

Key Questions on Equalization:

A Discussion

L.S. Wilson
Department of Economics
University of Alberta
Edmonton, Alberta
T6G 2H4

June, 2005

1. INTRODUCTION

The theory for the design of an optimal equalization program is well-developed and excellent sources are available on this, including the background document for the Expert Panel.¹ Theory tells us that we should equalize fiscal capacity, rather than revenues, across all provinces, rather than just bringing the low fiscal capacity provinces up to some benchmark. Problems in doing this arise, however, in the main, for two reasons. First, for political, constitutional and financial reasons it seems difficult to equalize across all provinces, to somehow bring the “have” provinces down to the benchmark. The main approaches to doing this would be, first, to require the “have” provinces to pay into the program, which would seem to be politically impossible, or, as an alternative, to, as in Australia, have the federal government top all provinces up to the level of capacity of the richest province, which would be prohibitively expensive for the federal government.

The second main set of problems with applying the theory is that the measurement of fiscal capacity is far from as easy as it might seem. This opens up many problems, particularly with incentives for provinces to develop, or even allow the development of, tax bases. These problems are at the core of many of the most difficult issues faced by the Panel.

The theory of equalization rests on the desirability of achieving two goals – efficiency and horizontal equity. The importance of both of these, in turn, rests on a sense of “nationhood”, the extent to which we see ourselves as citizens of Canada rather than of individual provinces. Horizontal equity is the idea that individuals of like ability will be treated alike by government as a whole. In a unitary state this would naturally be the case. In a federation, however, it might not be if provinces differ in their fiscal capacity. The standard example of this is where some provincial governments have source based resource revenues such that they are able to deliver government services at lower tax rates than can governments in provinces without these revenues. If residents of Canadian provinces see themselves as primarily provincial citizens, rather than national ones, of course, this will not be seen as important. My own view is that, as long as individuals are free to migrate between provinces, the country as a whole seems the natural jurisdiction over which to apply the principle of horizontal equity.

This raises the second traditional justification for equalization – the efficient allocation of mobile resources – labour and capital. The idea is that in the presence of “net fiscal benefits” (NFBs), benefits from government expenditure beyond those paid for through taxes, labour and capital might move across provinces such that they were allocated in inefficient ways. The efficient allocation of factors requires that their marginal products be equalized across jurisdictions. Owners of these factors, however, will migrate so as to maximize their total returns, their marginal products plus any NFB to be gained. Thus if NFBs differ across jurisdictions, marginal products will not be equalized in a migration equilibrium and resources will be misallocated.

¹ See Boadway and Hobson (1993), Economic council of Canada (1982), Boadway (2002), and Expert Panel on Equalization and Territorial Formula Financing (2005)

It has been conventional to argue that efficiency is unimportant on the grounds that labour and capital are not sufficiently responsive to fiscal incentives. This argument has often been supported by reference to the work of Watson.² This argument has always seemed somewhat inconsistent, however, with the enthusiasm of provincial governments for changing fiscal variables to attract labour and capital. More recent work on “fiscally induced migration” and the returns to the equalization program have suggested Watson’s results may not be robust and that the equalization program has been important in increasing overall efficiency in the economy by ensuring less inefficient allocation of labour.³

While transfers for purposes of equalization are our focus here, it is worthwhile to discuss briefly other types of intergovernmental transfers, first, to be clear what equalization is meant, and not meant, to do and second because the funding of equalization in Canada is entwined with one of these other types of transfers. Two other types of transfers are particularly important for our purposes. First, in many, indeed perhaps all, federations there is an imbalance between the allocation of expenditure responsibilities and the allocation of tax sources across the levels of the federation, a so-called vertical fiscal imbalance or “fiscal gap”. There is a presumption (see Boadway and Hobson (1993), p. 77-78) that it is more likely to be optimal to assign expenditure responsibilities to lower levels of government than taxation powers. Many government expenditures are for local public or quasi-private goods or services with local catchment areas. Local provision allows for differences between local areas in provision, to respond to taste differences, and will be more efficient because the providers will be closer to the recipients of the services and thus more responsive to their wishes. Interjurisdictional competition may also lead to more efficiency.

Taxation, on the other hand, might more advantageously be assigned to higher levels of government. There are advantages to tax harmonization, for example, which can be most easily handled by assigning taxes to the national government. Tax competition between provincial governments might result in distortion away from what would be the optimal mix of taxes were taxation done at the national level. Indeed, in many countries the tax powers assigned to lower levels of government are very limited.

Taken together this will mean that there is an imbalance between revenue raising capability and expenditure responsibilities, a fiscal gap, between levels of government which will require transfers. This will most likely be such that transfers will be necessary from the federal to provincial governments. These transfers can be thought of as separate from equalization in that, even if all provinces had identical net fiscal benefits, transfers would be necessary. At the same time these transfers are also entwined with the process of equalization in that they can be used to implement it. Transfers to redress vertical fiscal imbalances can be varied across provinces so as to equalize net fiscal benefits. This is the case in Australia, for example, where all states receive transfers and the size of these depends on the states fiscal capacity (as well as on needs). The existence of a large vertical imbalance, in other words, may make equalization easier to implement.

² See Watson (1986)

³ See Mills, Percy and Wilson (1983) and Wilson (2003)

Second, it is worthwhile to point out that equalization is not meant to deal with vertical equity, with the transfer from rich to poor individuals⁴. Equalization is to ensure horizontal equity, that individuals of the same ability are treated equally by government as a whole wherever they live. This can mean that funds must be transferred from governments of provinces with low average incomes to those of provinces with high average incomes. If, for example, a low average income province has high government owned resource rents, and thus its residents have high net fiscal benefits, it may be necessary to transfer from this province to other provinces even though the recipient provinces may have higher average incomes. This will entail low income tax payers in the high NFB province paying taxes so transfers can be made which high income taxpayers in the recipient province will benefit from. This is seen by some as counterintuitive and as a criticism of the idea of equalization.

Normally, of course, in absence of resource rents, this will not happen. Net fiscal benefits will arise from income redistribution within a province – if expenditure is roughly on a per capita basis and taxation is proportional or progressive. Under these circumstances NFBs will depend on the average income and the degree of progressivity of tax and expenditure policies. We can expect the higher income provinces to have higher NFBs for individuals of given ability. Normally, then, equalization to solve problems of horizontal equity will also entail some redistribution from rich to poor. Solving problems of vertical equity, however, should not be thought of as the purpose of equalization systems, rather vertical equity should be solved by other types of transfer programs, normally ones to individuals directly.

Although not usually discussed in these terms the need to transfer to correct for the fiscal gap and equalization may nearly coincide in case where lower levels of government have very few tax powers. In the extreme case where lower levels have no tax powers at all, in absence at least of considering needs, all provinces would offer the same, i.e. no, net fiscal benefits and equalization would not be necessary. Therefore all transfers would be to cover the fiscal gap and would need to be made in such a way as to preserve equity of NFBs across provinces. For example, if benefits of provincial public expenditure were equal per capita then transfers to provinces based on population would ensure equal NFBs.

The Canadian system of equalization has much to be admired about it and one of those things is the extent to which it adheres to a theoretically optimal system. Indeed this is especially impressive as much of the theory was developed after the structure of the system was in place. The process by which this was developed through public commissions and federal-provincial negotiations with well-informed civil-servants on both sides has worked well. One would not like to see it modified away from one based on sound principles for short-term political expediency. One way to try to ensure this is to ensure that the equalization system is left as an equalization system with other political and economic goals dealt with in other ways.

⁴ See Boadway (2002), p.6-7 for a good treatment of this.

2. ADEQUACY OF OVERALL FUNDING LEVELS

One of the strengths of the current system, and of any system that is consistent with a theoretically correct one as discussed above, is that it should lead to the correct level of funding. There are several caveats around this statement that will be discussed below but in broad terms the system is well designed to automatically yield the optimal level of funding and expenditure and thus of transfers.

