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François Vaillancourt¹

Reforming equalization in Canada: some observations

Introduction

The purpose of this short paper is to examine various aspects of equalization in Canada. This is done at the request of the Expert Panel on Equalization and Territorial Financing Formula. The paper starts by restating the basic principles of equalization; it then addresses with varying degrees of detail and completeness the specific questions posed by the panel².

1. Equalization: a short exposition of basic principles³

We first discuss why there should be equalization, given the existence of disparities between regions; we do not examine the source of such disparities. There are two arguments, one related to efficiency and one related to equity⁴. We then turn to specific design issues.

Efficiency

The efficiency argument is related to mobility. In Canada, it has swung between two views; one being that equalization induces inefficient immobility of labour and another that the absence of equalization induces inefficient mobility of labour. First, Courchene (1970) argued that in Canada, a combination of explicit equalization and implicit equalization (unemployment insurance) reduced the level of out-migration from the Atlantic Provinces below what was optimal for the country. This argument was made in the context of regional disparities that were not the result of large differences in natural resources endowments.

¹ Professor, economics department, Université de Montréal

² See the letter of May 2005; some knowledge of equalization program in Canada by the reader is assumed

³ This section is taken mainly from Dafflon and Vaillancourt (2003)

⁴ One could argue that equalization can also be seen as an insurance mechanism between the regions of a federation, insuring against shifts in the economic value (price, quantity) of region specific resources. This

Second, the view that equalization by reducing internal migration was an efficiency enhancing program was put forward by Boadway and Flatters (1982). It holds with one region rich in natural resources and with the regional government collecting a substantial share of the natural resources rents (difference between production cost and world price). In that case, the only way that residents of other regions of the country can access the revenues from these resources is by moving to that region so as to be able to benefit from lower personal taxation (income, consumption, property) higher public spending or both. In that case, the amount of labour that will migrate to the resource rich region will be too large and thus inefficient, with some workers willing to accept lower wages than what they could earn elsewhere (i.e. be paid less than their marginal productivity in the poor region) since their overall returns to migration (wage income and lower taxes /more public services) still makes it worthwhile to migrate. In this case, financial transfers from the centre or from rich to poor regions could alleviate the pressure and allow for better public provision or lower taxes in the poor region with potential emigration. This is a view that is strongly supported by regional economists who advocate central aid to peripheral regions not in the sole interest of equity, but for allocative reasons when the price of equalization is lower than the congestion and social costs in the jurisdictions of destination.

Equity

The debate on equity in the context of equalization often refers to the distinction between people and place prosperity. Opponents of equalization argue that if individuals in a region are poor and thus unable to finance public services similar to those offered in rich regions, they and not their regional government should be the recipients of grants or the beneficiaries of measures such as job search grants or skill-enhancing training allowing them to prosper outside the poor region, thus enhancing the prosperity of individuals (people). Individual aid would be adequate and not inter-governmental transfers.

For proponents of equalization, the equity argument is simple and straightforward: large differences in the fiscal burden between local and/or regional government are

view probably best applies to the overall transfers (personal, intergovernmental) in a federation, of which equalization can be a major or minor component.

unacceptable if their causes are out of command of the local/regional authorities. There are ceilings in tax burden and lower limits to the provision of local public services that should not be exceeded. Compensation is paid if this is the case. It belongs to the beneficiary jurisdiction to decide how to allocate the sum received, in more services, better provision of existing ones or lower taxes, with the later choice being problematic from a political perspective.

The Canadian constitution does not indicate if efficiency or equity justifies equalization, simply stating:

36(2) Parliament and the government of Canada are committed to the principle of making equalization payments to ensure that provincial governments have sufficient revenues to provide reasonably comparable levels of public services at reasonably comparable levels of taxation.

One point worth noting here is that equalization payments need not be confined to a formal equalization program. Equalization can also be a feature of conditional and/or specific-purpose grants. But it is generally preferable to make equalization explicit; this one of the major goals of the ongoing Swiss reform.

Design Issues

There are four specific issues that need to be addressed in a revenue equalization scheme.

➤ The first issue concerns the source and the importance of the tax revenues, which should be shared and redistributed. Since beneficiary jurisdictions are different in size and population, the redistribution cannot take place on an equal basis between jurisdictions, but must take into account the population (size) of each jurisdiction and is thus relative. The basic questions are which revenue (tax) source is to be shared and according to which decision procedure? Various answers are possible; two are discussed below.

