au courant

Economic Council of Canada
Volume 2, No. 2 1981

Canada's new fiscal arrangements

What energy means for the economy

More on government regulation

Technology in service industries

PUBLICATIONS

Research Studies

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

The following research studies have been published since the last issue of *Au Courant*.

Compensation of Pollution Victims in Canada, *by John Z. Swaigen* (EC-22-94/1981E, $7.95 in Canada, $9.55 elsewhere).

The Adoption of Computer Technology in Selected Canadian Service Industries: Case Studies of Automation in University Libraries, Hospitals, Grocery Retailing and Wholesaling, and Department and Variety Stores, *by Steven Globerman* (EC22-95/1981E, $5.95 in Canada, $7.15 elsewhere).

Energy Prices and Productivity Trends in the Canadian Manufacturing Sector, 1957-76: Some Exploratory Results, *by E. R. Berndt and G. C. Watkins* (EC22-96/1981E, $4.95 in Canada, $5.95 elsewhere).

Now available free of charge

The Economic Council's Annual Report for 1980-1981 has been redesigned to give readers more information on Council activities and future plans. Chairman David Slater talks about the key role played by the Council in efforts to explore and resolve today's complex economic issues, and discusses recent changes the Council has made to adapt to the current economic climate. Also included in this new report are details on the various research projects currently underway, and a look at some new ventures in the communications field.

For a free copy, write to the Communications Division (address below).

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 of research. Of varying length and complexity, these papers are reproduced only in the language in which they are written. Each paper is the personal responsibility of the author or authors, 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. 198 "An Exploration of Crude Petroleum Self-Sufficiency in Alternative Canadian Demand Environments," *by Bobbi Cain, H. M. Saiyed, assisted by P. Nevin and M. Willis*.

No. 199 "An Essay on Revenue and Spending Elasticities by Level of Government," *by R. S. Preston, B. L. Eyford and H. M. Saiyed*.

No. 200 "Canadian Crude Petroleum Self-Sufficiency in Alternative Domestic and International Pricing Environments," *by Bobbi Cain, H. M. Saiyed, R. S. Preston, assisted by P. Nevin and M. Willis*.

No. 201 "Westward Shift and Interregional Adjustment: A Preliminary Assessment," *by Kenneth H. Norrie and Michael B. Percy*.

No. 202 "Job Search, Duration of Unemployment and Subsequent Wage Gain," *by Surendra Gera and Abrar Hasan*.

No. 203 "The Impact of Canada's Old Age Security Program on Retirement Saving, Labour Supply and Retirement," *by Michael Daly and Peter Wrage*.

No. 204 "The Effect of Income Tax Incentives on Retirement Savings: Some Canadian Evidence," *by Michael Daly and Peter Wrage*.

How to order

The research studies listed above 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, Hull, P.Q., K1A 0S9. (Please be sure to include a cheque or money order made payable to the Receiver General for Canada.)

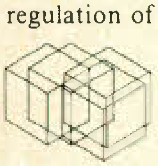
The discussion papers and annual report are available without charge from the Communications Division, Economic Council of Canada, P.0. Box 527, Ottawa, Ontario, K1P 5V6.

Economic Council of Canada

P.O. Box 527
Ottawa, Ontario
K1P 5V6

au courant

Volume 2, No. 2 1981



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

Au Courant est également disponible en français.

The major reports featured in *Au Courant* reflect the viewpoint of the Economic Council. Research studies, 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 prepared in the Communications Division of the Economic Council and published quarterly 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.

ISSN-0226-224X

NEW APPOINTMENTS TO THE ECONOMIC COUNCIL OF CANADA

Philip Barter is the senior partner of Price Waterhouse and Company, Chartered Accountants, in Vancouver, and is also the firm's senior partner in British Columbia. He is on the Advisory Board of the Vancouver Board of Trade and is chairman of the Faculty Advisory Council of the University of British Columbia.

Gordon Campbell Eaton is the managing director of the Newfoundland Tractor and Equipment Company of St. John's. He is also chairman of Seabase Limited, a director of the Royal Bank of Canada and a past chairman of the General Hospital Corporation and the Newfoundland Division of the Canadian Red Cross.

Eileen Forbom is general manager of United Broadcasting Limited in Sudbury. She is a former director of the Sudbury and District Chamber of Commerce and served for two years as chairman of the Chamber's Advertising Committee.

Shirley Goldenberg is an associate professor of Industrial Relations with the Faculty of Management at McGill University in Montreal. She is a former president of the Canadian Industrial Relations Research Institute and has served on the Executive Board of the Industrial Relations Research Association (U.S.A.) and on the Board of Governors of the Labour College of Canada.

Donald McDougall is a partner in the Halifax law firm of Stewart, MacKeen and Covert. A past chairman of the Atlantic Development Council and former member of the Canadian Radio-Television Telecommunications Commission, he is a member of the Board of Directors of Nova Scotia Textiles Limited and Maritime Broadcasting Limited as well as corporate secretary of Halterm Limited.

Paul Paré is chairman and chief executive officer of Imasco Limited and chairman of the Canadian Tobacco Manufacturers' Council. He has served on numerous boards of governors and is a director of many Canadian corporations, including Canadian International Paper Company, Canadian Pacific Ltd., Canron Limited and the Royal Bank of Canada. He is a member of the Advisory Council of the Better Business Bureau of Canada.

Federal-provincial discussions raise some key issues

There is no doubt that governments in Canada will be in a tight fiscal position in the coming years. The resource-wealthy governments in the West will not be sufficiently well off to counterbalance the deficit positions of other governments, even if they are willing to do so.

But although transfers of funds from the federal government to the provinces don't seem to be the main contributors to persistent deficits or surpluses at either the federal or provincial levels, it does not necessarily follow that the federal deficit should not figure in the review of the federal-provincial fiscal arrangements. Many of the arrangements were created in a totally different economic environment from the one Canada has now, and with that fact in mind, changing federal transfers to the provinces should be considered as a policy option.

Over the past few years, the Minister of Finance has said, the fiscal position of the federal government has deteriorated to a point where its freedom to initiate policies and programs has become severely limited. But at the same time, the overall deficit of provincial governments has turned into a surplus (although the seven provinces without oil and gas revenues continue to have deficits). Improving the position of the federal government has now become a priority for the management of the economy and to this end, the Minister of Finance has proposed a net reduction of federal transfers to the provinces.

However, it is important to recognize that there are substantial differences in the fiscal positions of the various provinces. The surplus position of the provinces as a whole is largely a result of the strength of the three western provinces, and especially Alberta. The federal government has already taken some major initiatives to redress the balance and following the October 1980 budget and the National Energy Program, the projections of the federal government's fiscal position have changed dramatically. If all the revenue and spending plans of the energy program are realized, the federal deficit will be reduced substantially, in fact that government could be in a surplus position by 1986, providing that it continues to exercise spending restraints.

The causes of the federal deficit are to be found in slow economic growth and persistently high unemployment, resulting in sluggish growth in government revenues and higher-than-expected government spending. Inflation has increased the burden of servicing government debt and indexing has reduced the extent to which governments benefit from higher levels of inflation. And all of this was aggravated by policy initiatives taken by the federal government in the mid-1970s to cut taxes and increase tax incentives and tax expenditures, while allowing tax exemptions to be exploited generously by various groups in the economy.

The fiscal arrangements between the two senior levels of government will be a major subject of federal-provincial discussions this fall as representatives of both levels of government renegotiate the Fiscal Arrangements Act which expires in 1982.
The Economic Council will publish a major report on this subject shortly. Earlier this year, Council chairman David Slater, along with David Sewell, director of the research project, appeared before the Parliamentary Task Force on Federal-Provincial Fiscal Arrangements. The material on these pages summarizes their presentation to that committee.

Many of these trends will probably continue in the forseeable future and there is no sign of a return to the strong levels of economic performance common to the early 1970s and the 1960s.

But the federal deficit problem cannot be solved by transferring the problem to the provinces. Not only do those economic trends indicate the inadequacy of such an approach, but also Council projections show that the coming decade will require investment at an unprecedented level in Canada – probably as high or higher than the peak periods of investment reached so far this century. This means that all governments will have not only to restrain their spending but also to raise taxes. Only then will they be able to encourage the financing of investment activities of the sort required.

Given the difficulties with restraint, the different levels of government will want to shift the burdens of any increase in taxes to each other. The political ramifications of policies calling for increased taxes inevitably lead in this direction. But this exchange of burdens goes nowhere towards solving Canada's economic difficulties.

In looking at potential cuts in federal transfers to the provinces, the case should be examined without prejudice. These transfers must be analysed separately as candidates for reductions just like all the other social programs the government funds. A cost-benefit analysis would help in judging how they compare with other federal social programs like manpower training or unemployment insurance.

