AU COURANT

Economic Council of Canada

Volume 10, No. 2, 1989

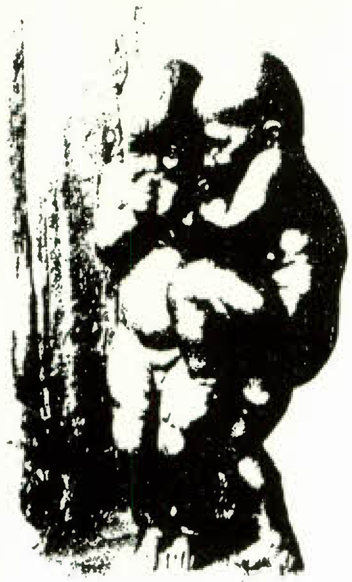
LAST CHANCE TO RENEW

26th ANNUAL REVIEW
Legacies

- Weaknesses in high-tech trade
- "Decoupled" aid programs for Prairie farmers
- Poverty: A new look at a social curse

CONTENTS

Volume 10, No. 2, 1989



FEATURE

DIALOGUE

Au Courant *est également disponible en français.*

The Economic Council reports featured in *Au Courant* reflect the viewpoint of Council members. Research studies, technical reports, discussion papers, and other background papers are prepared for the use of the Council by members of its staff and others. The findings of these reports are the personal responsibility of the authors. Neither the original publication of these studies and papers, nor their condensation for the purposes of this magazine, should be taken to imply endorsement of their conclusions and recommendations by the members of the Economic Council.

Au Courant is published under the authority of the Chairman of the Economic Council of Canada, who bears final responsibility for the publication of the magazine under the imprint of the Council.

Editors are welcome to reproduce material in *Au Courant* in whole or in part, with appropriate credit.

If you have any comments or querries about *Au Courant* please contact the editor.

Editor: Jean-Guy Bruneau

ISSN-0226-224X

Leaner legacies for our children

Judith Maxwell

Only humans have the capacity to imagine the future, and, within limits, to alter the future. In this year's *Annual Review*, the Economic Council looks at the legacies we are creating for future generations.

Traditionally, Canadians have presumed that technical progress would take care of the future – that continuing increases in productivity would ensure rising standards of living for today, and for future generations. We have also presumed that our resource base is so rich that we need not worry about depleting or degrading resource and environmental assets.

As it turns out, productivity growth has slowed dramatically in the past 15 years. Workers have so far felt the brunt of this slowdown, and many wives have compensated for falling real wages of their husbands by going out to work themselves. In general, we find that younger families have suffered more than older ones. In particular, younger families have been unable to accumulate savings, and because they are at the borrowing stage of their life, they have suffered more from high interest rates. Because incomes of many younger families have not been rising, there have been new claims placed on the social safety net.

Governments have been slower to adjust their behaviour. Slower productivity, and a weaker economy generally, have tended to raise expenditures (on Unemployment Insurance, for example), and to reduce revenues. This has led to a widening gap between federal revenues and expenditures, and the frightening accumulation of public debt at the federal level.

The message of this Review is that our traditional presumptions are off base. Unaccustomed as we are, it will be necessary to take greater responsibility for the future if we are going to ensure a better legacy for future generations. We cannot presume technical progress will solve all the problems. Rather, we have to take deliberate steps to reduce the federal deficit, to manage our energy and environmental endowments, and begin to take strategic steps to plan for the care of an aging population. Admittedly, a new surge in productivity growth would help to solve many of our problems. But we cannot count on that happening.

The next major report from the Council will focus on the service sector – the source of 97 per cent of the new jobs created in Canada in the 1980s. This report will highlight what is happening to workers in the service economy – and particularly on the quality of service jobs. And, it raises some important issues with respect to labour-market policies for the future.

Leaders will note in this issue that we have made a number of changes to *Au Courant* in an effort to improve our communications. Through the card attached to this volume, we are also asking you to indicate whether you wish to receive the magazine in the future. While the articles here are highly condensed reports on what we are doing at the Council, the magazine allows us to present, to a much wider audience, the essence of our ideas and our advice to government.

A leaner legacy

The main subject of this issue of *Au Courant* is the 26th Annual Review just released by the Economic Council of Canada.

Entitled *Legacies*, the Council's 1989 Review focuses on the heritage we are going to leave to tomorrow's generation. The prospects are not entirely reassuring.

In this year's Review, the Council studies in detail several problems that are particularly urgent: the deficit, declining productivity, the "greying" of the population, and our worsening environment.

The Review ends by proposing a framework and objectives designed to correct some of the unfavourable trends in order to preserve the equity between present and future generations.

Unless Canada's economic performance greatly improves in coming years, there is a risk that the economic, social, and environmental legacies we leave to the generations of the early 21st century will be leaner than today's.

If we fail to act without delay, a modest improvement over the standards of living we have enjoyed during the last decades will be the most our children can look forward to when they retire. And if we do not immediately address the problem of cleaning up the environment, their quality of life may also be poorer than our own.

It is still not too late, however. The time is ripe; the expected expansion in international trade and the wealth of opportunity that will flow from freer trade may signal the start of a new era of prosperity for a resource-rich country like Canada.

As Canada approaches the last decade of the 20th century, it is only natural that the Economic Council of Canada should reflect on the legacy, in terms of the potential for higher living standards and for a healthy environment, that we have received from our parents, and on the one we will leave to our children. It is to the question of this uncertain heritage – its causes, its consequences, and what can be done to improve it – that the Council devotes its 26th Annual Review.

According to the Council's analysis of the situation, equity between generations is far from assured. To achieve this goal, Canadians must waste no time in adopting measures aimed at improving the economic climate, while keeping a watchful eye on the consequences of their actions for future generations.

In its Annual Review, the Council singles out a number of major problems that urgently require our attention: Canada's declining productivity, the high federal deficit, and an excessive foreign debt that threatens to adversely affect both present and future generations.

The aging of the Canadian population will mean a new set of demands on the economy. While persons aged 65 and over account for 11 per cent of the population today, that proportion will have risen to 21 per cent three decades hence and to 30 per cent by 2040. Will working-age Canadians of the future be able to meet the financial obligations implied by this trend, given the impact it will have on the cost of pensions, health care, and the other needs of an older population? What might be the effects of changing birthrate and immigration patterns on the "greying" of our citizens?

Finally, what about the environmental situation, which, despite the imposition of new standards, remains extremely worrisome for the future?

A constantly changing context

As Canadians enter the 1990s, they are caught up in a tide of global economic change. National boundaries are no longer the obstacles to trade that they once were.

Whether Canadians want it or not, notes the Council, they must accept the fact that heightened global competition, reinforced by the wider availability of new scientific and high-technology achievements, is shortening both the lives of products and the processes of production.

Against all expectations, recent developments have not led to greater output and rising worker productivity. In fact, productivity growth is slowing throughout the member nations of the Organisation for Economic Co-operation and Development (OECD). Even in the United States, which still edges out other nations in overall productivity and per-capita income, the annual growth rate is running at less than 1 per cent. In Canada, it held at slightly over 2 per cent during the recent economic recovery (1983-87), but the Council projects an average of around 1 per cent for the next few years. While some Canadian industries have responded quickly to the far-reaching developments seen in recent years, others are adopting more of a wait-and-see attitude, and may be beaten out by more alert competitors.

Internationally, the competitiveness of Canada's resource industries remains strong. But of late, the measured productivity growth in manufacturing has slackened.