➤ The amount is set by a RTS approach, varying in total and by recipient from year to year as disparities varies and is financed out of the general resources of the paying unit(s) and established in their annual budget. This is a very flexible solution but recipient governments are not sure that they will receive a

comparable amount (in real value) from one year to another, which renders difficult any medium term planning.

➤ The amount is set before disparities are established. One can have arbitrary amounts or as in the post-October Canadian case, historically justified amounts indexed to a given %. Then one can have an increasing total amount while the sum of RTS generated entitlements (for a given target such as the five representative provinces) diminishes. This can be interpreted as a moving target RTS (MTRTS) with the equalization entitlements being recalculated by increasing the target until the total amount is exhausted.

It is clearly preferable to use several or all tax sources used at the central level to fund vertical equalization. Using only one tax source for sharing purposes may result in the central government not collecting it as vigorously as if it was only a central source of revenues since its collection efforts reward in part subnational governments.

➤ The second issue is that equalization requires that the jurisdictions should be ranked according to some indicator of entitlement to equalization; revenue capacity, corrected or not for needs is often used. The basic concept is thus formulated: "jurisdictions with higher-than-average capacity should receive less (pay more); jurisdictions with lower-than-average capacity should receive more (pay less)". Of course, this concept is easier to state than to implement. There is no proper theoretical answer to this question; while a comparison of "best practices" shows that they are numerous and each one can claim good ad hoc reason to be "best" - depending on whether "best" is envisaged from the point of view of a public finance economist, a macro economist, a politician, the winning jurisdiction(s) or the losing jurisdiction(s).

➤ The third issue is the equalization formula. With no equalization and the possibility of identifying exactly the origin of the tax revenues, "poor" jurisdictions would certainly receive less than average per capita endowments and "rich" ones higher-than-average amounts. Any equalization formula would have to give more to "poor" jurisdictions than they would receive following the origin principle, and "rich" jurisdictions would receive

less, Of course, a balanced solution with horizontal equalization requires that benefits and payments coincide. The importance of equalization depends on the equalization formula.

➤ The fourth issue is whether an equalization policy would introduce further limits to the redistribution formula. Should a jurisdiction with an average financial capacity and average per capita tax revenues neither pay nor receive any equalizing amount? Other equalization targets are possible and are often controversial. Two specific points must be noted. It can be debated whether jurisdictions just below average financial capacity should also benefit from equalization. One could argue on financial, political and equity grounds that only jurisdictions below a certain level (for example 90%) should qualify. The crucial question is political; how much poorer is too poor? One has to be concerned with beneficiary jurisdictions having no incentives to take initiatives for their development if they are satisfied with 90% of the national average and if they have no preference for autonomous revenues rather than transfers. This will be of particular relevance in the Canadian context if a combination of decreasing disparities and increasing envelope implicitly raises the equalization norm

2 Answering the questions

In this section, we state in italics the questions addressed to the experts by the Expert Panel and provide more or less detailed answers below each question.

1. Linking Overall Funding Levels to trends in Fiscal Disparities

- *What indicators of fiscal disparities would be relevant to evaluating funding levels for Equalization?*

The overall level of equalization is a political decision that depends not exhaustively on the following four factors:

- the interpretation by politicians of the social contract linking the provinces of Canada

This is beyond the purview of economists but one may note that the more dependent regions of a country are on one another, the more likely solidarity is to be important. In

the case of Canada, table 1 below shows that following NAFTA, Ontario is less dependent on the Canadian market than before. Hence it is less interested and it is less interesting for it to contribute to equalization.