Provinces in Canada, unlike lower levels of government in virtually all other federations, have very broad powers of taxation – indeed it could be argued that they have broader powers than the federal government in their access to resource revenues. It should, therefore, be as easy for provincial governments, or at least as easy for the provincial government with the average fiscal capacity, to raise revenue as it would be for the federal government to do so. If this is so there should be no fiscal gap.

We can expect provincial governments to make optimal choices of tax and expenditure policy. Indeed one of the features of the equalization system in Canada is that provinces are left free to do this given local needs and preferences. Equalization payments are based on capacity rather than actual revenues to allow provinces these choices. Provinces therefore should tax and spend at a level such that their marginal social cost of raising extra units of tax revenue should just equal the marginal benefits of more expenditure and we would expect a well-functioning political system to lead to this. Of course provincial residents would like more public expenditure if it were funded from elsewhere but, given that the federal government and the provinces have access to pretty much the same tax bases, there would be little argument for transferring funds from the federal government to the province with average fiscal capacity for this purpose.

On this basis, then, we might argue that the level of taxation and expenditure in the province of average fiscal capacity is the correct one – the marginal cost of public funds will be set equal to the marginal benefits of extra expenditure – and there would be no argument for taxing federal taxpayers to transfer funds to this average province. In other words the level of funding available to this province from its own sources, given that it has average fiscal capacity, is the correct one and there should be no need for transfers to it. It follows from this, as well, that determining transfers to provinces with less than average capacity by raising their capacity up to this average level will also be optimal.

While we will next turn to discussing several caveats to the above analysis, it is worthwhile to stress here the fundamental attractiveness of the current scheme. Provinces have access to virtually all tax sources. We can assume that well functioning provincial governments equate the marginal costs of raising revenues to the marginal benefits of extra expenditures. If this is the case, a province with average fiscal capacity will chose the optimal level of taxation and expenditure and it is to this level that those provinces with less than average capacity should be raised to. In other words, the formula as it has worked in the past automatically determined the "correct" level of equalization funding.

There are, however, some obvious caveats. The first is the question of whether there really is some sort of “fiscal gap” between the federal and provincial governments and what it would mean if there were one. We can say there is a fiscal gap if one level of government can raise tax revenues, at the margin, at a lower marginal social cost than could the other level of government. The concept of a “fiscal gap”, therefore, must be defined at some level of expenditure and this is usually taken to be where the government is meeting its own expenditure responsibilities. In the Canadian case, to the extent there is a gap, it seems likely that, especially in comparison to other federal systems, it would be small because, as mentioned above, the two levels of government have access to broadly the same tax base. In absence of equalization it would be the case, of course, that those provinces with below average fiscal capacity would face a gap but it is less clear that this would be the case for a province that had the average capacity. It is this below average capacity of the “have not” provinces the equalization scheme corrects for.

Despite this argument it is likely that there are fiscal gaps between some provincial governments and the federal government. Two causes are important. First, as mentioned above, those provinces, particularly Alberta, with access to large resource revenues find it possible to raise revenues, at given levels of expenditure, at lower marginal social cost than other provinces or the federal government. Second, the argument is made that while provinces and the federal government both have access to the same tax bases, these bases are inherently more elastic in response to individual provincial taxation than in response to federal taxation. If, for example, capital is mobile between provinces but not internationally then this would be the case for capital taxation. The extent to which this source of fiscal gap will be important will depend on the underlying elasticities, of course, but also the extent to which the provinces collude in setting taxes. Casual empiricism, however, suggests that provinces have not been good at colluding and thus that the provinces perceive that it is “easier” for the federal government to raise funds than for the “average” province to do so.

It seems likely, therefore, that there is some fiscal gap between even the average province and the federal government. The question is what does that mean for the equalization system? Several things can be said. First, and perhaps most important, it is usually argued that the equalization system should not be to deal with overall fiscal gaps, rather other systems for transferring from the federal to provincial governments should deal with this. Per capita schemes such as the CHT and the CST could be thought of as doing this.

Second, it is argued⁵ that the federal government needs revenues in excess of its, narrow, expenditure responsibilities, that there needs to be some fiscal gap. Especially relevant here is the fact that, because we do not have a net equalization scheme, the federal government needs funds to pay equalization. Second, the federal government uses “spending power” to meet certain national objectives with respect to what are otherwise provincial responsibilities. National objectives with respect to portability of healthcare might be an example of this. In other words the federal government uses the same transfers to both close the fiscal gap and to impose certain national standards.

⁵ See Boadway and Hobson (1993), p. 80-81

The second caveat to the discussion of the early part of this section is the question of what is meant by the term “average”. It was argued that, in absence of fiscal gaps (or if any existing fiscal gaps were corrected through other transfer mechanisms), the correct level of funding for the equalization scheme was to bring “have-not” provinces to the average fiscal capacity. Since 1982 the “average” used has been the “five province” one and as is well known this does not bring provinces up to the real, ten province, average. It would seem reasonable to first use the extra funds available under the “New Framework” to raise the average used to the ten province one.

A combination of eliminating the fiscal gap between the federal government and the average province through some sort of per capita grants and then eliminating the differences across the provinces through raising the “have not” provinces up to the average will still leave those provinces above the average with lower marginal social cost of raising revenues than that of either the federal government or the rest of the provinces. On this account, it might seem reasonable to transfer funds from the per capita transfers, the CHT and CST, into the equalization pool in order to raise the “average” even higher, perhaps to the Ontario standard. This might, however, be politically difficult. As well these transfers, while they are in the main used to reduce the fiscal gap, are also used to enforce national standards of, for example, healthcare.

In summary then while there might be a fiscal gap between the provinces and the federal government:

- (i) We would not expect it to be large, compared to other federations, because of the broad access to all tax sources the provincial governments have
- (ii) The Federal government needs revenues in excess of its own expenditures to pay for equalization and to impose some national standards
- (iii) These transfers will go far towards eliminating any fiscal gap between the federal government and the provinces, and
- (iv) We would argue that correcting for fiscal gaps is not what equalization should be for.

What does this mean for the equalization system? First we might assume that the existing CHT and CST transfers go far towards correcting for the “average” fiscal gap, given that the provinces and the federal government broadly tax the same base. Second, the system itself, especially if the correct “average” is used, determines the optimal level of equalization transfers. Despite this, some provinces, notably Alberta, have an easier time raising revenues than other provinces and the federal government. As such there is an argument for using the extra funds available to the equalization system under the “New Framework” to raise the “average” used for calculations, first to the ten-province average and then, perhaps by moving funds from the other, per capita transfers, to the Ontario standard. This would of course be politically difficult and would reduce the Federal government’s ability to enforce standards, to the extent it still does this.

3. ALLOCATING EQUALIZATION

The theory of equalization, which the current system adheres to in many ways, tells us how to allocate equalization among the provinces – that is so as to equalize fiscal capacity. There are, however, several problems with this approach which make its application difficult in practice. In particular certain types of fiscal capacity have been difficult to measure and the methods used give adverse incentives to the provinces. There are arguments for treating certain types of fiscal capacities in special ways. There is the question of whether costs and needs, which may differ across provinces, should be taken into account. Finally there is the question of whether some simpler approach to measuring fiscal capacity than the currently used representative tax system could be adopted.

3.a. Multiple Standards

The “New Framework” accord for Nova Scotia and Newfoundland has raised the question of whether it is reasonable or attractive on some grounds to have multiple standards for equalization. We have, of course, always had multiple standards in that the “have” provinces have not been equalized down to whichever average level has been in place. As well, of course, provinces have received different amounts within the rules of the system in place. The ‘new Framework’, however, is somehow different in that it means not all ‘have not’ provinces are being treated equally even within the current set of rules governing the equalization system. There have also been various programs outside of equalization for regional development, etc., which have resulted in provinces being treated differently, at least by some definitions. These programs, however, have generally not been in the form of “untied” transfers to provincial governments.

