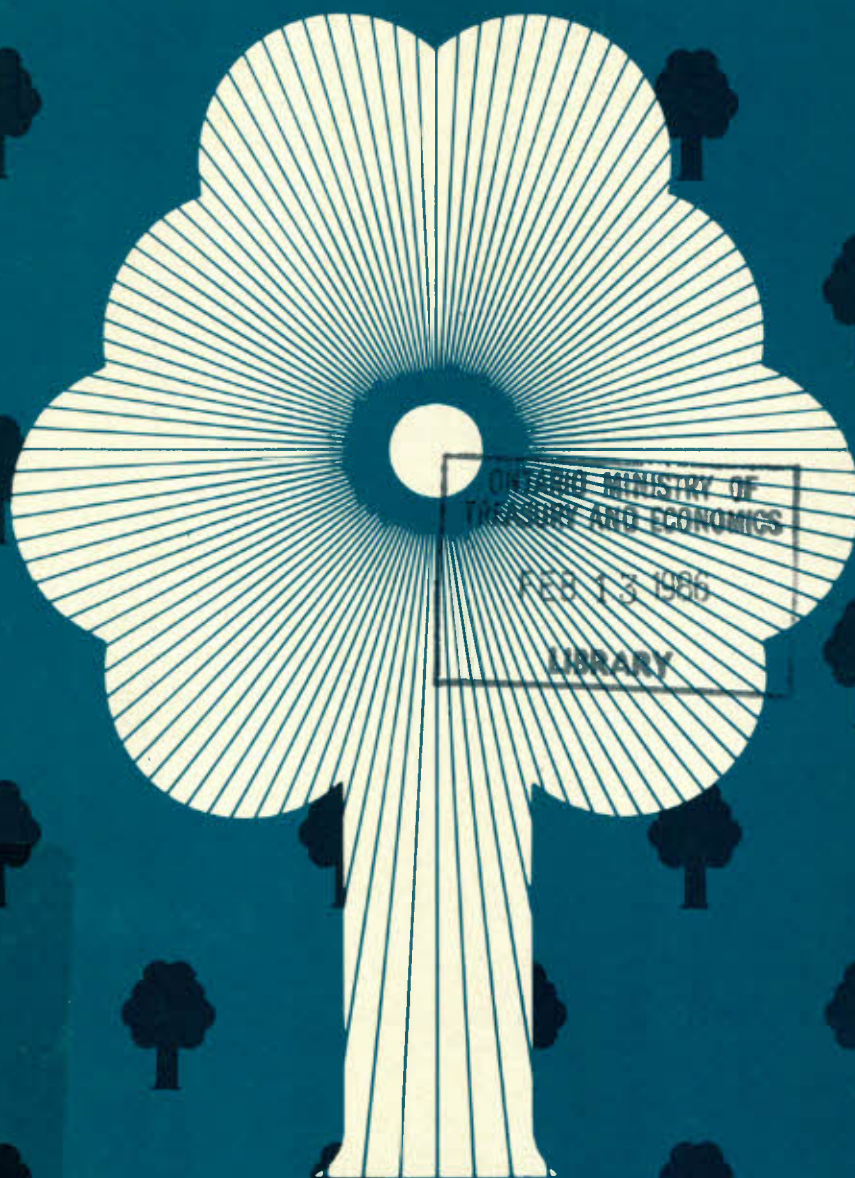


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Economic Council of Canada

Volume 6, No. 3, 1986

A conference on the environment



ONTARIO MINISTRY OF
TREASURY AND ECONOMICS

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- Taxation of capital income
- Women and blue-collar training
- An interview with the Council's new chairman

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Research studies are published by the Economic Council in both official languages. A list of titles is available on request. Each study clearly attributes the findings and conclusions to the individual author or authors rather than to the Council (ordering information below). One new title has been published since the last issue of *Au Courant*.

Women Re-entering the Labour Force and Training Programs: Evidence from Canada, by *Daniel Boothby* (EC22-129/1985E; \$5.95 in Canada, \$7.15 elsewhere).

Discussion Papers

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No. 288 "Savings and taxes in a life cycle growth model with age-earnings profile," by *Denis Gauthier*.

No. 289 "The taxation of capital income in Canada: A comparison with Sweden, the U.K., the U.S.A., and West Germany," by *Michael Daly, Jack Jung, Pierre Mercier, and Thomas Schweitzer*.

No. 290 "Political economy of tax reform: Six case studies," by *Douglas G. Hartle*.

No. 291 "On the importance of endogenous domestic savings response for capital income taxation in open economies," by *David F. Burgess*.

No. 292 "A study of issues in government enterprise finance with applications to Air Canada and Canadian National Railways," by *D. H. Drury and C. W. Sealey*.

No. 293 "A comparison of effective marginal tax rates in Canadian manufacturing," by *Michael Daly, Jack Jung, Pierre Mercier, and Thomas Schweitzer*.

No. 294 "Indirect federal taxes, the cost of capital and the issue of tax incidence," by *W. R. Thirsk*.

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Responsible Regulation: An Interim Report (EC22-70/1979E; \$7.25 in Canada, \$8.70 elsewhere).

In Short Supply: Jobs and Skills in the 1980s (EC22-108/1982E; \$7.95 in Canada, \$9.55 elsewhere).

Connections: An Energy Strategy for the Future (EC22-124/1985E; \$9.95 in Canada, \$11.95 elsewhere).

Also available . . .

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An Outline of a New Trade Strategy for Canada (Looking Outward), 1975.

Living Together: A Study of Regional Disparities – Highlights, 1977.

How to order

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

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Au Courant est également disponible en français.

The major reports featured in *Au Courant* reflect the viewpoint of the Economic Council.

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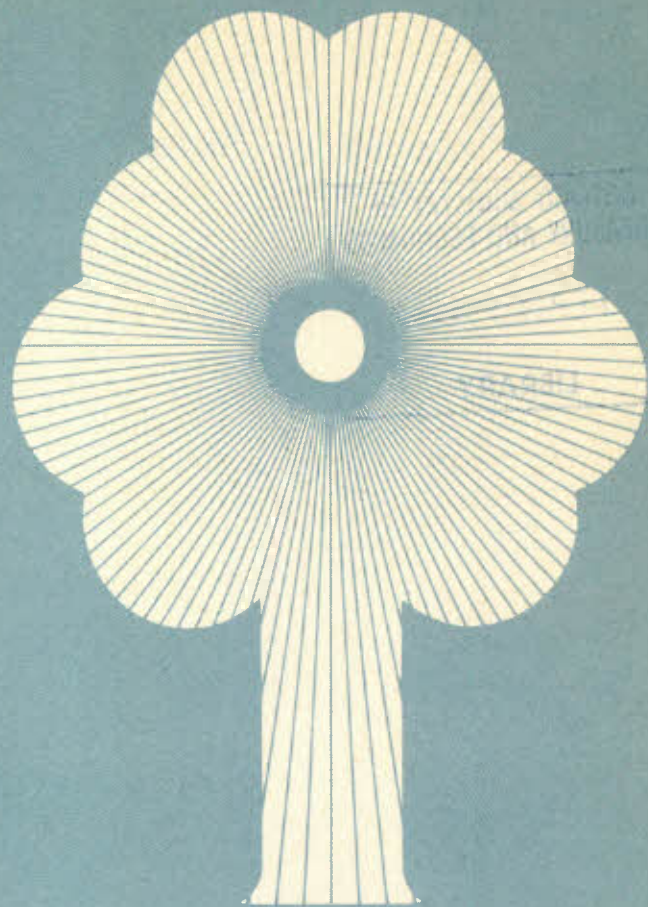
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The environment: problems and prospects



Protecting the environment doesn't come cheaply. For the majority of countries in the Organisation for Economic Co-operation and Development, expenditures on preventing (or reacting to) environmental damage can amount to as much as 2 per cent of gross domestic product.

Finding the most cost-effective forms of protection will enable countries to direct more of those expenditures toward other social objectives, including economic growth. Doing the job well environmentally is usually more resource-efficient and thus more economic. In most cases it is also less costly to prevent environmental damage than to clean it up.

At the same time, many well-intentioned initiatives designed to promote economic growth can have a disastrous impact on the environment. Indeed, little is known about the precise risks to human health or life of the massive amounts of wastes that are being discharged into the air and water and that subsequently work their way through the soil. This especially presents problems for the legal system in providing fair compensation when damage does occur. As well, many of the benefits of

controlling pollution are not spelled out because of the difficulty in calculating the worth of "avoided damage." The Council's 1981 study entitled *Reforming Regulation* concluded that "if Canadians collectively prefer healthier, safer and esthetically more pleasing environments...they may be better off and yet appear worse off by national accounts measurements."

In the words of Council Chairman Judith Maxwell: "There is now a broad recognition that economic activity in its many forms...must take account of the complex ecological interrelationships that nature weaves." That recognition, along with the Council's long-standing interest in this regard, culminated in a two-day Colloquium on the Environment late last year. More than 100 experts from diverse backgrounds in scientific research, economics, environmental management, public administration and industry took part in the discussions.

The Colloquium proceedings are highlighted on the next eight pages. The papers presented over the two-day period will be collected in a volume of proceedings to be published later this year.

International perspectives

Despite some significant success, certain industrialized nations have been quite slow to repair the considerable environmental damage of the 1950s and 1960s. As for the developing world, many of these countries are in deeper debt ecologically than financially.

One reason, according to James MacNeill, secretary general of the World Commission on Environment and Development, is that environmental concerns remain remote from economic and political decisions rather than integral to them. In Canada, for example, soil erosion is costing farmers \$1 billion a year in lost income, largely because of the unintended environmental effects of government subsidies that encourage marginal farming practices. Reports from Europe and the United States tell a similar story, MacNeill said.