TABLE
Importance of Interprovincial and International Trade, Canada,
1984, 1990 and 2001

	Interprovincial Exports / GDP			International Exports / GDP		
	1984	1990	2001	1984	1990	2001
NFLD	10.35	10.67	8.97	28.71	29.19	26.30
PEI	30.93	27.77	23.68	14.63	13.23	22.02
NS	22.66	20.31	17.21	17.66	15.66	19.44
NB	28.71	27.46	25.85	30.69	26.91	29.18
QUÉ	22.94	21.72	16.57	21.39	19.41	30.01
ONT	23.15	20.71	15.97	33.03	27.19	41.41
MAN	29.23	27.47	25.70	19.33	18.07	26.08
SASK	24.03	22.86	21.16	38.03	25.81	34.25
ALTA	36.69	26.38	15.92	23.03	23.36	23.77
BC	13.79	13.81	11.64	28.29	24.76	25.83
Total	24.02	21.02	16.18	27.49	24.05	34.77

Source :Bird and Vaillancourt(2005)

- the distribution of programs between the federal and provincial levels of governments and the funding of such responsibilities:

On that point, the required level of equalization would have been lower in Canada if the BC proposal for a federal prescription drugs program had been adopted in the fall of 2004 since part of the overall health spending would have been transferred from the provinces to the federal government. Federal spending implicitly equalizes between provinces as it is not carried out taking into account how each province contributes to federal revenues. On the other hand, a full transfer of responsibilities for manpower training or parental leave to the provinces not linked through transfers of funds or tax room to past level of

spending from the consolidated fund or from EI funds creates a need for equalization payments.

- the overall federal-provincial transfer scheme in Canada and the way it is implemented;

CHT/CST cash transfers are equalized with respect to PIT with Alberta and Ontario in 2003-2004 receiving less than other provinces since the value of the tax points transferred to them in 1977 is higher. If the equalization dimension of these and other programs changed, increased or decreased, then the importance of the explicit equalization should also change. Table 2 below presents the correlations between the provincial per capita receipt of federal (cash) transfers and Per Capita GDP and Per Capita Personal Income for 1998-1999. Considering that the objective of Canada's equalization program is to raise the fiscal capacities of the poorer provinces, it is not too surprising that there is a very strong negative correlation between federal transfers and the income measures; when incomes go up, transfers go down. However, Canada's other major transfer program, the CHST, also shows a strong negative correlation with a province's fiscal capacity. This is most likely due to the system's equalization of tax points along with the limit on the growth of transfers to the contributing provinces. Hence some equalization occurs outside the equalization program.

TABLE 2

Correlations Between per capita Receipt of Federal Transfers and

(1) per capita Provincial GDP and (2) Provincial per capita Personal Income Canada, 1998-99

<u>Transfer Program</u>	<u>Per Capita GDP and Transfer</u>	<u>Per Capita Income and Transfer</u>	<u>Percentage of 1999 Total transfers</u>
Equalization	-0.866*	-0.826*	29,9
Canada Health and Social Transfer	-0.803*	-0.757*	44,1
Total Federal Transfers	-0.863*	-0.873*	100,0

Source: Vaillancourt and Laurent (2003)

- the funding sources available to the federal government

This raises a crucial issue for equalization in Canada, which is the sharing of natural resource revenues between provinces or the access or lack thereof by the federal government to natural resource revenues linked to oil and gas. One may argue that Section 92A of the Constitution makes it impossible for the federal government to tax natural resource rent. Should this be true, then one should recall the seminal academic paper on equalization that was written by Buchanan (1950). In that paper, the author develops an equity argument for "*geographically discriminatory central government personal income taxation ... income tax rates could be made to vary from state to state so as to offset differences in state fiscal capacities*" (595). However, recognizing the difficulties, constitutional amongst others, of implementing such a scheme, the author puts forward equalization grants from the federal to subnational units, stating that "*units of equal fiscal capacity should be able to provide equivalent services at equivalent tax burdens*". He concludes that the absence of equalization will result in "*the ultimate centralization of a large share of effective political power... therefore those who desire to see maintained a truly decentralized political structure ... must take some action in support of proposals aimed at adjusting these interstate fiscal differences*" (599). We would simply add that in the 2005 context of high oil rents, asymmetric treatment of Alberta, be it through a lower contribution to health care, a different rate of sharing for all joint cost programs, the withdrawal of federal spending in some areas (mad cow), higher corporate income tax rates for oil and gas producers, an harmonized sales tax (15%) fully collected by the federal government or higher PIT rates (an Alberta surcharge as opposed to a Québec abatement) would fit in well with such an approach. If in thirty years, the price of oil is low and that of electricity high, then Manitoba and Québec could be subject to such treatment

2. *Allocating the funds according to "reasonably comparable treatment" of all governments*