The Council lays particular emphasis on the need for the federal government to change its mix of fiscal and monetary policies. The persistence of the deficit, through good years and bad, provides a prime example of the reluctance of governments to seriously address awkward political problems before they assume crisis proportions.

Objectives

In light of these somewhat gloomy perspectives at the approach to the 1990s, the Council highlights the following objectives:

- The restoration of the federal government's fiscal balance in order to foster an economic environment that, together with appropriate government measures, will enable market forces to function more efficiently and will encourage a favourable business response to the new opportunities inherent in the Canada-U.S. Free-Trade Agreement and the Uruguay Round negotiations of the GATT.
- The need to anticipate long-term measures to assist the growing ranks of the elderly.
- The need to undertake new initiatives to preserve environmental quality.

The most pressing priority, stresses the Council, is raising the rate of productivity growth in both the public and private sectors in ways that will contribute to rising real incomes, regional balance, and full employment.

The economy and a balanced budget

The health of the Canadian economy depends, in large measure, on that of the United States. Thus any move aimed at improving the U.S. economic situation, particularly at reducing that country's deficit, is likely to have a positive impact on Canadian efforts in the same vein.

Some progress has been made on the U.S. economic front: exports have increased, the U.S. federal deficit has declined, and there have been efforts to formulate a debt-reduction strategy. Yet, points out the Economic Council of Canada in its 26th Annual Review, there is still much to be concerned about in the U.S. economic picture.

The U.S. current-account balance remains huge (US$120 billion). The decline in the federal deficit, meanwhile, is actually quite slight, and the deficit now stands at US$140 billion. The Third World's debt load is still compounding and there has not been much support so far from the commercial banks, which hold 60 per cent of this debt, for the proposed plan to forgive loans and cut interest rates.

What is perhaps one of the most remarkable developments of the 1980s is the transformation of the United States from being the world's major lender to its major debtor. The United States will likely remain a capital importer throughout the 1990s, drawing primarily on Japanese and European savings to cover its external debt. Given the United States' weight on international markets, upward pressure on nominal interest rates is likely to be felt in other deficit countries, such as Canada, that rely on foreign capital inflows. Clearly, says the Council, these factors will have a significant impact on the conduct of economic policy in Canada.

The Review surveys the situation in, among other regions, Latin America, where the flow of new private investment funds has virtually dried up. The result is a vicious circle: the lack of foreign investment impedes the importation of new equipment, thereby inhibiting domestic economic growth and the stimulation of exports needed to provide the earnings that will service the debt.

In Asia, on the other hand, the economies of the Pacific basin are booming. Over the past decade, several of these countries have generated productivity growth rates which are twice as high as OECD rates. With their young population, their strong emphasis on higher-value-added products for export, and rising incomes, the commercial importance of this part of the world can only expand in the years to come. In the high-technology exports sector, for example, Japan and the newly industrialized countries of the Pacific basin have succeeded in increasing their market share from 10 per cent in 1971 to 25 per cent in 1986. Canada, by comparison, is barely managing to hold on to its 3 per cent of the same market.

The Council is also concerned about the persistence and size of Canada's federal deficit, which complicates the conduct of economic policy. Particularly worrisome, says the Council, is the fact that it continues to persist after seven years of relatively strong economic growth. The size of the deficit in an economy that is operating at close to full manufacturing capacity puts the burden of containing domestic inflation squarely on monetary policy.

Even though Canada has benefited from the globalization of capital markets and the recovery of world trade, the Council finds that federal "fiscal imprudence" has introduced distortions into the Canadian economy that are harmful to the country's long-term commercial competitiveness.

As in the United States, Canada's present mix of monetary and fiscal policies has effectively raised the price of capital relative to labour and encouraged more labour-intensive service activities. Current policies have also deterred at least some of the new investment needed to modernize various sectors of Canadian industry and have contributed to the build-up of foreign indebtedness.

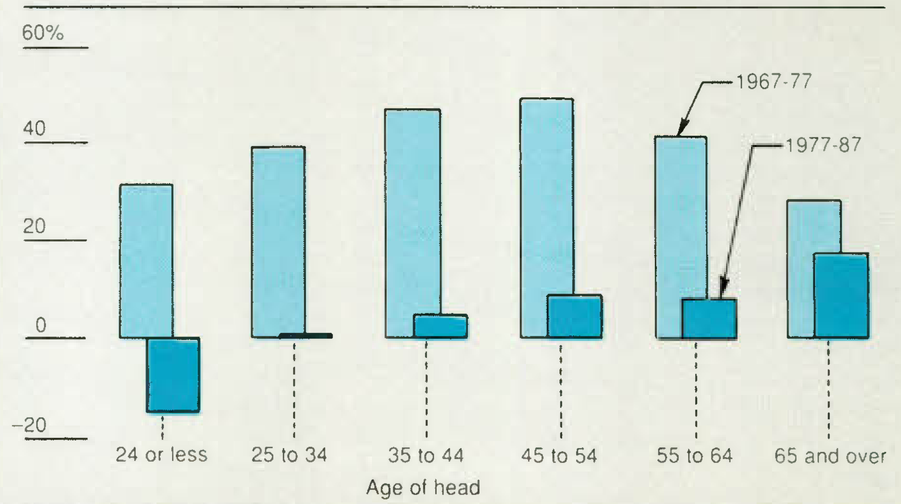
Canadian industrial competitiveness

For a medium-sized open economy like Canada's, trade is vital to continued prosperity. Canada exports around 34 per cent of what it produces, and it imports a corresponding portion of what it consumes. Looking to the years ahead, the Council finds the potential challenges and opportunities daunting, to say the least.

The implementation of the Canada-U.S. Free-Trade Agreement, the integration of the European Economic Community after 1992, and the emerging markets of the Pacific Rim offer important trade and investment opportunities for Canadian businesses. These developments, however, will also test their mettle.

Canada has traditionally been and continues to be a major exporter of primary resources – wheat, energy,

Growth in Real Family Income, by Age of Head, Canada, 1967-87



lumber, pulp and paper, metals and chemical products. In 1988, these items accounted for more than half of Canada's merchandise exports.

Of all the major countries, Canada's overall levels of productivity and per-capita income are closest to those of the United States. This situation is less heartening in manufacturing, however, where the Americans are far ahead. And, during the 1980s, Canada's manufacturing productivity performance was surpassed by West Germany, France, and Italy. These points suggest that Canada is adapting more slowly than its trading partners to the new international environment.

However, the picture of Canada's economy is not uniformly grim. Historical evidence suggests that Canadian firms operate with a keen eye on the exchange rate. When the dollar gains strength, manufacturers face competitive pressure to revitalize their operations and improve productivity. A weaker dollar, on the other hand, tends to protect them from foreign competition and so to retard the pace of productivity improvement. This factor was particularly evident in the early 1980s.

Much of Canada's future productivity performance will be determined by the ability of Canadian firms to assimilate and use new science and technology. In fact, our expectations of future income will depend on our performance in this regard. Unfortunately, Canada's report card on this score is poor, no matter what measure is used – research and development, patent registrations, availability of scientists and engineers, or the trade performance of high-tech industries.

Despite these difficulties, indications are that many Canadian manufacturers are responding to the challenges of freer trade with the United States and growing international competition. The industrial heartland in Ontario and Quebec is operating at full capacity. The Review finds it noteworthy that, according to a recent survey conducted by the Canadian Manufacturers' Association, 80 per cent of CMA members judge they have had no problems or only minor problems in adjusting to the Free-Trade Agreement.