As the world becomes more economically integrated – exports now account for 22 per cent of world output, com-

pared with 12 per cent in 1962 – it also becomes more ecologically inter-dependent. Higher levels of imports into one country translate into increased pressure on the environment of another, for example.

Newer, more complex issues – from climatic change to forest depletion – are being added to the environmental agenda. Their widespread impact on the economy is difficult to assess. These issues also pose questions as to the value of short-term economic gain when the price might be social disruption and resource depletion in the future. Thus changes are required “in the design of many of our policies and some of our institutions,” MacNeill concluded.

He explained that environmental agencies were created to clean up the destruction of the 1950s and 1960s. As such, they were an “add-on” to existing institutions responsible for economic development. To be more effective, these agencies should be allowed to develop preventive pollution control strategies as part of the government’s overall economic initiatives, MacNeil argued. This would require such mechanisms as budget review procedures to encourage discussion about environmental implications among the appropriate government groups in the early stages of policy development. More

efficient tactics are needed to combat existing pollution as well.

In addition, bureaucracies will have to start recognizing the importance of environmental investment to economic development, MacNeill noted. Spending on pollution control has actually contributed to economic growth and employment in the industrialized world over the past 15 years, without any serious, adverse impact on inflation, he

needed. Environment Canada is generally viewed as “a nuisance” by other government departments and has no influence on economic policy development, he said. Other problems arise because natural resources are undervalued and because the tax system in some cases discourages recycling, he reported.

Discussant André Marsan of André Marsan & Associates in Montreal sug-

***E**nvironmentalists have to swallow their puritanism and get into bed with economists.*

emphasized. In his opinion some of the key people in government and the private sector have recently become much more informed on these issues.

MacNeil questioned why countries “have been so slow to integrate effectively environment with social and economic development,” in the light of growing knowledge and awareness (and even consensus) about the wisdom of this approach.

Discussant Colin Isaacs of Pollution Probe said that Canada has “failed miserably” in this regard, arguing that “major changes in attitudes” are

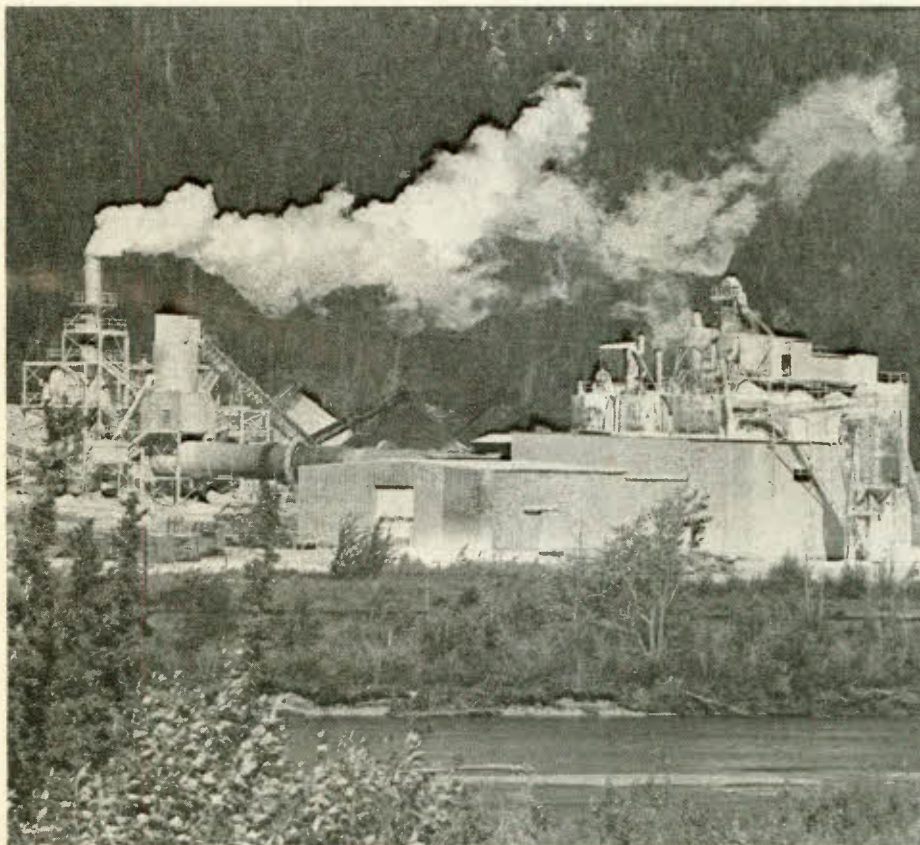
gested adopting what he called “development ethics” in order to encourage the preservation of the environment among future generations. Assessment tools to keep track of the state of the environment are also needed, he said, because of the difficulty in measuring the impact of economic development. For example, reforestation makes economic sense in the long term but not necessarily in the short term. Marsan called for “a new synthesis” of environmental and economic concerns, suggesting that the Economic Council undertake an interdisciplinary project to encourage progress in that area.

As one participant noted during the floor discussion, evidence of that new synthesis has emerged in the creation of the World Commission on Environment and Development, the first of its kind – due to report back to the United Nations General Assembly upon completion of its mandate in 1987.

In response to a related question, MacNeil added that while governments in general are beginning to understand the importance of responding to environmental concerns, they lack the necessary advisory institutions. To make environmental matters more politically relevant, he said, environmentalists have to “swallow their puritanism and get into bed with economists,” who persuade the decision makers with respect to economic development.

The failure of governments to take more action is due in part to their natural desire to please an electorate that is more interested in remedying immediate economic problems than in forestalling distant environmental events, he added.

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Slow progress in cleaning up the environment

Water quality

With about one-quarter of the total world supply, Canada has more fresh surface water than almost any other nation.

But that abundance is deceptive because it disguises regional shortages, the impact of droughts and flooding, the effects of pollution, disruptions in natural water flows, and conflicts among users and uses. Other problems arise because of the division of responsibility for water management between the provinces and the federal government, with the former holding most of the power in this regard, and the latter maintaining control of navigation, fisheries, and certain other related concerns. This division, coupled with perceptions of resource abundance, has resulted in "a loose and incoherent policy framework" that inhibits efficient water management in Canada, said Peter H. Pearse of the University of British Columbia, chairman of the recent Inquiry on Federal Water Policy.

As an example, insufficient attention is paid to the environmental consequences of using a river system or "watershed" for such diverse purposes as waste disposal and agricultural irrigation. Sometimes these watersheds cross provincial or international boundaries, but attempts at co-operative management "are meagre," Pearse said.

What is called "integrated watershed management" is thus essential, in his view. This involves setting out objectives for water quality and water flows within each river system, and fully assessing the impact of water uses and related developments. Given that co-operation between the governments involved remains a major difficulty, individual watershed authorities whose power is not restricted by political boundaries "may be at least equally well suited to assume water management responsibilities," Pearse suggested.

Standard procedures for assessing such major developments as hydroelectric projects are also required, with attention being paid to two particular concerns – the risk and uncertainty included in each project, and the need to include the public in major decisions.

Because water is priced at nominal or zero cost, it is not being used efficiently. A better pricing system would not only improve efficiency but also generate revenue, encourage conserva-

tion, and reduce both environmental pressures and the infrastructure costs of water supply and treatment facilities. Rights or permits to use water and discharge wastes could be similarly effective, Pearse maintained.

Subsidies to increase water supplies or control pollution also hinder effective resource management, insofar as they reduce costs, thereby causing an excessive increase in demand.

Finally, equipment standards for water users and waste dischargers provide little incentive to conserve water or control pollution beyond the adoption of mandatory technology. Above all, these standards fail to recognize the capacity of different watersheds and the environmental pressures on them. Similar deficiencies characterize the discharge standards limiting contaminants in waste water.

Discussant Jean-Louis Sasseville of the University of Quebec said Pearse's recommendations fail to take full account of the political and institutional constraints caused by the split in authority between the federal and provincial governments. Consequently, many of them will be difficult to implement. Sasseville suggested undertaking more research on public attitudes as a

basis for reforming water management policies.

Discussant Andrew Hamilton of the International Joint Commission said that the recommended changes represent only "modest changes to the status quo." He argued that to be effective, water management should be linked to air and soil management. That means developing an institutional framework that would unite these concerns, he concluded.

During the floor discussion, one participant defined two areas requiring research: the first was concerned with the problem of defining water rights, and the second, with the difficulties raised when water rights interfere with the multiple uses of water. Several questions were asked about the appropriateness of using the watershed as a unit of management, given that some water problems (such as airborne pollution) transcend watersheds. In a related comment, Pearse noted that past attempts at watershed management in Canada have failed, primarily because of elaborate and inflexible planning.

Other participants were concerned about reconciling short-term economic concerns with future environmental considerations. Pearse responded that



An abundance of water hides serious management problems

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industry would simply have to learn to economize in its demand for water.

In a separate evening speech, Camille Dagenais, chairman of the SNC Group of Montreal, said that, above all, proper water management "is the last best hope" for many developing countries. For example, man-made reservoirs created by dams have been used in parts of Africa to irrigate once-desolate regions, thereby overcoming drought and famine. Dams can also be used for controlling floods, as a source of electricity, and for regulating navigation flows, Dagenais said.

Whatever negative environmental effects stem from these projects "must be balanced against the even more negative ones of widespread famine, death, and the turning to desert of once green and fruitful land," he concluded.

Forest management

Unless Canada addresses its forest management problems soon, it may find itself strapped for resources that are now abundantly available in its own backyard.

Paradoxically, Canada is in no danger of exhausting its forest reserves; they may actually be growing in size. The problem is more that the wrong kind of forest is growing. As a result, the industry itself "cannot be sustained more than a few decades" without proper management, said Gordon Baskerville, dean of forestry at the University of New Brunswick.