Equalization

The equalization program originated with the 1940 report of the Rowell-Sirois Commission on Dominion-Provincial Relations. The objectives of the program have remained practically unchanged in spite of the 40-year interval and vast changes in circumstances of the federal and provincial governments. The Royal Commission recommended: "National Adjustments Grants be paid whenever a provincial government established that it could not supply Canadian average standards of services and balance its budget, without taxation appreciably exceeding the national average in relation to income."

Why do we need an intergovernmental transfer system when we have in place, at both levels of government, a well-established tax-transfer system

continued on page 6

Fiscal arrangements

continued from page 5

among individuals, households and firms for regulating the allocation of economic activity and the distribution of its fruits? The answer seems to lie in the fact that in a federal system such as Canada's, the incomes that people can earn through their own labours don't reflect completely the real incomes of individuals living in different provinces. People living in a high income province, for example, pay higher taxes, generating more income per head of the population and enabling the provincial government to provide more net benefits per capita (spending minus taxes) than would be possible in a province with a lower per capita personal income. On grounds of equity, then, there is a role for a redistributive transfer system that would even out the net fiscal benefits from provincial government activities across the country. On grounds of economic efficiency too, there is a need for full equalization of interprovincial differences in these benefits.

These arguments must be qualified, however, by recognition of the constitutional powers over natural resources granted to the provinces under the British North America Act. The implication is that residents of any province have certain property rights as far as that province's natural resources are concerned. On equity grounds, then, natural resource revenues which are actually distributed to provincial residents should be treated differently in an equalization program – only a part of those revenues should be "equalized". Resource revenues which are saved, for example by putting them into a Heritage Fund, should not be subject to equalization. But resource revenues which are used to provide implicit subsidies to the users of services, for example by setting artificially low electricity prices, would enter into the equalization program.

One type of equalization program suggested by the Council's research looks remarkably like the present program, with the significant exception that only part of provincial natural resource revenues should be equalized. The Council's research also examines different institutional options for equalization, including redistribution of natural resource revenues directly between provinces.

Established programs financing

The way in which established programs such as post-secondary education, health services, social services and welfare are financed raises a number of issues. But the most fundamental issues related to Established Program Financing (EPF) are neither those of deficit management nor of "equal" treatment in programs. Rather they concern the division of federal and provincial interests and responsibilities in the areas.

The most important current questions for EPF in the upcoming negotiations probably are: What is the "fair share" of costs for the EPF programs that should be attributed to each level of government? and, Is there any ground for believing that the federal government has paid more than its "fair share"?

There will undoubtedly be disagreement on the answers to these questions. The block funding system, whereby the federal government gives the provinces a block of money to cover all programs, is favoured by the provinces because they can spend the money as they wish. Many people, including some federal political leaders, have urged that strings be attached to the federal transfers to the provinces.

The federal Minister of Finance indicated a view that, whatever the structural arrangements may be, the amount of federal transfers to the provinces should be reduced.

If provincial governments are to be expected to shoulder more of the costs of these social programs, they may have to reduce the services they provide or increase taxes or user charges. Either way, the provinces will probably be worse off compared with the federal government. The situation is one where one level of government is shifting the burden of costs to another level without any real "gain" and it is a pure political choice that determines where the political pain and gain should lie.

Council research does seem to support a feeling of broad satisfaction with the cost-shared Canada Assistance Plan and there appear to be no strong reasons for either the federal or provincial governments opening up this program for any fundamental reconstruction in this round of fiscal negotiations.

Some economists feel that the equalization program prevents the efficient allocation of resources in the economy because it leads to factors of production (labour and capital) being retained in areas where their productivity is low. By subsidizing residence in regionally depressed areas through equalization of access to public services, the program undermines the automatic adjustment mechanisms such as the migration of labour which would otherwise help to improve employment and income levels in "have-not" provinces.

It is also alleged that "have-not" provinces have become dangerously dependent on transfer programs and because of the incentives that these programs provide, governments of these provinces do not have to bear the full political cost of provincial legislation that tends to maintain regional disparities. As a result, they are encouraged to enact legislation which is detrimental to their long-run economic well-being.

Although these views have become the "conventional wisdom" in important policy-making circles in Canada, the Council's research leads to other conclusions. The equalization program does not impair the efficient allocation of factors of production, in fact it actually is needed to achieve efficiency. Workers who decide to move from one province to another to look for work may base their decisions on differences in public benefits that provincial government activities provide. If those benefits are equalized from rich to poor regions, then migration choices will be based essentially on economic considerations and so labour will be allocated more efficiently across all regions and the economy as a whole will benefit.

Some other policy issues

Renegotiation of the fiscal arrangements between the federal and provincial governments raises some other issues that will be dealt with in the Economic Council's study. How is stabilization policy affected, for example? What about the taxation arrangements between the various levels of government? And what kind of problems are related to the special status that both federal and provincial crown corporations have?

The Council has commissioned studies of these different policy aspects and some of the results are now coming in.

As far as taxation arrangements between the two senior levels of government are concerned, the developments over the past 40 years have been, by and large, healthy. But there have been one or two disturbing developments in recent years. In particular, the attempts by provincial governments to institute tax measures which would discriminate in favour of provincial residents who receive dividends from com-

Fiscal arrangements

continued from page 6

panies with headquarters in the province concerned, must be viewed with distaste.

However, some of the tax differentiation which has emerged recently may be viewed as a legitimate attempt by the provinces to implement distributional objectives and can be regarded as a healthy example of rivalry between jurisdictions. Differences in fiscal capacity between provincial governments cannot be addressed by trying to impose uniformity in taxes. Instead of giving tax breaks to attract business, the "have" provinces could simply achieve the same objectives by "expenditure competition" or by regulations having the same effect.

The tax treatment of crown corporations does give cause for concern, though, both in terms of intergovernmental fiscal arrangements and in terms of the organization of the economy.

It has long been realized that the takeover of business activities by one level of government can shelter these activities from taxation by another level of government. An obvious example of this is what happened when various provincial governments took over the production of hydro-electricity. And as the number of both federal and provincial crown corporations increases, the problem may become more acute.

Even more important is the effect that the tax treatment of crown corporations may have on the allocation of resources in the economy. Not only are these organizations not subject to taxation, unless special intergovernmental agreements provide for it, but they are not required to earn a "normal" rate of return on invested capital. This means that they can outbid the private sector of the economy to get access to investment funds.

Canada Pension Plan

Lending money to the provinces

There are not many borrowers these days who could get a loan at way below the going rate and never have to pay it back. Provincial governments do it. They can borrow money from the Canada Pension Plan (CPP) and chances are that the money will never have to be repaid.

Since 1966, when the Canada and Quebec Pension Plans were started, the provinces – except for Quebec – have borrowed over $18 billion from this source. Quebec has its own plan and doesn't borrow from the CPP. More than $16 billion has been lent to the other provincial governments from the CPP fund at rates of interest as low as 5.29 per cent.

The Act of Parliament setting up the CPP provided that accumulated funds could be lent to the provinces at interest rates equal to the yield on Government of Canada marketable bonds of similar maturity. In exchange for money from the CPP fund, the provinces issue bonds – so far for 20-year terms only. Until very recently, there were only two Government of Canada bond series with 20-year terms and they had coupon rates of 6.5 per cent and 3.75 per cent. Although these bonds sold at a discount, the yield was still on the low side, allowing provinces to borrow at very favourable rates. In these days of high interest rates, clearly the provincial governments are on to a good thing.

How has it affected their finances? There have been suggestions that such a ready source of low-cost funds would encourage provincial and maybe municipal governments to spend too freely on projects that perhaps wouldn't see the light of day if the provinces had to raise the money on the financial markets and pay the going rate for it. They may also be tempted to step up government spending or raise less in taxes themselves.

Some economists just assume that provincial governments do, in fact, use their borrowings from the CPP to increase spending. And many people in the business community believe that the way the CPP is set up at the moment amounts to a payroll tax to finance provincial government activities rather than a bona fide pension plan.

As part of the Economic Council's study of pensions, Council economist Keith Patterson looked at how these borrowings from the CPP affect provincial and municipal government finances. In a discussion paper, just published, he comes to the conclusion that the cash flow from the CPP has increased total borrowing in the Atlantic provinces but not in other provinces.

Patterson's findings are based on a model of provincial and municipal revenue and expenditure from which he estimates the effect of different variables on the behaviour of the junior governments.

It's true, he says, that when the CPP/QPP first came in, total borrowings in relation to population increased substantially in all provinces except Saskatchewan, where the increase was quite small. But he points out that in the mid-to-late 1960s, the "baby boom" children were just starting university so provinces had to expand their post-secondary educational facilities. As Canada entered the 1970s, investment in educational facilities became less important, but more capital spending was needed in health and energy fields.

On the whole, he finds, total per capita borrowings increased more rapidly in the Atlantic provinces than elsewhere in Canada. Because they have a lower credit rating, the Atlantic provinces have to pay higher rates of interest than other provinces when they borrow in the market. This means that there is a bigger gap between market rates and rates charged on CPP borrowings, making CPP borrowings that much more attractive for the Atlantic provinces.