It would seem to me to be unattractive to make these special arrangements within the framework of equalization. It essentially means there is not an equalization program rather just a set of special negotiations between individual provincial governments and the federal government. This constantly raises questions of “fairness”, something the public and the press, or at least that portion ignorant of the bases for equalization, already criticize the equalization system over. It also makes these transfers to provincial governments less stable and certain – provincial governments would be constantly wondering if some new deal could be reached. In other words, if there is some reason to think some provinces are not being treated fairly by the system the system itself should be renegotiated such that all provinces continue to be treated fairly within a set of rules.

A separate question is whether the sorts of special provisions made under the ‘new framework’ are reasonable and should be built into the system. Individual province may have special needs of some sort and there is the question of whether ‘needs’ should be incorporated into the equalization system in some way. There is also the question of the treatment of nonrenewable resources in the system. We will discuss both of these issues in more detail below but here take the view that if there should be special allowances made for them this should be negotiated into the equalization program in such a way that all provinces are seen to be treated fairly within the rules.

Finally, an underlying argument, at least from the recipient provinces, for the new framework seems to be that these provinces somehow do not get ‘enough’ out of the current system. Two points can be made here. As discussed above, raising recipient provinces to the fiscal capacity of the average province seems quite a reasonable standard and goal for the equalization program, remembering that it is not meant to be a system to transfer to individuals with below the national average income. There are other programs to do that. Second, there are a number of development programs outside of equalization which benefit these regions.

3.b. User Fees and Property Taxes

User Fees

The issue of the treatment of user fees is clear in theory. The only question might be the extent to which various “taxes” are mislabeled as “user fees”. The goals of both horizontal equity and efficiency require that net fiscal benefits be equalized across jurisdictions. If individuals pay for services, and pay just the cost of those services they themselves benefit from, then there will be no NFBs for others to share in or to migrate to capture. These fees should not, therefore, be included as part of fiscal capacity to be equalized.

A problem, however, is that some taxes are mislabeled as user fees. If fees are unrelated to the amount of service the individual uses then this would be the case. So, for example, a special levy based on income to pay for health care might be labeled as a “user fee” but is in fact an income tax and should be included in the fiscal base and equalized.

I have no knowledge of what is included in this category and indeed I would have trouble knowing the extent to which any item was in fact a user fee or whether there was some taxation component. Casual observation suggests that many of the charges labeled user fees are rather lump sum taxes so the extent to which these generate NFBs would depend upon the extent to which use was also of a lump sum nature. I note⁶ that user fees are currently only equalized at 50 per cent and this may be a good solution.

Property Taxes

Housing and property values present difficulties not just in equalization calculations but in other areas of economics as well. For example, in calculating consumer price indices there is a question of whether a rise in house prices is good or bad. Costs to renters go up but owners are better off. A parallel problem would exist were the standard RTS approach applied to property taxation – a higher assessed value does not necessarily mean owners can “afford” more taxes. Property values are clearly higher, and thus the tax base in higher, in some jurisdictions in Canada than others. Applying a representative tax rate to these high bases would suggest large fiscal capacity. In fact, of course people in these communities may be worse off in real terms because of the high housing costs.

⁶ See MacNevin (2004), Table 6.5, p. 205

The direct application of the RTS where the tax base is measured as the assessed value of property, therefore, does not seem a good approach.

It has also been argued that the property tax is a form of benefit tax – that it pays for certain things such as police and fire protection, the benefits of which fall roughly in proportion to property values. If this is the case, as with user fees as discussed above, there would be no NFBs and these amounts would not need to be equalized.

There is a large literature around the work of Charles Tiebout on property taxes and migration between suburbs in metropolitan areas which is quite similar to the work on fiscally induced migration. In this literature the idea is that the rich, who live in more valuable houses, would choose higher levels of public good provision in their suburbs – better parks, roads, etc. The poor, then, will try to move to the suburbs where the rich live and to live in smaller, less expensive, and less taxed, houses to get access to this higher level of public services. This is often seen as an argument for the existence of zoning of various sorts. In this literature however it is not the value of the houses which determine levels of public expenditure and thus the NFBs to be had by moving to different suburbs but rather the average incomes of the residents. House values are just a proxy for, or signal of, incomes.

I do not fully understand the current approach to including property taxes⁷ in the base but know that income is part of the calculation. The suggestion has been made that the current approach to equalization could be simplified by using proxy measures, such as income, for some of the bases which are currently measured in more complicated ways. This is discussed in more detail below. Property taxes might be a base where this alternative approach could most usefully be applied.

3.c. Natural Resources

Provincial natural resource revenues have presented the most difficult problems for the equalization system over the years. This is for a number of reasons which⁸, when taken collectively, seem to make how these revenues should be dealt with in the system open to a wide range of opinions. Among these problems are, first, that many of these resources are owned by the provincial governments directly, rather than by residents of the provinces. This means that the provincial governments control development and pricing of the resources directly and can take the impact of these policies on equalization revenues into account in a direct fashion. It also means that these revenues provide one of the main sources of net fiscal benefits across the provinces – were these resources privately owned the provincial governments might collect only the taxes on the ‘profits’ earned by the owners of the resource rather than the full rents. Natural resources and the nature of ownership of these resources are distributed unevenly across the provinces

⁷ My information comes from MacNevin (2004), Table 6.6, p. 212 but this is somewhat cryptic, as I think MacNevin intends it to be.

⁸ Most of these problems were discussed at the June 3, 2005 workshop. See Dahlby, B. “Report on the Expert Panel on Equalization and Territorial Formula Financing Workshop” and the Panel Secretariat “Equalization Panel, June 3, 2005, Academic Workshop”.

meaning that fiscal benefits are also distributed unevenly. When resources are owned by the provincial governments it also means that the federal government does not share in the revenues from these resources in the same way as it would were these resources privately owned such that revenues showed up as taxable corporate income. This meant that it was difficult for the federal government to meet equalization obligations when oil and gas prices rose in the period when the ten-province average was still in place and Alberta's resource revenues had to be equalized by transfers from the federal government to other provinces.

A second problem is that many of these resources, particularly oil and gas, are non-renewable and thus could be thought of as a form of wealth. It could be argued that production is, therefore, not "income" in some sense but rather a running down of this wealth. It also raises the possibility of the transfer of "resource wealth" into "financial wealth", the possibility that provinces may wish the flow of resource extraction to differ from the flow of expenditure of the revenues from this extraction. The Alberta Heritage Savings Trust Fund is the well-known example of this.

Third, the revenue capacity from natural resources is not easy to measure in the absence of actual production. We know, for example, and can measure, that Alberta has potential sales tax revenue, and thus fiscal capacity, in that base even though it does not choose to exercise it. This fiscal capacity would enter (at least it would if we had a ten-province standard) into equalization calculations. If on the other hand, Alberta has discovered natural gas resources but does not choose to let these be exploited it is not seen as having this capacity. This allows for provinces to control development of natural resources to manipulate the equalization calculations to a degree far greater than it can with other bases.

Natural resources each have their own characteristics and thus rent generating abilities making it hard to lump them together in one class. Even within oil and gas production, for example, we have light crude, heavy crude, off-shore oil and natural gas each of which generate different rents. The fact that we need to break down natural resources into sub-groups means in turn that it is far more likely that a particular resource is centred in one or a few provinces. This also makes possible more manipulation of the equalization system by provinces.

Fifth, the revenues from natural resources tend to be unstable because world prices fluctuate widely. An equalization system which fully equalized these revenues would mean that recipient provinces would get unstable equalization revenues and that the federal government would have unstable obligations. This could, of course, be ameliorated by some sort of averaging system.

What does this all mean for the treatment of natural resource revenues in the equalization system? As noted above this is an area that has caused difficulty to those designing and redesigning the scheme in the past so it is unlikely that a clear, perfect and attractive to all set of arrangements will appear now. Some comments can be made however.