- *Are multiple standards of Equalization among provinces reasonable and sustainable over the long term? If so, what principles or evidence should determine how they vary among provinces?*

If equalization is to retain its purpose, that is to equalize and not to modify behaviour or relative positions, then multiple standards should not be allowed. If the outcome of the equalization is not the desired one for political or sounder reasons, then special agreements should be used. In all cases, the incentives in such agreements should be clearly thought through. An example where this was not done are the Atlantic Accords of February 2005 which have a renewal clause that works as follows: A successor arrangement would be put in place for the period 2012-13 to 2019-20 if either province qualifies for an Equalization payment in 2010-11 or 2011-12 and its *per capita debt servicing charges* for Newfoundland and its *per capita net debt* for Nova Scotia has not become lower than that of at least 4 other provinces. No sane provincial politician would then have as a goal the reduction of the provincial debt so as not to be eligible for renewal. This is a perverse incentive. The introduction of this clause then led the federal government to attempt to counteract it with the requirement of a balanced budget but this was not included in the final accord. This is appropriate as equalization should not be conditional on behaviour of the recipients⁵

- *Is the exclusion of some natural resource revenues and user fees from Equalization consistent with "reasonably comparable treatment" of receiving governments?*

The issue of natural resource revenues is a difficult one. There is some truth to the view that the exploitation of non-renewable natural resources is simply a drawing down on the balance sheet of the province with more exploitation now reducing future revenues. But this neglects two points:

- first, the future value of natural resources is not known with any certainty and thus there may be no future value of keeping the assets in the ground
- second, the view that these are **provincial resources** informs this debate .But should they not be considered national resource whose exploitation is put into the

⁵ This is a good example of second best situation that one attempts to correct with an additional distortion .making it a third best!

trusteeship of the provinces? Put differently ,insofar as spending jurisdictions of provincial governments can be entered by the federal government through the spending power ,why should provincially owned resources not be also the object of federal attention through a *revenue power*.

If one accepts that these are national sources of revenues, then various mechanisms to share them can be considered. We would suggest the pooling mechanism put forward by Courchene(2005b).This leaves aside a set of technical questions such as the number of base, the exclusion of a share of revenues to recognize the environmental damage (sulfurous gas for example), the proper pricing of hydro-electricity and so on, best addressed by experts in this area.

○ *Should Equalization incorporate expenditure need measures?*⁶

In principle to ensure that taxation and public services are comparable across regions not only the resources potentially available to finance public services but also the cost of providing those services can be taken into account. A comprehensive equalization scheme could include both fiscal capacity and expenditure differential measures. Expenditure differences in providing public services reflect two factors: cost differences and need differences.⁷

- Cost differences are differences in the cost per unit of a ‘standardized’ public service. They may arise from climatic or geographic features, density or distance factors, or differences in labor cost across regions. Costs should be calculated using real (not nominal) private sector wages for equivalent inputs and not on the basis of public sector wages which may reflect such political factors as the government’s political philosophy or the relative strength of workers unions .

⁶ This part draws heavily on Bird and Vaillancourt (2004)

⁷ Boadway and Hobson (1993) p.92. Note that this distinction is not always clear. For example, if there are ten snow storms (10cm) per year in region A and five (20cm) in region B, leaving in total the same amount (100cm) of snow on the ground, then if there is a fixed and a variable cost to each snow removal operation A will incur higher expenditure even if the marginal cost of an additional cm is the same in both regions. Does A have higher costs or greater need (more storms)?

Courchene (2005a) recently attempts to crudely estimate what happens to equalization in Canada if one takes into account labour costs differences

- Need differences -- differences in the number of units of standardized service required per capita -- usually arise owing to demographic reasons such as the age structure of the population and different participation rates in social programs by persons of different ages.

Three questions arise with respect to implementing equalization schemes incorporating expenditure differentials: How are cost differentials measured? How are needs differentials measured? How are 'standardized' expenditures determined? We shall address each in turn, leaving for later discussion the key question of whether such differentials should be taken into account at all.

Many different ways of establishing cost differences have been proposed. Some make intuitive sense: climate (snowfall, heavy rain), population density/urbanization, frequency of natural disasters (floods, earthquakes), location (remote location), and topography (mountainous or desert regions). Others are perhaps less obvious such as the proportion of land occupied by public infrastructure (e.g. national parks), fuel costs, and indicators of development level (road length and condition, environment and wildlife preservation services, etc.).

