

## **Problems of Equalisation in Federal Systems**

### **1. Introduction**

Fiscal equalisation refers to attempts within a federal, or at least a significantly decentralised system of government, to reduce fiscal disparities among sub-national jurisdictions by using transfers of monetary resources. These can be either explicitly identified as equalisation transfers or linked to other types of grants or spending. Given a set of sub-national entities with defined borders, it occurs after the first two steps in the decentralisation process – the assignment of functions and responsibilities to various tiers of government, central, regional and local, and the assignment of own-revenue sources to these same governments – have been carried out. It can be seen as an important part of the third step, the setting of inter-governmental transfers. Its design may play a role in setting the borders between newly created sub-national entities. While the discussion that follows will refer to transfers between two levels of government, equalisation can occur on more than two levels, with transfers either from level I to level II then from level II to level III (central-provinces/states-municipal), as is the case in Canada or Pakistan, or transfers can be made from level I to both levels II and III, as in the United States and Switzerland.

Equalisation is defined as vertical when the policy is conducted by central government and financed out of the central budget. It is horizontal when it intervenes between government units at the same level, through monetary

transfers from units with “high” to units with “low” capacity (however defined). Fiscal disparities are the variations occurring across sub-national jurisdictions in their ability to raise revenue to meet the public expenditure needs of their residents. Such variation is not only linked to differences in revenue-raising capacity, but also to differences in the cost of providing public services. Given that the accelerated pace of economic change associated with globalisation is likely to affect differences in capacity between sub-national jurisdictions, fiscal equalisation is becoming increasingly relevant both economically and politically. This is particularly the case in countries where fiscal disparities are the result of geographically concentrated high-revenue resources such as oil. Yet regional economic circumstances can rapidly change with changes in the use or price of natural resources or the introduction of new technologies, so that equalisation could also be considered by jurisdictions with high capacity as an insurance against a future reversal of their economic position. Alberta, for example, now Canada’s richest province, originally received equalisation payments during the 1950s.

In older federations, differences between the constituent members, in terms of size, geography, population and economic potential may be so great that, without equalisation measures, fiscal federalism would yield regional disparities that would be unacceptable. Yet at the same time, virtually all federal countries recognise diversity to some extent in the way they establish and run their (inter-governmental) fiscal systems. This dual approach is accepted since differentiation may be needed to attain both economic efficiency (e.g. some minimum standard in service delivery) and political stability (e.g. between regions with different languages or traditions). The

resulting problem is really one of balance: how much differentiation is acceptable; are fiscal disparities (and their consequent cost) the result of local choice or the consequence of exogenous circumstances; what, if any, should be the design and level of equalisation?

More recently, partly in response to changing economic circumstances (e.g. globalisation) or because new political situations have emerged (e.g. economies in transition in the Balkan states, or the urge for participatory democracy in Latin America), many countries throughout the world have partly “decentralised” their public sectors in various ways. In Eastern Europe, for example, the influence of the European Charter of Local Self-Government has increased substantially during the years since the fall of the Berlin Wall. The charter states that local governments should have full discretion over the execution of their responsibilities; supervision of local governments should be limited. At the same time, the resources available to local governments should match their responsibilities and should be sufficient to enable them to keep pace with changes in the costs of their functions. Since, over time, it could be difficult to maintain a good balance between evolving responsibilities and own revenues, any fiscal imbalance raises the case for financial transfers between government tiers. But should these be equalising transfers?

Differences to be taken into account occur for reasons that are out of the direct control of the individual governments: (i) on the expenditure side (demography, high population density and/or scattering, topography etc.); (ii) on the revenue side (differences in economic development, industrial specialisation, central versus peripheral position, availability of natural resources etc.). Again, the European Charter of Local Self-Government

recognises this situation and suggests that financially weaker local governments should be protected by equalisation procedures that do not diminish local government discretion. In these circumstances, equalisation may be a “double dividend” policy which (i) allows decentralised governments to provide a somehow comparable service level without too many (or with acceptable) differences in tax burdens; (ii) creates conditions for political stability.

In the next section of this paper we outline a brief history of equalisation. In the following section we present the main characteristics of equalisation. The next section addresses the economic impacts of equalisation, while the penultimate section addresses special topics in this area. In the final section we make some proposals.