Resolving the fiscal imbalance

While the Canadian economy is entering a period of slower growth, the Council does not expect it to develop into a recession.

The continued resurgence of investment by industries preparing themselves for a more integrated North American market and for new export opportunities will support economic activity.

In the Council's view, the Achilles' heal of the Canadian economy in the coming period is the federal government's fiscal position. Deficit reduction has fallen far short of explicit targets, and the long, drawn-out process of deficit correction proposed for the 1990s will clearly be subject to many risks.

In any event, the principal legacy of the 1980s to future generations may well be a huge public debt. In 1988, the net financial debt of federal, provincial, and local governments and their agencies was about $400 billion, or over $15,000 per capita. Among the other OECD nations, only the United Kingdom and Italy have higher debt/GNP ratios.

Of even more concern that the size of the debt, however, is the fact that it continues to grow.

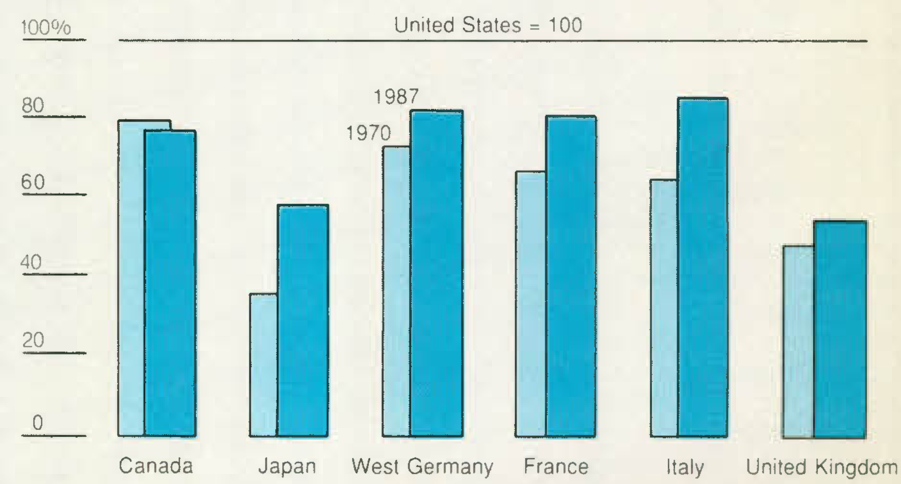
While the Council presents a number of scenarios in its Review, it will remain the responsibility of the federal government to choose the appropriate timing and assess the proper dose of restraint when considering new policy options intended to speed up the return to a more robust fiscal position. The key considerations will be the strength of demand, the scope for a concomitant relaxation in monetary policy, and policy developments in the United States.

The Council comes out in favour of spending cuts, but recognizes that the timing and extent of such cuts, along with the associated easing of monetary policy, must be tuned so as to avoid excessive increases in unemployment.

Any made-in-Canada solution to the fiscal dilemma relies primarily on a gradual easing of monetary policy. Thus, states the Council, the next round of expenditure cuts should be made at a time when the Bank of Canada is in a position to reduce interest rates, such as when prices are experiencing minimal upward pressure.

The best prospects for a favourable environment for Canadian restraint, feels the Council, will come with improvements to the United States fiscal position.

Level of Labour Productivity in Manufacturing (Output per Hour) in Selected Countries Relative to That of the United States, 1970 and 1987



The current generation

Successes and concerns

Overall, the 1980s have been years that warrant both satisfaction and concern for the present generation.

During this period, as the Economic Council of Canada notes in its 26th Annual Review, Canada achieved a significant restructuring of industrial activity and a record of employment growth that outpaced that of most other OECD countries. On the other hand, historically high unemployment rates have persisted in many outlying regions, and wages on the whole have not risen during the past decade.

If families had had to depend solely on the earnings of one breadwinner, there would have been almost no growth in real family incomes between 1973 and 1986. Because of the phenomenal influx into the labour market of women and working-age youth, there was actually a 13-per-cent increase in real incomes over this period. Yet, the contribution of the household head to family income dropped by 5 per cent.

Among single individuals under age 64, there was a 20-per-cent increase in real income over the period. Much of this apparent gain stemmed from the rising divorce rate, which resulted in the growth in the number of single skilled and professional people aged 35 to 54.

The Canadian economy produced over 600,000 new jobs between 1981 and 1986, giving this country one of the most favourable job-creation records among industrialized nations. Most of the growth in the labour force can be attributed to women, who filled 72 per cent of the new jobs created over the decade. In 1988, 57 per cent of all women of working age were in the labour force, compared to 50 per cent in 1980. In terms of female participation rates, Canada ranks high among the OECD countries.

Employment growth in Canada during the 1980s has been concentrated in a few occupational groups: managerial, administrative and related occupations, medical and health occupations, and the sales and service industries.

A much different picture is revealed, however, when wages are examined. In real terms, there has been little improvement and, in fact, labour income per worker in 1987 was almost 2 per cent lower than it had been 10 years earlier.

The Council observes that, collectively, Canadians are only modestly better off than they were a decade ago. While some groups are doing quite well, others are falling behind in terms of employment and income. Many blue-collar occupations are disappearing; unemployment rates outside central Canada are still high; and there are signs of wage polarization between well-paid skill demanding jobs and those that are low paid, dead-end, and relatively unskilled.

Somewhat ironically, the Review points out that seniors have benefited the most from these developments.

The proportion of elderly below the poverty line fell dramatically between 1971 and 1986 – from 68 to 16 per cent of individuals, and from 35 to 6 per cent for families.

While Canada's unemployment rates have dropped significantly during the past six years, they have still not attained pre-recession levels (1982) and they remain higher than the OECD average. In many parts of the country, the Council believes, unemployment rates remain wedged at unacceptable levels. The proportion of unemployed who were out of work for more than 14 weeks has risen during the 1980s from 37 to 42 per cent.

The 1980s have also seen a significant shift in employment to the services sector. The gap in hourly wages between workers under 35 years of age and their older colleagues has widened. The majority of Canadian workers are not covered by private pension plans.

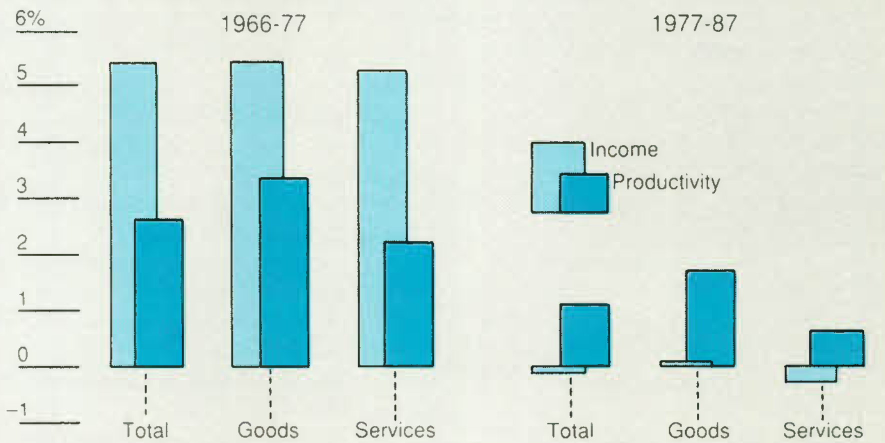
Overall, the Review reveals that Canadians with good jobs at the high-income end of the scale, their savings and pensions fueled by high interest rates, can look forward to relatively affluent retirements. For those in low-paying jobs with limited career prospects, however, the future may be bleaker.