First, there is a difference between government receiving the revenues from the sale of provincially owned resources and the spending of those revenues. Governments can, as mentioned above, oversee the transformation of an asset from “natural wealth” to “financial wealth” for reasons other than the immediate need of revenues. The optimal path for the extraction of a non-renewable resource will depend on the expected rate of price increase and interest rates and this may have little to do with the optimal path for allocating spending over time. Similarly for strategic or political reasons provinces may be pressed to extract resources faster than they otherwise would chose to. These issues suggest that it would be attractive to separate government revenues from resources from government spending of those revenues in calculating equalization. It is the spending of these revenues which generates horizontal inequities and provides incentives for fiscally induced migration, thus it is spending that needs to be equalized.

In practice this might be difficult to sort out. As well, of course, as long as the five province standard is used, and Alberta is not in the base, this is not such a serious problem. We have argued above that it would be attractive to move to a ten province scheme. An attractive solution to all this would be to exempt resource revenues which were put into some sort of formal savings fund, the Alberta Heritage Savings Fund is an example⁹ and include only amounts withdrawn from these Funds in the base to be equalized.

It has been argued that there is no difference between equalizing the lump sum when it occurs or the flow of spending from that lump sum over the years as it is gradually spent. This ignores the fact that ownership is not really vested in the individual residents of the province when the resource is extracted but rather in those residents around when the funds are spent. In other words this is not such a good argument if there is a considerable amount of inter-provincial migration.

A further, and difficult, issue is the symmetry between the existence of funds such as the Alberta Heritage fund and the existence of provincial debt. The repayment of debt could be thought of as exactly parallel to saving in a fund, thus the logic of not counting resource revenues put into a fund would also apply to not counting resource revenues used to pay down debt. It would also apply to including as revenues creating horizontal imbalance and incentives for inefficient fiscally induced migration borrowing and thus increasing debt. Thus provincial borrowing would be considered as revenues and would reduce a provinces entitlement to equalization, something that might be politically difficult to sell.

This is an interesting point in the context of the debate over the 2005 offshore agreements. It is my understanding that both the provincial governments involved have said they plan to use the extra funds to pay down their provincial debts. The logic of the position here would suggest that the solution reached is correct one, if in fact the funds are used for this purpose - the transfer of a “natural resource” into a “financial resource” should not require equalization of those revenues.

⁹ See Emery (2002) and Ossowski (2002) for discussion of these types of funds.

In summary then I like the idea of moving to a ten province system and including Alberta in the average. I also like the idea of doing this by counting only that share of Alberta's resource revenues which is spent, as opposed to put into some sort of savings fund. At the same time, one would need to proceed carefully with this because of the symmetry of the building up and running down of other types of "financial wealth", i.e. provincial debt. This would provide an incentive to provinces to pay down their debts but to a large extent the federal government might be paying for this – it would depend on the spread, and definition, of resource revenues and whether all provinces decided to pay down their debts. If all did, the level of spending in all would fall and the amount need to pay equalization to the poorer provinces would not increase.

A second argument for the special treatment of resource revenues which is often made has to do with the incentives to develop, or allow development of, resources and the incentives to price these correctly. This is the so-called "Base tax-back" problem. Because, as mentioned above, the fiscal capacity to produce resource revenues seems unobservable this capacity can only be counted as part of the base if it is actually producing revenues. In many case, therefore, if a province allows development of a resource, it "reveals" itself to have this capacity and loses equalization equivalent to the revenues from the resource. As mentioned above, this differs from bases where it seems easier to measure the capacity even if this capacity is not being used. Similarly, if a Provincial government underprices, perhaps charges less to local consumers than the world price, a resource then the shortfall in revenues would be made up for by larger equalization payments.

Provincial governments do seem to have some incentives to allow development of resources. There is pressure for employment creation and the creation of general economic activity from the public. Capital investment and the availability of resources will mean labour productivity and wages should be driven up.

It is difficult to know how important these incentives are empirically. The "base tax-back" argument, however, has been used to suggest less than full equalization of resource revenues and this seems likely to be reasonable.

Another argument for less than full equalization of resource revenues is that these revenues often involve direct expenditure on infrastructure for their development. It is argued that all economic activity require infrastructure but the government investment necessary for, at least some, resource exploitation is more specific. The building of this infrastructure could be left to the private sector exploiting the resource which would reduce the rents available to the government from the resource. This is also an argument difficult to quantify, and the amounts involved will differ by type of resource and how remotely it is located, but it is no doubt of importance.

Fourth, an important argument that has, at least in the late 1970s and 80's, been a constraint on the design of the system is affordability. Because of the nature of the ownership, by provincial governments, of resources the federal government does not receive a share of these rents. Thus when these rents soared, particularly in Alberta,

when the old ten-province standard was in place, federal obligations to pay equalization also soared and federal revenues had not increased.

Other arguments have also been made for treating resource revenues differently from other revenues. As mentioned above, resources of specific types are concentrated in specific provinces and, because these resources have special characteristics with respect to the rents they can generate, it is necessary to have different equalization classes for each type of resource. This makes the “tax rate-back” problem more severe as individual provinces often determine the national average tax rate for an equalization category

Resource revenues tend to be less stable than revenues drawn from other categories and this has also been used as an argument for not giving them full weight in the calculations.

Finally, however, it should be reiterated that the arguments for fully including resource revenues are also strong. They do generate net fiscal benefits and given the uneven distribution of resources across the provinces these NFBs can differ significantly between provinces and this is the classic justification for a system of equalization.

In summary, therefore, there does seem to be an argument for special treatment for resource revenues but it is not clear how special this treatment should be. The evidence for the negative incentive effects, while no doubt valid, seems largely anecdotal so one is left not knowing what portion of resource revenues should be equalized. Some attempts have been made to provide, on constitutional, or other grounds, a logic for some level of partial equalization. One such was the compromise arrived at by the Economic Council of Canada¹⁰ where it was argued that resource ownership was constitutionally assigned to the provincial governments and full equalization would be equivalent to violating this provision. Another, and more specific, compromise was offered by Gainer and Powrie (1975). They suggested treating resource revenues as if they were privatized, as if they were held by the individual residents of the province rather than by their government. Were this the case, government revenues would only be the income tax share of the revenues accruing to the private individuals and thus it was only this amount that should be equalized.

Both of these suggestions have a certain appeal on the basis of some sense of constitutionality or fairness and since “horizontal equity” is in some sense based on notions of fairness these solutions may satisfy this criterion. It should be clear however that they do not alleviate the other main argument for equalization, the possibility of inefficient fiscally induced migration of factors of production.

3.d. Needs

There seems little doubt that both in theory and to satisfy the constitution it would be attractive to take needs into account in calculating equalization grants. *The Constitution Act* of 1982 suggests equalization payments should ensure “that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at

¹⁰ See Economic Council of Canada (1982) and as well Boadway and Hobson (1993), p. 91

reasonably comparable levels of taxation”. This would seem to mean that if needs differ across provinces, say there is a greater proportion of school age population in one province than the others, equalization should compensate for the extra costs of this. Similarly concerns for horizontal equity and inefficient fiscally induced migration would also suggest equalization for need, as well as tax base, differences.

Some comments can be added to this however. First, there is no doubt that to take needs into account would be a large, at least in comparison to the calculations already necessary for equalization, task. We already have trouble agreeing on the revenue bases in equalization calculations and measuring needs differences seem likely to be even more difficult and open to disagreements. It is notable that the equalization system which is usually held up as an example of the incorporation of needs, the Australian one, has a full time quasi-judicial body, the Australian Grants Commission, to assess needs. In other words to move to a system which takes needs into account in a comprehensive fashion would require a structure on par with that which exists for the current, revenue side, calculations. Perhaps it is just as well that the Constitution contains the words “reasonably comparable”.

The only empirical work on this that I am aware of, the work of Shah (1996), found that needs adjustments ranged from 94.3 % (PEI) to 113.3% (Ont.) of the national average costs which is perhaps in the range of “reasonable”. A particular result of Shah’s calculations is that the total amount of equalization needed would fall because those provinces, except Quebec, which are recipients of equalization payments have low needs, because costs are low.

