

DIVIDED JURISDICTION
OVER
NATURAL RESOURCE REVENUES

By Anthony Scott

Institute of
Intergovernmental Relations
Queen's University,
Kingston, Ontario

Discussion Paper No. 10

Copyright © 1980

ISSN 0706-1242

Preface

This paper addresses one of the most important questions which lie at the intersection of constitutional and economic questions in Canadian federalism: how to trade off provincial ownership of resources with the idea of sharing and interregional redistribution? Can a full commitment to equalization survive the revenue flows induced by rising resource rents? Traditionally Canadians have seen the federal government as the agent of interregional redistribution. Here, Anthony Scott raises another possibility: that the provinces, acting collectively, without federal involvement, could establish an effective inter-provincial mechanism. Indeed, he raises the broader possibility that some national goals may be achieved by a more fully confederal form of political organization. This paper is highly topical, closely related both to the current constitutional discussions, and to the forthcoming renegotiation of federal-provincial fiscal arrangements.

Anthony Scott, one of Canada's leading resource economists, is Professor of Economics at the University of British Columbia. He is co-author with Albert Breton of The Economic Constitution of Federal States, and numerous other works. This paper was first given to the 1980 meetings of the Royal Society of Canada, and will be published in its proceedings.

Richard Simeon
August 1980

1. Introduction

In this paper, I develop the subject of the Canadian natural-resource revenues now collected by the ten provinces. Should they be left as they are, to be consolidated with each province's other revenues for spending as that province decides? or should they be collected and redistributed by the central government?

My purpose is not to make new claims for either provincial or central resource jurisdiction. It is instead to explore more fully than heretofore a possible system of inter-provincial pooling of the present resource-revenues, independent of Ottawa. As such it would not replace, but supplement, Ottawa's continuing collection of taxes and spending on public goods, services and transfers to persons and regions. You may feel that the whole exercise, being confined to resource revenues, deals with what is only a minor and special part of the present crisis of federalism. With this I may be forced to agree. It is all a matter of rates of exhaustion. Both our patience for discussing constitutional changes and our stocks of natural resources are limited. Which will be exhausted first? Probably we have more patience than resources. If so, after our resource wealth is depleted, we will remain free to continue the search for consensus on Canada's constitution freed from the necessity of considering either the collection or the redistribution of natural-resource wealth!

Yet I would submit that the constitutional discussions can usefully be regarded as the amalgam of three debates. First we must consider the future shape of federalism itself, our system of government by which the functions of making policy about the economy and the society are divided and assigned among two, or three, "levels" of jurisdiction. The second debate, on cultural dualism, is equally urgent, and overlaps the first in the question of special status for one province, or for those of the French language wherever they live.

The third debate, about regionalism, is closest to my themes in this paper. Is it a constitutional problem? For many years the word has been used to refer to the regional or provincial impact of the central government's policies. If you were worried about the differences between these impacts, you were revealing yourself to be a "regionalist"; but few users of that word suggested that such worry had a constitutional interpretation.

But another, more constitutional, meaning does exist. "Regionalism" can also refer to the introduction, in the federation, of provincial or regional provision of particular services, or taking charge of certain functions, by interaction, or co-ordination, or agreement, between the provinces directly. In this meaning, "regional" institutions may be those in which Ottawa may play a minor role, or no role at all. This would, indeed, if it became prevalent, amount to a change in our federal constitution. In this paper I deal with a possible "regionalist" procedure or

institution whereby there may emerge inter-provincial pooling or sharing of natural-resource revenues, independent of today's federal-provincial grants system.

Whether such a procedure is an important precedent for further "regional" agreements and activities is not my theme. Most of my discussion must be devoted to an argument about the rent of natural resources and to whom they should be paid. In a sense, I suggest something about the financial aspects of our future constitution by reasoning from the economics of natural resources. This, you will recognize, is in almost complete contrast with the usual direction of reasoning, from the constitution to the taxing and sharing of resource wealth.

2. Magnitude

Before discussing the question of who should get the resource revenues, we should make sure that we have in mind some orders of magnitude.

Resource revenues have become very important to the provinces, as they were eighty years ago. From 1900 until the Great War, provincial resource revenues averaged about one dollar per person per year. By 1913, in the midst of Canada's great land boom, the provinces would appear to have received almost one-third of their revenues from natural resources. These provincial revenues included (or would include today), payments for the right to own or cut trees, to own or take oil, gas, minerals, or coal from the ground, to use falling waters, and to fish and hunt, commercially or for sport. This fraction, one-third of provincial revenues in 1913, is unreliable, but it is probably a fair indication that the provinces, which had relatively small budgets in those days, obtained a good proportion of their money from alienating the public domain, and from taxing those who took it over, held it, or exploited it.

What has happened to this fraction over the intervening period? For many years it declined, but with recent events it has climbed towards its former importance. After the Great War, because the growth of other parts of the economy provided new tax bases for provincial governments, their financial reliance on natural resources fell. It fell, in fact, from the early 33 percent to only 5 percent in 1970. Here are the intervening percentages, from 1913 to the present.

Calendar 1913	about 33 percent
1926	about 20 percent
1930	12 percent
1939	still 12 percent
1950	still 12 percent
1970	down to 5 percent

In 1970, however, the reversal commences. With a rise in the price of oil, gas, timber products, fish and many minerals, we find that the percentages

for the 1970s have been rising again towards their level at the time of the Great War:

Fiscal 1976/7	12-15 percent
1979/80	24 percent

Of course, not every province gets as much as 25 percent (before federal grants) from natural resources. Alberta gets much more, and other provinces much less. As we shall see, the unequal distribution of resource wealth, as of other sources of provincial funds, is mitigated and "equalized" in several ways.