Patterson says that because they are trying to prevent their tax rates from getting too high in relation to those of other provinces, the Atlantic provinces would find it more attractive to borrow from the CPP rather than raise taxes. If low-cost CPP funds had not been available, he says, provincial government spending in this region would probably have been lower and these provinces would have generated more revenue themselves.

"The Effect of Provincial Borrowings from Universal Pension Plans on Provincial and Municipal Government Finance," by Keith Patterson. Discussion Paper No. 192.

A new income support program?

Special unemployment insurance benefits have created serious problems for the Newfoundland economy. And in its report on Newfoundland, published last year, the Economic Council suggested it might be better if they were replaced with some other form of income supplementation. For about the same amount of money that is now being spent on special benefits for fishermen and extended benefits given to Newfoundlanders because the province is a high unemployment region, it would be possible to have a different system that would not have such a negative impact on the economy of the province.

In a discussion paper, published recently, Council economist Richard Zuker explains how it could be done. The system would be based on annual family income, rather than on income replacement for individual workers who lose their jobs.

Regionally extended benefits come into effect when regular unemployment insurance payments come to an end in any area where it is especially difficult to find work. They are financed from federal government revenues rather than from employee contributions. The special benefits going to self-employed fishermen are also largely government-financed – the premiums paid constitute only a fraction of the benefits paid out. Zuker argues that both types of benefits are really a form of income supplementation.

But the problem with relying heavily on the unemployment insurance program for income supplementation and protection against income inadequacy, he says, is that "the distribution of benefits will not necessarily be in correspondence with need." Zuker's assessment of "need" is based on looking at how lower income groups fare compared with higher income groups in terms of receiving UI benefits and comparing benefits paid to families in similar financial circumstances.

Although no specific information was available on the distribution of regionally extended and fishermen's benefits, the study looks at how unemployment insurance benefits generally are distributed to families and individuals in Newfoundland and draws some tentative conclusions. The author found that:

- Average per capita benefits in families where total family income was less than \$5,000 a year were only about half those received by families whose total income was in the \$5,000 – \$10,000 range;
- Average per capita benefits paid to individuals who were not part of a family were about three times higher for those in the \$5,000 – \$10,000 income range than for those with incomes less than \$5,000 a year;
- Children 18 years or older and still living at home received the highest per capita benefits of all types of family units with incomes up to \$15,000;
- In all income ranges, per capita benefits for families of fishermen were greater than for all families with children.

Small sample

Zuker warns that the data relate only to the distribution of benefits and in many cases are based on small sample sizes, so they should be viewed with some caution. But he concludes that while it could be argued that unemployment insurance is paid to individuals in "need" because they have lost their jobs, the program "is rather insensitive to relative need within the class of recipients and families with equally inadequate incomes may not be eligible for benefits," – for example, those working year-round at low wages.

As one possible solution, Zuker suggests dropping the regionally extended benefits and special benefits to fishermen and redirecting the funds that financed them towards a fairer scheme of income assistance. Using a model developed by Health and Welfare Canada, he has tried out some alternate plans for supplementing low incomes. His simulations were limited mainly to one- and two-parent families with children under 18 years of age.

All the schemes are made up of various combinations of four components:

- The type of program – one possibility would specify eligible families must have at least \$2,000 annual income from employment. Maximum benefits would go to families with incomes between \$2,000 and \$5,200 and be reduced as incomes rise above those levels. Another possibility would not specify any mandatory income requirement but benefits would increase up to the \$5,200 income level and be reduced thereafter;
- Within these programs there could be low benefits, with each family getting a maximum of \$1,000 plus \$550 for each child, or there could be high benefits with \$2,000 per family and an additional \$1,000 per child;
- Families whose net income was more than \$5,200 would have benefits taxed at a rate which could vary from 33.3 per cent to 50 per cent.
- Because no information was available on what percentage of family income comes from special UI benefits, it was assumed that total unemployment insurance benefits would have to be reduced by some percentage to reflect the elimination of the special UI benefits. The simulations included reductions of total UI benefits by 30 per cent, by 40 per cent and by 60 per cent.

How could such a program be financed? Spending on regionally extended benefits in 1978 amounted to \$81.5 million and another \$19 million was paid out in fishermen's benefits that year. After taking taxes paid on these benefits into account, Zuker estimates that these special benefits cost the federal government about \$88 million. Social assistance payments, financed equally by the federal and provincial governments, totalled \$52 million in the same year. It is not clear to what extent these benefits could be reduced if some new income supplementation scheme were introduced.

What it would cost

Zuker estimates that it would cost about \$112 million to provide benefits of \$2,000 per family plus \$1,000 per child, with maximum benefits going to those families with incomes between \$2,000 and \$5,000. This estimate assumes 50 per cent of benefits would be taxed back from those families whose income exceeded \$5,500. At a 33.3 per cent tax-back rate, the total cost would be about \$164 million. But in any case, he says, some of the money now being spent on transportation subsidies might be much more beneficially allocated to Newfoundland through a low-income supplementation program.

"Simulating Some Income Supplementation Programs for Newfoundland," by R. C. Zuker. Discussion Paper No. 195.

New technology

Boosting productivity in services

Given the growing conviction that new technology can give a real boost to productivity in most industries, the recent interest in how Canadian companies are coping with technological change should come as no surprise. Most analysis so far though, has concentrated on the spread of technology in the manufacturing industries.

Many economists believe that the growth of the service sector of the economy may be contributing to Canada's poor productivity performance over recent years. There is also some feeling that the conventional productivity measures may not be appropriate for the service sector.

Simon Fraser University professor Steven Globerman says that a more fundamental issue is the need to determine whether slower implementation of new technology has contributed to productivity problems in the service industries. In a study prepared for the Economic Council he focuses on the largely unexplored area of technological change in the service industries and looks at how computer technology has fared in four service industries – libraries, hospitals, retailing, and wholesaling. Electronic data processing was chosen, the author says, as probably the single most important innovation for the service industries recently and because there are still plenty of opportunities to improve productivity in the service sector with computer automation.

Finding out how rapidly the four industries picked up and assimilated computer technology, and why some were quicker off the mark than others, could provide a wealth of useful information to policy makers intent on solving the sector's productivity problem, Globerman says. Evidence that a firm's decision to innovate is influenced by its size, management, geographic location or need to compete, or even government measures now in force, could have significant bearing on future policy decisions.

Globerman's research has come up with some interesting results. To begin with, it is by no means clear, he says, that rapid adoption of new technology always pays off. Hospitals, for example, have hurried in the past to buy prestige equipment whose benefits may not have justified the costs. So studies showing that Canadian firms lag behind those in the U.S. in the acquisition of technology have to be interpreted with some care.

Nor, somewhat surprisingly, does the author find that big firms necessarily pick up and use computer systems faster and more effectively than smaller ones. Perhaps popular assumptions that the high cost of new technology makes it more accessible to large companies are over-rated, Globerman says.

National Film Board of Canada

High tech at the library

Or it may be that bigger firms lack some of the initiative of smaller ones. Where large industries predominate, he observes, competition may be limited, so there is less impetus to try out new ideas. Department stores in the Prairies, for example, have been slower to automate than those in other provinces where small department stores compete energetically with the big ones.

So Globerman found no grounds for encouraging increased size of firms or organizations in any of the four industries he surveyed. Yet policies nowadays tend to follow the theory that amalgamation of small service organizations will hasten the spread of technology. A much better approach, Globerman says, might be to make it easier for small firms to plug into part of a technological network, or use one element of it, such as mini-computers.

In the case of libraries, for example, only the very largest can afford the heavy costs of developing, maintaining and operating complex computer-based systems. In hospitals too, says the author, provincial ministries are far too committed to the concept of large technological networks, when mini-computers would be a boon to small and medium-sized hospitals.

Competitive conditions and managerial attitudes count a lot, Globerman's research seems to show. University libraries, for example, are more likely to pick up computer technology such as computerized check-out of books and microfiches, when the workload becomes heavier or when they have to compete with non-university libraries. And they are less inclined to do so the more the professional librarians – the managers – outnumber the clerical staff, perhaps because the former group see automation as a threat to their job security.

Providing libraries with an incentive to become more efficient – for instance, by allowing them to keep some of the savings they make through automation in their next year's budget – might improve the situation, Globerman says, as would giving small libraries the chance to automate economically.

In hospitals too, Globerman found management attitudes tended to hinder the spread of technology. Although using computers for hospital payrolls and billing systems definitely saves money and increases efficiency, hospital administrators often resist this innovation, perhaps because they don't like taking risks, and lack understanding of computing systems. Universal funding policies, which dole out money regardless of performance, may encourage inefficiency and penalize capable administrators. Instead, provincial policies should be providing hospitals with financial incentives for efficiency, Globerman says.

The Adoption of Computer Technology in Selected Canadian Service Industries, by Steven Globerman (Catalogue No. EC22-95/1981E; $5.95 in Canada, $7.15 elsewhere).