## **2. A brief history of equalisation**

No formal worldwide history of explicit equalisation schemes in federal countries appears to exist. Nor is there a history of the concept of equalisation. The first modern federal state, the United States of America (1776/1783) formally introduced equalisation only in 1972. But they abolished it for states in 1981, and for cities in 1986. In the second modern federation, Switzerland (1848), the first measures of fiscal equalisation, a 25-40 % reduction of various federal-specific grants according to the cantons' tax capacities, were introduced in 1938. This financial package was prorogued several times until 1957. Eventually in 1958, the principles of fiscal equalisation were written in the federal constitution (Dafflon, 1995). In the third modern federation, Canada (1867), equalisation, while mooted in 1940, was

introduced as part of tax-sharing arrangements in 1957, and written in the constitution in 1982. Thus, it is the fourth modern federation, Australia (1901) that can claim the honour of being the first to introduce equalisation to the realm of inter-governmental relations, in 1933 (Spahn, 1993). This was done for the year 1932-1933 on the recommendations of the new Commonwealth Grants Commission (created in 1933). It took account of both “differences in the standard of expenditures ... [and] differences in the severity of taxation ...” (Copland, 1935). After the Second World War, new federations, such as India (1948) and Germany (1949), took equalisation into account in the design of their federal financial arrangements (Spahn, 1993).

Turning to the history of the concept of equalisation, the seminal academic paper was written by Buchanan (1950). In that paper, the author developed 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”.

However, recognising the difficulties (constitutional amongst others) of implementing such a scheme, the author put forward the idea of equalisation grants from the federal to sub-national units. He stated that: “units of equal fiscal capacity should be able to provide equivalent services at equivalent tax burdens”. He concluded that the absence of equalisation will result in “the ultimate centralisation of a large share of effective political power ... therefore those who desire to see maintained a truly decentralised political structure ... must take some action in support of proposals aimed at adjusting these interstate fiscal differences”.

The equity argument was countered by efficiency critiques, such as those of Courchene (1970), which argued that equalisation and more generally equalising policies reduce labour mobility between regions, and thus adjustments within national economies. A counter argument based on efficiency was developed by Boadway and Flatters (1982), relying on the view that labour mobility can be inefficient if it is the result of rent-seeking behaviour by citizens moving from a resource-poor to a resource-rich part of a country. The arguments for and against equalisation were fiercely debated in the 1960s and 1970s in Canada, both at the theoretical and policy levels in the context of regional-provincial economic development, neutrality of public sector interventions, and mobility (Dafflon, 1977). Empirical work examines these questions together with the question of whether equalisation induces recipient governments (potential or actual) to modify their behaviour. Interestingly, some of these issues have re-emerged in the present context of global markets and fiscal competition.

### **3. What is equalisation? A formal presentation**

Up to now we have discussed equalisation in general terms. In this section, we present a treatment of equalisation using a graphic tool that allows most specific schemes to be represented on it, and thus easily compared to others.

In order to simplify the presentation of equalisation, we have limited ourselves to revenue equalisation. There are four issues that need to be addressed; these are illustrated in Figure 1.

The first issue concerns the source and the importance of the tax revenues to be shared and redistributed. Since beneficiary jurisdictions are different in


terms of 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; it is thus relative. This is accounted for on the vertical axis by using revenue on the basis of population (per capita). At point **A** on the vertical **Y**-axis, the beneficiary jurisdiction receives an exactly average amount of public revenue per resident for that type of jurisdiction (province, municipal etc.), represented by the value 1.0 point (to avoid using national currencies). The basic question is which revenue (tax) source is to be shared, according to which decision procedure? Several answers are possible, each with pros and cons; three are discussed below.

First, the amount is financed out of the general resources of the paying unit(s) and established in their annual budget. This is a very flexible solution, adaptable from one year to the next. But it has two main defects: (i) recipient governments are not sure that they will receive a comparable amount (in real value) from one year to another, which renders medium-term planning and pluri-annual policies very difficult; (ii) annual budgetary debates are subject to ad hoc political arrangements, which, by definition, have unstable contours.