3. Equalization

The gap between the rich provinces' and the poor provinces' revenues is filled by the central government's "equalization" scheme. Although it has its complications, the principle of the equalization procedure is simple enough. Twenty-nine different provincial taxes, levies, charges and miscellaneous revenue sources are recognised. Ottawa works out how much a national average province obtains from each revenue source, on a per-person basis. Then it simply pays to every province whose revenue from that source falls below the national average a sum large enough to bring it up to that level. (Those provinces whose revenues from that source are above the national average pay or receive nothing.) This is repeated for each of the twenty-nine revenue sources. Currently, these calculations result in equalization payments being made to every province except Ontario, Alberta and British Columbia.

When the system was started in the 1960s, only a few of the main sources of revenue were equalized. The full list of 29 sources did not emerge until 1972/3. Resource revenues were among the last to be added in, one reason doubtless being that, as we have seen, they were very small. Even Alberta did not receive much directly from her resource industries. But when the price of oil and gas shot up in the mid-1970s, the equalization system had become inclusive enough to make sure that all provincial treasuries benefitted from the good fortune of energy-rich Alberta, British Columbia, and Saskatchewan.

This equalization may seem just and obvious, but the increasing value of raw materials and energy, combined with increasing rates of royalty and other resource charges, presents a very dangerous situation. What are the dangers? Two of them can be foreseen if we divide the provinces into the "have" and "have-not" group, according to whether they are rich or poor in current natural resource revenues.

The first danger is the vulnerability of the recipient provinces. The current grant pay-out to the "have-not" provinces through the equalization system is running from a few dollars per person in Saskatchewan, to about

\$600 per person in the Atlantic provinces. These equalization grants form as much as 20 percent of the main sources of revenue of the have-not provinces; in Newfoundland, for example, more than twice what she can collect from her own personal income tax. But this grant is not based on what anyone believes the Newfoundland treasury needs, or deserves, to provide services or transfers to Newfoundlanders. It is based instead on the formula that assigns to Newfoundland an amount large enough to bring its revenues up to the average revenues of all the provinces, have, and have-not together. Naturally, therefore, when the national provincial revenue average rises because the "have" provinces are reaping a huge harvest of royalties, fees, charges and taxes from natural resources, the equalization formula grinds out a demand that Ottawa should pay Newfoundland and the other "have-not" provinces much larger equalizing grants, regardless of how their own fiscal needs or effort have changed.

The danger in this system is that if, and when, Alberta and the other resource-rich provinces run into a period of depleted resources, or low prices for their raw materials, then the equalization payments to Newfoundland will shrink back by as much as one-third. When this happens Albertans may have only to raise their taxes, tighten their belts, and draw their savings out of the Heritage Fund. But the poorer provinces will have no such buffer. The greater the raw-material-revenue collapse in the "have" provinces, the greater the percentage fall in the poor province's provincial budgets.

This dangerous vulnerability was reduced somewhat when between 1973 and 1977 Ottawa took steps to reduce the weight of soaring raw-material prices and sales by halving the entries for resource revenues in the equalization grants formula. But this arbitrary and ad hoc modification, of course, also reduces the extent to which Canadian provinces are put into an equal financial position: it now permits the "haves" to enjoy actual per capita revenues far above the revenues and services of the "average" province, and even more above the have-not provinces. Alberta, for instance, can build a \$10 billion Heritage Fund, but Newfoundland, with resource revenues no longer equalized, cannot even make a start on a similar provision for its own future. Thus, although the vulnerability danger has been averted, the cure has been simply for Ottawa to abandon the goal of regional equalization.

The other danger posed by the equalization system is that it may seriously damage the whole federal fiscal and monetary system. As I have said, every extra dollar of provincial resource revenue in the "have" provinces must be matched by a new dollar from Ottawa to be paid to a "have-not" province. Today, it would appear that many of these extra dollars from Ottawa are coming from new borrowings. That is, in the short run, they are a major reason for our treasury deficit. This is serious enough to make us question whether even one-half of energy earnings should be equalized.

In the long run the situation is just as bad. In the long run Ottawa equalizes the Alberta oil and gas earnings by raising taxes on every federal taxpayer. The requirements can be extraordinarily high.

Equalization is always costly, running to about \$7 of new federal taxes for every extra \$100 raised by the provinces. But for oil and gas revenue it is much worse than this. Courchene and Coppelstone estimated recently that Ottawa would have to raise its tax collections on you and me by \$33 to equalize an extra \$100 of provincial oil revenue. This is enough to make the average tax payer groan in despair every time he reads about a new oil discovery.

4. Quick Remedies

Soaring oil and gas revenues, evidently, endanger the equalization procedure and its equalizing goals. The same difficulties could arise if prices of the products of forests, mines, inland waters and other resources suddenly increased. What can we do?

Let us briefly consider two procrustean remedies: to transfer the resources to the central government; and to abandon equalization. I will reject them both.

The first remedy is to transfer the resources now owned or regulated by the provinces to the central government. The revenues would naturally pass as well, and Ottawa would then be able more easily to keep equalization under control. This would indeed be a drastic remedy, and I offer two justifications for spending little time on it.