Finally, as discussed elsewhere, there are other transfer schemes, other than equalization, in Canada and some of them are meant to reflect needs differences. It might also be a more reasonable approach to modify the two other large transfers, the CHT and the CST, to take needs with respect to health and education into account directly¹¹

3.e. Macro Bases for Equalization¹²

The Canadian equalization system is based on the representative tax system approach which in turn is based on the standard theory of equalization. This theory puts emphasis on provincial governments having equal access to tax revenue and thus having the ability to provide similar levels of government goods and services with “equal tax effort”. This has led to an emphasis in theory and in most equalization systems on using lower-level government tax bases and rates, the so-called representative tax system (the RTS), as the basis for the calculation of equalization transfers. It has been suggested however that some other basis than the representative tax system might be better for this purpose. In

¹¹ Boadway and Hobson (1993) discuss incorporating need and cost differentials into transfers in detail, including the possibility of using specific transfers (the EPF and CAP at the time they wrote) for this purpose.

¹² Much of the discussion of this section is based on a series of papers presented at the conference Canadian Fiscal Arrangements: What Works, What Might Work Better, organized by the Institute for Intergovernmental Relations, Queen’s University, in 2002. The papers referenced are Barro (2002), Boadway (2002), Neumann (2002), Smart (2002), and Usher (2002). These papers are available on the IIGR website.

particular a number of authors have suggested more macro measures, such as provincial GNP, would be a better indicator of the ability of lower level governments to raise funds and thus would be a better basis for calculating equalization. Others, while accepting the theoretical arguments for the representative tax system as the best basis, argue that on the grounds of administration or complexity macro measures may work better.

The arguments for alternative approaches have been of three types. First are arguments that a more macro approach is better in theory or on some other broad criteria which should be used in assessing these transfer systems. Second are arguments that a macro approach, while perhaps not better in theory, will be simpler or more transparent to apply. Data needs might be less, for example, and there may be a strong correlation between the macro measure and the more theoretically correct RTS base. Finally, there is a set of arguments around the failings of the representative tax approach. In some cases, for example, the application of the RTS approach provides incentives for the provincial governments to withhold development so as to change a base or to use what otherwise would be sub-optimal tax rates. It has also been argued that the RTS approach leads to instability in revenues for lower levels of government. In both these cases it has been argued that a macro alternative would be better.

The proposals for exactly what macro measure should be used as a base vary somewhat, seeming partly to depend on what is felt wrong with the RTS approach. In general the proposals are variants of measures of the aggregate resources available to the residents of a province. Measuring this exactly needs to be traded off against simplicity as the complexity of the RTS approach is one of the criticisms leveled against it. Barro (2002) discusses this in detail and suggests a correct measure would be provincial GNP modified to take into account taxes paid to, and subsidies received from, the federal government and the ability of the province to raise tax revenue from non-residents by exporting taxes. Others (see Smart (2002) and Boothe and Hermanutz (1999)) propose simpler measures such as provincial GDP.

Proposals for how the macro formula should work also vary somewhat, although all are variants of the current RTS formula. The closest to the RTS formula would simply treat each province as having only one, overall, base [see Courchene (1984)]. Thus province i 's equalization entitlement would be

$$E_i = t \left(\frac{B_R}{P_R} - \frac{B_i}{P_i} \right) P_i \quad (1)$$

where

E_i is the entitlement in province i ,

B_R is the national macro base,

P_R is the national population,

B_i is province i 's macro base,

P_i is the population of province i , and

t is the national average tax rate over all sources,

or:

$$t = \frac{\sum_{i=1}^{10} TR_i}{\sum_{i=1}^{10} B_i} \quad (2)$$

where TR_i is actual tax revenue in province i .

This formula still, as does the RTS approach currently used, allows for some tax-back effect – a province with less than average per capita base can raise equalization entitlements by raising its tax rates. Some proponents of the macro approach have, in order to eliminate this effect, proposed using a fixed “equalization rate” to replace the term t calculated in equation (2). Smart (2002), for example, chooses a rate for the Canadian case based on its ability to simulate actual past transfers under the RTS.

Macro Bases as Measures of Fiscal Capacity

The most direct case for using GNP, or a modification of GNP, as the base on which to calculate transfers has been put by Barro (1986, 2002). He argues, quite straightforwardly, that the best measure of provincial fiscal capacity is the overall resources available to the people of the province, in other words, provincial GNP, or provincial GNP modified to take into account transfers to and from the federal government and the possibility of getting access to further resources by exporting taxes. Barro argues is that it is a political decision whether to spend these overall resources on private or public consumption and that only the overall level should thus be considered. This seems likely to be a good argument only in cases where provincial governments have easy access to these resources and where this ease does not differ across provinces. There would seem to be two broad problems with this. First, even if provinces have broad tax powers and the same GDP/capita there may be differences in the make-up of the GDP and thus in the “excess burden” of raising tax revenue. Work by Dahlby and Wilson (1994), for example, stresses that the elasticities of the bases available are important. Provinces where GDP is made up of a greater portion of bases which are inelastic with respect to tax rates will have an easier time, will impose less excess burden, in raising taxes than will other provinces. Provinces, for example which have access to government owned oil and gas revenues would be in this category.

Second, this argument seems likely to be true only in cases where lower level governments have access to quite a complete range of taxes. In Canada this is the case

for the provinces, although they may be somewhat constrained by inter-provincial tax competition as discussed above.

Usher (1995, 2002) stresses two other, related, arguments which are also of broad principle. First is the point that the RTS approach could require, under some circumstances, the transfer of revenues from poor provinces, as measured in GNP/capita, to rich ones. This could be the case if the poor province had easier access to tax revenue, say because the provincial government owns some natural resource base. Should, for example, off-shore revenues become so large that Newfoundland became a “have” province this could be the

Usher also sees the difference between the methods by which collectively and privately owned resource revenues are treated as fundamentally wrong. If, for example, petroleum resources are owned by provincial governments, then all revenues from their sale become provincial government revenues and need to be equalized under the RTS. If, on the other hand, these resources are privately owned, the revenue from their sale becomes someone’s income and only that portion collected through the provincial tax system becomes part of provincial government revenue and needs to be equalized. This problem was discussed above in the section on the treatment of resource revenues. This same problem might arise from the profits of state, as opposed to privately, owned corporations. Again, a macro formula, using GNP/capita as the base, would correct for this problem as resource revenues or corporate profits would appear the same regardless how they are owned.

It is difficult to know what to make of these arguments. Equalization, as we have defined it, is to improve horizontal equity, to ensure that like are treated as like. Thus even if on average province A is made up of poor people, if those people have access to large NFBs relative to those of the same income in province B, where on average there are more rich people, transfers need to be made from the government of A to the government of B. The problems of vertical equity should be left to some other set of policies, perhaps transfers directly to individuals rather than to their provincial governments.

This set of comments can only be judged in the overall context of what one sees, or defines, the purpose of a system of equalization to be. Here we have defined the purpose quite narrowly as to improve horizontal equity. There can be no doubt that his goal, can, at times, conflict with other social goals such as vertical equity. When this is the case other policy tools will also be necessary.

Incentive Problems

A second set of arguments for replacing the RTS approach with a broader macro approach is that, under some circumstances, the RTS provides incentives for the individual provinces to behave sub-optimally. In particular, in some cases the provinces can affect the equalization payments they receive (or pay) by altering their tax rates, so-called “rate tax-back”, or the size of their base, “base tax-back”. This is not surprising

given that equalization is broadly meant to bring provincial revenues per capita to similar levels.