Second, the exact calculation of the amount is explicitly stated in the constitution or in a law, in the form of revenue sharing from at least one, but preferably several or all specific tax sources used at the central level. The use of only one tax source for sharing purposes may result in the central government not collecting it as rigorously as if it were exclusively reserved for central source revenues, since it's efforts in part reward sub-national governments. The advantages of this solution are twofold. Firstly, with a specific legal foundation, the political debate on the extent of equalisation

takes place when the constitution is amended or the law is passed, and not on an annual basis when the budget is decided. Secondly, if the tax sources are sufficiently diversified, and chosen in a way that partly alleviates macroeconomic cycles, it avoids important variations in the amounts available. The inconvenience is that revenue sharing from specific tax(es) might be subject to the fluctuations of the economy, following ups and downs, with perhaps pro-cyclical results.

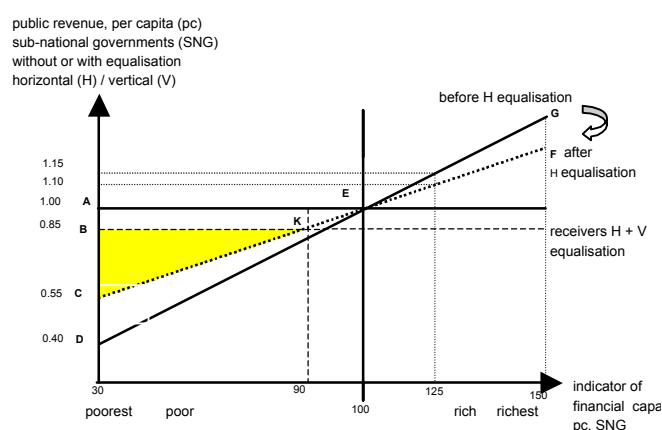
Third, it is possible to solve this problem, in part, with the constitution of an equalisation fund fuelled with several tax-sharing sources written in the law. This solution has the two advantages described above, together with a third: it can smooth equalisation payments by leaving some reserves in the funds during good years, which can be used during bad ones. It is this inter-temporal stabilisation that distinguishes this option from the preceding one.

The second issue is addressed by the positioning of the various regions along the horizontal -axis. Equalisation requires jurisdictions to be ranked according to some indicator of entitlement to equalisation. In this example, this is revenue capacity since we are presenting revenue equalisation; in other cases, need would also be taken into account. The basic concept is formulated thus: “jurisdictions with higher-than-average capacity should receive less (pay more); jurisdictions with lower-than-average capacity should receive more (pay less)”. In Figure 1, average capacity, however defined, is given a value of 100. For simplification, the lower value for the “poorest” jurisdiction is given a value of 30. Of course, this concept is easier to state than to implement. An overview of the theoretical literature indicates that there is no simple solution to this problem. While a comparison of “best practices”



shows that they are numerous, and each one can claim good ad hoc reasons for being “best”, this depends on whether “best” is envisaged from the point of view of a public finance economist, a macroeconomist, a politician, the winning jurisdiction(s) or the losing jurisdiction(s).

**Figure 1** A stylised representation of an equalisation scheme



Note: on the X-axis, the various SNGs are lined up from the poorest (30) to the richest (150) with their number unspecified.

Let us assume that these two issues have received an appropriate answer. The third issue is the equalisation formula. To understand this, let us compare the “before” and “after” situations. With no equalisation, 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, something like the line **DEG** (labelled “before equalisation public revenues”) in Figure 1. Any equalisation formula would have to give more to “poor” jurisdictions than they would receive following the origin principle, and “rich” jurisdictions would receive less, something along the **CEF** line. The equalising performance is represented by the distance

between lines **DE** and **CE** for beneficiary jurisdictions, and between **EG** and **EF** for the jurisdictions supporting the financial cost of equalisation. Thus, for example, for the poorest jurisdiction with a fiscal capacity of 30, equalisation increases public revenue per capita from 0.40 (at point **D**) to 0.55 (at point **C**), but for a rich region with capacity of 125, equalisation reduces public revenues available to it from 1.15 to 1.10. Of course, a balanced solution with horizontal (**H**) equalisation requires that benefits (amounts received, represented by the surface of triangle **CDE**) and payments (amounts contributed, represented by the surface of triangle **EFG**) coincide. The importance of equalisation depends on the equalisation formula, which gives the position of the slope **CF** around the central point **E**.

The fourth issue is whether an equalisation policy would introduce further limits to the redistribution formula. In Figure 1, **E** represents an exactly neutral position with regard to equalisation: with an average financial capacity and average per capita tax revenues, a jurisdiction at this point would neither pay nor receive any equalising amount. But the central point need not be at **E**. Other equalisation targets are possible, and often controversial. In Germany, for example, the degree of equalisation was alleged to be too high by three rich Länder, and was examined by the Constitutional Court in the late nineties (Zimmerman, 1999, 168). Two specific points must be noted.