Similarly, among the plausible factors related to needs differences are such things as the share in the total population of such dependent populations as infants, elders (health care) and school age children, the share of population with special needs irrespective of their age such as new immigrants (language skills acquisition, integration into society) or less developed groups (e.g. aboriginal population). Many other factors presumably related to need are found in equalization schemes around the world: poverty indicators, single parent families, illiteracy, infant mortality, life expectancy, number of

drug-addicts, etc.⁸ Of course, to a considerable extent the relevance of many of these indicators depends on the role provinces play in delivering public services. For instance, if it is the central government or the private sector that provides health care, the share of infants or elders may not be relevant in determining transfers.

Expenditure needs may be measured in three ways (Martinez-Vazquez and Boex, 2001). One method is to estimate the cost of providing a standardized set of public services. To do so requires, first, that someone – usually the central government but possibly an intergovernmental body – determines what services are to be included and what ‘standards’ are to be met. Secondly, considerable effort is required to obtain the necessary detailed data. Even when such complex methods are used to assess expenditure differentials, as in the case of Australia, some analysts have characterized the results as “somewhat crude, imprecise and subjective” (Shah, 1996, p. 103).

A simpler alternative is to rely on historical expenditure patterns and use observed average costs for various expenditures. Two problems arise with this approach. First, past observed expenditures on particular activities may not reflect current policy objectives. Secondly, expenditures that seem the same in the data may in fact be quite different. For example, expenditure on education can be broken down by level (primary, secondary, etc.) and then within levels by inputs such as salaries, books, etc. How can one interpret the fact that books in province A are 20 percent more expensive than books in province B even though both jurisdictions buy the same number of books for the same number of pupils? Is it because A overspends on fancier books (perhaps because it tries harder to keep up with new pedagogical approaches) or is it because A may be teaching a different smaller language group and thus face higher unit costs for otherwise identical books? Of course, as with all these approaches, the emphasis in this approach is entirely on inputs and not on outputs, and the relation between inputs (better books, higher-paid and perhaps more qualified teachers) and outputs (better educated students) is seldom well understood.

⁸ For examples, see Shah (1996, p.103) and Bird (1986, p.144).

A third possible approach is to set out a representative expenditure system (RES) analogous to the RTS on the revenue side. Shah (1996) proposes a five-step way to establish the relevant parameters of a RES system.

Almost all who have studied the RTS- RES approach have agreed on two points: first, it is formally the most satisfactory way to meet the normative objectives of the theoretical equalization model, and, second, that it is difficult and costly to obtain the necessary data (in a form that all parties agree is satisfactory) especially for expenditures. While we continue to think that the RTS approach is, on the whole, nonetheless probably still the best way to deal with the revenue side of the equation,⁹ we think that it is unlikely to be worth the cost of introducing a RES system in Canada for two reasons.

First, Bird (1986) shows with respect to Switzerland that formula follows function. That is, what is important is not that the formula used for equalization purposes is ‘correct’ but that the results of applying it are politically viable. When the results produced by any particular formula become sufficiently unsatisfactory from the perspective of any significant political actors, the formula gets changed¹⁰. Introducing still more elements in the formula on the expenditure side may confuse everyone as to what exactly is going on, but those who think they are losing out are unlikely to stay confused for very long. Transparency is preferable to complexity when it comes to such central political elements of the intergovernmental fiscal system.

Second, one may also note that Leuprecht and O’Connor (2005) show that in Canada, equalization receiving provinces tend to have both an older and more rural population: these are two factors that may explain their lower revenue capacity and thus higher equalization payments. These are also two factors that were put forward above as respectively a source of greater needs and costs. Hence, needs factors may be implicitly taken into account at least in part in a revenue based equalization scheme.

⁹ For discussion of problems with this approach, see Bird and Slack (1990) and Smart (1998).

¹⁰ Using side deals or accords.