ENERGY
What it means f

Although economists are often accused of not being able to agree on anything, there is virtual unanimity in the profession right now that the future of the Canadian economy over the next decade will depend on energy.

The Economic Council itself, in its 1980 Annual Review described energy investment as about the only good thing the economy has going for it. But what if those energy projects don't materialize? Will Canada, dependent as it is on imported oil, still be subject to the vagaries of OPEC pricing, pushing the inflation rate even higher than it is now?

Will it be possible for Canada to become self-sufficient in energy over the next decade and what will happen if that goal of the National Energy Program is not achieved? Suppose that Canadian consumers resist the massive shift to natural gas and other forms of energy – a shift which is vital if the National Energy Program is to succeed?

One advantage of having an econometric model to play around with is that some or all of these possibilities in a variety of different combinations can be run through the computer to provide answers to economists and guidance to policy-makers. And earlier this year, the House of Commons Special Committee on Alternative Energy and Oil Substitution asked the Economic Council to check out how the economy would be affected if Canada were to reduce its dependence on imported oil over the next decade.

The Council's Performance and Outlook Group uses the CANDIDE econometric model to carry out this kind of investigation on a regular basis. Each year, in preparation for the Annual Review, Council economists outline a basic projection of the economy. Referred to as the "base case," this projection is then used as a reference point against which various policy options are tested. (In the previous issue of *Au Courant*, we reported on the spring update of this "base case," completed in May this year.)

Although the different energy scenarios were tested against the base case developed for the Council's 1980 Annual Review, they show very clearly how the Canadian economy is affected by this country's dependence on imported oil.

The simulations were carried out by Council economists Bobbi Cain and Haider Saiyed with the help of Patricia Nevin and Margaret Willis. They test out various combinations of demand, supply and price:

- Demand for oil could continue on the high side, increasing by just over one per cent a year over the next decade – about in line with assumptions made by the National Energy Board in its 1978 Oil Report. But if the National Energy Program's assumption proves correct, demand for crude petroleum will drop by about 2.6 per cent a year over the decade – the low-demand scenario.
- Three supply possibilities are considered: high demand would be met by developing western Canada's oil sands to achieve oil self-sufficiency; what would be the oil self-sufficiency requirements if low demand materializes; what would happen if, because of the legislative and political climate, all scheduled and potential oil sands projects are cancelled?
- Two possible world pricing environments are considered: the annual increase in international oil prices could be from one to one-and-a-half percentage points more than Canadian domestic prices; the real international price of crude petroleum could increase by seven per cent a year over the next ten years (implying that by 1990, the international price of crude petroleum would reach about $150 a barrel in Canadian dollars). The different assumptions about world oil prices are factored into the National Energy Program's blended pricing scheme which has consumers paying a price based on a combination of domestic wellhead price, transportation costs and petroleum compensation charges.

If Canada can reduce its dependence on petroleum, the economists say, the results will be beneficial to all sectors of the economy – especially if it can wean itself from its dependence on imported oil.

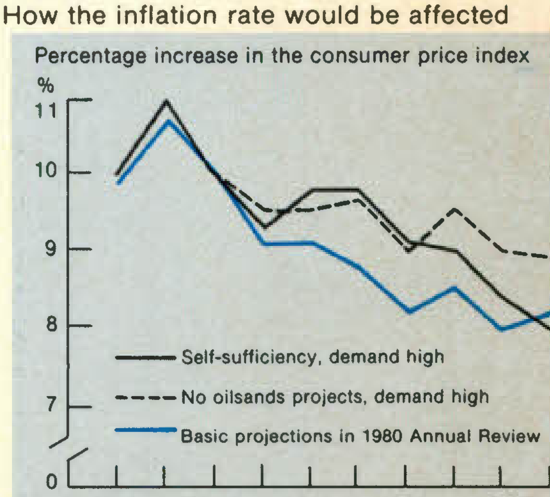
"The availability of domestic crude petroleum supply and the level of demand for that crude petroleum affects not only the more obvious factors such as the balance of payments and investment activity within the economy," the authors say, but also severely affects the level of inflation in Canada.

Their simulations show that "the configuration of supply and demand has major implications for the Canadian economy" especially given the energy program's blended pricing scheme. As a result of this scheme, international oil prices feed directly into Canada's inflation rate. "Our reliance on imported oil, priced at the vagaries of the OPEC cartel, is directly transmitted through price effects to every energy consumer in the country," say the economists.

"Our ability to reduce this reliance is directly related to our ability to reduce our thirst for crude petroleum and our ability to formulate an investment and regulatory climate conducive to increased energy production."

"An Exploration of Crude Petroleum Self-Sufficiency in Alternative Canadian Demand Environments," by Bobbi Cain, H. M. Saiyed, assisted by P. Nevin and M. Willis. Discussion Paper No. 198.

How the inflation rate would be affected



If
se
in

The
Summ

Consun
Federal (deficit percent
Provinc (deficit percent
Current of paym as a pe
Employ projecti Review
The sel natural will be

POLICY
or the economy

Canada becomes
lf-sufficient
oil...

picture at the end of the decade

ary of selected economic indicators for the year 1990

	World price low		World price high		Sudden price increase by OPEC	
	No large projects	Self-sufficiency	No large projects	Self-sufficiency	No large projects	Self-sufficiency
ner Price Index increase	8.3%	7.3%	10.4%	9.4%	8.9%	7.5%
government balance or surplus) as a age of GNE)	-1.9%	0.8%	-6.6%	-0.1%	-3.5%	0.6%
ial government balances or surplus) as a age of GNE	0.7%	1.3%	1.2%	1.7%	0.9%	1.4%
account of the balance ents (deficit or surplus) rcentage of GNE	-3.0%	0.2%	-6.5%	0.1%	-3.2%	1.1%
ment change from basic on of 1980 Annual (thousands)	-910	+508	-205	-142	-805	-32

-sufficiency alternative includes the October 1980 budget's blended price for oil and pricing schedule for gas, and therefore assumes that the federal government's contribution to the oil import subsidy program eliminated.

What will it take to make Canada self-sufficient in oil? If this country's needs for oil are to be met exclusively from oilsands production, there would have to be five new oilsands plants in operation by the end of the decade – and that would be in addition to the Alsands and Cold Lake projects now on the books.

Normally, it takes about six years to build an oilsands plant and bring it on stream and industry experts say that it would be difficult to speed up the process very much, even if oilsands production were considered a matter of national emergency.

In other simulations, carried out by the Council's Performance and Outlook Group for the Alternative Energy Committee, different ways of achieving oil self-sufficiency were looked at in conjunction with three different assumptions about world oil prices. Council economists tried out four possible degrees of oil self-sufficiency:

- Reaching self-sufficiency by 1990 solely through the development of western Canada's oilsands;
- Trade in fossil fuels could be in balance by 1990, through a combination of increased oilsands development and enhanced recovery activities;
- Oilsands projects now scheduled would be completed, giving at least some degree of self-sufficiency;
- Many scheduled and proposed projects might be cancelled, forcing an even greater dependence on imported oil.

On world oil prices, three eventualities were taken into consideration:

- World oil prices would increase by about one to one-and-a-half percentage points a year more than Canadian domestic prices over the next ten years. (The economists refer to this as a "real" price increase because it is over and above the general level of price increases);
- World price increases would average the same as in the first scenario, except that OPEC would impose a $15 a barrel real price increase in the price of crude petroleum in 1986, after which real price increases would again continue to average one to one-and-a-half per cent a year until 1990;
- The real price of international oil would increase by seven per cent a year over the rest of the decade.

Some of the results of the simulations are summarized in the table. One particular combination of possibilities appears to have a generally favourable impact on the economy. It assumes a blended pricing scheme for oil which would be sensitive to world prices because the domestic oil price would be a weighted average of import and domestic costs and would allow the phasing out of the federal contribution from general revenues to the oil import subsidy program. These assumptions are similar to the provisions of the October 1980 federal budget.

In combination with a low price for natural gas, and assuming oil self-sufficiency could be achieved, in this case through the construction of tar sands plants, the researchers list a number of favourable effects: there would be an investment boom in mid-decade; by 1990 Canada would have a stronger dollar; 1.8 million more person-years of employment would be generated during the decade; the contribution from general revenues to the subsidy program would be eliminated; all levels of government would have budget surpluses; and there would have been a considerable contribution to western development by way of large provincial surpluses in the West during the decade.

"It is clear that self-sufficiency in a blended price environment produces a large number of pluses," says the report. "The choice is obvious from these results. Implementing the choice is not easy." The Council economists point out that "it requires among other things some very hard decisions about revenue splitting between levels of government, and some very difficult resource boom management problems for the Western provinces."

"Canadian Crude Petroleum Self-Sufficiency in Alternative Domestic and International Pricing Environments," by Bobbi Cain, H. M. Saiyed, Ross Preston, assisted by P. Nevin and M. Willis. Discussion Paper No. 200.