First, it can be debated whether jurisdictions with just below average financial capacity should also benefit from equalisation. One could argue on financial, political and equity grounds that only jurisdictions below a certain level (e.g. 90) should qualify. Financial considerations could be one argument: at 90, the triangle equivalent to **CDE** would be smaller, which means less payment. But

the more crucial question is political. The signification of the limit is where fragmentation of the nation into poor and rich jurisdictions would endanger national coherence: how much poorer is too poor?

A second related question is illustrated with the triangle **BCK**. The incidence of the horizontal equalisation formula runs along line **CE**: the poorer a jurisdiction, the more it receives. But the equalising payments in the example are far from giving poor jurisdictions sufficient finance. Should they be increased? In the affirmative, what would be the appropriate limit? The example in Figure 1 ensures that poor jurisdictions receive equalising payments so that their revenue endowment reaches at least 85% of the national average, along line **BK**. And who pays this complementary endowment? Since “rich” jurisdictions already pay **EFG** to cover **CDE**, where are financial resources for paying **BCK** to be found? In our example, the additional resources come from a contribution from the centre: vertical equalisation. Again, there are no simple answers. Fragmentation and equity are relevant. But incentives must also be considered. With a complementary endowment such as the one depicted in Figure 1, beneficiary jurisdictions have no incentive to take initiative for their development if they are satisfied with 85% of the national average, and if they have no preference for autonomous revenues rather than transfers.

In closing this section, we want to pull back from the mechanics of equalisation and emphasise that economists cannot study and propose a good equalisation scheme (and later estimate its incidence) without political input. A proper solution cannot be implemented without central and regional politicians taking responsibility for deciding how much (on the **Y**-axis),

according to which criteria (the **X**-axis), to what extent (the formula giving slope **CEF**), and for which target, if any (the **BK** line) equalisation should take place. Of course, the final result will also depend on the financial resources available, that is, either the small **CDE** triangle or the larger area **CDE** + **BCK**. These are choices that are in their hands, not those of economists.

Having described equalisation in general terms, let us now turn to why it should be used.

#### **4. Why equalisation?**

The existence of equalisation must be examined in the context of the overall design of federations. As a rule, in federations, the allocation of revenues should follow the allocation of functions. This usually occurs through gradual constitutional changes. But over time, decentralised functions will have an evolutionary path linked to changes in preferences for local provision, or in the technology of public service production. On the other hand, might the issue of which type of tax is allocated to which level of government in turn also influence budgetary growth, and thus the functions? If one level is allocated a tax such as the income tax, which increases over time at a rate that is higher than Gross National Product (GNP), and another level receives taxes like the property tax, which tend to stagnate, this will lead to questions of balance between functions and revenues (Watts, 2001, 23). But even the best vertical allocation will not prevent the existence of regions with high tax base and low expenditure need, side by side with regions with low tax base and high expenditure need. Since the periodical re-allocation of functions and revenues has proved a difficult if not impossible exercise in many federations, financial

transfers have been the usual answer to compensate for these differences. If transfers are unavoidable, the next key political questions are whether equalisation should be introduced, and whether it can be justified on efficiency or equity grounds.

If we turn to the fiscal side only, one may attempt to categorise the main causes of disparities between intermediate and local governments in the following way.

- Economic position and opportunities

First, opportunities for regional growth and local development can be very different between the member states of a federation. Some states may have higher revenues owing to their geographical position or to their raw-material resources; peripheral regions and regions without marketable natural resources have lower resources. As a result, the revenue-raising capacity of the jurisdictions varies widely, and endangers the provision of public service at a desired minimal (national) service level. Regional economic disparities can be exacerbated as a result of increasing openness in the economy. But what should be done, and more importantly, how much will it cost?

- Economies of scale in the production of public services

Some governments cannot attain a sufficient threshold of production capacity, for example because the population is scarce (in a valley or a remote region) or is spread over a large territory. This is so when we accept the residents' right to minimum service delivery, with that minimum perhaps linked to a minimum geographical mobility of the

recipient (children spending more time going to school in rural regions than in urban ones, for example).

