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WORKSHOP No. 3
"PROPER RESOURCES AND AUTONOMY IN BUDGET MANAGEMENT"
SUBTHEME 4
FISCAL EQUALISATION

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Workshop No 3
Proper Resources and Autonomy in Budget Management
Subtheme 4
Fiscal Equalization

Bernard DAFFLON

EUROPEAN CHARTER OF LOCAL SELF-GOVERNMENT

Article 9 – Financial resources of local authorities

...

5 The protection of financially weaker local authorities calls for the institution of financial equalisation procedures or equivalent measures which are designed to correct the effects of the unequal distribution of potential sources of finance and of the financial burden they must support. Such procedures or measures shall not diminish the discretion local authorities may exercise within their own sphere of responsibility.

...

7 As far as possible, grants to local authorities shall not be earmarked for the financing of specific projects. The provision of grants shall not remove the basic freedom of local authorities to exercise policy discretion within their own jurisdiction.

Starting with the reference to the European Charter of Local Self-Government in matter of fiscal equalization, this short sub-theme paper is distributed in five sections. Section 1 gives the rationale for equalization: what are the disparities which have to be at least partially equalized? Section 2 deals with resources. It is distributed in two portions: the left column summarizes some aspects of the political economy of revenue equalization; boxes on the right give a recent example of implementation.[1] Section 3 duplicates this, but for expenditure needs equalization. Section 4 exposes some arguments of vertical versus horizontal equalizing transfers. Section 5 concludes with the core questions: how and how much is to be paid for equalization?

[1] Reference is made to the new schemes of fiscal equalization that has been decided in 2009 and will be introduced at the local level in the canton of Fribourg (Switzerland) in 2011. Details in French and German: http://admin.fr.ch/scom/fr/pub/scom_perequation.htm

1 The rationale for equalization

Beyond the theoretical debate on good or bad reasons for or against equalization, it is noticeable that a large number of States, federal or with decentralized public finance, have introduced equalization schemes. The reasons are multiple since geographical and institutional solidarity do not refer to economic arguments only. Thus a first question: what sort of "solidarity" among sub-national governments (SNGs) is accepted and who decides on this?

For simplicity let us consider here the political economy of equalization only. Since no federal or decentralized country is perfectly homogenous, the different levels of taxation in the SNGs do not necessarily mirror differences in preferred local public services. Local financial capacities depend on both the tax bases accessible to SNGs and the territorial distribution of those bases. Local needs vary according to the particular preferences of the local residents; but they also depend heavily on geographic, demographic, socio-economic and other factors. They are further determined by legal regulations concerning mandatory public goods and services that local governments must provide by all means.

In a first attempt to delineate what should or should not be included in equalization, one must review the possible origins of fiscal differences across local public budgets (Dafflon, 2007: 365):

Box 1 The rationale for equalization

A. Differences in the access to resources, tax bases and territorial distribution of those tax bases;
B. The amount of mandatory public goods that the SNGs must provide;
C. Differences in the costs of providing public services due to environmental factors and to the socio-demographic composition of the residents of each jurisdiction;
D. Local preferences for public services
E. Local preferences among different forms of taxes and user charges.

The logic behind this classification in five categories is twofold:

(i) Those items that are within the scope of decision and the fiscal management of SNGs should not be taken into consideration for equalization. They belong to the sphere of local autonomy and responsibility.
(ii) "External" items that are outside the scope of local decision should be compensated, at least partly, if they result in a significant spread in the relative fiscal position of governmental units.

This corresponds to considering the origin of fiscal imbalance at SNG level. If fiscal imbalance is due to

- revenues (tax) which are not concomitant with the assigned decentralized functions for individual SNG units, despite the balance at large between assigned functions and resources,
- cost factors differences in producing mandated functions, or
- weaknesses in the bases of the assigned taxes,

then disparities can qualify for (partial?) equalization.
If fiscal imbalance is due to SNGs' own choices, then it does not qualify.