The forest structure has been altered significantly by economic exploitation, he explained in his presentation. Large trees are no longer as readily available as they were 30 years ago, for example. Moreover, almost all the commercially viable sites have since been exploited.

Biologically, each forest is composed of more than one "stand" type – an area characterized by its species mixture and developmental patterns. Some stands develop more rapidly than others. Consequently, the problem of resource management, rather than being universal, is unique to each forest in Canada, and solutions will have to be tailored accordingly.

Forest management will come at considerable cost to current economic efficiency, however. In effect, forest resources will have to be carefully managed instead of freely exploited. This will impose costs, in view of the

management regimes required for that purpose.

Proper management requires identifying the forest areas to be managed, as well as the managers themselves – an important task, Baskerville noted, given the multiplicity of government bodies having some measure of authority over Canadian forests. If clearly stated, management goals and objectives can preserve the wildlife habitat and still meet the demand for raw resources. Forecasting is crucial because it provides information about emerging problems and will ensure adequate resource supply in the future.

Baskerville identified the four tools of forest management: the scheduling of harvests, the allocation of products from each harvest, forest renewal, and protection.

Recovery is still possible in most Canadian forests, Baskerville said, but "only the expensive options" remain. The country's forests have been exploited so heavily over the last century that it will take "50 to 100 years of management to fix them," he maintained.

The highest risk of failure, he warned, stems from continued inaction. He pointed out that Canada had forest management plans 40 years ago that were never implemented, partly because of the "failure of the proponents to lay out...goals and guidelines in measurable units instead of qualitative rhetoric."

Discussant Marcel Lortie of Laval University noted that in parts of eastern Canada poor management has exhausted the supply of certain tree species for commercial harvesting, including white pine and some types of spruce. Instead of harvesting smaller trees as larger ones are depleted – or moving out to regions that are increasingly distant from production plants – Lortie suggested improving production technology to get more value from the raw resources that are being processed.

Discussant Peter Pearse of the University of British Columbia said that it is not clear whether forest resources have been depleted too rapidly from either an economic or an environmental point of view. He observed that there has been a transition from dependence on virgin timber (a stock resource) to reliance on renewable resources that have to be managed. Provincial policies are "doomed to fail," he concluded, because they do not take account of this shift. Pearse called for immediate research to identify policy alternatives.



A shortage of large trees for commercial uses

In the floor discussion, one participant noted that the decision to exploit forest resources is in fact a form of management. Doing it properly, however, requires using all four management tools, including forest renewal, Baskerville responded. Pearse added that making industry pay for the renewal of forest resources would discourage waste and abuse.

Several questions were raised about forest ownership and accountability of the owners. While Pearse replied that the provinces are accountable as managers of this resource, Baskerville added that management problems arise because "nobody owns it."

Toxic wastes

About half a million tons of hazardous industrial waste are being disposed of improperly each year in Ontario. Often that includes many of the most toxic and difficult-to-treat substances.

Ontario, along with the rest of Canada, lacks an approved treatment facility for poisonous pollutants such as PCB compounds. As a result, concentrations of these toxic substances are becoming increasingly detectable in virtually every form of life. Hence the need for proper waste management is not just a matter of ethics but "a question of thresholds of human health effects," said Donald A. Chant, chairman and president of the Ontario Waste Management Corporation (OWMC).



Toxic waste is not being disposed of properly

Ontario permits the disposal of untreated waste in unsuitable dumps because there are "no realistic alternatives," said Chant, who is a co-founder of Pollution Probe and the author of several books on the environment and toxicology. In fact, the only major waste disposal firm operating in the province lacks the facilities to treat inorganic industrial waste, which represents 70 per cent of all the waste (1.5 million tons) produced in Ontario each year.

In the 1970s, the province tried but failed to encourage the development of modern waste treatment facilities; so it created a Crown corporation (OWMC) in 1981 to develop a proper waste management system. Chant cited the merits of a public corporation, including its long-term responsibility to the public and the fact that it is required to treat all toxic wastes regardless of the difficulties involved.

But now the government must tighten waste disposal regulations in order to make OWMC's system competitive with the low-cost but environmentally dangerous methods currently allowed. While tighter regulations will raise disposal costs, they will at the same time attract investment and increase competition in the treatment, reduction, and recycling of waste. To encourage and maintain that competition, the proposed OWMC facility will

initially handle only 20 per cent of the waste not currently being treated and will, at most, double that capacity later on.

For practical reasons, the OWMC favours a centralized treatment facility. This will keep costs down and, above all, reassure the many people who oppose multiple plant locations, partly from fear of toxic substances and partly from concern about the impact of a waste treatment plant on nearby property values.

Discussant Irving Fox of the Westwater Institute in Smithers, B.C., argued that the government should relinquish authority to regulate toxic wastes to a commission representative of the full range of interests concerned – including environmentalists, consumer groups, waste producers, government bodies, and the general public. This would ensure what he called "consumer sovereignty," whereby those affected would determine whether the benefits justify the costs. "If the public is not well represented," he added, "the chances are greater that the OWMC will charge prices that in effect subsidize the production of hazardous materials."

Fox also suggested giving the OWMC responsibility for monitoring waste disposal. He further recommended that assistance be provided in the courts to groups that take legal

action when they believe the environment is threatened. At the same time, Fox questioned the use of a Crown corporation, on the grounds that in time it might become unresponsive to public concerns. Public companies also lack the profit motive to increase efficiency and to adopt newer, better technology in the process, he argued.

Discussant Pierre Grenier of Stalex Canada Inc., a Quebec-based waste disposal firm, said that a public corporation would not be needed if the government adopted more stringent waste disposal regulations. These changes would encourage the private sector to develop its own system of toxic waste elimination. That system would likely be more efficient and innovative than a publicly owned one, Grenier said.

Chant responded to the discussants' remarks by noting that the OWMC has solicited widespread input – having held meetings with some 2,000 groups – as part of its site-selection process. While agreeing that tighter waste disposal regulations are needed, Chant said that giving the OWMC the power to monitor waste disposal practices throughout the province would result in a conflict of interest.

During the floor discussion, one participant noted that it would be difficult to design waste disposal facilities without first developing regulations to gauge the demand for such facilities. Another argued that no system of regulations would prevent the so-called "mid-night dumper" from illegally disposing of wastes and suggested that some incentives be introduced to promote proper waste disposal. Incentives could also be used to overcome public opposition to the location of waste disposal facilities.

Climatic change

Prairie farmers could suffer severe losses in soil productivity if they do not prepare for what could be the most dramatic changes in the climate in over 10,000 years.

Globally, too, these changes will have widespread impact – affecting everything from water supply and power generation to food production and pollution control. The global economy could face serious instability if plans to deal with these concerns are not developed now, warned Dr. Kenneth Hare, provost of Trinity College at the University of Toronto and chairman of the Canadian Climate Program Planning Board.

Increasing amounts of carbon dioxide (chiefly from fossil-fuel consumption) and other gases in the atmosphere cause solar heat to be trapped there, Dr. Hare explained. As a result, the world is becoming warmer, and the consequences of this "greenhouse effect" will be readily apparent by the end of the century.

As far as Canada is concerned, this development will have both positive and negative results: there will be longer periods of more favourable growing conditions, for example, but, at the same time, less stored soil water – particularly in the Prairies where the capacity of Canada's inland granary could be threatened. The impact of the climate on the earth's surface and its productivity can already be documented, Hare said, citing the effects of drought in Africa as a prime example.

While Canada has the technology and expertise to cope, what's needed is "a framework within which to use this intelligence," he pointed out. Existing institutions will remain "out of kilter" until they start to take into consideration the impact of climatic changes in their economic plans for the future. As a trading nation, Canada must also concern itself with issues affecting international stability, such as the

impact on developing nations of a disturbance in the world food system.

Dr. Hare also addressed the acid rain issue in his paper. In particular, he noted that the debate over the need for remedial action will go unresolved until acid rain is given greater political priority. The complexity of the problem explains why there are no immediate solutions, he said. Resolving the issue, for example, requires the co-operation of the United States, which produces the bulk of acid-causing pollutants and thus would have to bear much of the cost of reparation.

Conflicting evidence also exists as to the causes and effects of acid rain. Despite the need for more research, however, sufficient evidence now exists to warrant launching "effective measures of control," Dr. Hare concluded. What would help in this respect, he said, is a broader perspective on acid rain problems as one component of a pollution package threatening the environment in eastern Canada.

Dealing with the consequences of climatic change involves making the issue "a more central part of our long-range thinking," said discussant Joseph Cannon, a lawyer in Washington who specializes in environmental matters. Public attention will probably be gripped by the consequences of climatic

change, putting pressure on policy makers to develop appropriate responses.

At the same time, caution must be exercised to avoid a polarization of views among industry, environmentalists, and the public. Each group has sufficient power to prevent the other from pushing its agenda forward, Cannon explained, in response to a question during the floor discussion.

Discussant Konrad von Moltke of Dartmouth College in New Hampshire maintained that the acid rain issue has to be resolved before attention is focused on climatic problems. Consequently, it is "urgent to attach a fair price to the disposal of wastes into the atmosphere," he said, suggesting an emissions tax as one approach. Regulations to limit the pollutants caused by acid rain are also needed, although agreement between states and/or countries will be hard to achieve with respect to the optimum level of reduction. For that reason, solutions to the acid rain problem will remain imperfect, Von Moltke concluded. Similarly, it is "extremely difficult to fashion international policy responses" to deal with the effects of climatic change, he added.

Several participants suggested developing policies to discourage fossil-fuel consumption and other processes that contribute to the greenhouse effect. While the industrialized world could probably find alternatives, many developing nations require high levels of fossil-fuel consumption to maintain economic growth, Hare maintained.

