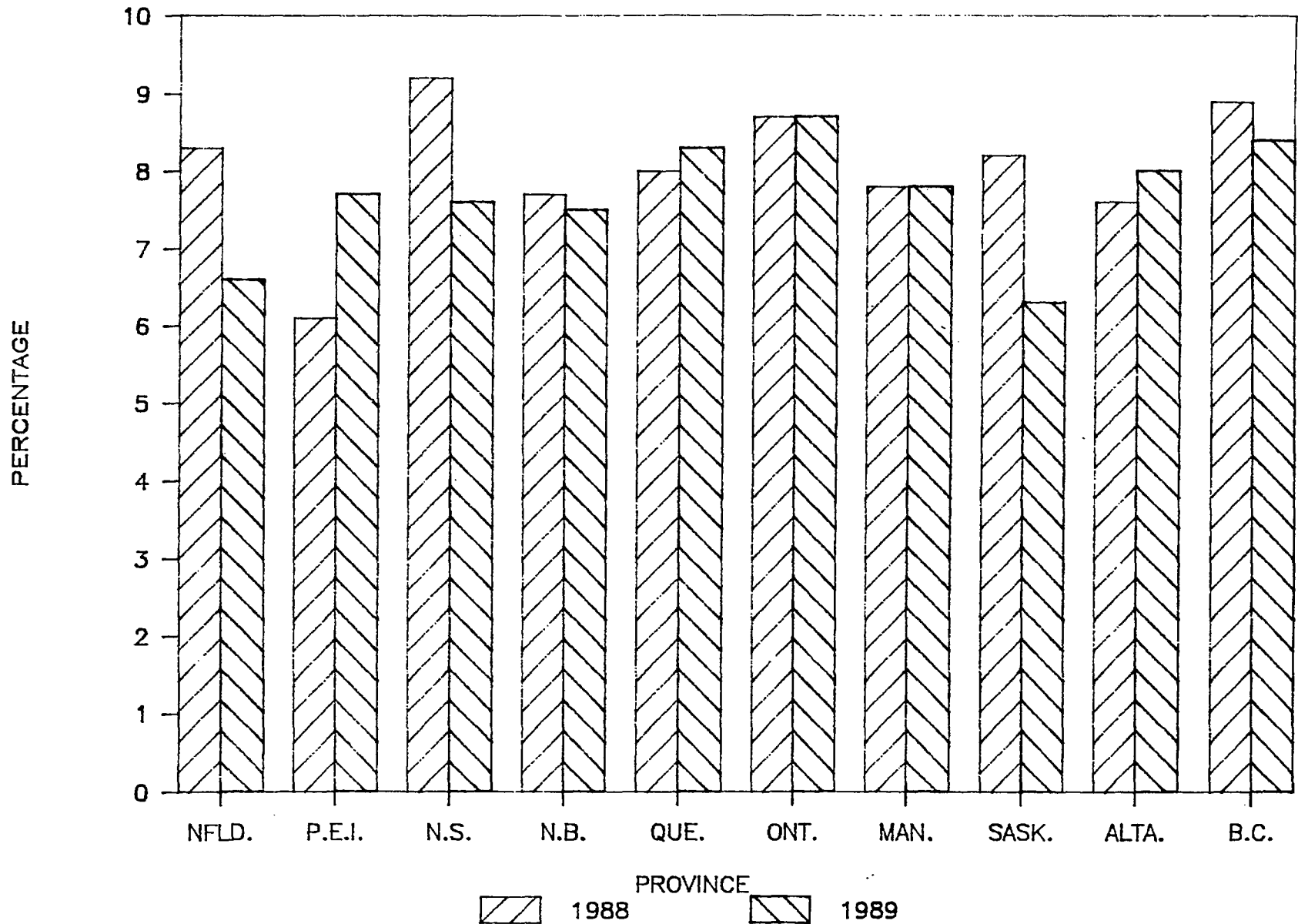
POVERTY BY PROVINCE, 1986



Source: Ken Battle, Poverty Profile 1988, National