In light of these discouraging findings, the Council poses the following questions about Canadians who are facing economic hardship:

- Will the insecurity plaguing their income and employment situations haunt them the rest of their working lives?
- What are their chances for career advancement?
- Are there adequate facilities for training programs, particularly in regions where permanent employment is scarce?
- How mobile must these workers be?
- How adequate will their public pension plans prove to be when they retire?

The Council's conclusion is that it is still too early to say there is a well-defined group – a "lost" generation – experiencing persistent economic insecurity. Still, in parts of Canada, there is cause for concern. The Council hopes to shed more light on this situation shortly through its future research on unemployment and social policy.

Average Annual Growth in Real Labour Income and Productivity, Canada, 1966-87



Two questions for the future

Aging and the environment

The aging of our population will increase the responsibilities that must be borne by future workers. Similarly, our abuse of the natural environment today and the economic resources we are prepared to devote to improving it tomorrow, to a large extent, will determine the legacy we will pass on to future generations.

The Economic Council of Canada gives a prominent place in its 26th Annual Review to the discussion of these two questions, believing that they will have a crucial long-term impact on our country's future.

Canada's social and economic agenda very much depends on demographic trends.

There is no doubt that Canadians, as a group, are growing older. The proportion of those aged 65 and older has more than doubled since 1921, rising from 5 to 11 per cent of the population as a whole. Young people aged 19 years and under are proportionately fewer today than they were 60 or 70 years ago.

To analyse this phenomenon, the Council constructed a series of demographic scenarios. The base-case scenario assumed constant fertility rates and continuing low immigration of about 60,000. In the low-growth scenario, fertility rates declined further; in the high-growth scenario, fertility rates rose to replacement levels and immigration doubled to 120,000 persons per year.

By the year 2000, the spread between the high and low cases would be about 2 million persons. By 2040, the population in the high-growth case could be 15 million more than the low-growth case. Obviously, figures such as these have enormous implications for human-resource planning.

Whatever projection is chosen, there will be between 10 and 11 million Canadians aged 65 and older in the year 2040, up from just under 3 million in 1988.

In the low-growth case, the number of people under age 20 falls from 7.4 million in 1988 to 6.7 million in 2000 and to 3.9 million in 2040. In the high-growth case, the young population rises to 11.6 million in 2040. That development, says the Council, will clearly be the major swing factor in Canada's economic future.

It is the 20-to-64-year olds who will be most crucial to the cohesion of Canadian society, since they will be the producers of the goods and services used by all age groups, and they will be the care givers to both elderly and children. Because of the rising ratio of retirees to workers, improvements in the living standards of working Canadians and their children may well prove more difficult to achieve.

The Council's purpose in exploring these scenarios is to determine the risk of a clash in priorities between future workers and retirees; also, it is to identify the policy levers available to head off this crisis. Productivity growth, which has been lagging in recent years, could hold the key: continuation of the projected rates of less than 1 per cent could mean trouble, whereas an increase of 2 per cent a year would allow more generous solutions.

The environmental legacy

In considering the implications of current social developments for future generations, the Council maintains, one must look beyond mere statistics. We must explicitly take into account the environmental and resource legacies. On this score, the outlook is not encouraging.

Still, appropriate long-term management should make it possible to preserve and even enhance the value of our renewable-resource base.

The introduction of more stringent federal controls, including the promulgation in 1977 of a 200-mile limit for Canada's fisheries jurisdiction, has had some positive results. Nevertheless, the management of the fishery continues to pose a major challenge, particularly in light of the recent finding, for example, that northern cod stocks are far below previous estimates.

Problems of resource management are also evident in the case of other renewable resources, such as forests and farmland. For example, as a result of years of inadequate long-term management, the organic content of soils has declined by between 36 and 49 per cent in the Prairies and by 50 per cent in Ontario and Quebec. A report by a Senate standing committee estimated that soil degradation costs Canada $1 billion a year in lost income. Canada loses almost twice as much productive forest land through fires and pests as it does through planned harvesting. Planting, seeding, and natural regeneration compensate for only about 70 per cent of the annual loss.

The Council notes that difficulties are mounting in meeting the growing requirements of waste management. In 1985, some 25 per cent of the population in large communities (over 100,000 people) was not served by waste-water treatment facilities. And it is becoming increasingly difficult to find suitable places to store or dispose of various forms of municipal and industrial wastes.

Ambient air quality has improved between 1975 and 1985 in Canadian cities. But the Council finds there are still areas of concern. Average ground-level ozone concentrations in urban areas have remained well above "maximum acceptable" levels. On a per-capita basis, Canada's carbon-dioxide emissions are among the highest in the world. Acid rain also represents a serious problem; the Council points to the costly damage it has caused to fisheries, forests, agriculture, and wildlife.

Estimates of the investment that would be required over the next decade to reach some reasonable baseline standards of air and water quality have produced a bill of $50 billion.

The Council acknowledges, therefore, that the necessity for environmental clean-up will make major demands on the economy over the next decade.

The challenges of environmental responsibility are many and complex. To what extent should we tighten our belts now to finance the investments needed to help our descendants weather the crucial years when the current baby boomers have retired?

The potential impact of the slower productivity growth observed in recent years, combined with building demographic pressures and disturbing environmental trends, provides a compelling argument for reorienting government policy so that much greater importance is given to the consequences of current activities for future generations.

An inheritance to bestow

An efficient, competitive economy, capable of meeting the economic and quality-of-life needs of its citizens, unencumbered by a huge overhang of public and foreign debt – this is how the Annual Review of the Economic Council of Canada sums up the best possible legacy that the current generation could bestow upon tomorrow's Canadians.

The challenges are many, and they will require investments that must take into account a multitude of factors, including the productivity growth rate, the competitiveness of Canadian industry, employment and unemployment, incomes, demographic change, and environmental concerns. Still, there is one priority that stands out above the others, one that requires urgent action because of its impact on all facets of the problem. It is deficit reduction.

If the future is conditioned by the present, then our legacy to tomorrow's generation will be a heavy federal deficit and an excessive foreign debt.

The deficit

Thus one of the main targets suggested by the Council to the federal government is a steady reduction of the federal deficit from today's level of well over 3 per cent to 1.5 per cent of GDP or less by 1993.

Although the federal government has managed to narrow the gulf between expenditures and revenues since 1984, the mix of economic policies in the 1980s has turned out to be damaging to the nation's long-run potential. While it has contributed to employment growth, it has also dampened productivity.

While many industries are operating at near capacity, there is now growing evidence, says the Council in its Review, that the economy is entering a period of slower growth. Accordingly, our targets for real growth, the unemployment rate, and the inflation rate must be consistent with each other and must be sensitive to the dangers of overheating the economy.

The Council foresees an international financial and economic context in which real interest rates are likely to exceed real rates of growth in Canada. This situation makes reduction of the deficit an uphill battle, and can lead to an explosive growth in public debt. In this kind of environment, federal fiscal policy must do all that it can to forestall a debt crisis. In the wake of the April 1989 federal budget, taxes – including the goods and services tax, designed to improve economic efficiency – have pretty much reached the limit that Canadians can digest. This means that every available opportunity must be used to reduce expenditures in order to speed up the process of deficit reduction.