1990

Reforming Regulation

Transportation... trucking, railways...

From canoe routes, to railways, highways and airlines, the process of transporting goods and people across Canada's vast distances has determined much of our history and development as a nation. And Canadian governments have intervened with financial support and regulations to make sure national goals were met – whether that was building a national railroad, a transCanada highway or a national airline.

Many transport regulations have outlived their original purpose. They no longer contribute to national objectives, economic growth, or efficiency and are badly in need of reform, according to the Economic Council's report on government regulation of the economy.

Regulation of this sector of the economy is extremely complex because so many different kinds of transportation and different levels of government are involved. Transportation of passengers by air and rail is regulated by the federal government, but intercity buses come under provincial regulation.

Freight transportation by rail, air and water is largely subject to federal regulation, but trucking is regulated by the provinces. And transportation by taxis is generally subject to regulation by municipal authorities.

The early history of government regulation of transportation activity is one of giving subsidies and protection to new forms of transportation as they developed and of regulating the rates and service to be provided. Whether it was railways in the nineteenth century or Trans Canada Airlines in 1937, both fledgling services were provided with a virtual monopoly.

It wasn't until the early 1960s that policy makers acknowledged the need for basic changes in the process of regulation to meet the new competitive reality in transportation. After the report of the MacPherson Royal Commission on Transportation in 1961, some competition was introduced in many fields. But some regulations permitting reduced rates for specific regions and industries were retained. The Crow's Nest Pass agreement, for example, which dates from 1897 and is probably one of the best known and most controversial of such arrangements, provides for movement of grain from the Prairies at artificially low rates.

In this case, the Council says, maintaining low rates has just served to reinforce the disadvantages of moving grain relative to transporting bulk commodities such as coal, sulphur, potash and other minerals and concentrates that are more suited to rail transport. As well, the agreements have discouraged much-needed investment by the railways to expand and improve the efficiency of their grain handling operations.

On the other hand, 1967 changes in the Railway Act resulted in increased competition between rail and truck transport, bringing rail rates more in line with costs and giving shippers more incentive to offer new types of services. The Council says that the two major railways have continued to achieve an impressive rate of productivity growth.

The Economic Council's report on government regulation of the economy was published earlier this year. The highlights from that report, Reforming Regulation, *were presented in the last issue of* Au Courant. *On these eight pages, we present more of the Council's findings, along with reports on some of the research papers that were prepared as part of the study.*

But the mounting cost of special subsidies for favoured regions has resulted in economic losses and there is a powerful argument for changing the system, the Council says. The problem will be to carry out the needed reforms without being unjust to those who have come to depend on subsidized rates.

The Council recognizes the need to protect regions of the country where no alternative to rail services is available. It says the Canadian Transport Commission should be given "substantial freedom," in responding to requests for favourable rates and such requests should be settled as quickly as possible.

In these situations, decisions on particular rail freight rates should not be based on the "ambiguous" concept of public interest or on conformity to a restrictive formula, but on judgements as to the excessiveness or unreasonableness of a given rate compared with rates applying to similar services.

The Council would also like to see increased competition between rail transportation and the main alternative, trucking. The acquisition of trucking firms by railways should be carefully reviewed because this could seriously diminish such competition.

Regulation of trucking is more elaborate and more complex than almost any other kind of industrial regulation, the Council found. All provinces control entry, through licensing, into interprovincial trucking and all except Alberta control who will engage in trucking operations within their respective borders. The provinces generally extend exemptions from licensing requirements to private trucking, intra-urban trucking and the initial for-hire movement of farm, forest and sea products.

Licensing restrictions in each province may extend to the kind of freight carried, routes followed, origin and destination of shipments, intermediate points served, type of truck used or frequency of service required.

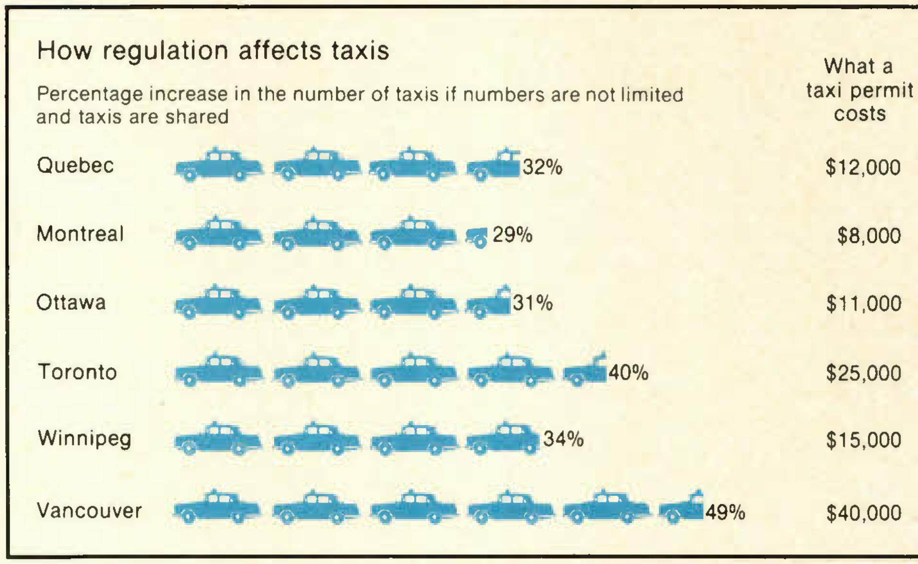
These rules are administered and enforced by a separate authority in each province. It is estimated that the direct cost of applying for new licences and opposing applications of potential competitors runs to over $40 million annually.

Because large firms are best able to bear the financial burden of the licensing procedure they can often develop an efficient routing system and overcome many of the inefficiencies resulting from licensing restrictions. The system therefore favours the growth and profits of large trucking firms at the expense of their small competitors. As usual, the user of trucking services bears the final burden of regulation, both in terms of cost and quality of service.

Existing restrictions on the operating freedom of trucking firms should be removed, says the Council. A more simplified licensing system is recommended that would still control entry to the industry but would increase competition and efficiency and lead to lower costs. There should also be a relaxation of restrictions on trucking between corporations not in the trucking business so that more efficient use would be made of private trucking.

The Council says that a better way of regulating inter-provincial trucking would be to assign the responsibility to a permanent committee, representing all provinces and the federal government, and working under the auspices of the Canadian Conference of Motor Transportation Administration. Provincial boards would continue to control entry into intraprovincial trucking.

... and taxis



A common complaint about taxis is that you can never find one when you really need one.

Others see taxis as a wasteful form of transport that congests downtown traffic and wastes fuel, all for the benefit of a single passenger per ride.

The cause of these complaints, according to Council economist Benoît M. Papillon, can largely be found in the web of regulations that control the operation of taxis in Canada. In a paper prepared as part of the Economic Council's report on government regulation of the economy, Papillon finds that regulation restrains the expansion of taxi services and restricts their potential role as an essential component of urban transportation systems. It also works against the interests of the consumer and of drivers who rent taxis from fleet operators.

Papillon says that it is a common misconception that taxi services are a "luxury" mode of transportation, reserved for those earning enough to avoid buses and unwilling to use their own cars. Studies in the U.S. and Canada have demonstrated that taxis are in fact the sole possible recourse for a large number of people who don't own cars but need direct transportation from one doorstep to another.

Estimates for major U.S. cities indicate the majority of taxi users in 1972 came from families with incomes below $5,000 per year. Another study found that one-third of the regular taxi users in Winnipeg are elderly or handicapped.

Papillon concludes that despite its high cost, taxi service is becoming an indispensable way of getting around for a large element of the population who need a quick means of transportation operating with flexible schedules and routes.

Taxis, he says, are for many people – particularly the elderly, the handicapped and the poor – a necessary substitute for the private automobile and a much needed complement to urban mass transit systems.

Government subsidies for mass transit result in consumers paying only between 45 and 80 per cent of the real cost of the services provided. The users of taxis on the other hand bear not only the entire cost of the service but are subject to an additional charge brought about by the limitation of taxi licences, which creates high market values. New operators purchasing licences pass the market cost on to the consumer. This hidden charge can represent between 5.1 per cent (in Montreal) and 21.1 per cent (in Vancouver) of a taxi fare. This amounts to millions of extra dollars each year that consumers pay to taxi operators because of current regulations.

Papillon argues that despite heavy subsidies, the ability of mass transit systems to meet the needs of specialized groups of users is decreasing. At the same time the use of taxi transportation by these groups has increased even in the face of a hostile regulatory climate. He says that the cost of using taxis could be greatly decreased, and their use greatly increased, by basic changes to regulations controlling their operation.

Taxi services in most Canadian cities are regulated by local governments – usually through municipal commissions. Only Quebec has an overall law governing the regulation of taxis in its cities. And in Manitoba, the provincial government retains regulatory control over taxis in Winnipeg.