Council of Welfare

PERSONAL DISPOSABLE INCOME

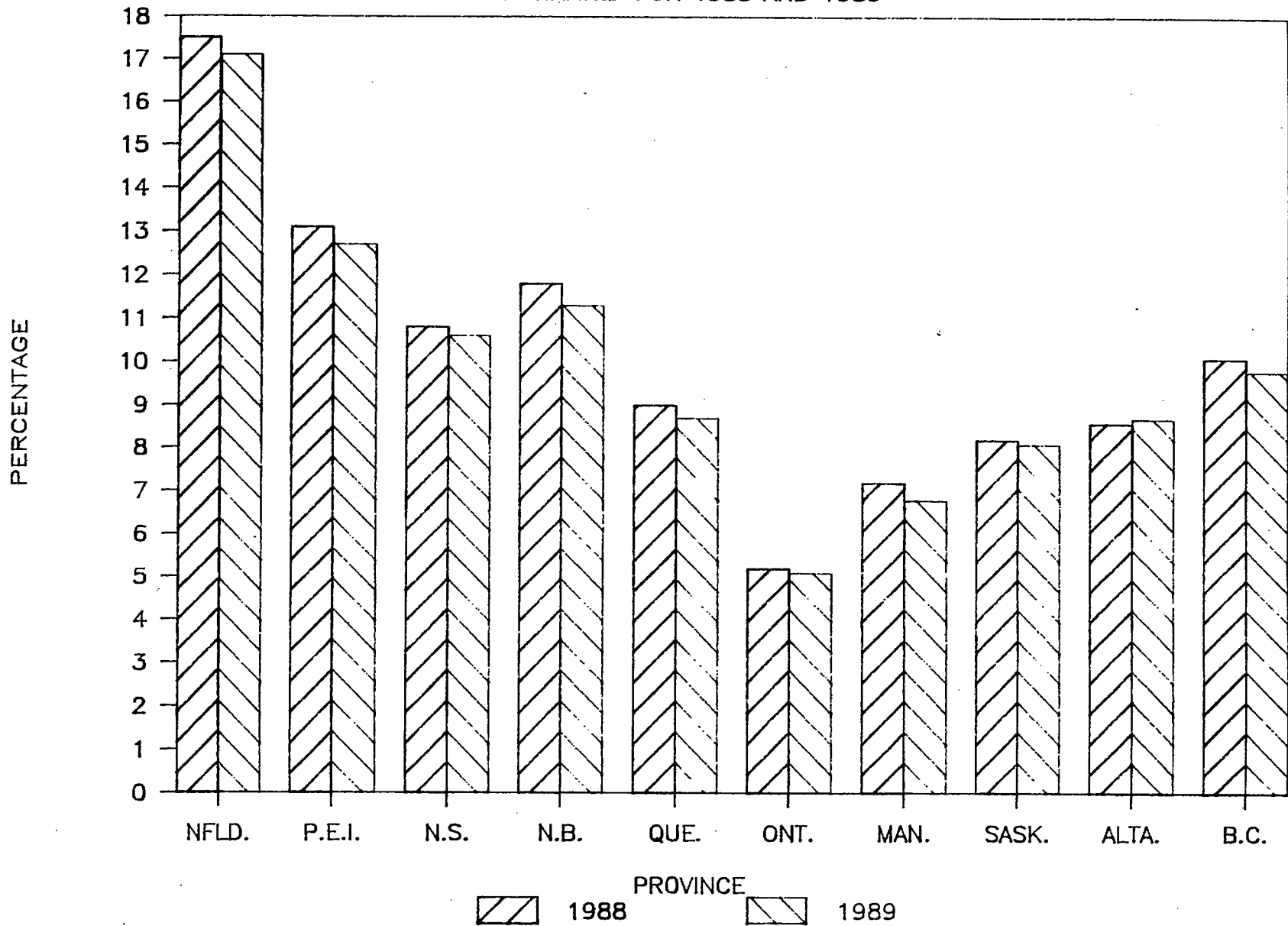
ESTIMATED FOR 1988 AND 1989.