Second, we must be concerned about the effects of poor productivity performance. Already, there has been a slowing-down of real income growth and an apparent reduction in the real incomes of young Canadians. A failure by business to adopt new technologies, or to move towards higher-value-added production, might well doom many workers to low-income, high-turnover jobs with little chance of advancement.

If productivity gains do not improve, per-capita income growth could drop to less than 1 per cent annually by the year 2020, when at least part of the baby-boom generation will have retired. Economic expansion could be so slow that meeting the new social demands of one group could well require shrinking the entitlements of others, resulting in an escalation of social tension. Canada would then be close to a "zero-sum" economy.

Economic targets

In order to meet these various challenges, the Council proposes the following economic targets:

- an increase in productivity, as measured by output per employed person, of between 1.5 and 2 per cent annually;
- employment growth of 1.5 to 2 per cent annually, so as to reduce the unemployment rate to between 5 and 7 per cent of the labour force by 1993;
- a rate of GDP growth of 3 to 4 per cent;
- a rate of annual inflation of 4 per cent or less;
- the preservation of the objectives and substance of existing social programs, insofar as they provide affordable benefits to Canadians; and
- the achievement of regional balance with respect to growth and employment possibilities.

The impact of the demographic crunch associated with the retirement of the baby-boom generation will not be felt for some 25 years. In that interval, the Council believes, there is a window of opportunity to eliminate the deficit, make substantial progress in shrinking our foreign debt, and step up efforts to clean up the environment.

For the growing ranks of the elderly, there is a host of issues that will warrant public debate, including the age of retirement, adequacy of pension coverage, and health care. Solutions might include encouraging seniors to adopt a more active and healthful lifestyle, to work longer after age 65, to undertake new careers or start new businesses, or to participate in voluntary activities.

If current patterns of hospital use continue, the aging of the population could result in a dramatic increase in health-care costs over the next 50 years.

The Council recognizes that it will be the responsibility of the Cabinet to determine which programs should be rationalized, where additional expenditures could be made, and when they should be introduced. To guide these decisions, the Council recommends the four following principles:

- Keep deficit reduction as a primary objective, but try to balance the choices along the way.
- Recognize that falling interest rates would provide a substantial offset to the negative effects of deficit reduction.
- Capitalize upon any positive decisions by the United States in the area of monetary and fiscal policy.
- Concentrate on expenditure cuts in implementing fiscal-restraint measures.

The most recent initiatives of the government, notably the last federal budget with its emphasis on reducing the deficit and encouraging long-term growth, would likely lead to a balanced budget by the turn of the century. The Council believes, however, that this course is too gradual and fragile. It concludes, therefore, that further expenditure reductions, combined with action on the monetary side, will be required.

High-tech trade

Serious weaknesses to solve

Canada's competitive position in high-technology trade is weak on several scores. And this gloomy picture threatens to become even bleaker unless immediate action is taken to correct the problem.

According to two senior economists from the Economic Council of Canada, Sunder Magun and Someshwar Rao, the gravity of this situation demands that Canada urgently undertake a major review of its science and technology policies. The researchers stress that the problem must be addressed soon if it is not to severely affect Canada's productivity, international competitiveness, and standard of living.

Speaking recently to a meeting of the Canadian Economics Association in Quebec City, the two researchers explained that their study, which used Statistics Canada's new World Trade Data Base, reveals clear weaknesses in Canada's competitive position. Striking proof, they say, is offered by Canada's significant losses on world markets and its persistent trade deficits with respect to high-technology products. Magun and Rao find particularly disturbing the dramatic decline in Canada's share of the U.S. market, as well as the country's very low penetration in the Pacific-Rim market that serves the newly industrialized countries (NICs).

The structure of Canada's high-technology trade

Canada is a relatively small exporter of high-technology products. Its exports are concentrated mostly in a limited number of commodity groups, including aircraft and associated equipment, telecommunications equipment, and automatic data processing machines.

In 1986, Canada exported $8.7 billion of high-technology products of these kinds, and imported $11.4 billion. Its main clients are the European Economic Community and the United States. The United States is Canada's biggest customer, accounting for three quarters of Canadian exports and more than two thirds of Canadian imports.

Although Canada has developed strong ties with the Asian NICs in recent years, its exports to this part of the world remain very low.

Canada's share of exports of high-technology products in its total manufactured exports is lower than for any other industrialized country. In 1986, high-tech exports accounted for 14 per cent of total Canadian manufacturing exports. The same figure was 11 per cent in 1971, indicating relatively little change in Canada's export capability over a 15-year period when both markets and competitors have changed rapidly.

In the United States, exports of high-technology products account for 38 per cent of all manufacturing exports. Over the 1971-86 period, the Japanese doubled their proportion to 28 per cent. The figure for Asian NICs, meanwhile, almost tripled, climbing from 9 per cent in 1971 to 24 per cent in 1986.

World market shares

According to Magun and Rao, Canada's weak performance in the high-tech sector can be seen even more clearly when trends in Canadian shares in world exports of high-technology products are analysed.

Canada has a 2.6-per-cent share of the world high-tech market (down from 3.5 per cent in 1971). This is a meagre share of a market worth some $330 billion a year.

The stunning rise of Japan and the Asian NICs, say the two economists, is the most dramatic development in the global high-tech market.

Japan's share of the world market rose from 8 per cent in 1971 to over 17 per cent in 1986. The shares of the Asian NICs jumped from 1.5 to over 9 per cent during the same period.

The two researchers also point out that Canada's decline in this market is not confined to a few product areas but has affected the entire range of high-technology goods, including those in its areas of specialization (mentioned earlier).

Canada-U.S. trade

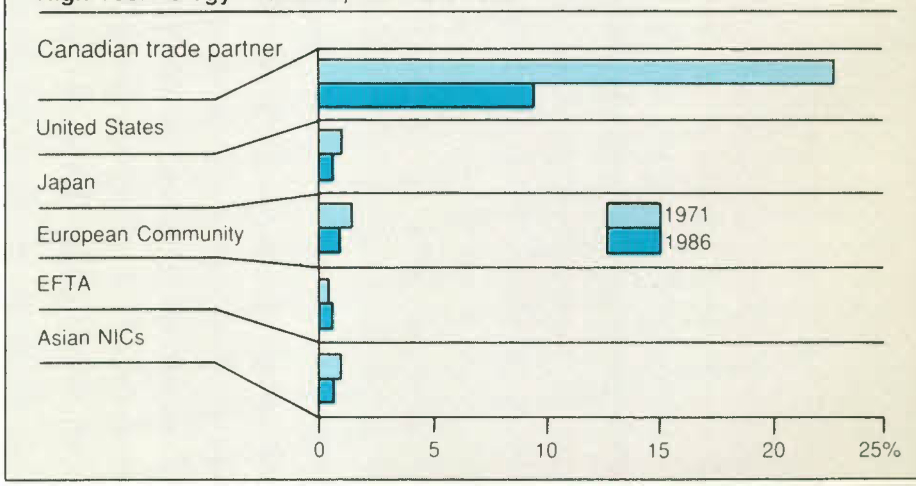
The dramatic drop in Canadian high-tech exports to the United States is disturbing, say Magun and Rao, because Canada relies so heavily on the U.S. market in this area.

In 1971, over 20 per cent of U.S. high-tech imports came from Canada. This figure slumped to less than 10 per cent by 1986. Worse, stress Magun and Rao, this significant loss occurred during a period when U.S. imports were on the rise worldwide, increasing eighteenfold between 1971 and 1986.