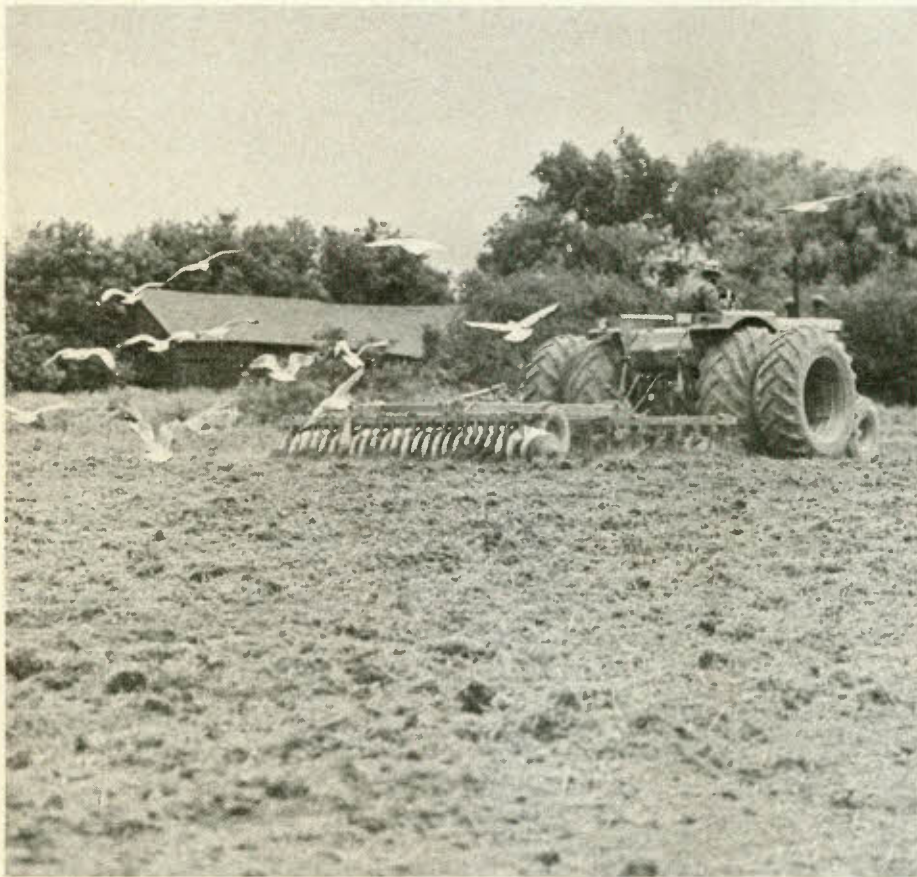
In response to another question, he said the effects of climatic change on the agriculture of the Soviet Union will "increase the vulnerability of an already highly vulnerable system." China, on the other hand, may benefit from the changes taking place, he added.

The costs and benefits of pollution control

Environmental legislation is sometimes thought (especially in the United States) to impose too costly a burden on the economy.

So new applications of cost/benefit analysis are attempting to measure the economic impact of pollution control measures. But problems arise because

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Agriculture will be affected by climatic changes

of a lack of information that would enable the market value of the benefits of pollution control to be determined. On the cost side, similar difficulties prevail. How to deal with the uneven distribution of health risks is another troubling concern (for example, residents of one region may suffer ill health as the result of pollution produced in another locality). Then there is the question of whether the rights of future generations should be considered, given that they are likely to be affected by any environmental policy decisions.

Despite these obstacles, recent work has yielded "a substantial step forward" in the development of methods to estimate the benefits of pollution control, said Allen V. Kneese, senior fellow at Resources for the Future Inc., of Washington, D.C.

In particular, a technique known as "contingent valuation" copes with the problem of insufficient market information by surveying the public as to its willingness to pay for specific pollution control measures. This method was used recently in a national study measuring the benefits of water quality improvements in the United States.

The results of that study, in one instance, suggest that people may be willing to pay for improved water quality even if they don't benefit directly — an attitude that may stem from a feel-

ing of national pride in having clean water, Kneese suggested. "Establishing these values in an accurate and complete manner is still a frontier area in benefits research," he said.

By sounding out the public on a hypothetical situation rather than measuring its past behaviour, as other survey methods do, the contingent-valuation method can monitor the public's appetite for pollution control. But the accuracy of this approach will remain in question until more sophisticated survey techniques are developed, Kneese concluded. At the moment, measuring the benefits of pollution control "involves making large inferences from limited information," he added.

To help compensate for that uncertainty, discussant John Swaigen of the Ontario Ministry of the Environment argued for tighter pollution control legislation and more education for industry. He observed that a pollution tax on industries emitting wastes would be effective only if accompanied by stiffer penalties such as imprisonment. More generally, corporate law in Canada needs significant reform, he added, and more resources directed to enforcement.

Discussant Elizabeth Wilman of the University of Calgary suggested improving the contingent-valuation method by comparing its findings with actual behaviour (where possible) and

by using larger survey samples to improve the reliability of results. As well, survey questions should be posed in the context of other major environmental problems so that the responses regarding willingness to pay would be tempered by other concerns and thus be more realistic.

Wilman also stressed the need for stricter pollution controls, especially when the possibility of environmental damage is potentially large but difficult to measure. Though this would impose additional costs on society, such expenditures "may in the long run be less costly than the alternative," she added.

During the floor discussion, Kneese argued that pollution control taxes would be a "powerful incentive" for industries to reduce waste emissions. One participant observed that the additional costs to industry would be borne by consumers in the form of higher product prices.

Kneese also pointed out that many of the benefits of pollution control cannot be measured because they do not involve market interaction. Overall, politicians would probably grant more weight to the results of measurement techniques if there were "a consensus of methods" to standardize their use, concluded another participant.

Into the future

Consensus is emerging on a new global agenda of environmental concerns, as well as some fundamental changes in the approach used to address them.

The new list of world-scale problems, according to James Gustave Speth, president of the Washington-based World Resources Institute, includes: the loss of crop and grazing land; the depletion of tropical forests; the mass extinction of species; the effects of a complex mix of air pollutants and hazardous substances; climatic changes; rapid population growth in the developing world; and the mismanagement of energy, water, and various food resources.

The fact that these problems are getting more and more international attention is a departure from the almost exclusive focus on local issues in the 1970s, Speth noted. And unlike the adversarial conditions of the environmental movement back then, these new problems invite co-operation.

That's because of the growing recognition of the importance of environmental conservation to economic



Pollution control has costs and benefits

growth, particularly in the developing world, Speth said. Also, interest is shifting away from traditional pollution control to the broader concept of resource management.

In the industrialized world, major environmental problems stem primarily from the careless and excessive use of certain technologies and resources; in the developing world, from excessive poverty and population growth. Their cumulative impact is more serious for the developing world, but the industrialized nations – having more wealth, technology, and a greater ability to exercise international leadership – are in a better position to act, Speth argued.

In fact, action on their part is vital, he said, because of the importance of Third World prospects to global economic performance. Neglect of Third World problems could also lead to hostile economic retaliation – the cancellation of foreign debt repayments, for example, as well as nationalization, the closing of markets, and so on.

Consequently, international security is at stake as well. Environmental degradation and resource depletion have already had a significant impact on the foreign policy interests of the industrialized world. Speth singled out the military conflict in El Salvador as one example, citing a recent report that attributes the unrest there as much to environmental as political causes.

On the whole, resource depletion and environmental degradation create significant costs for major sectors of the

economy, Speth continued. A recent survey in the United States, for example, shows that losses from ozone damage to four crops – wheat, corn, soybean, and peanut – amount to as much as \$3 billion a year.

Speth suggested that it's time to move beyond theoretical debate to a search for practical solutions. As an example, he referred to the approach taken by a group of multinational business executives, who last year proposed specific steps to alleviate environmental and resource stresses in Third World countries.

Discussant Jim Bruce of Environment Canada suggested that research be done on the types of institutions needed to make environmental concerns a part of economic decision-making, as well as on a better accounting system to keep track of the environment in a way that "makes sense to politicians." He also suggested that the Economic Council study the effects of climatic change in different parts of Canada in order to provide background information for the trade talks with the United States.

Discussant Derrick Sewell of the University of Victoria agreed that new policy arrangements are needed to integrate the economy and the environment, possibly including the establishment of an environmental council. Initially, however, "a much more enlightened approach" to raising public awareness of environmental issues must be developed, he said. In this respect, Canada is already playing a leading

role in the United Nations and through projects supported by the Canadian International Development Agency (CIDA) in Third World countries.

The floor discussion centred on the need to integrate the economy and the environment, not only in order to solve pollution problems but also to reinforce sustainable economic growth. A division of thinking on these concerns arises partly, said one participant, because environmentalists too often look at the costs of economic development without considering the benefits. At the same time, the economy should be seen as "functioning within the environment," said another participant. Another observed that public consultation "from the bottom up" would foster widespread understanding of environmental problems and thus more support for tackling them.

To encourage pollution control, another participant suggested that the Economic Council look at ways of charging industry for the costs to the environment of emitting wastes and at methods of distributing the benefits of pollution control equitably. To aid in economic planning, the Council might consider studying the anticipated effects of environmental change by sector, he added.

As federal Environment Minister Tom McMillan observed, an underlying theme of the Colloquium was that "economics and environment separated from each other is economics separated from reality." In a luncheon speech, McMillan noted that industry's view of the economy and the environment as "two solitudes" has had dire consequences, as illustrated, for example, by the recent pollution disasters in Ontario's St. Clair River and in Bhopal, India. "We need clean air, pure water and healthy soil...to make a living for ourselves. It's that simple," he added.

Ontario's Environment Minister Jim Bradley touched on another prevailing theme when he spoke of the challenge to economists and environmentalists of measuring the effects of environmental policies on the economy. Too often, in his view, economics is defined in terms of narrow financial accounting, which disregards such environmental costs as damage to human health, the loss of business in one industry because of pollution from another, and so on. These costs must be taken into account, he concluded, for "only then will the real relationship between environmental health and prosperity become clear."