Rate Tax-back

The problem of rate tax-back is recognized in the Canadian case, of course, in that the tax rate determining a province's entitlement from a particular base, j , is the national average rate, t_j , rather than the province's own tax rate on the base. Despite this, however, there will be situations where a province can have affect on its equalization entitlements by changing tax rates. This will be the case when the base is concentrated in a single province. In this case, the national average tax rate becomes that of the province, since it is the only province taxing the base, and thus revenues from increasing the rate will be offset by decreases in equalization receipts. This is an extreme case but the problem will exist as long as individual provinces have disproportionate shares of some bases. This creates an incentive, therefore, for provinces to change their tax mix away from that which would be most efficient in absence of these effects.

How important this is will depend, of course, on how unevenly distributed bases are. Most often the problems arise from resource revenues. Off-shore oil revenues, for example, are concentrated in only a few provinces. The likelihood that bases will be unevenly distributed, in turn, depends on how bases are defined. If they are defined broadly, say all resource revenues, rather than separately as off-shore petroleum revenues, gold mining revenues, etc., this uneven distribution will be less likely to occur and the ability of individual provinces to take advantage of this rate tax-back effect will be diminished. On the other hand, the more broadly the bases are defined the more lost are distinctions in provincial revenue raising capacity. Different mixes of resource bases may imply very different burdens in raising the same tax revenues, lumping them together will hide these differences.

This rate tax back problem, then, is an argument for defining bases more broadly and, of course, the extreme version of this is to use some measure such as provincial GNP as a whole, in other words a macro formula. Similarly, a criticism of using a macro formula exactly parallels the problem of broadening the definitions of bases used. The broader the base the more lost are differences in revenue raising capacity from differing bases across provinces.

Base Tax-back

Just as provinces can affect their equalization receipts (or payments) by altering their tax rates they can also do so by changing their bases. This can be done directly by encouraging, or refusing, permission for economic activity or indirectly through tax changes. An increase in a provincial base, while it will directly cause provincial tax receipts to rise, will result in some, or all, of this revenue being "taxed back" through a fall in equalization (if the province is a recipient). If the province levies the average tax rate on a base, then an increase in the base will result in complete tax back, if the provincial tax rate is less than the average, then the tax-back will exceed 100 percent.

This is a problem which is exacerbated if the increase in economic activity imposes costs on the provincial government. Unlike the case of rate tax-back, however, this problem will not be solved by moving to a macro formula. Since any equalization formula has as its purpose making up for deficiencies in the tax base, an increase in the base will result in a fall in payments received.

In summary then a macro formula, or any formula where the bases are more aggregate in nature, will reduce incentives for provinces to distort their tax mixes in order to effect the equalization they will receive. This will be more of a problem where provinces have very different mixes of bases such that a single province can have an affect on the national average tax rate. The problem would be more severe, of course, if equalization were based, not on some average rate, but on actual tax revenues. Indeed, in this later case, if provinces can set their own rates, the incentives would be for them not to tax at all.

Definition, Complexity and Transparency

A main criticism of the RTS approach in Canada has been its complexity and hence lack of transparency. This has been a main motivation for suggesting the alternative of using some macro figure as the base. It is the case, however, that there have been a variety of suggestions about what macro figure might be best to use and not all of these suggestions are themselves without complexity.

In the Canadian case, because the provinces have wide taxation powers, there are 37 different provincial revenue sources included in the calculations. For many of these sources provinces differ in the exact definition used in tax collection – provinces may, for example, exempt different things, children's clothing for example, from sales taxation. Taxes may be per unit or based on value. All this means that bases, for purposes of calculating equalization, must be standardized across provinces through negotiation. The resulting "notional" bases may not correspond to any actually used and revenues assumed in a province may not correspond to that which they would get in actual revenues. The inclusion of property taxation, as discussed above, where the base is the market value of homes has presented particular problems as not everyone agrees that high property prices represent and increase in fiscal capacity.

The theory discussed above suggests that benefit taxes, those types of taxes which would not lead to NFBs, should not be included. This suggests that fees for services provided by local governments or provinces should not be included in equalization even though these can make up a significant portion of local revenues. This presents definitional difficulties however. Provinces may differ in how they fund certain activities – through fees or general taxation – and fees may not exactly cover costs, there may be some profits on the service yielding NFBs. This again makes the decisions about what to include as revenues to be equalized difficult. It could also make using a simple measure of fiscal capacity such as total provincial government revenues quite wrong.

These difficulties – negotiations over what exact base to use and which revenues sources should be included for equalization makes the system appear quite complex, especially in

systems like the Canadian one where provinces have many tax sources. They also make the system appear to lack transparency to the public as what is included appears to be the result of negotiations of politicians and civil servants rather than the results of some well thought out formula.

Advocates of moving to some sort of macro formula have often taken the above as a justification – they argue that some sort of measure such as GDP/capita would be more easily understood by, and might seem “fairer” to, the public than the RTS. It is the case, however, that the definition of the correct macro formula also presents some difficulties.

One reason for difficulty stems from the fact that the different advocates of macro formulas have different justifications for their support for this approach. Some see the basic motivation for a system of equalization transfers as being different from what we have suggested it should be here. Others see the purpose of equalization as being horizontal equity but think using some macro base might be a simpler way to achieve this.

Barro (2002), as discussed above, advocates using, not potential tax revenues, but rather overall resource capacities as the correct measure of the fiscal capacity of the provinces. The justification for this seems to be that overall resource capacity represents what is available to the residents of a province for public or private consumption and it is this which should be used for calculation of equalization entitlements. Equalization itself would be based on the provinces macro base per capita relative to the national base per capita and the overall tax rate as described in equations (1) and (2) above.

As discussed above, as well, there are alternative views on this but if we accept Barro’s proposals they lead to a particular definition of what the base should be. It should be the overall resources available for public or private consumption in the province. Barro (2002) provides a discussion of how this should be measured. What becomes clear is that no standard measure, such as personal income, GDP or GNP is quite complete for this purpose. What is needed is a measure of “total resident income, comprehensively measured” less taxes paid to the central government plus central government financial aid to the province and “subordinate” local governments, plus “taxes and other public revenues collected from non-resident households and businesses” or “exported taxes”.¹³ The first part of this could be thought of as the provincial equivalent of a national GNP measure. It is the “exported taxes” which “most complicates capacity measurement”.¹⁴ These will include taxes paid by cross-border shoppers and tourists, taxes collected from non-residents working in the province and from capital and businesses owned by residents elsewhere. In summary a simple measure of macro capacity as Barro wishes is not available.

Others [see Boothe and Hermanutz (1999), Smart (2002), Usher (1995)] are less idealistic about the correct measure in theory for the equalization base than Barro is, but rather see a macro base as a simpler approach without some of the problems of the RTS discussed

¹³ Barro (2002), p. 3

¹⁴ Barro (2002), p 3

above (rate and base tax-back for example). For these authors simplicity is a goal in itself and the best base is one which best approximates the current equalization results. Boothe and Hermanutz, for example, look at three possibilities – provincial GDP, personal income by province, and an adjusted personal income where modifications were made for farm inventories, for provincial transfers to individuals and for federal taxes paid, settling on the last.¹⁵ Smart uses GDP at market prices.¹⁶

Usher (2002), while arguing strongly in favour of using a measure of overall resource availability similar to that proposed by Barro as the base, discusses a number of issues for the correct figure to use. Among the issues discussed are whether there should be some imputation for leisure, whether needs should be taken into account¹⁷, transfers from the federal government, depreciation, the exporting of tax revenue collection and whether some adjustment for price levels should be made. These issues all make the use of a macro measure less simple than its proponents might wish.

Measurement

These issues raise the more general question of the likelihood of data being available for the two types of measures. One of the advantages of the RTS is that it is based on tax revenues and the provincial governments collecting these will have reasonably good accounts of receipts and bases, even if they otherwise did not have good national accounts. The fact of provincial or state taxation virtually guarantees that data will be available for calculation of the RTS figures. Macro measures, on-the-other hand, require provincial or state accounts data that there might not otherwise be a reason to collect. In developing countries, therefore, arguments that some macro measure will be simpler to use may well not be true simply because the data will not be available without considerable cost.