2 Revenue equalization

Four issues need to be addressed in revenue equalization (Dafflon and Vaillancourt, 2003):

1] The level of public revenue available to be shared in the equalization scheme. Since beneficiary jurisdictions are different in terms of population size, their measurement must take into account the population of each jurisdiction.
2] Jurisdictions must be ranked according to some indicator of entitlement to equalization.
3] The equalization formula.
4] The opportunity (necessity?) of introducing further (political, incentive) limits to the equalization scheme?

2] In revenue equalization, the ranking of SNGs is nowadays usually made according to a Representative Tax System (RTS). RTS measures how much tax revenue each SNG unit would obtain, applying the same set of taxes at identical rates across the SNGs.

The core issue here is who decided which taxes are taken into consideration and how to weight each of them to calculate the indices of tax potential (ITP) for each SNG unit?

In the 2009 Reform of the Local Equalization system in the canton of Fribourg (Switzerland), RTS is founded on eight taxes: (1) personal income; (2) personal wealth; (3) corporate profits; (4) corporate capital; (5) immovable properties; (6) on capital gains; (7) at source (foreign earnings); (8) motor vehicles. These eight tax sources represent around 90% of local tax yields. They serve to construct eight series of indices of tax potential, with average equal to 100 points. Then the series are consolidated in one global ITP for each local jurisdiction. The series are weighted according to their relative importance in the total RTS theoretical yield.

1] In RTS, SNGs' indices of tax potentials allow to calculate what would be the necessary fund for equalization if all SNG with an index below average would received an amount such that the per capita tax yield would be equal to the average tax yield for the selected taxes.
But should a revenue equalization scheme compensate for the exact tax difference to the average?

This target would certainly create incentive problems and strategic behaviours. Why should SNGs strive to increase their tax bases through their own effort if equalization automatically makes up for the difference between their result and the national average?

There is no once-for-all theoretical answer to this incentive problem. How much is too much depends on the national context in which equalization is implemented. It can only be said a priori that moderation is the basic virtue; thereafter, it is learning by doing. Vertical versus horizontal revenue equalization as mean of moderation is also debated but does not provide a definite answer.

In the Swiss equalization scheme, it was debated whether cantons with lower-than-average indices of tax potential should received an amount of equalization such that their own taxes + after-equalization tax share would represent at least 85 percent of the national average. This threshold was abandoned due to the excessive funding it would require. Also the German case revealed genuine disincentive problems with this sort of target. With no explicit target, the question arises of what are the relevant objectives to judge the performance of the system?

In the actual Swiss scheme, there is no mention of a preset quantitative target. The performance is measured in comparing the pre- and after equalization distribution of tax resources. It results in a political ex post appreciation of what is politically acceptable or not. The evaluation takes place every four years.

In the 2009 Reform in Fribourg, the amount of equalization is fixed in the law at 2.5% of the tax yield potential of the eight relevant taxes.

3] Various formulas have been developed for revenue equalization (proportional, progressive, natural log, exponential – Dafflon and Mischler, 2008: 113). The problem is not the econometrics of equalization but how much solidarity there should be. This is first and foremost a political issue.

In the 2009 Reform in Fribourg, the resource equalization is horizontal. Communes with ITP>100 contribute to the annual equalization budget; communes with ITP<100 benefit from equalizing annual payments. The formulas are:

$$TC_i = \frac{\left(H_i \times [ITP_i - 100]^K\right)}{\sum_{i=1}^{n-m}\left(H_i \times [ITP_i - 100]^K\right)} \times M \quad \textit{and}$$

$$TB_i = \frac{\left(H_i \times [100 - ITP_i]^K\right)}{\sum_{i=1}^{m}\left(H_i \times [100 - ITP_i]^K\right)} \times M \quad \textit{where}$$

TC contributing commune "i"
TB beneficiary commune
H resident population of commune "i"
ITP index of tax potential
M the total amount to be assigned to equalization
K solidarity coefficient: if K=1, the formula is proportional; if K>1, the formula becomes progressive.