Probe Post



Ozone damage to this crop costs the economy billions of dollars

Technical progress helps insurance companies

Thanks to their technical progress, Canadian life insurance companies recorded steady productivity growth over a long period. But their performance would have been even better had the industry been operating at peak efficiency, says a recent Council paper.

Economists Michael Daly and Someshwar Rao of the Economic Council, and Randall Geehan of Carleton University – in work carried out for the Council's research on productivity – found that productivity in life insurance firms grew at an average of almost 2 per cent between 1962 and 1977. Over the final four years of that period, when productivity growth was faltering elsewhere in the economy, it actually accelerated slightly (to 2.4 per cent) in that industry.

Productivity in services

The authors note that most studies of productivity have concentrated on manufacturing, which accounts for about 20 per cent of real domestic product, rather than on the service sector, which accounts for over 60 per cent. That focus was largely unavoidable, they observed, because of the difficulties involved in measuring real output in service industries. Recently, however, economists have taken a fairly successful stab at overcoming this measurement problem.

Daly, Rao, and Geehan were able to draw on some of this recent research in order to devise a way of measuring total factor productivity (TFP) for the life insurance industry. (TFP is a comprehensive measure of productivity. Put simply, it measures the increases in output that exceed the increase in the combined individual inputs – labour, capital, materials, energy, and so on – engaged in the production process.) Using that measurement, the authors then compared data from 31 life insurance firms in order to determine the main sources of productivity growth between 1961 and 1977.

Use of the new measurement revealed that TFP was the major cause of growth in output for all the firms analysed, particularly between 1974 and 1977, when it accounted for 77 per cent of increased production. It also showed that productivity growth picked

up slightly after 1973, in contrast to the trend in most other sectors, and it indicated that TFP growth in this particular service industry compares favourably with that in many other areas of the economy, including manufacturing.

Sources of growth

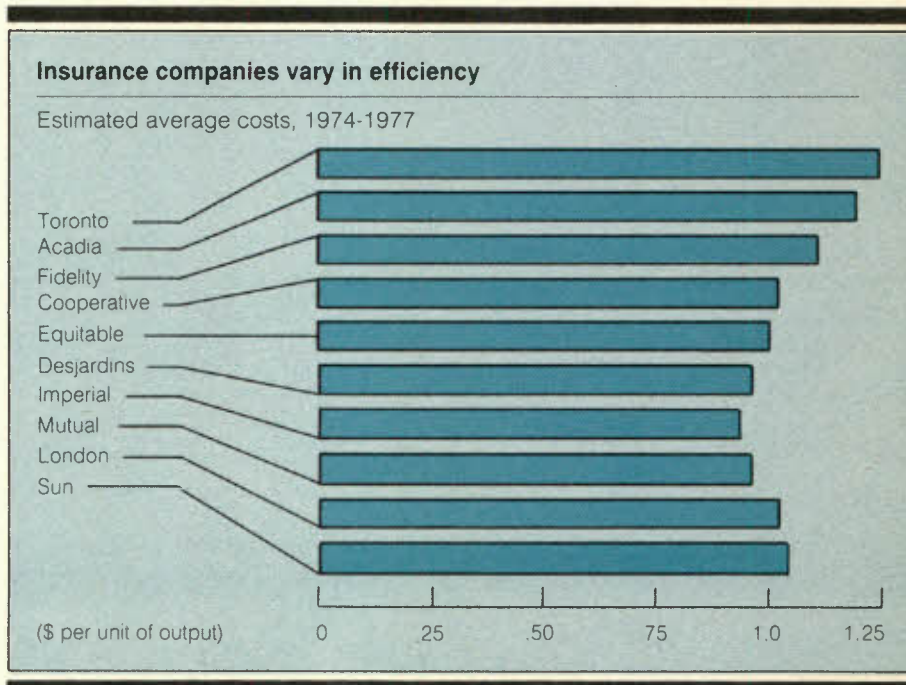
Technical progress accounted for the lion's share of productivity growth, the authors found. While all the firms made increasing use of new technology over the period, the rate of adoption was fastest in the largest ones – not surprisingly, the authors note, since the cost of innovation is quite high, especially at the outset.

The three economists also discovered, however, that the biggest firms were not the most efficient. On the contrary, economies of scale (which take place when unit costs fall as output rises) occurred in medium-sized companies, while in the ten largest, production costs ran higher than optimum. Since these large firms account for 85 per cent of the industry's output, their "scale diseconomies" affected overall efficiency – to the extent that a 10 per cent increase in the industry's output results in approximately a 10.5 per cent increase in total costs.

Taking into account both the question of scale economies and the fact that technical progress is faster in larger firms, the authors determined the ideal size for a Canadian insurance company by examining predicted average costs. The accompanying chart shows that between 1974 and 1977 these costs were lowest – and thus production most efficient – at *Imperial*, where real annual output was \$67 million (in 1983 dollars).

The chart also shows that costs varied enormously and were highest for the largest and the smallest firms; thus the top three life insurance companies are probably too big, while the 13 smallest are too small, the authors say. The fact that so many small high-cost, high-price insurers were able to operate may have been due in part to buyer ignorance. As well, it could stem from a decision on the part of the larger firms to set prices high enough to bring them excess profits, while ensuring the small firms the bare minimum necessary for survival.

"Productivity, scale economies and technical progress in the Canadian life insurance industry," by Michael J. Daly, Randall Geehan, and P. Someshwar Rao. Discussion Paper No. 271.



Women shun blue-collar training

If their choice of training programs is anything to go by, women are steering away from the skilled blue-collar occupations.

Instead, they are opting for instruction in the clerical and health fields, says economics consultant Daniel Boothby, in research carried out for the Council's study on the role of women in the economy. This training preference mirrors the actual situation in the labour market, where clerical and health jobs are largely held by women. Higher pay and a better chance of promotion in those occupations probably explain why women prefer them to blue-collar jobs, Boothby observes.

The author focuses on the participation of women (particularly those rejoining the labour force after several years' absence) in "institutional" or classroom-style training programs. This format, he notes, attracts many more female candidates than the alternative options – apprenticeship training, where women trainees are virtually nonexistent, or industrial (employer-run) training, where they are under-represented.

Boothby uses data from Employment and Immigration Canada (EIC) files to track the experience of three types of institutional trainees – men and women already in the labour force, and female re-entrants. That exercise reveals that male and female trainees have very different preferences when it comes to training courses. Almost 60 per cent of the women enrolling in "skill" (job-specific) programs chose to train in clerical occupations (compared with 3 per cent of the male skill trainees) and about 10 per cent selected health occupations (mainly nursing). In contrast, roughly 70 per cent of men in this category picked blue-collar trades, such as machining, construction, and fabricating, assembling, and repairing. Very few women train for these jobs, except in the last category as sewing machine operators. Only the service occupations attracted a significant number of both sexes.

Boothby also found that women outnumber men in general training programs (such as education-equivalency courses) probably because they are more interested in acquiring the requi-

site schooling for clerical and health occupations. In contrast, men tend to train for jobs with lower educational requirements.

Generally speaking, both sexes opt for further instruction in the occupations where they last worked, the author says. That is particularly the case for nursing and clerical work in the case of women and for skilled blue-collar jobs (such as machining) in the case of men. But Boothby also found that people will train for new occupations under certain circumstances. His analysis indicates that women are more inclined to make a career switch if they are young, have been out of the work force for some time, and particularly if they perceive greater opportunities in a new field. Evidence suggests that they are most likely to transfer to clerical or health occupations.

These findings raise the question of why women do not train in skilled blue-collar occupations, Boothby says. In his view, there are several reasons for their reluctance, which also explain why women and men work in different occupations in the labour force. First of all, women tend to earn more in clerical jobs than in many blue-collar trades (the exceptions being electrical and wire communications, excavating and paving, and mechanics and repairing). Furthermore, they have a greater chance of acquiring supervisory positions in that area than in male-dominated occupations. In addition, Boothby says, family responsibilities may dissuade women from entering occupations that require a large investment in on-the-job training; and most blue-collar trades fall in that category. Too, they may, with some justification, be sceptical about their chances of finding work in male-dominated areas. And, finally, they may regard blue-collar jobs as undesirable or unsuitable.

Encouraging diversification

Nevertheless, there are good reasons for encouraging women to train for blue-collar jobs, Boothby maintains. Their recruitment would bring about greater occupational diversification in the work force and would also alleviate the current shortage of skilled workers in many blue-collar occupations.

As a first step towards this goal, the author recommends that EIC establish a task force to investigate possible discriminatory practices in training programs, particularly with respect to the selection process for industrial programs. While there is no direct evidence of discrimination, "some suspicion persists on this score," in Boothby's opinion, since the vast majority of women trainees prepare for predominantly female occupations.

As well, he advocates EIC pilot programs to train women in highly skilled, blue-collar occupations where there is a strong demand for qualified workers. The EIC should actively search for employers who are willing to carry out this training in return for subsidies, he says.

Finally, Boothby suggests increasing dependant allowances for trainees in institutional training programs, to the point where they reflect the actual cost of providing child care.

Women Re-entering the Labour Force and Training Programs: Evidence from Canada, by Daniel Boothby. (EC22-129/1985 E; \$5.95 in Canada, \$7.15 elsewhere).



Women opt for training as nurses

Courtesy of the Ottawa General Hospital

Saskatchewan's uranium industry

The Saskatchewan government is doing a pretty good job of taxing its profitable uranium industry. Even so, provincial residents may not benefit as much as they could, says a recent Council paper.