Although taxi regulations vary enormously across the country, nearly all have the same effect – they create monopoly situations by sharply limiting the number of cabs that may operate in any given area. Most also discourage the use of taxis by more than one passenger per trip, maintain fees at rates that far surpass the actual cost of the service and effectively limit the number of jobs available in the industry and the income of drivers who rent vehicles from taxi operators.

The result is high cost and inefficient utilization of taxi services.

Papillon calls for reform of taxi regulations to increase the number of taxis allowed to operate in any given area and for lower taxi fares which, he says, would increase demand for taxi services. The net result would be a more efficient service, greater employment in the taxi industry and a closer integration of taxi transportation with other forms of urban transit.

"Analyse du transport par taxi et de ses réglementations au Canada," by Benoît M. Papillon. Technical Report No. 9.

The environment

There is no time to be lost in dealing with the issues of environmental pollution, according to the Economic Council. Already, the damage caused by acid rain is so extensive that it is about to become irreversible unless regulation of sulphur dioxide emissions is enforced more firmly. And there are other environmental issues that still have to be addressed – the possibility of devastating accidents at nuclear power plants, the disposal of toxic chemicals and radioactive wastes, the potential danger to fish and sea mammal habitats from massive oilspills that could result from offshore oil wells, and genetic engineering as it may be applied to agriculture and forestry.

The Council's report on government regulation of the economy offers alternatives to the conventional approach to protection of the environment. It comes up with a system of financial incentives that it says would encourage firms to introduce cost-effective techniques for controlling waste and pollution rather than requiring them to meet specific technological standards that may not necessarily be appropriate for their operations.

Although all the evidence is not yet in on the effects of acid rain, the Council rejects the argument that sulphur dioxide emissions should not be regulated until complete knowledge is available. It also rejects the view that the immediate costs of reducing emissions are greater than the longer-term benefits of preserving the environment. And to those who claim that the cost of implementing effective pollution controls might make it harder for companies to compete in international markets, the Council points out that many of Canada's trading partners, including Japan, impose and enforce much more severe emission standards than Canada does.

Most of the capital investment in environmental protection projects has been funded by the public sector, the Council says. Although the pulp and paper industry reportedly allocated 13 per cent of total new capital investment funds to environmental projects, other industries have spent much less than this, in spite of "widespread support and declared intentions." And the proportion of business investment allocated to the environment in Canada is only about one-third of that in the United States.

Governments and regulators "seem to have made generous accommodations" for industry, the Council says. Although in most cases the law provides penalties for violation of pollution regulations, "most of the aggregate fines levied have been trivial." The system now in place results in a process of bargaining for compliance, where enforcement agencies use formal standards as a starting point for negotiations and then settle for a compromise that is reasonably satisfactory to both parties. The danger is that legislators try to satisfy their environmental constituents by "the symbolic act of passing tough-sounding pollution control legislation and then appease industry constituents by failing to enforce that legislation vigorously," the Council says.

". . .while Canadians desire a cleaner environment, they may not always want to bear the direct costs or incur the consequences in terms of price inflation and unemployment."

The Council suggests three possible approaches to improve the incentives for polluters to reduce their harmful discharges into the environment:

- There could be a system of discharge fees. Companies which pollute would be charged for doing so and the more they pollute, the higher the fee. The fees would have to be set in such a way that it would be cheaper to install pollution control equipment than to pay the emission fees.
- Emission permits could be distributed or auctioned to polluters who in turn could trade them in a market similar to a futures market. The system would be set up so that the total emissions permitted would not exceed what the air, water or soil in a particular region could absorb safely. Polluters who reduced their emissions could sell their excess discharge capacity to the highest bidder. This system would only work effectively if the polluters are located in the same area.
- A third possibility would be a penalty for delay in implementing pollution control. Under this system, each polluter would be given a schedule specifying the maximum allowable emission of a pollutant which would decline over time. If the polluter did not stick to the schedule for reducing emissions, an automatic penalty would be imposed.

Because there would be a number of practical problems involved in implementing any of these schemes, the Council suggests that the authorities consider pilot projects in certain airsheds or watersheds. Or there could be other devices such as subsidies and tax incentives to help control pollution as well as authority to impose heavy fines on polluters who refuse to comply with control orders.

The Organisation for Economic Co-operation and Development (OECD) has advocated the use of financial incentives in controlling pollution for some time now and the Canadian government has supported this stand. No matter how the costs are imposed, the Council says, the polluter should be the first to pay, though the principle is not violated if the costs are passed on in the form of higher prices, or shared with governments through subsidies and other encouragements.

The Council says that schemes which depend on market forces to allocate environmental resources "have remained largely on the shelf," seemingly because they are difficult to implement and because of the successful opposition of those who felt threatened by them. Industry officials don't like these schemes because they feel they would have to pay twice – they would have to buy a permit or pay an emission fee and they would also have to pay for pollution control installations. Environmentalists don't like the schemes either because they think the fee and permit systems sanction the right to foul the air and water.

The success of such schemes depends partly on setting standards at the beginning that are consistent with the estimated benefits of cleaner air and water. Those governments that have adopted them usually add them to the more traditional control regulations.

Whatever the mechanisms used, environmental issues are but part of a much broader panoply of social and economic concerns, the Council says. "For while Canadians desire a cleaner environment, they may not always want to bear the direct costs or incur the consequences in terms of price inflation and unemployment."

National Film Board of Canada

Pollution victims

Polluters to pay

It's difficult enough to deal with environmental protection and to develop regulations that will discourage industry from damaging the surrounding earth, air and water with harmful emissions and dangerous wastes. But what of the victims of pollution? Should they be compensated in some way? And if so, who should pay? Does society or the polluter have some responsibility to those who are harmed by pollution?

Over the past few years there have been several major incidents that have caused considerable alarm. Mercury pollution in the English-Wabigoon river system, Lake Erie and Lake St. Clair, the Love Canal case, dioxin contamination in Seveso, Italy, the nuclear power plant accident at Three Mile Island, and the Mississauga train derailment have highlighted the question of compensation and made it into a central issue of the environment debate.

In a study prepared as part of the Economic Council's work on regulation, John Swaigen, of the Canadian Environmental Law Association, advocates the establishment of a broad-based, comprehensive system for compensating pollution victims. Clearly it is unfair, he maintains, to compensate those who are run over by a car, or injured while helping the police to catch a criminal, or struck down by cancer as a result of some occupational health hazard, yet not to do anything for a person who is exposed to hazardous substances in the natural environment. "There is no real difference in principle in these cases," he says, "and there should be no difference in result."

The fact that we don't have such a system yet can be explained by society's ambivalance towards pollution, Swaigen says. Is it an inevitable by-product of a life-style from which most people benefit? Or is it a wrong for which the perpetrator should be held liable? So far, Canada does not seem to be able to make up its mind. But there does seem to be a world-wide trend developing towards the establishment of compensation mechanisms. Japan has more stringent liability provisions than any Canadian jurisdiction and the United States had proposed more stringent liability, but now that country seems to have backed off.

Swaigen says there is no evidence that general economic welfare would suffer if a compensation system were introduced. If industry were made financially responsible for compensating pollution victims, it would have to pay increased insurance premiums and might incur some liability for the uninsured portions of a loss, but there is no reason why industry could not shift this financial burden and no evidence that it would cause any undue hardship.

There are a number of ways in which such a compensation system could be set up. They range from forcing the polluter to pay the whole shot, to compensating victims from government funds. Swaigen favours a mixed system where the government would set up a compensation fund by imposing levies against industry. The right of individuals or the government to sue a specific firm for damage suffered could be retained under certain conditions. There are several features that could be included in the scheme:

- All industries could be required to pay a low basic levy – even those industries that appear to have little or no pollution potential. Substances believed to be harmless today may prove hazardous in the future, he says.
- Industrial sectors known to be creating higher risk might pay an additional levy to reflect this.
- Individual polluters who don't shape up, failing to comply with government standards or not installing proper pollution control equipment, might be required to pay a surcharge into the fund.
- Government could also contribute to the fund on the grounds that "since society benefits from having products and services that necessarily entail pollution, society should share the cost of compensation for pollution" – although Swaigen himself disagrees with this viewpoint.
- The victim could also be required to absorb some of the cost in the way that many insurance claims have a "deductible" amount. Here again, the author believes it is wrong in principle to expect the victim to absorb part of a loss he had no responsibility in creating.
- The victim could be given the option of suing the polluter directly rather than going to the fund for compensation, or the individual might be allowed to sue the polluter directly for any part of the loss or damage not covered by the payment from the fund.

Swaigen points out that the kind of mixed system he is advocating may not ultimately succeed or it may prove to be merely an intermediate step on the road to a fully-run government system that doesn't attempt to provide any deterrents to polluters. But he says that experience with fully public compensation schemes and social welfare schemes in other areas is far from encouraging. A direct comparison in the pollution compensation field is not possible because no fully public schemes exist. "It may not be the ultimate solution to the problem of providing compensation to pollution victims," he says, "but it is bound to be a vast improvement over the present regime."