The primary justification is pragmatic: Land and resource transfer is, politically, out of the question. Just as British constitutional history is often portrayed as a series of triumphs over the Royal power to collect taxes arbitrarily, so Canadian federal history might be presented as a sequence of popular - and provincial - successes in winning claims to land, a sequence now prolonged by new claims to coastal waters and their resources. As a result, many Canadians think of their federation in a geographical sense, with each province's character embodied in "its" territory and differentiated from others by boundaries rather than by religion, language or law (a generalization difficult to apply to Quebec, however.) Although this conjecture obviously needs further refining, its only purpose is to support my presumption that the remedy must not deny the "right" of the provinces to "their" resources.

To speak of provincial rights, brings us to the related matter of their responsibilities, which include the management in the long run of land-use, transportation, employment by urban and general economic and social planning on a provincial scale. These "landlord" responsibilities, I suggest, provide the second justification for not considering a re-assignment of ownership or powers over resources to the central government. The power to vary the rate or amount of resource charges or the method of their collection, like the power to vary the conditions of resource tenure or exploitation, is an indispensable tool of provincial economic management. The revenue power strengthens and supports the other instruments of control.

In this justification I have invoked the "allocational", rather than the "average" aspects of resource taxes and charges. Just as the tariff is a key tool for the policy of protecting manufacturing indus-

tries, and just as railway freight rates are a tool of agricultural and locational policy, so manipulating resource revenues is an instrument of regional economic policy. In all three cases this is so even if, or when, the amounts of revenue collected are trivial.

Thus I reject the suggestion that the dangers that provincial resource revenues pose for the central government's equalization system should be dealt with by centralizing the power to control and tax the resources.

A second procrustean remedy would be to scrap the equalization system (perhaps replacing it with some other approach to correct the disparities between the various governments' needs and revenues.) This remedy is suggested only by the most separatist or regionalist opinions, probably because the equalization-grant system is the strongest modern tangible evidence of national solidarity. The continued acceptance of its obvious goals, symbolises altruism and an empathy among those in the richest, and the poorest provinces.

Compared to the inter-governmental bickering over "subsidies" that characterized the whole period before the 1940 Rowell-Sirois Report, the systematic inter-regional redistribution accomplished by equalization is a significant improvement in the economic constitution.

In 1867, redistribution on any scale was regarded as a blot on the clean canvas of Canadian financial relationships. But in this century, our experience with the wartime tax-rental payments, our reflections on such reports as that of the Rowell-Sirois Commission, and the general support for campaigns such as the war on poverty and regional economic expansion have reflected a complete transformation of Canadian ideas about inter-provincial discrepancies. Today equalization is taken for granted, an embodiment of national unity, uniquely Canadian. To scrap the equalization scheme because it is endangered by resource revenue problems would be a most perverse remedy.

Ironically, the dangers to this scheme from the wild explosion of oil and gas values are also uniquely Canadian. They stem from our very own "staple" form of growth, a pattern in which the various regions successively rise to economic importance as their local resources are sought in world markets. But the staple system of national economic development imposed high public costs and demanded unusual social and geographic mobility. Now there is at least the beginning of policies to slow regional resource exploitation to a more human pace. Furthermore, the same economic tools that may control this pace are available to redistribute provincial revenues. Meanwhile, the equalization formula already tends to generalize one region's good fortune, so that the level of public services provided by the luckiest province is approached by all the others.

The upshot of this section is that I reject two apparently quick remedies for the danger to the equalization system. Either to transfer resources and their revenues to the national government, or to abandon equalization, would be to cut off our nose to spite our face. I press on to suggest a less perverse solution to the resource-revenue problem.

5. Revenues and rent

If this paper were intended for economists, I would be obliged at this point to dwell on concepts that need to be kept straight. But these are likely to be a source of some tedium and lethargy to everyone else. I shall therefore summarize what I feel is of some importance, and skip the rest. Much of what I have to report turns on the idea of the rent of natural resources, and its connection with public revenue from these same resources.

To commence, I would take readers back to the days of the French enlightenment to understand the importance of the concept of the "net revenue" of land. This idea of "economic rent" as the central principle of the distribution of the national income was refined by Adam Smith and David Ricardo. Its policy implications were also noticed by these writers, and were focussed and popularized in North America 100 years ago by Henry George. For all these thinkers, and their followers, the rent of land and of natural resources was a surplus, a portion of production that was in excess of the amount needed to pay for discovery, production, maintenance and marketing. It is not therefore a cost, but a residue after all necessary costs (including the cost of those services provided by government), have been paid. It is indeed an income, but an "unearned income".

Second, rent, being an amount in excess of what is needed to develop or replace natural resources, is available for any use to which its recipients may incline. There is the choice. Without harm, rent may be redistributed to any use, or to any other region or country, or accumulated and passed on to any later generation. However it is used, the efficiency of resource development or conservation will be unaffected,

Third, we may ask, to whom should resource rent be paid? There are three main alternatives, the numerical consequences of which have been traced by Professor Helliwell and others. Resource rent may be used (as we use it in the gasoline industry in Canada today) to lower the price of the resource product to the consumer, below its expected market level. Alternatively, rent may be allowed to flow into the dividends of the shareholders of the operating companies, or into the wages of their workers. This is obviously what happens to much rent in the western Canadian oil, gas, and pulp and paper, industries. Finally, rent of natural resources can be skimmed off the top and become public natural-resource revenue, as royalty, Crown dues, licence fees, rentals, bonus bids, corporation taxes, and personal income tax. Perhaps \$10 to \$15 billion dollars every year becomes federal-government or provincial government revenue, taken out of resource rents.