In research carried out for the Economic Council's report on western economic growth (*Au Courant*, vol. 5, no. 2), University of British Columbia professor Harry Campbell concludes that Saskatchewan's uranium industry is thriving and will likely increase its contribution to provincial growth and employment in the future. In fact, this industry could supplant oil as the province's most important resource by the end of the century, in his opinion. So the economic impact of provincial tax and expenditure policies with regard to uranium merits close attention.

The author notes that provincial governments usually justify taxing their natural resources on two counts: first, to provide competent resource management while ensuring that provincial citizens receive a fair share of the "rent" (or excess profits) from an exhaustible resource (the "equity" argument); and, second, to avert environmental damage while utilizing market power effectively (the "efficiency" argument). Campbell applies this theory to the specific case of the Saskatchewan uranium industry to see whether provincial tax and expenditure policies are both efficient and effective.

Tax policies

To evaluate the impact of provincial taxes on the uranium industry itself, Campbell looks at a successful mine in northern Saskatchewan (the Key Lake mine). He finds that the provincial tax system (a combination of basic and graduated royalties) works reasonably well, in that it allows the government to collect a sizeable share – somewhere between 45 and 65 per cent – of the rent, without unduly penalizing the mining company. While taxation slows the rate of mineral extraction, Campbell finds that producers forgo no more than 58 million dollars' worth of output, or 3 per cent of the net present value of the resource. A jump in the inflation rate would provide the province with an even larger slice of the

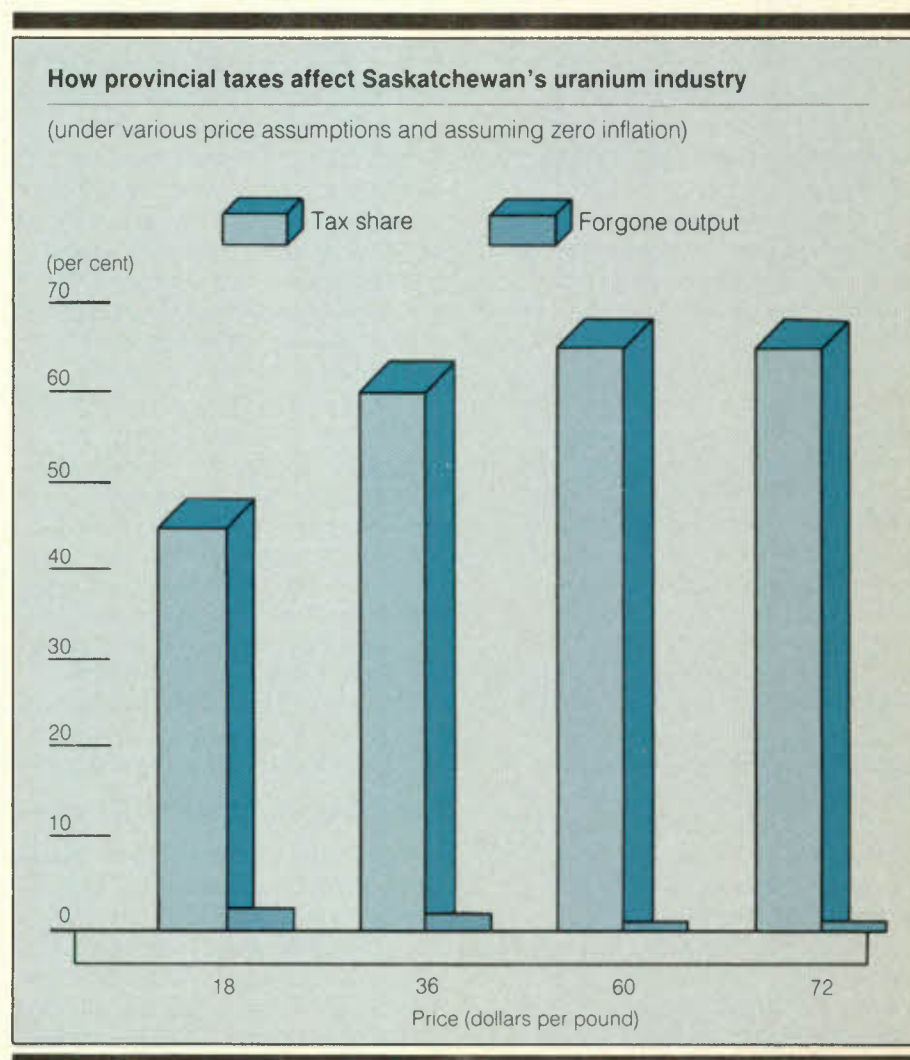
revenue pie without imposing further costs on producers. In addition, there are some benefits to slower production, the author claims. It is better for the environment, for one thing. As well, it is good for the local economy, since it means that people and businesses in the area are occupied for longer periods with mine-related activities.

Expenditure policies

The revenues acquired through taxation are passed on to provincial citizens in the form of lower taxes and more or cheaper public goods and services. In addition, a portion is invested (via a Heritage Fund) for future needs. Unfortunately, this policy to benefit the people of Saskatchewan may backfire, Campbell says. One of the major consequences of a resource boom is a population increase in the affected

province, as outsiders seek to share in the new prosperity. In Campbell's view, their arrival could result in more competition in the labour market (and hence lower wages than might otherwise be paid), as well as smaller per-capita income gains from the resource boom. This may occur in Saskatchewan, the author suggests, and if so, residents would be adversely affected. Furthermore, he notes, the current government policy prohibiting the investment of resource revenues outside the province means that at least some of the funds are earning less than they could.

"Exhaustible resources and economic growth: The case of uranium mining in Saskatchewan," by Harry F. Campbell. Discussion Paper No. 270.



Sizing up a crown corp.

The jury is out on whether Ontario's Urban Transit Development Corporation has been a worthwhile enterprise.

But Carleton University economics professor Christopher Maule says it's a good example of how a government-created organization "gains a life and will of its own and becomes part of the political process." He looked at the UTDC as an example of a risk-taking government enterprise for a Council project in that area (*Au Courant*, vol. 4, no. 3). The Council asked Maule to focus his analysis on four issues: the reason for the creation of a government enterprise; the evolution of the corporation; accountability procedures; and the likelihood of "privatization."

The UTDC was created by the Ontario government in 1973, in keeping with its new policy of encouraging the development of an intermediate-capacity rapid transit system. Its general objectives were to establish and promote research and development (R&D) on transportation systems, to oversee the integration of new developments with existing systems, and to ensure competition in the sale of new equipment to Ontario municipalities.

At its inception, the Corporation had 40 employees, and its financial statement at the end of its first year of operation showed assets of \$11.3 million, sales of \$590,000, and a net loss of \$928,000. The picture ten years later was strikingly different. In just a decade, the UTDC had mushroomed

Why a government enterprise?

Maule found no evidence that the Ontario government had considered any other alternatives to the UTDC at the time of its creation. It seems to have chosen this policy option for several reasons, he says, but chiefly

The evolution of UTDC . . . is explained by the way in which the self-interest of politicians, transportation bureaucrats and corporate management coincided . . .

because of the conviction that since most projects would be farmed out to private-sector firms, an agency within government would be required to handle the inevitably complex contract arrangements. That argument has since lost much of its persuasiveness, in the author's view, insofar as the present-day activities of the UTDC are such that contracting out is not very difficult.

Another reason advanced for choosing a government enterprise was that it could bypass effectively the open tendering system in order to direct industrial benefits to Ontario firms. Maule cites a number of examples of this practice — such as the untendered contracts for subways and streetcars for the Toronto Transit Commission. In his view, the "widespread use of such poli-

cians, transportation bureaucrats, and corporate management coincided," Maule says. The embarrassing failure of the agency's first major project (a contract with a West German firm to develop magnetic-levitation transportation technology) united these groups in a desire to avoid any further setbacks. This harmony of interests, Maule con-

cludes, "...is probably common to all government enterprises and helps explain why, once created, a GE takes on a life of its own and is difficult to reverse or terminate."

Accountability

In some respects the Crown agency has been obliged to provide more detailed accounting of its activities than a private-sector firm, Maule says, pointing to a variety of formal and informal requirements to that effect (such as the legislative process, reports to bureaucracy, audits, and so on). He notes, however, that the informal mechanisms (such as journalistic investigations) tend to focus attention on minor spending items rather than on more important matters, such as the choice of technology to be developed and exploited.

Privatization

The notion of transforming the UTDC into a private company has attracted a good deal of interest in recent years. But that plan might be difficult to carry out for a number of reasons, Maule says. In particular, he points to the difficulties involved both in evaluating a corporation that fulfills social as well as private objectives, and in selecting a buyer, given the probable government reluctance to sell to an out-of-province firm.

Once a government decides to create a G.E., the organization gains a life and will of its own, and becomes part of the political process.

into an enterprise of over 1,000 employees, with assets of \$156 million, sales of \$86 million, and net earnings of \$1.6 million in 1983. Today, Maule observes, its mandate has been broadened to the point where it is "capable of providing a turnkey mass transit system plus operation and maintenance services if the customer requires it."

cies will fragment the Canadian market and undermine the ability of Canadian-based firms to realize economies of scale."

Evolution of the corporation

The rapid growth of the UTDC to a size far beyond that envisaged by its creators can be ascribed to "the way in which the self-interest of the politi-

"The Urban Transportation Development Corporation: A case study in government enterprise," by Christopher J. Maule, Discussion Paper No. 281.