Compensation of Pollution Victims in Canada by John Z. Swaigen. (Catalogue No. EC22-94/1981E, $7.95 in Canada, $9.55 elsewhere.)

Land development

Canada Mortgage and Housing Corporation

The high cost of development

Perhaps the main reason why the Economic Council was asked to undertake a study of government regulation of the economy was concern about how regulation was affecting Canadian business. Business people themselves had lots of complaints about regulation, as the Council found out during the course of its work. They were particularly concerned about overlapping jurisdictions between different levels of government.

But one of the issues that came up over and over again – particularly from the small operators – was the problems they have had in coping with a multiplicity of land use regulations covering municipal development. Changes in zoning by-laws, difficulties in getting a building permit, delays in having development plans approved, clearance from provincial officials, all seem to have contributed to the daily frustration businesses have about duplication and overlapping jurisdictions.

There are more than 700 provincial laws regulating how land can be subdivided and developed and what may be built on it. And provinces are amending the existing laws and passing new ones all the time. Often a province will introduce as many as 100 new land use regulations in a year. And because local governments have the power to regulate property within their boundaries, there are literally thousands of local regulations dealing with land development, subdivision, building and ownership as well.

Developers complain that municipalities ask them to provide more and more services, expecting them to meet certain quality standards. The municipalities apparently believe that by insisting that quality services be installed during the development stage, they will be able to cut down on maintenance costs in the future. While the process does help to keep down municipal tax rates for existing homeowners, it adds to the developer's costs and makes new homes more expensive.

The builders aren't happy either. For some time now, they have complained about the lack of uniformity in building standards making it difficult for them to achieve economies of scale. Provinces have been able to make some headway in bringing various construction codes into line by using the National Building Code. But one result has been a trend to regulating aesthetics as well as architectural design.

The pattern of urban development has not exactly helped. As cities expand, they tend to absorb neighbouring communities, many of which may have different land use standards and practices. In an attempt to deal with the situation, some provincial governments have created regional administrations to cover several municipalities. The result has been to add another layer of decision-making and further delays to the process of approval of land uses.

As well, while provinces in the past may have been willing to hand over land use regulation to the municipalities, that trend has now been reversed. Increased public concern about the environment and aesthetic considerations has led the provinces to take more interest in regulating land use themselves and they have had to get more involved in any case to sort out the differences between adjoining municipalities.

The Economic Council found that the concentration of controls in provincial hands has tended to reduce the jurisdictional conflicts, but not the conflicts in objectives over such issues as land use inducements to industry, the provision of park sites, and the standards of municipal service installations required of developers.

In every province, urban growth has been marked by regulations designed to preserve aesthetic standards and the quality of the environment. But there has not been much debate about the objectives or the results, according to the Council. Criticisms have centred on the process itself and the higher cost of serviced land that results. And the delay involved in holding public hearings and interacting with community associations has added further complications.

"It is not at all clear where the balance of efficiency lies," the Council says. There is no doubt that delays in meeting and getting approvals have hurt some individual contractors and developers. But it is probably also true that "the standards of land use and building construction in most parts of Canada are considerably higher, and somewhat more costly, than might have been the case in a less regulated situation," the Council concludes.

The Council says that in looking at how overlap and duplication of regulations affect business, it singled out the urban land-use issue as an example where "delays, multiple permits, tiers of intervention, and overlapping sets of standards are rife." Yet even on this question, the Council says, "the process serves important objectives . . .what is required is the application of the scalpel rather than the axe."

How small business sees it

Government regulations don't seem to be imposing a crushing burden on small business. In fact, many small businesses will go to almost any length – within the law of course – to avoid regulations. But small business owners have plenty of complaints about the amount of paperwork that governments expect them to do and they are not too happy about the way many civil servants deal with them either.

Researchers Rein Peterson and Mari Peterson, in a discussion paper just published by the Economic Council, say that it is not the intent or the content of the regulations that are at fault, but the way the regulations are being applied. The people who do the regulating are often "too narrow in purpose," they have very little understanding of business so they don't seem to understand how a business will be affected by regulations and the paperwork they create. And in particular, they don't understand that regulations can have a different and often much greater impact on a small business than they do on a large company.

The paper, which looks at the impact of government regulations on small business (firms with less than 500 employees), was commissioned by the Economic Council, with the co-operation of the Canadian Federation of Independent Business (CFIB), as part of the Council's major study of government regulation in the economy. The authors interviewed 100 owners of small businesses, mostly in Ontario, and supplemented their detailed comments with answers from questionnaires mailed by the CFIB to its members last year.

"The regulations themselves are not unreasonable, but the attitude of the inspectors leaves very much to be desired."

Many of the owner-managers didn't really know how economic regulations affected them. And often they did not distinguish between economic regulations imposed by governments and restrictions imposed by other large organizations or the general taxation system to which they are subjected.

In fact, it seems, many small business owners don't understand the difference between paperwork and regulations and they apparently consider the distinction as being only of academic interest. Filling out forms, whether they have to do with employee deductions, sales taxes, income taxes or permits, takes a lot of time and can have a direct impact on net income. The researchers say that the level of awareness of regulations "appears to be directly proportional to the required paperwork and the enforcement and follow-up procedures being used."

And it was on the question of enforcement that most of the complaints came in. The way that civil servants deal with small business owners, the fact that big companies seem to be able to get away with things that small companies can't and the perennial question of overlapping jurisdictions and duplication of regulations all came in for criticism from those interviewed. Most of the small business owners had horror stories to tell about vague regulations being enforced by overzealous or poorly trained regulatory officers whose interpretation of the rules was never consistent.

As well, the researchers say, small business owners don't have the flexibility or the resources that big firms have in coping with regulations. Big business has "connections or lawyers or friends who have the right connections to make the difference, be it in terms of loans, zoning restrictions, interpretation of legislation or the right law firm." And because many of the regulations deal with labour or human relations, the relative cost to a labour-intensive small firm is higher.

Within the small business community the size of the firm did not seem to make much difference to the way a company is affected by regulation. However, companies with 100 or more employees seemed to be more affected by labour standards, zoning by-laws and transportation problems. And they were also the only ones to report significant problems with packaging labelling and health and safety regulations.

"If government is going to regulate they must be prepared to enforce regulations. It is the double standard which inconsistencies create that is my major criticism."

The researchers said they were surprised at the lack of complaints from small retailers. Sales tax was an issue and store hours a minor complaint, but generally speaking, there seemed to be few major regulations to complain about. Manufacturers, on the other hand, although they are subject to fewer regulations, seemed to have more complaints – probably because small-scale manufacturing tends to be labour intensive. Dissatisfaction centred on labour standards, hiring laws, labour relations, workmen's compensation and employee tax deductions. And manufacturers were the only group where a significant number of firms reported that Statistics Canada was a major nuisance to them.

In the service sector, construction companies, especially those that were what the researchers call "free enterprise oriented," were the most vocal group interviewed. They complained about permits, licences, union rules, the Labour Relations Act, building codes and by-laws (see previous page).

"We have to have regulations although industry is capable of policing itself. We are also kept in line by the competitive element. My big concern is what do regulations do for my business?"

The researchers caution that the interviews emphasized the problem of regulation and "paperburden" so the results may tend to "put a greater emphasis on the negative than probably exists in general." And, they point out they were only able to interview the "survivors". If there are small businesses which have had to shut up shop because the burden of regulation became too heavy, they would not have been included, and there is no way of knowing just how great their numbers are. Research in under-developed countries indicates that as regulatory pressure increases, small businesses tend to go underground and the researchers were not able to determine the extent to which this might be happening in Canada.

As far as what should be done about the problem that small businesses have with regulation, the authors say that further research is not really necessary. "Instead, we need to get on with the challenge of educating and informing individuals on all sides of the regulatory process." They have a number of recommendations to make in this respect: make regulators more aware of the impact they have on smaller firms; change the process by which regulations are made ("Why not consult with knowledgeable small business experts when conjuring up new regulations?" they ask); and establish mechanisms that ensure regulations remain consistent with prevailing government policies.

"The Impact of Economic Regulation and Paperwork: Is Small Business Being Crushed?" by Rein Peterson and Mari A. Peterson, Reimar Associates Incorporated, Working Paper No. 24.

Product safety

Exploding pop bottles, flammable nightclothes, harmful infant pacifiers and rattles, dangerous toys. Consumers today have a right to expect some protection against these and other hazardous products when they go shopping.

And government regulations do a pretty good job of providing it, by requiring products to meet certain standards, by calling for warning labels on poisonous or flammable substances, or by banning dangerous goods altogether, says Ronald Hirshhorn in a paper prepared for the Economic Council's report on regulation.

Consumers ran much greater risks in the market place before the passing of the Hazardous Products Act in 1969. Having the power to regulate the sale of hazardous or potentially hazardous goods through this federal statute has paid off for the public at large, as the steady decline in accidents involving consumer products bears witness. Officials at the Department of Consumer and Corporate Affairs, who administer the Act, have taken some important initiatives in areas hitherto inadequately covered by product liability law or manufacturers' voluntary safety rules, Hirshhorn says.