In practice, rent finds its way in all three directions. The government, the landlord, the operator, the worker and the consumer are in competition for their shares, a competition that has many complexities. For example, a low price, a means of redistributing rent that would otherwise become government revenue into the hands of the final customers may force taxes to be raised elsewhere, thus cancelling the advantage to some people. Furthermore, it is conceivable that in the short run at least the rents of both customers and landlords could rise at the same time. Another complexity is that "government" may actually have many ways of capturing part of the rent: either as provincial landlord, charging for royalties, or as federal tax-collector, taxing the incomes of shareholders and alternative rent-recipients. This complexity lay at the heart of the "deductibility of royalties" dispute between certain provinces and Ottawa a few years ago.

Fourth, I would argue that in the near-future rising energy prices will add to economic rents, and will also take the form of a transfer from low consumer prices to higher producer profits and higher public-sector natural-resource revenues. A very large amount of these revenues will accrue to a few provinces, exacerbating the equalization problem.

Fifth, what of rents and resource revenues in the long run? The traditional belief was that landowners would capture an ever-larger percentage of the national income; but this prediction is now in doubt, especially for those who receive rent from exhaustible natural resources. We may begin with David Ricardo. Following a discussion of the matter by Adam Smith, Ricardo predicted that, with population growth, land and natural resources would become ever scarcer. This, he said, would cause food and raw material prices to rise in the long run. He concluded by forecasting that private rents (and so public natural-resource revenues) would increase continually, until most of the national income is swallowed up in rent (including ever-increasing provincial resource revenues). But if, as Ricardo's successors have predicted, land and natural resources are prevented from becoming scarce by mankind's ability to invent its way out of shortages, resource prices will not rise, and resource rents will remain constant or even fall. Furthermore, if certain non-farm natural resources are exhaustible, their owners cannot receive over-large rents and royalties, because their source will be disappearing. Thus there is no certainty that rents, or natural-resource revenues, will continue to increase as a percentage of the national income in the long run.

It follows that although natural-resource revenues are presently a source of great instability in the Canadian financial scene, and although they have created great problems in the task of equalizing the revenues of the rich and the poor provinces, it is by no means certain that they will be a steady or a rising source of provincial revenue. Much less must they be seen as a reliable means of raising the incomes of the poorest Canadians. It is indeed, not impossible that they will again fall to their statistical unimportance of earlier decades, when they amounted to less than 5 percent of provincial public revenues.

Sixth, in addition to the visible rents from commercial energy, timber and mineral production, two other sources of rent must be considered. Invisible rent is that from water, land and air resources that are used free or at less-than-commercial price. Potential rent is that from common-property resources, such as fisheries or range land, which is today dissipated because such resources are disgracefully under-productive and over-exploited. These resources are mostly renewable and indispensable, and may, if properly organized, bring increased public revenues in addition to those now collected. At any given time, our economy is enjoying the disposal of both visible (cash) rents and invisible (implicit) rents. But the potential rents of common property are not yet realized, and most of them await the invention of new institutions of ownership or regulation so that their benefits can be enjoyed.

Seventh, exhaustible natural resources are usually durable, so that their rents may be deferred for later enjoyment, as with minerals discovered but not yet mined, and forests not yet logged. Thus today's rents are not independent, but are in a sense competitive with, tomorrow's. The same is true of the rents from fisheries and wildlife. The owner or landlord is, ideally, the person in the best position to make the judgement about when rents should be captured. Alberta and Alaska are examples of governmental landlords that take their rents today, but attempt to look after future generations by assigning much of the rent to funds for later disinvestment. Some of the newly oil-rich nations seem to have taken the opposite decision in that they are consuming the rents as rapidly as they can be realized. Still other governments attempt to keep some of their resources in the ground.

Doubtless I have said enough about the economic nature of resource rents and the related public resource revenues to convince you that they are complicated concepts which we should avoid discussing wherever possible. The chief message is that revenues do arise from surpluses, that they are unreliable both from year to year and as to long-run trend, that they can be used or spent in a variety of ways that does not effect their amount, and that decisions must be made about their timing and accumulation.

6. A Proposal: Inter-Provincial Rent Pooling

What follows is clothed in the trappings of an institution for dealing with provincial finances, natural resource management, equalization and the properties of pure resource rent. But you will recognize that these are only the problems with which a proposed institution would deal. In itself it is a proposal that the second-level jurisdictions in our multi-level federation should not assign or re-assign certain difficult problems to the central government, but instead should combine to form a non-national agency. This agency would exist to perform certain organizational responsibilities of search, administration and coordination. Only two broad functions are proposed. One, the collection of resource revenue from rents of most resources, is already a provincial constitutional responsibility. A new function is not now performed at any level. This would be to expedite agreement on pooling resource revenues and sharing them among the provinces, over time, independently of the present national policies for equalization of provincial finances, social and medical services, and economic development.

Non-national inter-provincial organization of this kind is all but unknown in North America, although it is a feature of complex European federations.

It involves giving an additional task to a new type of governmental institution proposed in several reports and studies of a new constitution for Canada. This is a new upper house to replace or supplement the present Senate, variously outlined as a centralist House of the Federation or as a provincially-dominated House of the Provinces or Council of Federation. The proposal would tend to focus any such House's agenda on relations between the provinces themselves, for what is required is to keep the problem of resource revenues distinct from the centrally-administered equalization system. It has I think a better-than-usual opportunity for breathing life into such a new body, for it would be an essential element in a procedure for dealing with a "redistributational" function that seems to fall between the powers now exercised by the provinces, and those exercised by the national government.