- Differences in unit costs of production of local public services

Local geographical conditions and topography may raise the costs of producing and delivering local public services (roads, bridges, tunnels, water and sewage pipes are examples). In peripheral or mountainous regions (as in Switzerland), the absence of economies of scale and higher unit costs of production can combine, making things worse.

- Local preferences

Local preferences for specific public services, or for services above any required national minimum level, the choice between user charges and taxation, and between the various forms of local taxes, also introduce differences in the fiscal position of decentralised governments.

It is generally accepted that explicit revenue equalisation, if any, takes into account (1), based on some fiscal/financial capacity indicator. Extra funding for intermediate or local levels of government facing additional charges due to socio-demographic challenges (2) and/or to their geographical location (3), would necessitate some form of cost equalisation through specific ad hoc measures. But equalisation should not include (4) because these differences result from a jurisdiction's own choices. Of course, the significance of any equalisation policy depends in the first place on the assignment of functions and responsibilities between the three layers of government: more decentralisation is likely to create greater cost disparities, and exacerbate

differences in the tax burden due to the revenue-raising capacities of the decentralised governments.

## **5. Designing equalisation: some issues**

### **5.1. Six issues to consider**

The following six issues are worth noting

#### **5.1.1. *Representative tax system approach or macro approach for fiscal equalisation***

In order to implement equalising aid programs, state policy makers require accurate measures of the fiscal condition of their regional/local governments. Such measures are needed to determine whether disparities justify action, and to design the appropriate equalising formula (Ladd, 1999, 37). Quite a few equalisation systems use a representative tax system indicator of taxable capacity of the following type:

$$\text{Transfer to region } i, \text{ total} = ((\text{tax base target, pc}) - (\text{tax base } i, \text{ pc})) \times \text{tax rate} \times \text{population}$$

where *pc* stands for per capita and *target* is the target of the equalisation program. Some use a single indicator or tax (Belgium, personal income tax), while others sum these transfers across a large number of taxes (in Canada, 33 of them). While Bird and Slack (1990) have examined the weaknesses of such a system as the one used in Canada, the representative tax system approach is criticised by some authors such as Barro (1986) and Boothe (1998), who argue that it is preferable to use a macro type indicator such as Gross Domestic Product (GDP) per capita, personal income per capita (used

in some transfer formulas in the United States, the most important being Medicare), or the total taxable resources (used in one transfer program in the United States), which is derived from gross state product measures. They argue that this is better than a representative tax system for reasons of simplicity, and because it is less subject to manipulation by equalising provinces that minimise tax bases to increase equalisation, or at least do so in the knowledge that such minimisation is partly or fully compensated by equalisation. In representative tax system schemes, the choice of an indicator of taxable capacity can become difficult as states use new sources of revenues. In Canada, for example, federal taxable income is used as the capacity indicator for the personal income tax; this is a logical choice, well linked to the measure sought. But personal income is also used, along with other indicators, to measure the tax capacity associated with video lotteries and casinos. The latter in some provinces are heavily export-oriented, and so their revenues are not linked strongly to provincial personal income (at least not in the province where they are located). On the other hand, a macro indicator can face measurement issues (Aubut and Vaillancourt, 2001), and its use moves the aim of the equalisation system from equalising the capacity to provide comparable levels of public services at comparable taxation levels (to use the Canadian definition), to equalising a per capita measure of income, thus giving it a re-distributive role.

#### *5.1.2. Cost equalisation*

Since revenue equalisation and cost equalisation are distinct, the question of how to design compensation for additional charges in mountainous regions arising from low population density or distance to service delivery,



immediately arises. Functions concerned with this kind of compensation include forestry, water control and embanking, and the protection of main roads against natural danger. Australia has the greatest expertise in cost equalisation. This is an area that Canada has been reluctant to take into account, since it is felt that cost differences are more arbitrarily measured than fiscal capacity differences. In Switzerland, cost equalisation is taken into account both in the general formula measuring the cantons' financial capacity, and in specific conditional grants – but this is not very conclusive (Dafflon, 1995, 82-84).