Source: The Conference Board of Canada, Provincial Outlook,
Spring 1988, Vol. 2, No. 2

UNEMPLOYMENT RATE

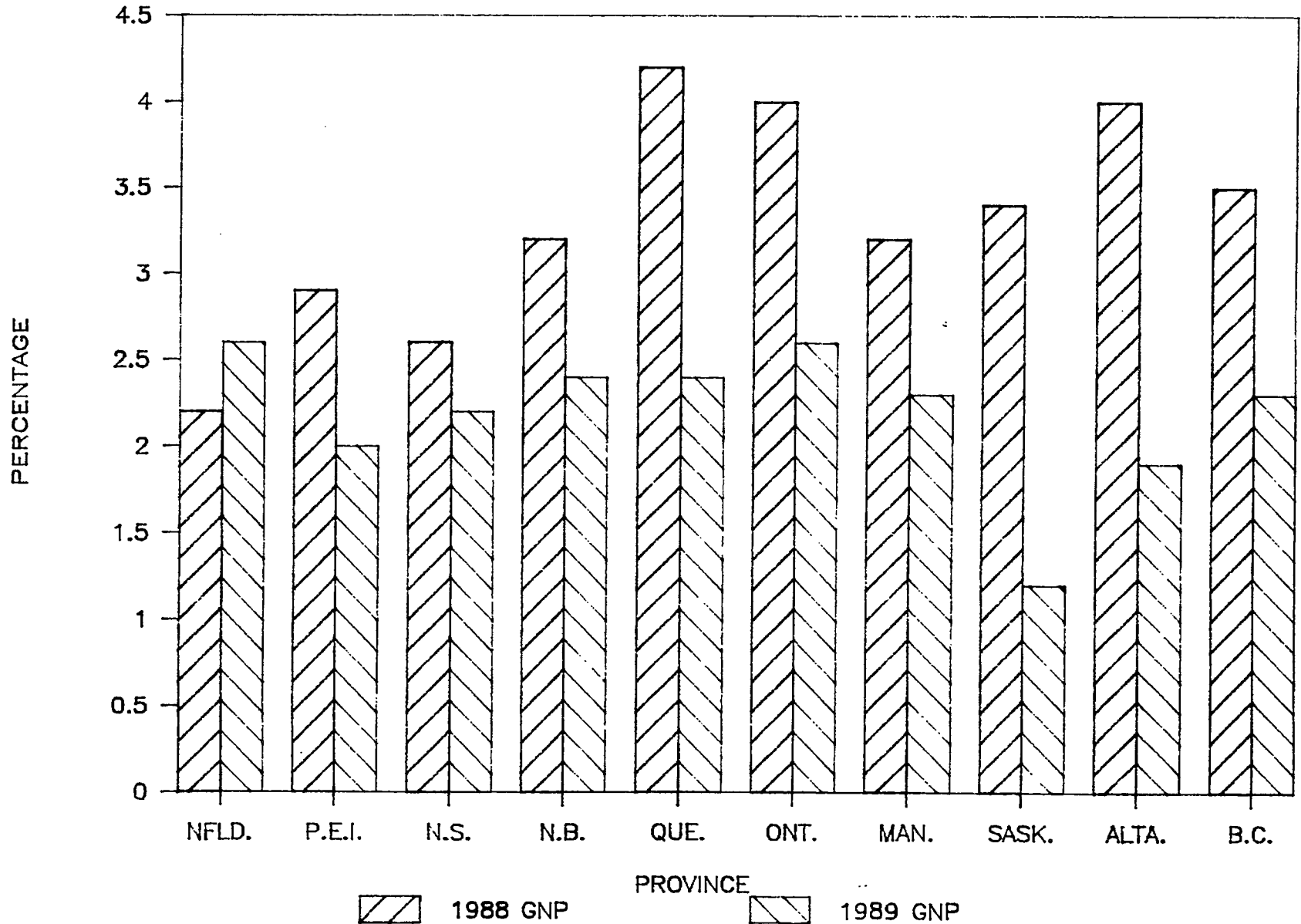
ESTIMATED FOR 1988 AND 1989



Source: The Conference Board of Canada, Provincial Outlook, Spring 1988, Vol. 3, No. 2.