The suggestion that the provinces themselves should pool some portion of their natural-resource revenues, independently of Ottawa and under their own collective control, follows a broader suggestion of provincial revenue pooling (not confined to natural resource revenues) perhaps first advanced by the Tremblay Commission Report in Quebec in 1956. This was built on suggestions by the Ontario government in the 1945 post-war federal-provincial financial meetings. In turn, all of these have a family relationship to the fiscal theory of loose confederations, alliances, and common markets, in which the revenues from the most fertile tax bases tend to flow "upward" from provinces, states or sovereign nations. Germany has long had a system of inter-state sharing, in which the strong "junior" governments not only assigned roles and funds to a weaker central government, but also by-passed this government in establishing their own inter-provincial financial linkages. None of these precedents had much to do with natural resource revenues, and hence had no special rationalization such as that I have derived from the nature of resource rent.

Here is one way it might work. Resource-revenue targets would be removed altogether from Ottawa's present 29-tax provincial revenue equalization of the shorter list of more stable provincial revenue sources. All provinces would contribute a certain proportion of their total resource revenues to a separate inter-provincial pool. All resource revenues would be pooled, not just those from exhaustible energy or mineral sources. Thus the actual, invisible and potential rents from forestry, public lands, fishing and from water power would also be drawn upon. The amount to be contributed by each province would depend on decisions made jointly by all the provinces, about the average rate of resource tax for each revenue, about the agreed size of the rent-yielding resource base in each province, and about the agreed percentage of rent potentially collectible that should be pooled with other provinces' collections.

As resources are more and more rapidly depleted, both the "have" and the "have-not" provinces may wish to save or deposit some of their resource receipts in a "bank" resembling the Alaska or Alberta heritage fund. The institution or agency we are examining would be very concerned with the implications of such funds. It would become evident, for example, that the pooling of resource revenues should allow every province to set up its own fund for the future, to a size depending on the degree of revenue pooling and the amount that it could contribute from its own unpooled rents and revenues. Study of these possibilities would suggest various alternatives. One would be that the existence of inter-provincial resource-rent pooling should encourage the various provinces to build up funds, rather than pool them, with an understanding about whether the future revenue from their respective resource rents funds would itself be sharable. The physical form of the fund could be variable. Thus a province like Ontario or Quebec could select among the policies of pooling the agreed fraction of its resource revenues with the other provinces; building up its own financial heritage fund to make up for the depletion of its natural resources; or, finally, placing extra amounts in its resource heritage fund, for plowing back into resource discoveries, developments, yields and replacements in the future.

Where certain resources are underpriced or given away free, the provinces collectively would have to decide on a "shadow price" to reflect the true rent and potential revenue in each such province. This imposed pricing would be important for water power, and for oil, gas, wood and the use of land and wilderness. The pooled revenue could be divided annually in proportion to the needs or per capita personal incomes of each province. In view of the mobility of the Canadian population, however, it might be even better to divide the pooled revenue among the provinces on a simple population formula, making individual rights to revenues "portable".

7. Decision-making

The previous section has not really presented a workable formula, but sketched a financial device by which resource revenues might be re-distributed geographically. More questions are raised than are answered about how this is to be done. I have suggested only that the procedure should keep resource revenues from being entangled in the equalization system, and that this may require that the provinces, not the national government, make the required decisions.

The unfamiliarity of inter-provincial financial transactions on a large scale, without the intermediation of the central government, may condemn it on the spot in the minds of those who understand what is feasible and what is unfeasible in Canadian political life.

To others, it will seem a derogation of provincial autonomy, not to Ottawa, but to the other provinces. Quebec in particular could be extremely hostile to such an idea. Trying desparately to free her resources from the control of outside owners, she may be unwilling, if she remains in federation at all, to become entangled again in the responsibility of sharing the bounty of her forests, waters and minerals with others. Yet she has not been unwilling to co-ordinate resource policies - we must

remember that Mr. Lévesque himself was one of the most enthusiastic participants of the Council of Resource Ministers in its most active period. And she has not been unwilling to accept (indirectly) the pooling of oil and gas rents in the form of lower energy prices than would otherwise be the case: there has been no talk of Quebec's opting out of this paternalistic scheme.

To still others, it may seem a strengthening of Canadian provincial power, the setting up of an institution in which the provinces are able to, and must, agree among themselves without that interference into their resource-management and revenue policies to which Ottawa is now reluctantly assigned by its taxing powers.

I personally feel it is workable enough to be worth investigating further. To do so brings us back to the question, how are inter-provincial resource-revenue-pooling decisions to be made? How are they to be monitored? Who is to enforce them?

One possible answer is to formalize the deliberations of the inter-governmental first ministers' conference, or of the Council of Resource Ministers. For reasons partially outlined in Breton and Scott's The Design of Federations, I would prefer to rely on a more broadly-based body. As suggested in the previous section, an agency seems to lie to hand in the various central provincial-federal houses suggested in contributions to the national unity debate. To take the most recent example, the Quebec Liberal "Beige Paper", attributed to Mr. Claude Ryan, gives his proposed Federal Council not only a number of duties to ratify federal legislation with important provincial implications, but also to give advice with respect to equalization, and, especially, to be receptive to taking a role in federal-provincial and inter-governmental cooperative mechanisms. Other reports suggest senior bodies with rather similar functions, as is acknowledged by Mr. Ryan. Could such a Council coordinate the provinces' resource-rent pooling?