- *Could aggregate (e.g. macro approaches) measures of revenue capacity provide a simpler alternative to current methods? Should the RTS be retained in whole or in part? Could one combine both RTS and macro measures?*

The fiscal capacity of a province is defined by its ability to raise revenues from its own tax bases. Assuming that ‘own’ tax bases are clearly defined, as Shah (1994) and Martinez-Vazquez and Boex (2001) demonstrate a number of methods may be employed to determine fiscal capacity in this sense. Perhaps the simplest to implement are measures based on current or past years’ revenue collections. Unfortunately, such measures raise serious problems. While potential ability to raise revenue is not directly affected by tax rates,¹¹ fiscal effort and taxpayer compliance and actual revenues are affected. Using current revenue collection as a measure of fiscal capacity provides provinces with an obvious incentive to impose lower tax rates or to make less effort to collect taxes in order to receive higher equalization grants. Although using past collections would seem to alleviate this problem there remains a problem of time-inconsistency since provinces may (reasonably) expect that current increases in revenues obtained by increasing rates or collection effort will reduce future transfers.

Alternatively, such macroeconomic indicators as income or output may be used to measure fiscal capacity; but are they good indicators? The measured personal income in a given provinces, for example, may be a reasonable measure of the average ability of its residents; it may not be an accurate indication of the ability of the provinces to impose taxes. Gross Regional Product (GRP) is a more comprehensive measure, representing the value of goods and services produced within a region and hence the incomes received by the owners of the economic resources (land, labor, natural resources and capital) used in the region regardless of where they may live. But the composition of GRP is also clearly relevant since some economic sectors (e.g. mining) are easier to tax than others (e.g. agriculture). Similarly, informal activity is more difficult to tax than manufacturing activity, particularly in large enterprises. Provinces with identical GRP may thus have

substantial differences in taxable capacity. And a broader measure of GDP accounting for leisure and so on may yield different results (Aubut and Vaillancourt, 2001)

A third possible approach is the RTS, which measures the amount of revenue that could be raised by a province if it used ‘standard’ tax bases and ‘standard’ (usually average) tax rates. Obviously, to use this approach information on tax bases and tax revenues for every region is needed.

In theory, the RTS approach appears to provide a complete and accurate method to measure the fiscal capacity of provinces. It may, as in Canada, be broadened to include non-tax revenues (user fees, royalties, sales of Crown land,...) and should perhaps be described as the Representative Revenue System (RRS). Provided the tax base information is appropriate and all provinces are equally able to exploit all their ‘assigned’ tax bases freely, this approach, although very data intensive, seems clearly superior to either the macroeconomic or actual revenue approaches to measuring fiscal capacity for purposes of equalization. Mixing the RTS and macro approach in terms of two envelopes being allocated with each using one criterion does not seem viable. But a reduction in the number of indicators may make sense.¹²

The existence of an RTS equalization scheme means that a reduction in the per capita tax base of an equalization-receiving region can be well if not fully compensated, by an increase in equalization. Some economists such as Smart (1998) thus argue that at least in the Canadian case, some provinces engage in base reduction behaviour by either delaying new economic activity or setting tax rates at such a high level that it significantly reduces some tax bases. Another issue is the use of formulas that have little link to a true RTS formula such as those used for casino revenues. One can understand the difficulty of measuring the revenue base for Ontario casinos, it being dependent on the export of

¹¹ Indirectly, tax potential may in turn be affected since labor supply and financial decisions can be affected by tax rates.

¹² The portfolio approach put forward by Michael Smart at the June 3rd 2005 meeting.

services to American states with evolving policies. One possible solution is to use the PIT base as a proxy for some equalization bases: see the discussion below on the property tax.

- *How can the measurement of revenue capacity from natural resources and property tax revenues be improved under Equalization?*¹³

The Canadian RTS covers 33 revenue sources. Over time, this approach has led to a broadening of the number of taxes covered by the equalization calculation and as a result, to the use of approximations of tax bases such as the one used for casinos and for Video Lottery Terminals. This occurs since in those cases, the tax base, is not observable, particularly if some of it results from exports of gambling services. One question that does not seem to have arisen until now is; if the addition of tax bases requires the use of less and less reliable proxies as the number of these bases increases, is there a point at which it is preferable to be less representative by excluding a tax base but more precise by more correctly measuring overall differences in taxable capacity?

The relevance of the point raised above for one of the issue at hand is that the old tax base for residential property equalization was a proxy with prima facie arbitrary elements (the Montreal correction factor). One is thus tempted to move to a better property tax base, with assessed values, which over time have become more and more similar to market values, the most obvious choice.