In contrast, Japan benefited greatly from the burgeoning U.S. market. Statistics show that its share of this market expanded from 28 to 35 per cent over the same period.

Magun and Rao also point out the

Canadian Shares in Trade Partners' Imports of High-Technology Products, 1971 and 1986



phenomenal increases that have occurred in the NICs' share of the American market. From 7 per cent in 1971, this figure jumped to over 20 per cent in 1986.

Trade deficits

Noting that export shares alone can sometimes lead to misleading conclusions because of the expansion of intra-industry trade, the two economists feel it is important to assess the problem using other yardsticks. One of these is a country's trade balance over time.

Here again, Canada's overall weakness in high-tech exports reveals itself in the form of persistent deficits.

The United States and Japan, by way of contrast, posted large high-tech trade surpluses until 1981.

While Japan has managed to sustain this upward trend, the researchers note, the United States has more recently incurred sizeable deficits.

Research and development found wanting

Magun and Rao believe that one of the main factors in the lamentable state of the Canadian high-tech industry is our low research and development (R&D) activities.

The two researchers cite figures showing that, among all industrialized nations, Canada spends the least on R&D.

In 1985, Canada devoted only 1.3 per cent of its gross domestic product (GDP) to R&D, compared to Japan's 2.8 per cent and the United States' 2.7 per cent. The share of spending on research has not increased significantly in Canada for close to 25 years. Canadian industry's share of total R&D expenditures is also the lowest among all the G-7 countries. The Canadian business sector, for example, accounted for only 48 per cent of total R&D expenditures, compared to 72 per cent in the United States, 71 per cent in Germany, and 65 per cent in Japan.

Canada's low level of R&D activity is reflected in patent applications. In 1983, Canadian applications accounted for only 0.5 per cent of the total patent applications of the G-7 countries. This contrasts sharply, note the researchers, with Japan's 68 per cent and the United States' 14.5 per cent.

Conclusion

According to Magun and Rao, their results clearly show the weaknesses of Canadian industry on international high-technology markets.

Not only has Canadian industry failed to adapt to rapidly changing demand patterns in this highly specialized sector, but it has also proven unable to improve its productivity and manufacturing costs. That is why the Canadian high-tech industry has missed so many opportunities to expand its exports abroad, particularly to the United States.

The two researchers thus see an urgent need for an exhaustive study of Canada's position in high-technology trade – before it is too late.

New members appointed to the Economic Council

Peter M. Brophy is vice-president, Corporate Affairs of Xerox Canada Inc. in Toronto. A graduate of McGill University, he is vice-chairman of radio station CJRT-FM in Toronto and an advisor to the Ontario minister of Industry and Trade. He is a director of the Information Technology Association of Canada.

Michael A. Sullivan is a self-employed chartered accountant in Summerside, P.E.I. A graduate of St-Dunstan's University, he is also chairman of the National Products Marketing Act Appeals Tribunal. He is secretary-treasurer at J. Erskine Clark and president of Two Plus Two Jewelry Ltd.

Rix Rogers is president of Rix G. Rogers and Associates of Oakville, Ontario. A graduate of the University of Toronto, he is also a special advisor to the minister of National Health and Welfare. He has been general secretary and Chief Executive Officer of the YMCAs of Canada and chairman of the National Voluntary Organization.

Struan Robertson is chairman of the Central Guaranty Trust Company in Halifax. A graduate of Dalhousie University, he is a director of the Canadian Chamber of Commerce. He has held various positions such as president of Central & Eastern Mortgage Corporation and Chairman of the Board of Central Trust.

"Decoupling" and Prairie farmers

A more even-handed program

The financial crisis that has gripped Canadian Prairie farmers is the result of low and unreliable farm incomes, unstable prices on world grain markets, and unfavourable weather.

In a recent study, Ludwig Auer, a senior economist at the Economic Council of Canada, traces the origin and severity of the difficulties faced by Prairie farmers and concludes that present support programs should be replaced by assistance tied, not to the production of specific crops or to production volumes, but rather to farmers' incomes. Such "decoupling," believes Auer, would provide income assistance for farmers while breaking the link between the extent of financial aid and the production of specific crops, the prices of particular commodities, cultivated area, and production quantity.

According to the author, current government subsidy programs do help to stabilize and increase farm incomes, but only in the short term. In the long run, they drive up production and drive down prices, with the result that the real beneficiaries of most programs designed to support Prairie farms are not the farmers, but rather the consumers, in both Canada and abroad.

Current programs do not resolve farmers' income problems, despite their high cost to the public purse. In 1987, for example, direct government payments to farmers in the three Prairie provinces amounted to some $1.7 billion. And that figure does not include an $815 million emergency payment under the Special Canadian Grain Program, nor indirect assistance in the form of farm credit, freight subsidies, crop and livestock research, food-aid and food-trade programs, and social adjustment and rural development.

If all these direct and indirect components were included, total assistance to Prairie farmers in 1987 would jump to $4 billion – an average of about $30,000 per farm. Yet in the long term, the net incomes of farm workers are 40 per cent below those of Canadian workers in other categories.

The extent of aid given out by the Public Treasury in the form of agricultural assistance is increasingly the target of political pressure. Calls are being heard for across-the-board reductions in subsidies and for freer agricultural trade. That is why Canada and other countries have made a commitment, under the General Agreement on Tariffs and Trade (GATT), to eliminate agricultural subsidies affecting international trade by the year 2000.

Still, notes Auer, the prospects for Prairie agriculture between now and the next century are not very encouraging. If current trends continue, the cost/price squeeze may lead to a gradual decline in the number of farms in the Prairie provinces. Between now and the year 2000, their number may fall from 130,000 in 1985 to 115,000 or possibly as low as 95,000.

The substitution of decoupled-assistance programs for the present support programs, the author cautions, will require careful planning and intensive negotiations with farmers and the provincial governments. A favourable economic climate both domestically and abroad will also be essential.

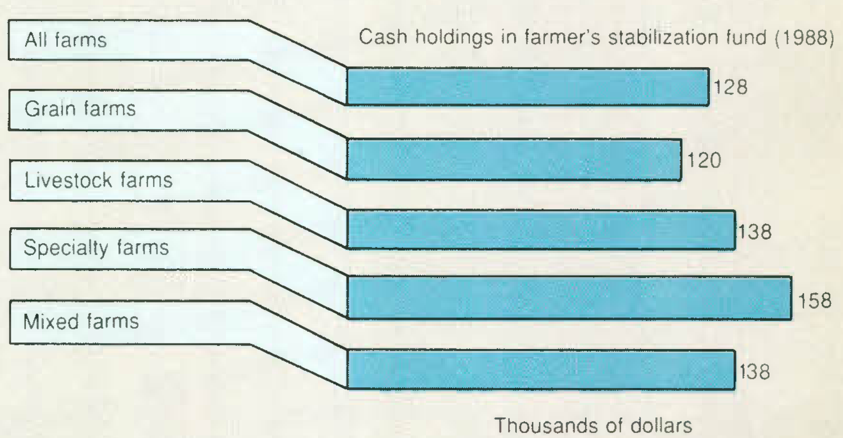
Costs

The author's simulations, carried out with 3,500 Prairie farmers, show that while implementing decoupled support would not necessarily have been less expensive in the very short term, it would have allowed assistance to be distributed much more evenly, avoiding, for example, a bias in favour of grain farmers and against livestock and specialty-crop producers.