GROSS DOMESTIC PRODUCT

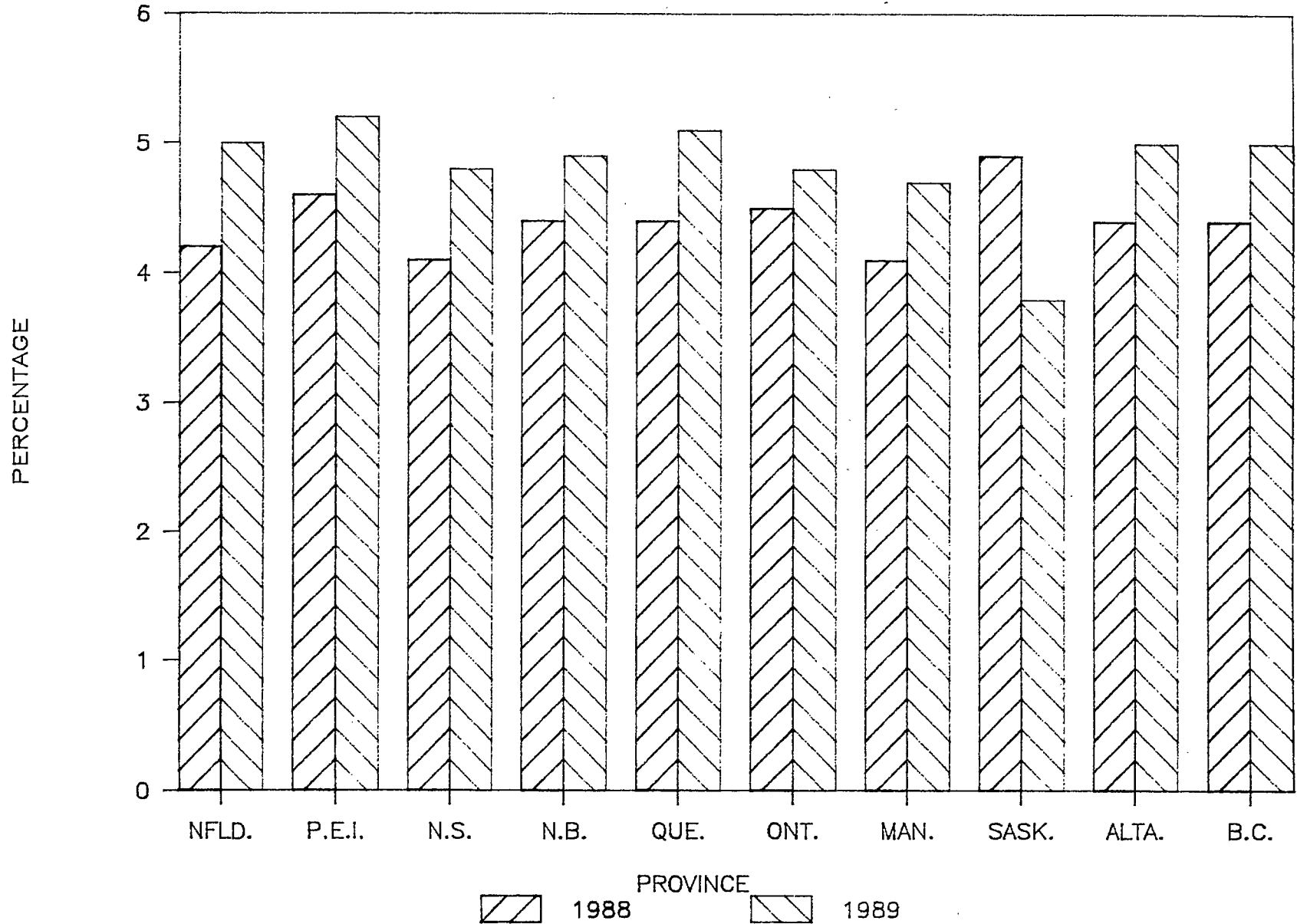
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Source: The Conference Board of Canada, Provincial Outlook,
Spring 1988, Vol.3, No. 2.

INFLATION RATE

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