Capital income tax rates vary greatly

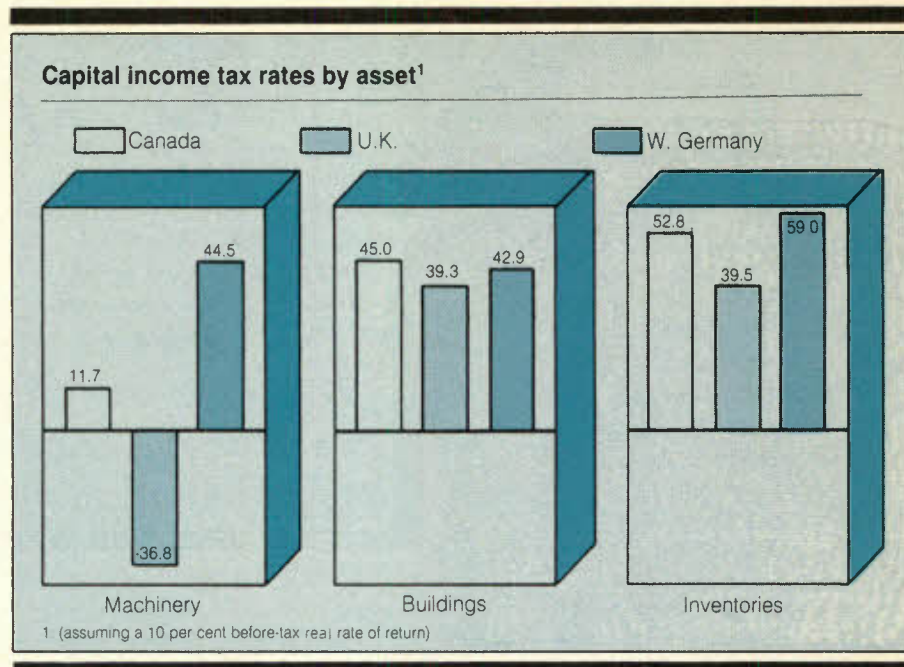
Canadian businesses, take note! The biggest tax breaks go to manufacturing companies, especially if their investments are debt-financed or in machinery. The tax rate is much higher for firms in the commercial sector and for those with investments financed by equity or in buildings and inventories.

Furthermore, householders pay proportionately much more to the tax collector if they invest directly than if they invest in institutions handling pension funds or in insurance companies – which, in fact, receive tax subsidies.

That kind of uneven tax treatment is not only unfair but also damaging to Canada's productivity, say Michael Daly, Jack Jung, Pierre Mercier, and Thomas Schweitzer in two papers written for the Council's current project on the taxation of capital income (*Au Courant*, vol. 5, no. 1). They add, however, that Canada's capital income tax system compares quite favourably with that in four other industrialized countries.

Reason for research

In light of some new information on the taxation of income from capital, the four Council economists decided to look at the situation in Canada, to see how this country stacks up against other industrialized nations. A recent study of tax systems in four western



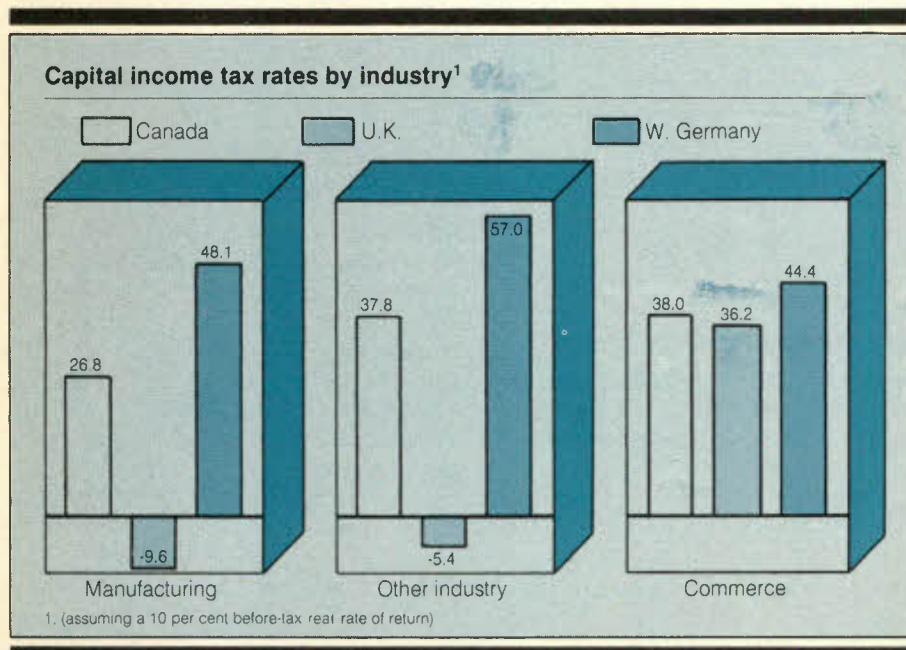
countries – the United States, the United Kingdom, West Germany, and Sweden – discovered large variations in their marginal income tax rates (that is, the rates on income from new investments), depending on the type of capital, the method of finance, the tax status of the investor supplying the funds, and the industry where the investment was made. The study also suggested that these inconsistencies, rather than the actual size of the tax bite itself,

impede economic growth. According to the study's findings, growth is greatest in West Germany, where capital taxes are highest, on average, but also the most uniform. In contrast, growth is slowest in the United Kingdom, where the variation in tax rates is the widest.

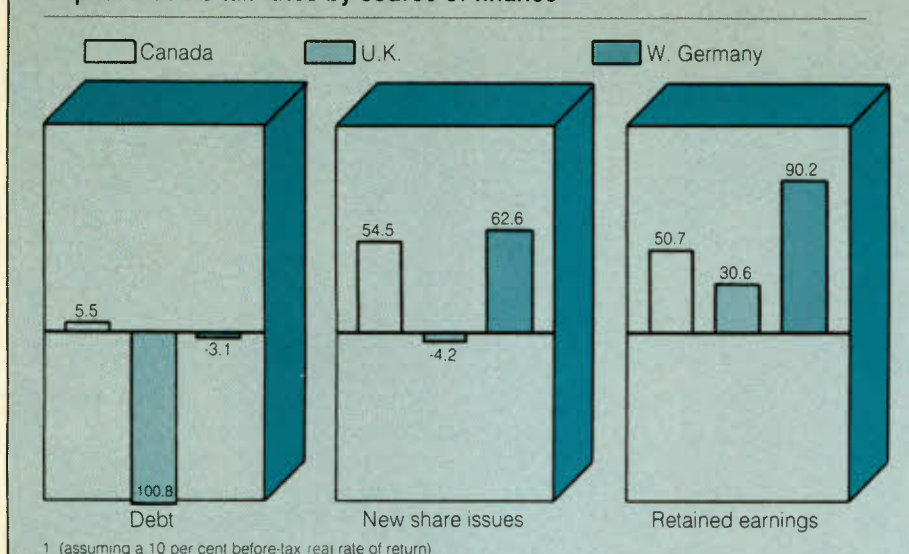
A look at the capital income tax system in Canada reveals that it is characterized by similar inconsistencies, which are discussed below and illustrated in the accompanying charts.

Corporate taxes

Compared with personal taxes, which account for 30 per cent of all tax revenues, corporate taxes contribute very little – 6.5 per cent in 1982, for example. Nonetheless, these taxes “bear primary responsibility for the variation in effective marginal tax rates among industries,” as the result of an inconsistent treatment of assets, forms of finance, and even industries. For example, certain accelerated depreciation allowances enable Canadian firms to write off investments in machinery at an early stage. Consequently, as Chart A indicates, machinery is taxed much more lightly than buildings – which have a longer tax life and, furthermore, are affected by property taxes – or inventories, where the inventory allowance does not always compensate for inflation.



Capital income tax rates by source of finance¹



Another culprit is the investment tax credit, which only applies to certain types of new investment at rates that vary by region. A further distortion is introduced by the tax breaks given to Canadian manufacturing and processing industries, which are not granted to other industries and commercial enterprises (see Chart B).

Taxation rates differ according to the kind of financing used as well, as Chart C demonstrates. The tax deduction allowed on interest payments made by corporations, along with the non-deductibility of dividend payments, means that investments financed by debt (corporate bonds, for example) are taxed at a considerably lower rate than those financed by new share issues or retained earnings.

Personal taxes

Here, too, the tax treatment of capital income varies greatly, depending on the source of the investment funds. There are three types of investor, the authors explain: the householder, through savings in banks, stocks and bonds, mutual funds, and so on; tax-exempt institutions holding pension funds or RRSPs, which represent the indirect savings of individuals, as well as the pension business of life insurance companies; and life insurance companies, representing household savings in the form of life insurance policies. As Chart D shows, capital income going to householders is taxed far and away the most heavily. By definition, tax-exempt institutions pay no tax, while life insurance companies receive particularly favourable treatment through provi-

sions allowing them to deduct the income from equity-financed, as well as debt-financed, investments (provided it is used to fund future payments to policyholders).

This haphazard tax treatment hurts productivity growth and national output by encouraging investment in activities with the highest after-tax returns rather than in the most productive ones with the highest rate of return before taxes. According to the authors' estimates, GNP growth in 1984 could have been as much as 2 per cent higher under a more uniform system – that is, one with less variation in effective marginal tax rates on income from different investments. In current-dollar

terms, that amounts to about \$8 billion in forgone income.