We must not minimize the gap between what they have proposed and what is needed here. The difference between what I am suggesting and the proposed new upper houses, is that, in the terms of the Canadian Bar Association study, the latter would bring a provincial voice to the drafting and administering of national policies, especially "in conciliating federal and provincial policies and administration and ... in effect (becoming) a continuing federal-provincial conference" (p. 38) whereas what I am suggesting is a role exercised centrally by the provinces in their relationships, not with Ottawa, but with each other. For example, I go beyond the role with respect to equalization suggested by Mr. Ryan, "to give advice", by proposing to remove resource revenues from the present formula, return this set of revenues to those that are not equalized by Ottawa, and develop for agreement an alternative inter-provincial pooling formula, separate from both the House of Commons and the federal bureaucracy.

As everyone knows, among its many and tangled responsibilities, the West German Bundesrat exercises one function of this kind.

Now the Bundesrat itself is not really a modern German institution but the lineal successor of a series of senior German houses reaching back to the need for German unification after the collapse of the Holy Roman Empire, and to the rise of Prussia as the leader among rulers of separate kingdoms and principalities. A traditional institution with such a complex background is unlikely to be ripe for transplantation to the Canadian context, without substantial modification, simplification and experiment.

Nevertheless, it is worthy of report that the Bundesrat, the German institution that has been for some Canadian scholars a possible model for a house of provincial members of a looser Canadian confederation, has among its activities the debating and arranging of transfers mechanism is more or less separate from and smaller than several other transfer mechanisms in which the German federal government is itself directly involved. The parallel is weak, but the mere fact of the activity shows that an upper house such as that proposed for Canada could undertake real debating activities, not as a "continuing federal-provincial conference", as the Bar Association put it, but as a continuing inter-provincial conference, with non-national, fiscal-sharing, duties among the items on its agenda.

Debating indeed would be only one of the first of its duties. The problems of the determination of rents, the pricing of resources, the rates of resource-revenue capture, the fractions to be pooled, and the amounts to go to each member province, would be absorbing and difficult. The new house or agency would find itself immediately involved in the heart of Canadian fiscal and redistributive questions, with serious regional and national consequences for mistaken policies.

Let me now turn to the problem of incentive. Why would the provinces be interested in such a house? In particular, why would the "have" provinces, such as Ontario with its mines and water powers, and Alberta with oil and gas, consent to participate in a pooling of their resource revenues with today's "have-not" regions?

Without posing either as a seer who can predict the decisions of the proposed upper house, or as a lawmaker whose advice will be sought, I can at least think of several incentive carrots, and several encouraging sticks, that may assist the provinces in coming to some initial agreement.

First, in the short run Alberta might be able to gain from Ottawa's agreement on an early rise of oil and gas prices to world levels, in return for agreeing to pool a large part of her consequent royalty gain with the other provinces on a basis that they accept. There is no time like the present.

Second, B.C.'s, Alberta's and Saskatchewan's oil wealth will soon be on the decline. Looking forward, they may be glad to be able to share with other provinces in future years, when Ontario, Newfoundland, or Quebec become again the resource-rich regions.

Third, as a stick, Ottawa might threaten to impose an excise or income tax so heavy, that Alberta and every other province would find joining the pool, and thereafter becoming free of Ottawa's control, a more acceptable way of sharing the rents nationally than through the Ottawa price and tax mill. This ultimate and visible threat from the Ottawa government would not, I think, have to be used. Like a new clause in the constitution, the resource-revenue pooling system, by which the provinces would share among themselves the funds and the risks of depending on natural resource revenues, would soon become a settled and low-cost element among Canadian federal institutions.

8. Concluding Remarks

You will note that I propose that only a certain limited percent of all of a province's revenues from resources be poured into the pool, regardless of whether the province is large or small. Thus, its contribution would not be "equalized" or modified to take account of whether its per capita resource rents were large or small compared with the average of other provinces. It would simply disgorge, every year, some percentage of its natural resource revenues.

This initial formula may be harsh, and even confiscatory, for today's "have" provinces. I should point out that Professor Courchene, and possibly others, modify proposals by suggesting that a resource-rich province should retain resource revenues, before pooling, at least in proportion to its population. (This would probably mean that Ontario and Quebec would never be called on to pool their actual, or "shadow", resource revenues.) What I am suggesting is more drastic. Every province would have to contribute some agreed percent of its total resource revenues. This follows from what I have said about revenues being derived from resource "rents". If you accept that, then economics gives us no reason to prefer any particular owner, or worker, or government, or customer, to capture and enjoy the revenues. No person or region has, economically, a title to surplus or rent superior to another's. To me this means that as a national state, all Canadians have a strong claim. Thus, I propose equal per-capita sharing of the pool created when all provinces have contributed their real resource rents.

Not only rent, but also allocation over time, concerns me more than most specialists. For, on the one hand, we observe the exhaustibility of our national resources. This is important to us as a consumer and user, of course, but even more important as a producer and exporter. What is Canada, what are the provinces, to depend on when our minerals run out and forests cut down?