Let us first examine how different or similar property values are from other tax bases then turn to the behaviour of governments

The tax base

- Equalization is based on differences between provinces in potential public revenues given tax rates and taxable activities (income consumption, sales of assets...) of individuals, corporations and provincial governments. Let us focus on

¹³ This section draws on work for BC finance(Vaillancourt, 2003)

Individuals. Individuals have 3 types of wealth that can be used to generate taxable activities subject to equalization:

1. Human capital which determines labour income –and thus PIT wage taxes- and consumption(savings) –Sales taxes, general and excises(explicit /implicit);
2. Financial capital which determines capital income –PIT and consumption(savings);
3. Real capital (property), which we simplify to owner-occupied housing which generates real unmeasured services (imputed rent). The assessed value of this capital stock would be used for property tax(PT) purposes

In all cases, an increase/decrease in a provincial tax rate reduces/increases the value of the capital assets but for 1 and 2, this reduction/increase is not observed in the equalization process. Why? Because the taxes applied to human and financial capital held by individuals use as their taxable bases flows of income coming from human and financial capital; they do not use the value of the stock of each type of capital.

Indeed, if we take labour income, increases in PIT rates may lead to more utilisation of human capital. This would happen if individuals had such a need for after tax- income that even after an increase in PIT rates which leaves them with less income per \$ of earnings, they choose to work harder or longer hours or in a second job so as to have the same after-tax income as before the increase in PIT rates¹⁴. Of course, the reverse is possible, with individuals choosing to work and earn less after tax. Mobility may also occur out of the higher PIT rates province to another one, with this leading to changes in the PIT base for both provinces. The key points are that:

- It is possible to have a decrease in the value of human capital and an increase in the PIT base;
- Changes in the PIT tax base are due to changes in real variables i.e. hours worked, location and so on

In the case of financial capital(2), one may expect the composition of assets to change, from more fully taxed ones such as interest paying bonds to less taxed ones

¹⁴ This a case where the income effect is stronger than the substitution effect

yielding dividends or capital gains with more risk Hence in this case, one adapts to the higher PIT rate by changes in the nominal means of holding financial capital.

. For real capital (3) embedded in owner-occupied housing, there is a large amount of empirical literature that shows that capitalisation of tax rates occurs.¹⁵ This means that an increase/decrease in the tax rate reduces/increases the value of the property. In a perfect world, one would observe that changes in property values adjust for increases in the tax rate such as to leave the total tax burden unchanged. This means that $2\% \times 200\,000\$ = 1\% \times 400\,000\$$. In the real world, uncertainty, the possibility that tax rates are increased to provide new services with different values to different households and so on will mean that the exact capitalisation rate will vary from one case to another but there will be capitalisation. This will impact on equalization (if PT values are used in it) but not on real flows of services obtained from the stock of owner-occupied housing whose physical characteristics (location, size, age, amenities,..) have remained unchanged. So here we have a situation where real activity has not changed (the opposite to the case of 1) yet equalization would change. Does it make sense to change equalization payments when real flows have remained unchanged? Or put differently, should we not equalise according to flows of implicit income (rental value of the property to the owner who rents to him/herself a property) in this case.

The behavioural issue

Various behaviours can affect the equalization payments to provinces:

- Municipalities can change their financing mix, using more/less property taxes and fees, differing rates by property classes and so on. If their tax base is large in terms of the overall provincial bases, this can affect the equalization payment received by the province. Should (it could since it is a provincial creature) the offending municipality be required to make it up? Put differently, is using assessed property values for equalization purposes not assuming a greater degree

¹⁵ see for example, Dahlby, B., and Warren, N.(2002

of provincial control over municipal decisions than is currently observed or is indeed desirable?

- Provincial behavior can also affect equalization associated with PT. Provinces in the past have modified the municipal environment to obtain federal grants; a clear case is the municipal tax reforms in Québec of 1990(Ryan reforms); one of the explicit goal of these reforms was to modify the business tax then used to attract supplementary grant in lieu payments from Ottawa¹⁶. But one can imagine less obvious changes such as modifying what is included in taxable assets (treatment of gardens, of structures not part of the main residence,..) or modifying the frequency at which tax roles are updated (every year or 3 or 5 years) to market values. This could be particularly important if one province that receives equalization saw a growth in the market values of properties that was faster than elsewhere in Canada.