At the same time though, some of the department's activities raise serious questions – especially about some of the more costly regulatory initiatives on car seats and 1.5 litre bottles. Hirshhorn says that his studies suggest the department is putting too much emphasis on standards in some areas when an informational, educational approach would be more effective and less expensive to implement.

In some cases too, not enough thought is given to the costs of regulation and its far-reaching effects.

One of the best methods of calculating how successful various product safety measures have been, says the Council economist, is to weigh the cost of complying with them against the benefits they provide to consumers – by reducing the number of related accidents, for example.

Viewed in this light, a number of case histories that he studied show that goverment measures took the right tack in some instances – as in the regulation of certain products for infants and of poisonous substances, but apparently veered off course in others, most notably in attempts to regulate a standard for infant car seats and for soft drink bottles. These two cases in particular raise serious questions about the direction of departmental decision-making.

The long history of attempts to establish a reasonable standard for infant car seats has been dogged by controversy, confusion and expense. Queries have been raised regarding the testing methods used and the safeguards imposed. Critics claim, for example, that overly rigid standards have pushed prices sky-high and forced a number of perfectly acceptable car seats off the market. And the Consumers' Association of Canada has charged that the seat most used between 1975 and 1978 – as a result of the new regulations – is unsafe and collapsed in a series of independent lab tests.

What these concerns underline is the

Feedback on Council report

The findings of the Economic Council's study of government regulation of the economy stirred lively discussion at conferences held in Toronto and Montreal following the release of the report.

Jointly sponsored by the Economic Council and the Institute for Research on Public Policy, the conferences were intended to stimulate further discussion of the Council's recommendations and to give representatives of various industries, labour and government an opportunity to respond to issues raised by the report *Reforming Regulation*.

Special workshops, with guest speakers, were scheduled to discuss the main areas covered by the report, including direct economic regulation of transportation, telecommunications and licensed professions; regulation of common property resources such as fisheries, air and water; and social regulations such as those dealing with the health and safety of workers and consumers.

Reacting to the Council's recommendations in the field of transportation, Pierre Jeanniot, executive vice-president of Air Canada, rejected the approach taken in the report that regulations setting barriers to competition should be relaxed. Among its recommendations on air transportation, the Council had said that regulations protecting Air Canada should be eased to permit regional carriers to compete for routes.

"In Canada, we already have the lowest air fares," Jeanniot told the Toronto conference. "There is competition on almost all routes and the quality of service is high, which the report acknowledges. So why change things now?" he said.

Roy Pulsifer, of the United States Civil Aeronautics Board, said that with deregulation of the air industry in the U.S. "productivity improvements of between 20 and 50 per cent are in the offing, along with fare reductions of similar size." If Canada retains the status quo, Pulsifer said, lower fares in the U.S. will lure Canadian travellers to U.S. departure points.

Stephen Flott, executive vice-president and general manager of the Ontario Trucking Association, disagreed that the present regulatory system unduly limits competition in trucking.

The Council's conclusions were that the trucking industry in Canada is too strictly controlled by regulations governing entry into the business, fixing routes, and determining the type of truck used and other details. The net effect is waste and higher costs, said the report, and it presented proposals for liberating the industry from its present web of controls.

But according to Flott, "Anyone who uses this report for regulatory reform is using a fork to fill a pail of water."

However, R. B. Taylor of the Canadian Manufacturers' Association told the Toronto conference that the present trucking system "does not respond to our needs, or to those of the consumer," and that "the result has been a steady erosion of business from the for-hire trucking industry to various forms of private trucking." He endorsed the Council's call for increased competition as a cure for many of the trucking industry's ills.

Jacques Alary, vice-president of the Association du camionnage du Québec, told the Montreal conference that his organization favours a sane reform of regulations in its industry if it is done in a spirit of mutual trust rather than one of confrontation.

Linda Marchand, The Citizen, Ottawa

Seat safety

need for department officials to do their homework thoroughly before making decisions, Hirshhorn says. This case illustrates the need for more systematic analysis of the pros and cons of alternate ways of attacking the problem, and greater openness in the decision-making process. Yet another "must," he adds, is to have test procedures precisely specified so there is no confusion about whether or not a product meets government standards.

The saga of the 1.5 litre soft drink bottle, which exploded without warning on a number of occasions, again illustrates the need for more research and analysis at an early stage in the proceedings. In this case, Hirshhorn claims, officials acted far too precipitously and without thought to the consequences in abruptly banning the errant bottles, mainly in reaction to adverse publicity. Soft drink producers, who were given virtually no time to adjust to the new requirements, lost millions of dollars in equipment and sales – losses unjustified, as it turned out, by any real pay-off for the consumer. Hirshhorn calculates that the ban resulted in 443 fewer accidents a year, while regulation costs ran at $9.5 million – bringing the cost per accident prevented to a whopping $21,000.

Concerns expressed about the bottles were legitimate enough, Hirshhorn says, but more time should have been spent developing cheaper and more effective ways of eliminating the hazard. The department has now withdrawn the ban and implemented a new standard for 1.5 litre bottles.

Urgently needed now in the regulation of hazardous products, Hirshhorn concludes, is a more systematic process for identifying important product hazards, more thorough cost-benefit analysis, and a broader perspective that would take into account all the options that are available to reduce risks to the consumer.

"Product Safety Regulation and the Hazardous Product Act," by Ronald Hirshhorn. Technical Report No. 10.

The power of agricultural marketing boards to determine supply and set the price of their commodities in the dairy, egg and poultry industries came under criticism in the Council's report. Though strongly supportive of marketing boards as forces for stabilization and efficient production the Council recommended that supply management powers be gradually reduced. The net effect, said the report, would be lower quota values, lower prices to consumers, increased demand and freer entry into farming.

Doug Fleischmann, president of the Grocery Products Manufacturers of Canada, endorsed the findings of the study in the area of marketing boards and proposed that the federal government declare a moratorium on the creation of new supply-management marketing boards.

The existing price-setting boards are limited to a few commodities but they represent a large slice of receipts from farming, he said. "In 1978, supply-management marketing boards accounted for 42 per cent of all receipts passing through marketing boards and 24 per cent of all farm receipts."

The present system results in higher costs to processors and therefore to consumers, "over and above the market equilibrium price," he said.

But the most telling criticism against such boards, Fleischmann said, is that "the transfer of income from consumer to producer does not so much benefit the low-income farmer as it benefits the largest producers." Income support based on production levels only accelerates income inequities, he said.

Pierre Gaudet, president of the Union des producteurs agricoles du Québec, told the Montreal conference that the Council's report measures marketing boards against a unique standard that is not applied to any other sector of the economy. The report criticizes farmers for controlling supply and setting prices, he said, but ignores the existence of a similar system among large, private enterprises. The report ignores or minimizes the contribution of marketing boards to stabilizing farm incomes, efficiency of production and price stability, he said.

Pierre Tremblay, chairman of the Chambre de Commerce du Québec, said in Montreal that his organization supports the report but differs with the timetable for implementation of its recommendations.

The process of reforming regulation should be phased in over a ten-year period, he said. He outlined the steps for reform proposed by his organization as: a freeze on any new economic regulation, followed by deregulation of selected sectors of the economy and, finally, the simplification of remaining regulations.

A speech by Treasury Board president Don Johnston summarized the federal government's immediate response to the report. The speech was delivered at the Montreal conference by the minister's parliamentary secretary, Serge Joyal. The federal government hopes to begin the process of reforming regulation, he said, by ridding itself of about 120 obsolete laws within the next year.

André Raynauld, former chairman of the Economic Council and a professor of economics at the University of Montreal, repeated a quote from John Kenneth Galbraith to the effect that all modern economic systems composed of large units of production must be regulated.

He warned participants at the Montreal conference against the possibility that the process of reforming regulation may lead to an inadvertent increase in regulation.

Economic Council of
Canada

Au courant

Canada Post Postage paid
Postes Canada Port payé
Bulk third class 926 Ottawa
En nombre troisième classe

Looking Ahead

That's the task assigned by Parliament to the Economic Council of Canada when it was created in 1963.

Since that time the Council, drawing on the expertise of its staff of economists and other specialists, has provided Canadians with an ongoing analysis of the economy, looking at economic policies and the effect of possible alternatives on the country's economic prospects. The projections, policy analysis and recommendations formulated by the Council in the past decade have played a significant role in public policy.

The issues the Council deals with affect each of our lives. They include inflation and the erosion of our buying power, human resources planning for future jobs, the distribution of wealth among Canada's regions, and even the cost of taking a taxi in Montreal, land use planning in Vancouver or the effect of the spruce budworm on Newfoundland's economy.

Economic Council of Canada
Conseil économique du Canada

P.O. Box 527
Ottawa, Ontario
K1P 5V6

C.P. 527
Ottawa (Ontario)
K1P 5V6