Mutual support among the provinces would help to give them a choice in this matter. It should make it possible for the provinces to select a deliberate pace, to attenuate, the disappearance of its natural wealth. They should be able to ponder the decision described by the great Victorian economist W. Stanley Jevons, writing about the time of Canadian confederation. Discussing the impending scarcity of Britain's coal re-

sources, which he credited with creating Britain's industrial power, he mentioned first that Britain could slow down her increasing use of energy, in order to maintain

"our just laws, our free and nobly developed constitution, our rich literature and philosophy, incomparably above material wealth, and which we are beyond all things bound to maintain, improve, and hand down in safety to posterity". (3rd edition, p. 455)

But Jevons decided that greatness was better than conservation and maintenance of the present position. In a ringing conclusion he wrote that Britain should proceed to use up her coal at an increasing rate, because

"If we lavishly and boldly push forward in the creation of our riches, both material and intellectual, it is hard to over-estimate the pitch of beneficial influence to which we may attain in the present. But the maintenance of such a position is impossible. We have to make the momentous choice between brief but true greatness and longer continued mediocrity."

Although our provinces have overwhelmingly superior jurisdiction over natural resources, our present constitutional arrangements deny both our provinces and the national government an opportunity even to consider this fateful challenge. Ottawa might do so, but its other functions seem to conflict with the national government's ever approaching the question. But perhaps we might hope that collectively the provinces could rise to the occasion and consider as indeed Alberta has been driven to do, whether they will support and sustain each other, with pooled resource revenues, as one province after another exhausts the natural wealth on which its economy is based.

Alongside such momentous problems we have on the other hand the question of year-to-year instability of economies depending in varying degrees on natural resource wealth. Sharing revenue can be of great help to such economies. Pooling allows each to spread the uncertainty of its revenue at any one time over all the provinces. It also helps reduce the variability of any region's share over time.

The benefits, therefore, are not trivial. But how each benefit is to be worked out is not a matter for urgent or immediate decision. By assigning these decisions to a new federal house, we would have placed the question in the hands of those most expert and most concerned. The new house would be charged with selecting standard or agreed methods of valuation of underpriced or unpriced natural resources; taking a view on the provincial gains or losses from rapid or slow use of resources;

persuading the various provinces into sharing their current revenues; debating the funding versus the spending of the pooled resource revenues; and deciding on a formula for sharing the revenues in a way that complemented (rather than conflicted with) the activities of the national equalization system, DREE and other transfer schemes.

Such a task would, I think, bring out the best in the potential of the new house. At the same time it would make a contribution to solving the most vexed problem of Canadian regionalism, the sharing of resource rents.

*In preparing successive versions of this paper I have benefitted from conversation with many colleagues and friends. Among these I would thank particularly Alan Cairns, Don Smiley, John Helliwell, Jayson Meyers, Milton Moore, Blair Neatby, and Peter Pearse. Earlier versions have benefitted from comments by friends in Australia, especially R.L. Mathews. I have gained from the work of several participants in the 1974 conference held in Victoria, B.C., to consider natural resource revenues (subsequently published in Natural Resource Revenues: A Test of Federalism, Vancouver, 1976) many of whom have followed the matter in their own papers and books. Among them I would mention Paul Bradley, Douglas Clark, Tom Courchene, Walt Gainer, W.R. Lederman, Judith Maxwell, Tow Powrie, Irene Spry, and Andrew Thompson. If this paper had many footnotes, I would have to acknowledge the contributions of Dan Usher, Richard Simeon and Michael Crommelin and particularly my co-author on several related subjects, Albert Breton.

Footnotes

1. See (35), (36), for earlier contributions.

2. See McWhinney (27).

3. See Breton and Scott (2).

4. The data in this section are from (34), p. 29, and (39),
Table 1.

5. Equalization is best discussed by Clark, and by Courchene,
(11), (12), (13), (14). See also Helliwell, (19), (20).

6. See (14) for Courchene and Coplestone's estimates.

7. See (13).

8. (14).

9. These themes are developed in (35) and (36) and by numerous
writers, including P. Bradley, in (34).

10. See (26).

10a. For Ricardo and successors on rent, many modern works are
available. Ricardo's own thoughts are in (33), Chapters III and XXIV.

11. See (17).

12. See Helliwell's calculations in (19) and (20) and Courchene and
Coplestone in (14).

13. See (15) on this.

14. Helliwell and Courchene discuss these other sources. See H.F.
Campbell in (34) and especially Irene Spry (38).

15. See "The Alberta Heritage Savings Trust Fund" with contributions
by myself, Helliwell, Courchene and many others in Canadian Public Policy
(Supplement) VI, 1980.

16. See (25).

17. See (30), (28).

18. See Helliwell in (18) and subsequent papers; Courchene, esp.
(14) and Scott in (35). The volume cited in footnote (15) also has sug-
gestions on this procedure.

18a. See (37) and Simeon in the volume mentioned in footnote 15.

19. See Helliwell for estimates (19), (20).

20. Forthcoming, 1980.
21. (32).
22. (8), p. 38.
23. (32), chapter 9.
24. On the Bundesrat and German institutions, see (4), (21), (23), (3), (27), (29), (14).
25. (14).
26. (22), p. 455.
27. op cit.