According to the author, decoupled plans make the most sense economically when viewed in the longer term. He illustrates this claim with the following example. Government financial assistance in 1988 was $3.1 billion, bringing the cumulative total for 1966-88 to $13.5 billion. If a decoupled-assistance plan had been brought in during the 1960s, the government's contribution to farm assistance programs would have been $0.9 billion in 1988, for a cumulative total of $12.6 billion.

For their part, farmers contributed $0.2 billion to the various assistance plans in 1988, for a cumulative total of $1.9 billion over the period in question. Under a decoupled program over the same period, they would have contributed $0.1 billion in 1988, but (and here is the pay-off pointed to by Auer) the cumulative total would have been $12.9 billion over the 1966-90 period.

Cash Holdings under "Decoupled" Farm Support
(if program initiated in 1966)



Decoupled-support programs

The author proposes a system comprising four decoupled-support programs, as follows:

- Farm-income insurance: designed to protect farmers against major losses of farm income, whether caused by unfavourable market prices or by adverse weather conditions; government and farmers would share the cost of the program on an equal basis.
- Income-stabilization fund: designed to encourage farmers to invest, tax free, a major part of their income gains from farming operations in a self-administered fund in order to protect against future income losses and thereby save on farm-income insurance; government would match the farmer's contribution, again on a one-to-one basis.
- Farm-adjustment option: would enable a farmer to treat the assets accumulated over the years in the income-stabilization fund as a tax-free capital gain when he leaves farming or retires.
- Family-income disaster assistance: would be triggered when provincial or regional farm incomes drop to disastrous levels and would help farmers to cover up to one half of their essential living expenses.

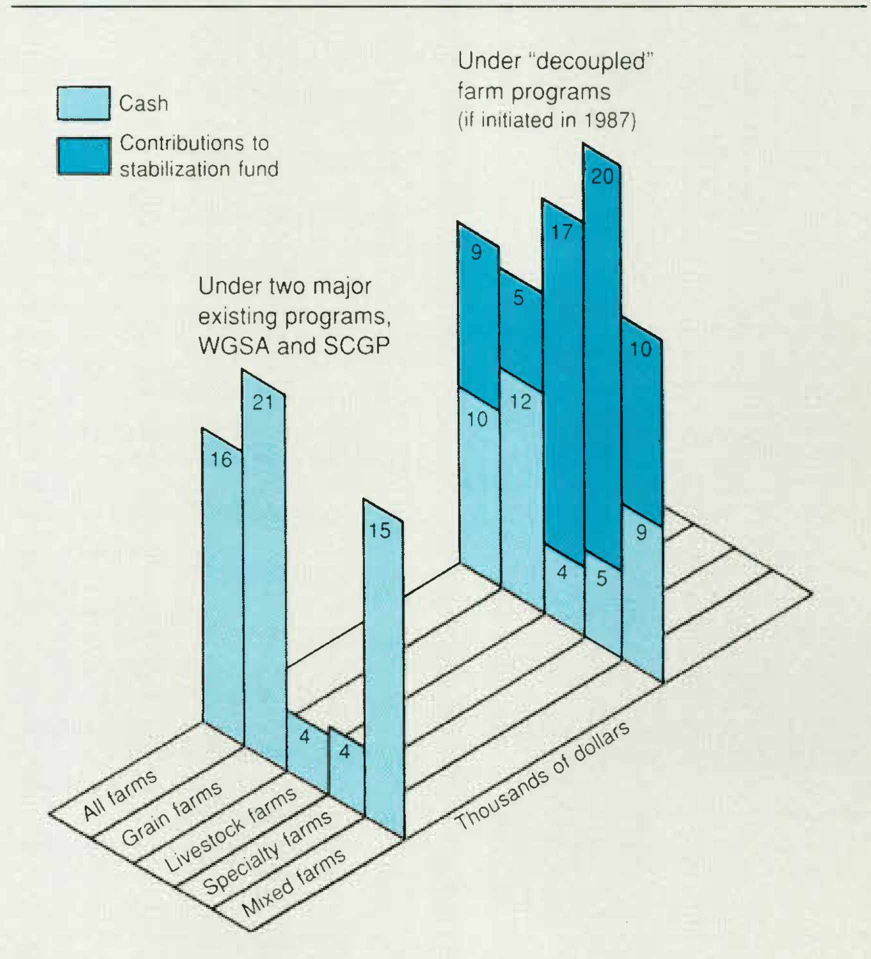
These four programs, Auer points out, would not be independent of each other but would be, to some extent, interactive and complementary. Among other benefits, they would enable farmers to weather market-price instability and short-term fluctuation in farm production and would also grant them greater freedom of action in the management of their operations.

As mentioned earlier, the federal and provincial governments paid out, on the average, $30,000 for each Prairie farmer in 1987. About half of these payments ($15,700) were cash payments awarded under two specific programs. The author also points out that grain farmers received subsidies some four to five times larger than those awarded to livestock producers. Hypothesizing that a decoupled-support program had been in place in 1987, farmers would have received slightly more – $18,000 instead of $15,700. Cash payments, however, would have been lower ($9,500), the remainder of assistance ($8,500) being composed of contributions to the farm-income stabilization fund to equal the amount that farmers themselves had invested in the fund.

If a decoupled-support program had been in place after 1960, the government's contribution for each farmer would have risen to $6,000 by 1988. The annual average over the 1960-88 period would have been $3,700.

The reason government contributions would have been lower is that farmers would have been able to draw upon their stabilization fund in order to support their farm operations. The cost of a decoupled program, Auer states, would depend directly on farmers' willingness to invest their savings in the stabilization fund. He argues that if, over the last 20 years, farmers had contributed approximately two thirds of their income gains to the stabilization fund in order to maximize the government's contribution, they would have accumulated average savings of about $100,000 in the fund.

Government Payments to Prairie Farms in 1987



A new look at a social curse

Poverty is the daily lot of hundreds of thousands of Canadian families. While the nature of this problem is intuitively understood, an examination of the problem from a policy-relevant perspective is extremely complex. Not only must one understand poverty in terms of the various dimensions of its impact on the lives of Canadians, but a policy-relevant investigation requires probing into the very nature of its causes.

Such is the challenge taken up by the Economic Council of Canada in launching a major research project aimed at throwing new light upon the extent and causes of poverty in Canada.

More than 20 years ago, the Council pointed out in its Fifth Annual Review that poverty was a fact of life not just for thousands of Canadians, but for millions. Although progress has been made on some fronts over the last two decades, the make-up of Canada's social policy has recently resurfaced as a major public issue.

There is no question that Canada must strive to maintain and to improve its position on the fiercely competitive and global economic playing field. Yet Canadians have made it clear that, despite the difficulties that lie ahead, they do not want the link between social policy and economic policy broken. In other words, they do not want to exclude one from discussions about the other.

It is against this backdrop that the Council will try to decipher the true nature of poverty in Canada by developing a better understanding of certain key aspects, such as its causes, the number of individuals and families it affects, the "temporary" and "permanent" aspects of poverty, its characteristics, and its severity and duration. The Council hopes to arrive at recommendations that will offer governments a series of options for change geared to the Canadian taxpayer's ability to pay for such changes.

To find out more about this ambitious research project, *Au Courant* interviewed its director, Brian Powell, a senior economist with the Economic Council of Canada.