#### *5.1.3. Explicit or implicit equalisation in transfers*

Some countries, such as Canada or Germany, have explicit equalisation transfers with amounts clearly identified for this purpose and paid out explicitly to attain this goal. Other countries, such as Switzerland have transfer schemes that pursue both equalisation and other goals. When this is the case, there is a risk of many goals being pursued by a single instrument, which can result in confusion. In Switzerland, there is confusion over the responsibilities for delivery of public services. In addition, because equalisation is linked to specific conditional grants-in-aid, access to equalisation is reserved for those jurisdictions that can pay the remaining expenses – a condition impacting negatively on poorer jurisdictions (Frey et al., 1994, 35-46). The Swiss have recently launched a major policy initiative aimed at disentangling these transfers and reforming equalisation through unconditional grants. Some countries that avowedly do not pursue equalisation goals, such as the United States, are introducing equalisation into some of their transfer formulae. For example, in the case of the United States Medicare program, federal transfers

can range from 50 to 83% of state costs, according to an inverse relation with state personal income per capita. Finally, even equal per capita transfers from the central government can be equalising, if financed by a revenue source that takes more from rich regions than from poor ones. For example, vertical transfers financed by a proportional or, a fortiori, a progressive income tax will draw a greater share of the amount to be distributed from rich areas than from poor ones.

#### *5.1.4. Implicit equalisation outside of transfers*

Equalisation can also occur in public policies that do not use transfers to states. One possibility is social security schemes, such as unemployment insurance, that do not adjust their premiums for risk. Thus, in the case of Canada, unemployment insurance premiums are the same across all provinces, but unemployment rates vary substantially with poor provinces having higher rates than rich ones. Another possibility is through the wage policy of the central government. If nominal wages are equal across the country, while the cost of living (usually the housing component) is lower in poor regions, then there is also an equalisation component. A third possibility is through the de-concentration of public employment, with some footloose branches being located in poorer regions to create employment. This is the case with the location of Canada's tax processing centres. Finally, there can be central government infrastructure programs that spend proportionally more in poor regions than rich ones. However, the inverse can also happen. With open tenders, government procurements for material, equipment and technical investments may concentrate on already developed and industrialised regions, increasing the disparities (Jeanrenaud, 1985).

#### *5.1.5. Designing an equalisation scheme with imperfect data*

The choices described above are choices faced by statistically well-endowed countries. Other countries may not have this kind of information, and must rely on imperfect indicators of wealth/taxable capacity such as housing-stock characteristics (fuels used, building material used) or demographic indicators (schooling attainments, urban population). Vaillancourt (2001), who recommends using maximum values and not mean values as targets, has recently examined this issue using numerical simulations.

#### *5.1.6. Equalisation and ethnic/linguistic differences*

Sometimes a poor region of a country is also the region of origin for a minority group, and may be the only region where they form a majority. This may mean, depending on a country's language policies, that equalisation contributes to the survival of this ethnic/linguistic group by lowering its mobility. Some economists, such as Grin and Vaillancourt (2000), would argue that this is a factor that should be taken into account when setting regional finances, including equalisation.

### **6. What is the impact of equalisation?**

When examining the impact of public policies, economists distinguish between efficiency and equity issues. Efficiency issues relate to the change in behaviour of economic agents induced by a given public policy (taxation, subsidy etc.). Such a change can be a source of increased or decreased welfare for society. Equity issues relate to who wins and who loses, who pays for and who benefits from a given public policy.

## **6.1. Efficiency**

There are two efficiency arguments raised with respect to equalisation. The first is related to citizens' mobility, and the second to the behaviour of recipient governments.

### **6.1.1. *Mobility***

The mobility argument has swung between two views. One is that equalisation induces inefficient immobility of labour, and the other that the absence of equalisation induces inefficient mobility of labour. Courchene (1970) forcefully put forward the first view. He argued that in Canada, a combination of explicit and implicit equalisation through regionally differentiated unemployment insurance parameters (a variable number of weeks worked required to be eligible, and a variable pay-out period), reduced the level of out-migration from the Atlantic provinces to below what was optimal for the country. These arguments were put forward in the context of regional disparities that were not the result of large differences in natural resources endowments.

Boadway and Flatters (1982) put forward the view of equalisation as an efficiency-enhancing program. This was developed in the context of a model with one region rich in natural resources, and with the state 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 could access the revenues from these resources would be by moving to that region to benefit from lower personal taxation (income, consumption, property), higher public spending, or both. In such a case, the labour force migrating to the resource-rich region

would be too large, with some workers willing to accept lower wages than they could earn elsewhere (i.e. being paid less than their marginal productivity in the poor region), since the overall returns on migration (wage income and lower taxes/more public services) would still make migrating worthwhile. Put differently, low provision of local public services, high taxation and poverty will bring about out-migration. But it can also polarise difference between residents and newcomers in regions of immigration, and improve social balance. Or, more simply, it can cause congestion costs in the region of destination. 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 equalisation is lower than the congestion and social costs in the jurisdictions of destination.