References

1. Breton, Albert, "The Volatility of Rents", in Scott, ed., 1976, pp. 250-56.
2. Breton, Albert and Scott, Anthony, The Economic Constitution of Federal States, Toronto, University of Toronto Press, 1978.
3. British Columbia, Executive Council, British Columbia's Constitutional Proposals, one volume, 1978, Paper No. 3.
4. Burns, R.M., "Second Chambers: German Experience and Canadian Needs", Canadian Public Administration XVIII, 4, 1975, pp. 541-68.
5. Canada, Government of Canada, A Time for Action, Ottawa, Supplies and Services, 1977.
6. Canada, Parliament of Canada, Special Joint Committee of the Senate and of the House of Commons, Final Report: Constitution of Canada, Ottawa, Information Canada, 1972, Chapter 13.
7. Canada, Government of Canada, The Constitutional Amendment Bill, 1978, Explanatory Document, Ottawa, Supplies and Services, 1978, pp. 16-18.
8. Canadian Bar Association, Committee on the Constitution, Towards a New Canada, Montreal, Canadian Bar Foundation, 1978, Chapter 8.
9. Canada, Privy Council, Task Force on Canadian Unity, A Future Together, Ottawa, 1979, Chapter 7.5.
10. Canada, Department of Finance, "Description of Fiscal Equalization Program", (mimeo. Ottawa, March, 1980).
11. Clark, Douglas H. "Note on Equalization and Resource Rents" in Scott, ed., 1976, pp. 108-112.
12. Courchene, T.J. "Equalization Payments and Energy Royalties", in Scott, ed., 1976, pp. 73-107.
13. Courchene, T.J. Refinancing the Canadian Federation: A Survey of the 1977 Fiscal Arrangements Act. Montreal. C.D. Howe Research Institute, Montreal, 1978.
14. Courchene, T.J. and Glen H. Copplestone "Alternative Equalization Programs: Two-Tier Systems". (mimeo: prepared for Canadian Tax Foundation Conference on Fiscal Dimensions of Federalism, October 1979).
15. Gainer, W.L. and T.L. Powrie, "Public Revenues from Canadian Crude Petroleum Production", Canadian Public Policy, 1, 1, 1975, pp. 1-12.
16. Goldsmith, O. Scott, "Petroleum Tax Policy to Achieve Smooth Economic Growth in Alaska", Journal of Energy and Development, V. 1, 1979, pp. 81-94.

17. George, Henry, Progress and Poverty, (New York, 4th edition, 1880), New York, Modern Library edition, 1929, Book VIII.
18. Helliwell, John, "Overlapping Federal and Provincial Claims on Mineral Revenues:", in Michael Crommelin and Andrew Thompson, eds., Mineral Leasing as an Instrument of Public Policy, Vancouver, UBC Press, 1977.
19. Helliwell, John F., "Distribution of Energy Resources within Canada: Functional or Factional Federalism?", PNRE Resources Paper #48, Vancouver, The University of British Columbia, 1980.
20. Helliwell, John F., "Energy and Canadian Federation: Some Economic Aspects of Alternative Constitutions" (mimeo: February 1980, The University of British Columbia).
21. Hunter, J.S.H. Revenue Sharing in the Federal Republic of Germany, Research Monograph No. 2, Centre for Research on Federal Financial Relations, Canberra, Australian National University Press, 1973.
22. Jevons, W. Stanley, The Coal Question (London, 3rd edition, edited A.W. Flux, New York, Augustus Kelley, 1965), Chapter XVIII.
23. Johnson, Nevil, "Federalism and Decentralization in the Federal Republic of Germany", Research Papers, Paper No. 1, London, Commission on the Constitution, H.M.S.O., 1973, pp. 12-47.
24. Kresge, David T. and Daniel A. Seiver, "Planning for a Resource-Rich Region", American Economic Review, 68, 2, May 1978, pp. 99-104.
25. Kwavnick, David, ed., The Tremblay Report, Carleton Library #68, Toronto, McClelland and Stewart Ltd., 1971.
26. Marr, William L. and Donald G. Paterson, Canada: An Economic History, Toronto, Macmillan, 1980, Chapters 2 and 3.
27. McWhinney, Edward, Quebec and the Constitution, 1960-1978, Toronto, University of Toronto Press, 1979.
28. Musgrave, Richard A., "Approaches to a Fiscal Theory of Political Federation in National Bureau of Economic Research, Public Finances: Needs, Sources and Utilization, Princeton, New Jersey, Princeton University Press, 1961, pp. 97-133.
29. Myers, Jayson, "The Great "Bundesrat Caper": A German Model for Second Chamber Reform in Canada?", (mimeo: UBC, Department of Political Science, 1980).
30. Oates, Wallace F., Fiscal Federalism, New York, Harcourt Brace Jovanovitch, 1972.

31. Quebec, Gouvernement du Quebec, Conseil executif, Quebec-Canada: A New Deal, Quebec, Editeur officiel, 1979.
32. Quebec Liberal Party, Constitutional Committee, A New Canadian Federation, Montreal, 1980, Chapter 9.
33. Ricardo, David, On the Principles of Political Economy and Taxation, 1817, (ed. P. Sraffa, Cambridge University Press, 1951).
34. Scott, Anthony, ed., Natural Resource Revenues: A Test of Federalism, Vancouver, UBC Press, 1976.
35. Scott, Anthony, "Who Should Get Natural Resource Revenues?" in Scott, ed., 1976, pp. 1-51.
36. Scott, Anthony, Central Government Claims to Mineral Revenues, Occasional Paper No. 8, Centre for Research on Federal Financial Relations, Canberra, Australian National University, 1978.
37. Simeon, Richard, Federal-Provincial Diplomacy: The Making of Recent Policy in Canada, Toronto, University of Toronto Press, 1972.
38. Spry, Irene M., "A Comment on Decentralized Resource Control" in Scott, ed., 1976, pp. 250-56.
39. Statistics Canada, Provincial Government Finance: Revenue and Expenditures, No 68-207, various years, Ottawa, Supplies and Services, 1979.