Au Courant: *What are the specific objectives of your research project?*

Powell: There are three basic objectives. First, to better understand the nature and causes of poverty and social disadvantage in Canada. Second, to consider how the whole array of federal and provincial programs, from the income tax system to social assistance, interact with each other and how these interactions impact upon people with low income. Third, to cost out various options for change.

In undertaking this research, we shall of course have to take into account the many difficult issues confronting social policy reform, including the old chestnut of efficiency versus equity, behavioural response to programs including the thorny issue of work disincentives, as well as matters of jurisdictional issues, institutional and administrative implications, and last, but not least, costs in terms of claims on government treasuries.

Au Courant: *Do you feel your research will provide new answers, ones that are different from previous research in this area?*

Powell: Yes. In order to provide new insights into the nature of poverty in Canada, we decided to build an ambitious new database that would allow us to track typical families and individuals through time. In this regard, we were inspired by the pathbreaking work of the University of Michigan in the United States. By following several thousand families through five, 10, and then 15 years, Michigan researchers called into question a number of commonly held beliefs about income distribution, poverty, and welfare dependence. Previously, researchers using cross-sectional databases – that is, snapshots at a point in time – found that low-income individuals and families always had the same characteristics. Many researchers then made the mistake of assuming that these low-income families were always made up of the same people – that is, a permanent class of poor in society.

The U.S. study, however, demonstrated the highly volatile nature of the

Brian Powell
Research director

incomes of individuals over time, taking them both into and out of poverty or welfare dependence. It also revealed that, over a 10-year period, almost 25 per cent of the U.S. population needed to make use of the American safety net of social programs at one time or another.

Our research will be aimed at examining the same kinds of questions for Canada. We will be looking at simple head counts of families and individuals below various poverty lines, as well as the depth of the poverty in which various subgroups of the population are situated. We will also examine a third dimension, namely, the duration of poverty and the causes of change in family circumstances.

Au Courant: *What will be your main research tools?*

Powell: We could not hope to emulate the American study where thousands of families were followed and interviewed periodically over many years. Such a study is costly and by definition requires almost a decade before results would be ready.

Instead, in conjunction with Statistics Canada, the federal government, the governments of Quebec and Nova Scotia, and the municipal authorities of

Halifax, we are creating a longitudinal *family*-income database using income tax data and administrative social assistance files covering, initially, the period 1982 to 1986. This database, which requires the merging of individual tax returns to create family income and then merging these data with social assistance records, is unique in Canada and for the first time makes it possible to study the dynamics of poverty and the dependence on government transfers. All of this is being done under carefully controlled conditions so that the researchers will never know the identity of the people being studied.

Au Courant: *What is involved in studying income dynamics and welfare dependants?*

Powell: By drawing a 10-per-cent sample from the our new longitudinal database, we can follow the fluctuations in income over time at both the individual and family level. We will be able to demonstrate the extent to which there is volatility in income flows with specific types of families and individuals moving up and down the income distribution scale. More importantly, we hope to shed light on the causes of such movement examining the extent to which both "social" and "economic" events are responsible for change. That is, the impact on family-income status caused by, say, marriage breakdown or teenage pregnancies. We will also explore the interactions between changes in family composition and changing employment conditions.

Au Courant: *How will you approach the whole question of social programs?*

Powell: Our research in this area is also highly innovative and, through the use of computer models, will show how all major federal and provincial social programs interact and their potential impact on families. For instance, we will be demonstrating how families of various types are "treated" by the system as a whole in terms of benefits received and taxes paid at various income levels. We can then assess how various components of government programs, such as tax back rates on benefits or child-care subsidies could provide positive or negative impacts on decisions to work or undertake training. We will be looking especially hard at how the system as a whole impacts upon issues popularized by the media and pressure groups in recent years such as the feminization of poverty, the working poor, and, of course, the children of those in poverty.

> ***"Many researchers then made the mistake of assuming that these low-income families were always made up of the same people – that is, a permanent class of poor in society."***

> ***"It also revealed that, over a 10-year period, almost 25 per cent of the U.S. population needed to make use of the American safety net of social programs at one time or another."***

Au Courant: *What kind of implications will your research have for policy development?*

Powell: We expect the research to provide suggestions for improvements in a wide range of the social programs. On a general level, the research should move us in the direction of treating the causes of poverty rather than the symptoms. More specific implications could be in terms of adequacy of benefits, the relationship of employment and training programs to income support, the equity and efficiency of the retirement income system, and the role of various programs in society that relate to children.

PUBLICATIONS

Annual Review

Legacies (EC21-1/1989E; $8.95 in Canada; US$ 10.75 outside Canada).

This year's Annual Review considers alternative courses of action which will leave more favourable economic legacies to future generations of Canadians. It looks into the next century, when more than double the present proportion of Canadians will be 65 years of age and over, and it examines how the working generation of that time will cope with the additional health-care and income-support costs. Finally it urges additional fiscal restraint and the early restoration of the federal government's fiscal balance.

Research Studies

Research studies are published by the Economic Council in both official languages. A list of titles is available on request, and ordering instructions appear below. Each study clearly attributes the findings and conclusions to the individual author, or authors, rather than the Council.

Canadian Prairie Farming, 1960-2000 – An Economic Analysis, by Ludwig Auer (EC22-161/1989E; $10.95 in Canada, US$13.15 elsewhere).

This study assesses the magnitude of the farm-financial crisis in the Prairie provinces, identifies the underlying causes, examines the effectiveness of existing government programs, explores alternative policy options, and projects what farm adjustments are likely to occur in the future.

The study begins with a review of the developments of the 1960s and 1970s and then addresses the events of the 1980s. It examines what impact the financial crisis had on the commercial farms, part-time and corporate farms, on farms located in different soil zones, on crop and livestock farms, in each of the three Prairie provinces. After describing some of the problems associated with the existing farm programs, it focuses on a new approach that would not link farm programs to individual farm commodities. It shows how such a system of "decoupled" farm programs could be designed to replace some or all of the existing farm programs. The workings of the system are illustrated by estimating its potential benefits and costs, to farmers and government, as they would accrue over a period of three decades.

Discussion Papers

Discussion papers are typically of a technical nature and are intended for distribution in limited numbers to individuals who may have a particular interest in these or related fields or research. Of varying length and complexity, these papers are reproduced only in the language in which they are written. Each paper is the sole responsibility of the author, and distribution under the auspices of the Council does not, of course, imply that the conclusions of the paper have been endorsed by the Council.

No. 363 "A computational analysis of alternative scenarios for multilateral trade liberalization," by *Alan V. Deardorff* and *Robert M. Stern.*

No. 364 "A general equilibrium analysis of the Canadian-United States bilateral trade agreement," by *R. Andrew Muller* and *James R. Williams.*

How to order

Research studies, Council reports, and technical papers are available across Canada from bookstores where government publications are sold. (A list is available from the Council on request.) These publications can also be ordered by mail from the Canadian Government Publishing Centre, Supply and Services Canada, Ottawa, Canada, K1A 0S9. (Please be sure to include a cheque or money order made payable to the Receiver General for Canada.)

Discussion papers and the *Annual Report* are available without charge from the Publications Division, Economic Council of Canada, P.O. Box 527, Ottawa, Ontario, K1P 5V6.

Are we reaching you?

If your address has changed, please let us know. Send the address label from this copy, along with your new address to:

Au Courant
Publications Division
Economic Council of Canada
P.O. Box 527
Ottawa, Ontario K1P 5V6