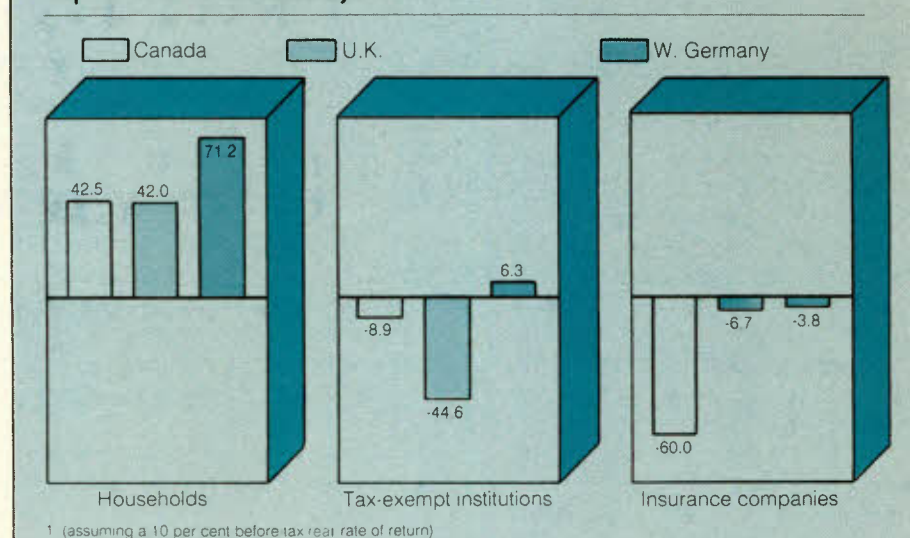
But tax inconsistencies were as great or greater in the United States, the United Kingdom, Sweden, and West Germany, the authors found. Canada vies with West Germany for the system with the least variation in tax rates, and it has the highest growth rate, their analysis shows. The United States and Sweden are in the middle range, while the United Kingdom has the most irregular system.

In the authors' view, many of the proposals contained in a Discussion Paper tabled with the 1985 Federal Budget could, if implemented, reduce the variations in Canada's capital tax rate. Recommended changes include cuts in the corporate tax rate, a reduction in depreciation allowances, and elimination of the investment tax credit, except for scientific research. If these measures were put into effect, GNP growth would be at least 1 per cent higher, they conclude.

"The taxation of capital income in Canada: A comparison with Sweden, the U.K., the U.S.A., and West Germany," by Michael Daly, Jack Jung, Pierre Mercier, and Thomas Schweitzer. Discussion Paper No. 289.

"A comparison of effective marginal tax rates in Canadian manufacturing," by Michael Daly, Jack Jung, Pierre Mercier, and Thomas Schweitzer. Discussion Paper No. 293.

Capital income tax rates by owner¹



S·P·E·A·K·I·N·G·O·U·T

Last summer Judith Maxwell was appointed chairman of the Economic Council. A graduate of Dalhousie University, who also studied at the London School of Economics, Mrs. Maxwell spent six years with the Financial Times, as economics writer and member of the Editorial Board, prior to her appointment as director of policy studies at the C. D. Howe Institute. Subsequently she worked as a consultant to Esso Europe Inc. and, most recently, for the Coopers and Lybrand Consulting Group in Montreal.

In the following interview with *Au Courant*, Judith Maxwell discusses her views on how the Council can best fulfil its mandate to provide relevant and timely information on key economic issues.

Au Courant: How do you envision the role of the ECC?

Maxwell: The Council has three unique qualities. It's independent; it focuses on medium-term economic research; and it issues consensus reports on that research. The role of the Council has evolved over the years in response to a changing environment. I think its primary role in the next five to ten years will be to contribute to the formation of a national consensus on economic policy. I also think this will be a very important role for two reasons. First, Canada faces some tough choices over the next decade. The structure of the economy is changing rapidly in response to an array of technological, demographic, and international trends. We have little or no control over these trends, and it is difficult to predict where they will take us. Yet structural change is disrupting people's lives and confronting business with a turbulent marketplace. So the Council has a major contribution to make in enhancing our understanding of structural change, identifying the new trends, and projecting their potential impact.

But I think we can go beyond that, which brings me to the second reason. During the past twenty years, interest groups in Canada have increased their visibility and their ability to articulate



Judith Maxwell

their views. This is valuable in itself, but it makes consensus more difficult to achieve. Governments and the public are subjected to a barrage of well-prepared statements that reflect the specific viewpoint of an interest group (an industry, a region, a consumer group, and so forth). But we have no mechanism for sorting out these viewpoints and identifying the common ground. Here, the Council has a role to play in issuing consensus reports that offer policy advice reflecting the broad perspective of Council members. These reports will identify the common ground among many interest groups. But perhaps just as important will be our capacity to articulate the framework for policy and to identify options.

Because we are independent and

The Council's primary role in the next five to ten years will be to contribute to the formation of a national consensus on economic policy.

because we can combine sound research with the wide experience of Council members, we can provide the benchmarks or reference points for a better understanding of economic issues.

Au Courant: Why was the Economic Council created in the first place?

Maxwell: Well, the Council was created in the early 1960s, at a time

when the quantity and the quality of economic research in the country was quite different from what it is now. Then, there were relatively few private research institutions, while federal and provincial government departments did not have the big research teams that were subsequently put together. In fact, someone I talked to recently said that in the early 1960s Ottawa had only 1½ economic research departments: one at the Bank of Canada and another half in Finance. I think that both Prime Minister Pearson and the Council's first chairman, John Deutsch, observed this lack of critical mass in economic research. They also felt strongly that there was a need for a consensus type of organization to bring together the viewpoints of many different groups in the country.

Au Courant: Has the Council changed its function over the past 20 years?

Maxwell: Both the Council and the marketplace have changed quite dramatically. For one thing, private research organizations and interest groups have greatly increased their capacity to speak on economic issues. Also, the government departments here in Ottawa and in the provinces have developed really substantial research teams. As federal and provincial departments became more and

more capable of serving their own research needs, the Council moved into deeper, more technical research areas and into more comprehensive studies. But the impact of these government policy research groups probably has reached its peak. Now, in the environment of budget restraint, there have been significant cutbacks in the economic research capacity of individual departments. In that sense, the market is evolving, yet again, in a

way that reinforces the need for the Council.

Au Courant: Given these changes, should the Council now be developing new priorities?

Maxwell: Well, I feel that the Council has to go through a major evolution, in that it now has to improve its ability to communicate its research, in order to reach a broader audience. In

gesting directions for policy. To do this we are implementing changes in Council meetings in order to make greater use of input from Council members.

Au Courant: What contribution can these Council members (the "board of directors") make to Council reports?

Maxwell: Council members are

The Council should be providing a framework for public discussion, by describing issues and options and . . . by suggesting directions for policy.

my view, the Council has been hiding its light under a bushel, by doing excellent research but not communicating it well. There are quite a number of changes that I am proposing to make over the next year or two, which I hope will help us to communicate better. We also have to make better use of the experience of our Council members to give our recommendations greater sensitivity to political and social reality.

Au Courant: Could you spell out some of those changes?

Maxwell: The first important change is that we are going to make Council reports shorter and more readable. We are still going to do the comprehensive and basic research we have done in the past, but we plan now to communicate it better to a wider audience. As I mentioned, I think technical research still has to be done and it should be published. But we must not let the technical work underlying our research make our reports too difficult for people to read. So we are proposing to divide major research projects into a series of small reports that will be made more accessible to a wide audience.

This new approach reflects the evolution in our concept of the market for Council reports. We hope to make a constructive contribution by speaking directly to policy makers, but our current sense of the Council is that it should be reaching a broader audience as well. The Council should be providing a framework for public discussion, by describing issues and options and, as far as possible, by sug-

gesting directions for policy. To do this we are implementing changes in Council meetings in order to make greater use of input from Council members.

chosen to ensure that we have good regional representation, as well as balanced representation from the various sectors of the Canadian economy. Each Council member comes to a meeting with the perspective of his or her own industry or sector, and region. So we feel there are often times when, in the consensus process, they bring quite a different perspective on an issue from the purely economic one. I think we can reach a broader audience if we make a more clear-cut distinction on a given issue between the harsh logic of economic research and the contribution of Council members, with their broad experience in the community at large. The idea is that in major reports we'll report the research and the logical conclusions of that research. Then, in a separate section of the same document, the Council will issue its statement, which may actually make recommendations on policy that are somewhat different from what the economic research says. If we get into situations where the Council's statement differs from the research findings, then it will be very important to spell out exactly the other perspectives that led us to record this difference.

If you look at a key structural issue – like the federal deficit, for example – it is quite clear that it has to be reduced gradually; otherwise, governments will eventually spend all their revenues on servicing the debt, with nothing left to finance basic public services. The really critical questions are: How fast and by what means can it be reduced? There you get into the question of public choice

as much as that of basic economics. I think we have to help educate the public about the importance of these kinds of issues, and we have to give them a framework for addressing them.

Au Courant: Are there any particular subjects that you think the Council should look at over the next few years?

Maxwell: I think if you look at the key issues, some of the most important ones have to do with the process of adapting to structural change. The Council already has a number of very relevant projects in the early research stages, including one on social policy in a period of structural change. There are also the questions of labour-market adjustment and manufacturing-sector adjustment to possible reductions in tariff and nontariff barriers. Those are all areas where we are considering projects.

Education is another area that the Council may have to examine carefully, with the idea of mounting another research program (we did some work on this in the 1960s), since the quality of education in this country contributes enormously to our long-term economic performance. It is widely recognized nowadays that the quality of Canadian education is probably inadequate. At this point in the public debate the federal and provincial governments are arguing about who will pay for higher education rather than talking about the basic quality issue. That is an area where I hope we can put together a good research plan, perhaps sometime during the next year.

Au Courant: The Economic Council is an Ottawa-based organization. Does that mean that it deals only with matters of interest to the federal government?

Maxwell: No. The Council is funded by the federal government, but it is not part of the machinery of the federal government. It has worked very hard to establish itself as a national institution, with relevant advice to offer not only the federal government, but also provincial governments and the private sector. Certainly, a high priority of my first year as chairman will be to meet people in each of the provincial capitals.

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The Council pursues its goal of improving Canada's economic performance in three ways:

Consultation

Members of the Council, representing a wide cross-section of Canadian society, meet regularly with governments and groups to study, analyse, and make

recommendations on significant economic issues.

Research

An expert staff originates research and provides background information on a variety of topics, with particular stress on the medium- and longer-term problems of the Canadian economy.

Information

The need for better information on economic issues has led the Council to place strong emphasis on its contact with the public, through the use of topical publications, speeches, conferences, workshops and media relations.



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