Usher also makes the point that even in Canada where there are quite sophisticated accounts the measurement of bases is not always straightforward. This in turn means that the RTS approach is not as different from the macro approach as theory might have it. In the Canadian system for example approximately 45 percent of equalization payments are directly based on personal income taxation. Personal income is also used as the base for several other tax sources because the true base is hard to measure. Personal and industrial property tax, medical insurance premiums, charged by some, but not all, provinces and revenues from games of chance are examples of this¹⁸. Together these account for another 20 percent of overall transfers. The bases for other large provincial tax revenue sources are highly correlated to personal income. Usher argues, therefore, that a move to a macro base such as personal income, in the Canadian case, would not be as big a change as critics would have it.

¹⁵ Boothe and Hermanutz (1999), p. 13

¹⁶ Smart (2002), p. 10

¹⁷ This is also, of course, an issue in equalization systems based on the RTS approach. See Shah (1996)

¹⁸ Usher (2002), p.9

Stability

Finally, there is an issue of stability of transfers under alternative definitions of the base. Again this has been studied in the Canadian case. In general tax revenues seem to be more stable than personal income or GDP figures (see Smart (2002) on a yearly basis. Boothe and Hermanutz (1999) propose using a five-year moving average figure of their adjusted personal income base and find, when this is done, at least when using their formula for calculating equalization, that payments are more stable than under the existing RTS approach. Neumann (2002) raises the issue of the instability in the measurement of both the RTS and macro variables (as opposed to instability in the variables themselves, when properly measured). There is significant revision for several years after initial publication of national income accounts data in most counties and these revisions have implications for transfers. Neumann, on the basis of limited analysis, believes this revision problem would be worse for macro variables than for the RTS variables with corresponding implications for the revision of transfers.

Summary

The theory and logic of equalization very much suggests equalization of fiscal capacity and the current approach of applying average tax rates to measured tax bases is consistent with this. Bases differ not only in their size but also in their elasticities and thus in the ease with which they can be taxed. Thus changes in the mix of bases is very important. One should thus only move away from this approach for strong reason and if one can be assured that the underlying purposes of equalization are still to be met. The work of Smart (2002), Boothe and Hermanutz (1999) and others cited above however suggests there might be room for some compromise position between the current RTS approach and a simple, one base, macro formula. It may be possible, as Usher (2002) suggests, to replace the bases used in a number of categories with a single base, personal income, and thus lump these bases into one.

I am cautious about this, however, for several reasons. First, I am hesitant because I do not have a good knowledge of the minutiae of the scheme as it currently operates – knowledge I suspect few outside the circle of those in the federal and provincial civil services who work on this regularly have. I find it difficult, for example, to reconcile Usher's (2002) estimates, cited above, of the portion of the RTS base which is simply derived from personal income with MacNevin's description of the complexities of how these bases are calculated. Even, as MacNevin¹⁹ describes it, the personal income variable itself relies on a quite complex set of calculations as not just the average but the distribution of income matters, especially now that provinces use their own rate structures for personal income tax.

Second, while both Smart (2002) and Boothe and Hermanutz (1999) were able to find, in both cases after some experimentation with the various possibilities, bases that tracked the equalization experience of the past this is no guarantee that their suggested base would track future changes. Changes in the mix of tax bases, say the discovery of some

¹⁹ See MacNevin (2004), pp200-16

new resources, could dramatically change a provinces fiscal capacity without having a large impact on, say, personal incomes. This suggests that one would want to find a macro base, even for a subset of the current set of 37 bases, for which there was some theoretical reason to believe it was a good proxy, not just a statistical correlation.

Finally, Boadway (2002) makes what I find is a convincing argument to the effect that, while these calculations, as currently done, may seem complicated to the public (and to members of the press), the nature of the overall scheme is not too complicated to be understood and there is really no strong reason why the minutiae needs to be readily accessible. The details of many public policy decisions, tax policy, legal questions, etc. are often complex and must be left to the experts but this is not an argument for not doing them correctly. Boadway would argue that the current system is based on a strong and clear theory of what equalization is to do and while the measurement of revenue bases is not always perfect and needs to be improved whenever possible, the difficulties of doing so are not good arguments for giving up.

All this suggests therefore that while one might be able to simply the system somewhat by moving to a proxy for some of the bases one needs to be careful not to lose the underlying logic of the scheme and thus movement in this direction must be cautious.

4. STABILITY AND PREDICTABILITY

It is obviously desirable for the recipient provinces to have stability and predictability in the revenues they receive through equalization. At the same time, in attempting to achieve these goals, one has to be careful not to lose any of the important characteristics of the system. There could be various sources of instability and unpredictability. Problems could arise, for example, from frequent policy changes or from the workings of the system itself. The system is to equalize provincial fiscal capacities and revenues to recipients and will be unstable to the extent that the average (the five-province one over the recent period) is unstable. In that sense then, if the revenues from own sources are unstable to the average province and to the have provinces it doesn't seem "unfair" that they be unstable to the recipient ones.

Two of the topics discussed above included arguments around the need for stability. A major source of instability in provincial revenues is fluctuations in resource prices. This was, of course, a particularly important issue when Alberta was included in the average. This in turn can be taken as an argument for not fully equalizing resource revenues.

Stability was also an argument put forth for the use of some sort of macro base for the calculation of equalization. It was argued by some that a measure such as provincial GDP would fluctuate less than provincial revenues, mostly because natural resources would be less important in the base. In fact, however, as I understand Smart's (2002) results, he found that total tax revenues were generally more stable, at least on a yearly basis, than the macro variables he used, personal income or provincial GDP. Boothe and Hermanutz (1999) were able to get more stability by using a five year moving average of

their adjusted personal income base. It does not seem, in other words, that moving to a macro formula would be worthwhile given the other disadvantages of that approach.

The Boothe and Hermanutz idea of using a moving average seems the obvious way to increase stability and predictability in the current system. I lack of knowledge of the details of the operation of the current system but it is my understanding that in the 2004 budget arrangements were made to move to a three year moving average.²⁰ This was intended to help smooth out both fluctuations arising from fluctuations in revenues in the average provinces but also from revisions of the data on which equalization calculations were based. This data is inevitably revised for several years after first publication. It may be that this change to a three year moving average will go far to ameliorate the problems of instability and unpredictability which have arisen in the past.

5. TRANSPARENCY, ACCOUNTABILITY AND GOVERNANCE

As stability, transparency and accountability are attractive goals for the equalization system to meet. Also as with stability, however, one does not want to give up any of the attractive features of the system to attain these goals. As discussed above for example, transparency was one of the arguments made for moving to a “macro” base for equalization and yet, in my view, it would be a mistake to go in this direction. This is because of the other disadvantages of a macro scheme which were discussed above.

I have some sympathy for the argument put forth by Boadway (2002) that complete transparency is not too important. He argues, as we discussed above in the section on macro bases, that the overall structure of the system is not too difficult for the public (and press) to understand and the nuances need only be understood by the professionals – the federal and provincial civil servants - involved in the process. Boadway points out that many other aspects of government policy are quite complex – tax policy and matters of constitutional law are two of his examples – and we trust the experts in these areas so why not with respect to equalization.

The question is raised of whether it would be useful to have some sort of permanent advisory commission. It is certainly hard to take a strong position on this although several comments can be made. First, while the Australian model comes immediately to mind, I suppose one could imagine commissions with various degrees of importance and jurisdiction – perhaps for example some sort of buffer between the provinces and the federal government, something like the university grants commissions that exist in some provinces. In this model then the federal government could announce levels of funding and the commission would arbitrate on the rules on how it was to be allocated.

Much of the recent criticism of the federal government has been around the “backroom deals” which have been made within the framework, if not the existing rules, of the equalization program. The “New Framework” for off-shore oil revenues is the obvious case of this. Some sort of commission might eliminate this sort of arrangement and for

²⁰ See MacNevin (2004), p. 233

those who are enthusiasts for the “purity” of the equalization scheme this would be attractive. At the same time, the scheme is clearly a federal government responsibility and it is unattractive to take this responsibility away from those elected to carry it out. Indeed, it is not clear that the federal government would agree to cede this responsibility.