#### *6.1.2. Behaviour*

The existence of a representative tax system equalisation scheme means that a reduction in the per capita tax base of an equalisation-receiving region can be well, if not fully compensated, by an increase in equalisation. Some economists such as Smart (1998) thus argue that in the Canadian case at least, some provinces engage in this behaviour by either delaying new economic activity or setting tax rates at such a high level that it significantly reduces some tax bases.

One outcome worth noting is that when in a federation, one observes simultaneously equalisation and tax competition. This occurs when (i) regions have the right to set their own tax levels and can do so for a significant part of their revenues; (ii) rich regions are sufficiently richer than poor regions that they can finance their own public services and their contribution to equalisation (if any), while still setting lower tax rates than poor regions; (iii) poor regions choose to offer a level of public services similar to rich regions, financing it through their own revenues and equalisation. Tax competition may then result in increasing disparities in tax bases between poor and rich regions. This type of outcome appears more likely when equalisation is: (i) not very generous in terms of the difference in spending potential it offsets; (ii) vertical rather than horizontal, i.e. there are no explicit inter-regional transfers; (iii) when the rich region is able to export part of its tax burden, something often associated with natural resource rents. But large fiscal disparities are not necessarily tolerated by the electorate at large, and richer regions may prefer to engage in more generous equalisation schemes rather than see centralisation of service delivery and taxation solve the question of regional disparities.

#### 6.1.3. *Equity*

The debate on equity in the context of equalisation often refers to the distinction between people and place prosperity. Opponents of equalisation argue that if individuals in a region are poor and thus unable to finance public services similar to those offered in rich regions, it is they, and not their regional government, who should be the recipients of grants. Alternatively, they could be beneficiaries of measures such as job search grants or skill

enhancing training, which would allow them to prosper outside the poor region, and enhance the prosperity of individual people. Individual aid would be adequate without inter-governmental transfers.

For proponents of equalisation, the equity argument is simple and straightforward: large differences in fiscal burden between local and/or regional governments are unacceptable if their causes are out of the control of local/regional authorities. There are ceilings in tax burden and lower limits to the provision of local public services that should not be exceeded. If this happens, compensation should be paid. It belongs to the beneficiary jurisdiction to decide how to allocate the sum received, be it providing more services, better provision of existing ones, or lowering taxes, with the later choice being problematic from a political perspective.

## **7. Conclusion and policy proposals**

Equalisation is a common feature of both federal and unitary countries, since most countries do not have uniform tax potential/production costs of public services across their territories due to demographic (age, health, density), topographic (weather, nature of soil) and other variations. This paper has shown that:

- Equalisation has existed explicitly in federations for 70 years;
- Both equity and efficiency considerations can be used to justify it, with their relative weights depending on each country;
- Some issues in the design of equalisation schemes still need to be addressed;

- Any equalisation scheme is both an economic and a political choice which is, for some countries, of crucial importance to their survival and prosperity.

Given the importance of equalisation, and that most discussions will be about reforming existing equalisation schemes (something more difficult than creating an equalisation scheme, since reform often leads to winners and losers), we would argue that holding to the rules listed below is appropriate when designing an equalisation scheme.

- Make the terms explicit, and use a strong legal framework such as a constitutional provision or a general law to set them out. Do not review them annually as part of the budget debate.
- Think things through before introducing an equalisation scheme. Project not only the current situation but also various possible future scenarios. Reflect particularly carefully on the sharing of natural resources rents. Use data that are agreed on by all parties, and which are not subject to manipulation.
- Use a stable revenue source with a high level of predictability. A set of taxes (as opposed to one), and a fund which allows smoothing of ups and downs in transfers (as opposed to an annual amount which is more subject to macro fluctuations) are preferable.
- Do not mix equalisation transfers and conditional grants. Explicit equalisation transfers should be unconditional grants. If equalisation cannot account for all revenue or cost disparities in the provision of some specific public service (e.g. the provision of health services to the



elderly residing in disproportionate numbers in one sub-national unit for weather reasons, having moved there after retirement and not paid taxes during their employment years to that government), then cost differentials may be taken into account in setting the level of specific grants.