Given these measurement and behavioral issues, assessed values used of PT are not a very good base. One possibility is modifying the PIT tax rates for each province proportionally so as to have the corrected PIT generate both the true PIT and the PT amounts and use this for equalization purposes. So if the PT collected is 1 billion and the PIT rate is 10 %(flat rate) and taxable income is 20 billions, then in the calculations of equalization, one would assume that the PIT rate was 15%, thus notionally yielding 3 and not 2 billions. Put differently, we assume away PT and replace it with more PIT. With two rates, then both would be increased by the same percentage; with individual based calculations, the increased PIT payable would depend on the share of each individual in total PIT.

3. Improving the Stability and Predictability of Payments

- *Should Equalization payments be made more stable and predictable?*

¹⁶ Vaillancourt(1992)

It would be extremely hard to argue that no is a correct answer to this question unless one believes that equalization is inherently bad and thus that flaws that make it less efficient may make it less harmful. So we move on to the second question

- *What is the best way of doing so without undue effects on other desirable program objectives?*

There are two issues here: population and per capita equalization.

- **Population:** Following every five year Census, the population used in the calculations of equalization payments is shown to have been erroneous, even though official figures produced by Statistics Canada were used. Presumably, provincial officials have learned by now that this will happen and adjust their behaviour accordingly, i.e. know that for example in the case of Québec, overpayment is most likely and thus that some equalization payments should be treated as a loan or advance. One could imagine offering either a continuation of this approach or a smaller set of irrevocable payments, with the province choosing between certainty or not. Of course, this would make sense only if the federal government could never be persuaded to write-off equalization debts.
- **Per capita equalization amounts.** In this case the issue is that changes in the five province norm due for example to a reduction in economic activity in Ontario can reduce equalization payments to a recipient province whose absolute tax base and thus at unchanged rates tax revenues have remained unchanged. It is deemed to be richer than in the past, which is true only in a relative sense. In so far as provincial public spending is not very flexible in the short term, and new taxes and/or debt is difficult to implement, the use of a lagged or partly lagged irrevocable estimation of per capita entitlement seems appropriate, with presumably a price to be paid for certainty.

4. Transparency, Accountability and Governance

- *Would a permanent advisory commission (or other mechanisms) significantly improve transparency and accountability to Canadians? Is it needed?*

As argued in the beginning, the amount of equalization paid and the sharing of such equalization is fundamentally a political decision reflecting various aspects of a given country. Hence, it does not seem appropriate to delegate the relevant decisions to a group of experts. What seems to be missing in Canada, however, is informed, intelligent debate. Few academics work on the issues of fiscal federalism while good technical documents produced by the provinces are not publicly available and do not inform the debate. One possibility is an independent body similar perhaps to the now defunct American ACIR (Advisory Commission on Intergovernmental Relations. See <http://www.library.unt.edu/gpo/ACIR/Default.html>). One could perhaps however start with a less permanent body setting up a five-year research and information program funded by 2/100th of 1% of annual equalization, jointly funded (half and half) and managed by the federal government and the Council of the Federation would be a useful starting point. One of the first outputs would be a document/web site explaining how RTS works with all the relevant data and formulas collated in one place. One could also imagine a series of monographs on specific aspects of equalization (within the more general frame of all implicit and explicit transfers) with inputs by both civil servants and academics.

Two aspects particularly worth of research and analysis would be: 1) the existence and importance of inefficient behaviour due to the incentives of the RTS system and the costs of such behaviour and 2) the impact on the receipt of equalization of ill advised economic policies such as too high minimum wages and so on. It is intriguing that a province can be penalized by the federal government for minor breaches of the Canada Health Act but that bad policies that may reduce its tax bases are not examined or noted by the same federal government.

Conclusion

In closing this section, let us emphasize that economists (Dafflon and Vaillancourt, 2003) *cannot study and propose a good equalization scheme without political input. A proper solution cannot be implemented without central and regional politicians taking*

their responsibilities in deciding how much, according to which criteria, to which extent and for which target if any. Of course, the final result will also depend on the financial resources available. These are matters of choice and weight which are in their hands, not that of economists.

Hence the work of the panel is particularly important in educating said politicians.

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