I suppose if the system got more complicated, if there came to be more “judgment” in the allocation of funds, there would be a strong argument for some sort of commission. In particular if measures of needs were incorporated, as in Australia, then determining these needs differences might be best left to some sort of quasi-judicial body like the Australian Grants Commission.

In summary, then, I am not convinced that the current situation does not work fairly well. I am sympathetic to the Boadway view that transparency does not have to be such that the casual uninformed member of the public has to understand every nuance of the program. In this sense then I do not think the system needs to be changed very much

Unless the system gets much more complex I would not see the need for a permanent overview commission.

Finally, the process of equalization has been well-served over the years by periodic reviews by commissions or, in the current case, expert panels and “think tanks” such as the Economic Council²¹. The Rowell-Sirois commission²², the Macdonald Commission²³, and the Breau commission²⁴ are all examples of commission that have reviewed and made recommendations for equalization. Perhaps this type of periodic review is sufficient.

6. CONCLUSIONS

Much of the above is meant to be informative rather than conclusive. On many issues there are arguments for proceeding in a number of different ways and I don’t have very strong, or perhaps very well-informed, views on what should be done. I can conclude, however, by stressing my opinions on a few points on which I do have views.

First, I am somewhat of a “fundamentalist” about the equalization program. We have a system which is admired around the world, both by academics who work on these things and by policy makers. This is, in my view, because our system is broadly consistent with the theory developed over the years on what equalization should and should not do and on how such a system should work. On these grounds, then, the changes that I think might be most useful are those which make the system even closer to what theory tells us a good equalization system should look like.

²¹ Economic Council of Canada (1982)

²² Canada (1940)

²³ Canada (1985)

²⁴ Canada (1981)

This has several implications. First, to the extent that extra funds flow to the system these should be used to first move to a ten-province average, then even to an Ontario average. From the point of view of equalization, at least, I would see it as attractive if funds were moved from the other transfer systems, the CHT and the CST, into the equalization pool, perhaps to allow movement to these higher standards.

Second, I broadly prefer the RTS system. It seems possible to proxy some of the RTS bases with some sort of macro variable, but this needs to be done with caution and with the constant proviso that these variables are proxies for what we really want, not bases in themselves. This is so that, should the proxy become less good at tracking the underlying base, we would be prepared to search for better proxies.

Given the complexity of provincial tax and revenue raising arrangements the RTS system will also necessarily be complicated and understood, at least in detail, only by those who work closely with it. I see this as a price of having a good system and thus not something we should worry about too much

Thirdly, we should not try to make the equalization system meet goals which are outside the traditional framework of what equalization is meant to do – in particular we need to worry about problems of horizontal equity and fiscally induced inefficient allocation of resources, not problems of vertical equity across individuals.

These things said, I deviate from my fundamentalist views in a couple of ways. Theory would tell us that natural resource revenues should be fully equalized, indeed, in most theoretical treatments of the problem they are held out as the classic source of differences in net fiscal benefits needing to be equalized.²⁵ There seem, however to be too many arguments against including these revenues completely. First, they should be adjusted to differentiate between revenues and expenditures, i.e. to take out provincial savings from these revenues. Second, there needs to be some accounting for the costs of infrastructure involved in accessing these resources. Finally, and most importantly, there are the incentive problems with respect to timing of development and pricing of output which arise from our apparent inability to measure the bases for these revenue sources in absence of them actually being tapped.

Finally, I would not, on balance, go to a system which incorporated needs differences in the calculations. Theory would suggest we should do this but my sense is that it would be too political and complicated to be worth it.

²⁵ The work done for the Economic Council (1982), for example, was almost completely driven by the existence of high oil and gas prices in Alberta

Bibliography

Boadway, R. (2002), "Revisiting Equalization Again: RTS vs. Macro Approaches" mimeo, Institute for Intergovernmental Relations, Queen's University, Kingston, Ont.

Boadway, R. and Paul Hobson (1993), Intergovernmental Fiscal relations in Canada (Toronto, Canadian Tax Foundation, No. 96)

Baro, Stephen M. (2002), "Macroeconomic versus RTS Measures of Fiscal Capacity: Theoretical Foundations and Implications for Canada", mimeo, Institute for Intergovernmental Relations, Queen's University, Kingston, Ont.

Baro, Stephen M. (1986), "State Fiscal Capacity Measures: A Theoretical Critique" in H. Clyde Reeves (ed.) Measuring Fiscal Capacity, Cambridge, Mass., Oelgeschlager, Gunn and Hain

Boothe, Paul and D. Hermanutz (1999), "Simply Sharing: An Equalization Scheme for Canada" Commentary 128, C.D. Howe Institute, Ottawa

Canada (1940), Report of the Royal Commission on Dominion-Provincial Relations, Ottawa, King's Printer

Canada (1981), Fiscal Federalism in Canada: Report of the Parliamentary Task Force on Federal-Provincial Fiscal Arrangements, Ottawa, Supply and Services

Canada (1985), Report of the Royal Commission on the Economic Union and Development Prospects for Canada, Ottawa, Supply and Services

Courchene, T.J. (1984), Equalization Payments: Past, Present and Future, Toronto, Ontario Economic Council

Dahlby, Bev and L.S. Wilson (1994), "Fiscal Capacity, Tax Effort, and Optimal Equalization Grants", Canadian Journal of Economics, XXVII, p 657- 72

Economic council of Canada (1982), Financing Confederation: Today and Tomorrow (Ottawa: Supply and Services)

Emery, J. C. Herbert (2002), "The Heritage Fund: The Logic of the Past and How to Save for the Future", Alberta's Volatile Government Revenues: Policies for the Long Run, ed. L. S. Wilson, Institute for Public Economics, Edmonton

Expert Panel on Equalization and Territorial Financing (TTF) (2005), Key Issues for the Review of Equalization and Territorial Formula Financing

Gainer, W.D. and T.L. Powrie (1975)"Public Revenue form Canadian Crude Oil Production", Canadian Public Policy, vol. I, 1-12

MacNevin, Alex S. (2004), The Canadian Federal-Provincial Equalization Regime: An Assessment (Toronto, Canadian Tax Foundation, No. 109)

Mills, K.E., M.B. Percy and L.S. Wilson (1983), "The Influence of Fiscal Incentives on Interregional Migration: Canada 1961-78," The Canadian Journal of Regional Science 6: 209-29

Neumann, Ron (2002), "Equalization in Canada: Reform of the Representative Tax System or Move to a Macro Approach? Further Reflections in Consideration of Recent Developments", mimeo, Institute for Intergovernmental Relations, Queen's University, Kingston, Ont.,

Ossowski, Rolando (2002), "Oil Funds: conceptual Framework and Selected International Experience", Alberta's Volatile Government Revenues: Policies for the Long Run, ed. L. S. Wilson, Institute for Public Economics, Edmonton

Shah, A. (1996) "A fiscal Need Approach to Equalization", Canadian Public Policy, XXII, 99-115

Smart, Michael (2002), "Redistribution, Risk, and Incentives in Equalization: A Comparison of RTS and Macro Approaches ", mimeo, Institute for Intergovernmental Relations, Queen's University, Kingston, Ont.,

Usher, Dan (1995), The Uneasy Case for Equalization Payments, Vancouver, The Fraser Institute

Usher, Dan (2002), "The Case for Switching to a Macro Formula" ", mimeo, Institute for Intergovernmental Relations, Queen's University, Kingston, Ont.

Watson, W.G. (1986), "An Estimate of the Welfare Gains from Fiscal Equalization," Canadian Journal of Economics 19:298-308

Wilson, L.S. (2003), "Equalization, Efficiency and Migration: Watson Revisited," Canadian Public Policy 29:385-96