- Set up an autonomous body to inform the public and advise governments on best practices. This will allow a more dispassionate debate.

## References

Aubut, J. and Vaillancourt, F., 2001. *Using GDP in Equalisation Calculations: Are there Meaningful Measurement Issues?* Paper presented at the Evaluating the RTS and the Macro Approach Roundtable, Department of Finance, Charlottetown, 2001, mimeo.

Barro, S.M., 1986. State Fiscal Capacity Measures: A Theoretical Critique. *In*: H.C. Reeves, ed. *Measuring Fiscal Capacity*. Boston: Lincoln Institute of Land Policy, 50-86.

Bird, R. and Slack, E., 1990. Equalisation: The Representative Tax System Revisited. *Canadian Tax Journal*, 38, 913-927.

Boadway, R. and Flatters, F., 1982. Efficiency and Equalisation Payment in a Federal System of Government: A Synthesis and Extension of Recent Results. *Canadian Journal of Economics*, 15 (November), 613-633.

Boothe, P., 1998. *Finding a Balance: Renewing Canadian Fiscal Federalism*. Toronto: C. D. Owe Institute.

- Buchanan, J.M., 1950. Federalism and Fiscal Equity. *American Economic Review*, 40, 583-599.
- Copland, D.B., 1935. Problems of Federal Finance. *Economic Journal*, 45 (June), 280-285.
- Courchene, T., 1970. Interprovincial Migration and Economic Adjustment. *Canadian Journal of Economics*, 3 (November), 550-576.
- Dafflon, B., 1977. *Federal Finance in Theory and Practice, with Special Reference to Switzerland*, Bern: Verlag Paul Haupt; Stuttgart: Schriftenreihe Finanzwirtschaft und Finanzrecht 21.
- Dafflon, B., 1995. *Fédéralisme et solidarité, étude de la péréquation en Suisse*. Fribourg: Helbing & Lichtenham, Publications of the Institute of Federalism, Series Études et Colloques 15.
- Fossati, A. and Panella, G., 1999. *Fiscal Federalism in the European Union*. London and New York: Routledge Studies in the European Economy.
- Frey, R.L. et al., 1994. *La Péréquation financière entre la Confédération et les cantons*. Bern and Lucerne: Expertise mandatée par l'Administration fédérale des finances et la Conférence des Directeurs cantonaux des Finances.
- Grin, F., and Vaillancourt, F., 2000. On the Financing of Language Policies and Distributive Justice. In: R. Phillipson, ed. *Rights to Language: Equity, Power and Education*, New York: Lawrence Erlbaum Associates, 102-110.
- Jeanrenaud, C., 1985. *Regional Impact of Government Procurement*. Bern: Verlag Ruegger, Grusch CH and FNRS, Direction du Programme PNR "Problèmes régionaux".

- Ladd, H.F., 1999. Measuring Disparities in the Fiscal Condition of Local Governments. *In: The Challenge of Fiscal Disparities for State and Local Governments, selected essays*. Cheltenham: Edward Elgar.
- Smart, M., 1998. Taxation and Dead-weight Loss in a System of Intergovernmental Transfers. *Canadian Journal of Economics*, 31, 189-206.
- Spahn, B., 1993. The Design of Federal Fiscal Constitutions in Theory and Practice. *In: The Economics of Community Public Finance*. Luxembourg: Commission of the European Communities, Reports and Studies 5, 63-99.
- Vaillancourt, F., 2001. *Simulating Inter-governmental Equalisation Transfers with Imperfect Data*. Paper presented at the meeting of the National Tax Association, Baltimore, November 2001, mimeo.
- Watts, R., 2001. The Dynamics of Decentralisation. *In: Bird, R.M. and Staufer, T., eds. Intergovernmental Fiscal Relations in Fragmented Societies*. Basel and Fribourg: Helbing & Lichtenham, Publications of the Institute of Federalism, Séries Études et Colloques 33, PIFF 33, 15-34.
- Zimmermann, H., 1999. Experience with German Fiscal Federalism: How to Preserve the Decentral Content? *In: A. Fossati. and G. Panella, eds. op. cit.*, 1999, 162-176.