With these formulas, the politics has to decide the K value which determines how much solidarity there should be. Experience shows that horizontal revenue equalization mitigates the demand for M: contributing and beneficiary communes must negotiate how much equalization is possible and find an agreement. Re-evaluation of the system and performance assessment are periodical, in this case: every four years.

4] Solidarity is a political issue. The design of equalization follows. It can be made coherent within the political decisions. If the assessment of tax disparities and the design of equalization are correctly operated, there should be no need for further limits.

In the 2009 Reform in Fribourg, stakeholders and Parliament have to decide
- M, the amount of resources to be assigned to revenue equalization,
- the basket of taxes to be taken into account for computing ITPs and
- K in the equalization formula for the intensity of equalisation.

3 Expenditure Needs Equalization

Parallel to revenue equalization four issues should be addressed in expenditure needs equalization (Dafflon and Vaillancourt, 2010, forthcoming):

1] What are the equalizable expenditures carried out by SNGs ant thus how much equalization funding is necessary? Where to draw the line between local preferences and mandatory local public services? As Boex and Martinez-Vazquez (2007: 293) put it, without a clear demarcation line separating specific standards of services from an overall envelope of expenditures, perceptions of what may be a need can easily escalate to completely unaffordable expenditure levels. [2]

2] Second: how should we rank SNGs in terms of needs / costs for expenditure equalization? To answer this question recall that as noted by Bird and Vaillancourt (2007) average *per capita* expenditure differences in providing a public service reflect two factors: need differences (B in Box 1) and cost differences (C in Box 1).

Need differences are differences in the number of units of standardized service required per capita. They 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.

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

[2] The position of the Expert Panel on the Reform of Equalization in Canada is that: "Expenditure needs should only take into account differences that are not under the control of provincial governments". However, the Expert Panel concluded that "this is very hard to establish with precision and can vary from province to province". This difficulty was taken as one of the arguments that led them to abandon expenditure needs equalization (Vaillancourt, 2006: 48).

factors, or differences in labour 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 (Courchene, 1998; Rechovsky, 2007: 400-409).

3] The third issue is the equalization formula.

4] The fourth issue is whether an equalization policy would introduce further limits to the redistribution formula.

The practical implementation of needs equalization is a delicate issue. The following aspects have to be considered:

1] There has to be a political consensus about the local functions that are subject of any equalization effort. The notion of fiscal disparities is not sufficiently clear-cut to enable a listing of the areas where the needs assessment should apply and to tell whether there is a rationale for equalization transfers at all. This requirement applies either for minimum standards or for needs and cost measures.

In the 2009 Reform in Fribourg, the local functions considered are: (1) local police and security, (2) compulsory school and special school services, (3) elderly care and residential facilities, (4) social aid, (5) local roads and public transport. The list was established by a joint committee with representatives of the communes and the canton.

2] The needs assessment should not be manipulable by LGs and should be neutral with regard to other reforms such as the territorial reorganisation of LGs or a re-assignment of functions between the local and regional levels of government. The selection of needs variables and the incentives caused by the transfers must not alter the incentives for LGs to improve their management and performance in public service provisions.

The Reform in Fribourg uses the ad-hoc variables approach. The explicative variables are (a) density of population, (b) the ratio of work places to population; (c) population growth over ten years; (d) ratio of population aged 80 and over to population; (e) ratio of school-aged children between 4 and 16 years old to population. Two variables were scrutinized but need further exploration: (f) proportion of population receiving social aid to total population and amount of social aid per capita; (g) length of communal roads.
Statistical series (a) to (e) are regularly published and cannot be modified by local governments (LGs).
The ad-hoc relations are (a) to (1), (4) [as a substitute for f] and (5) [as a substitute for (g)]; (b) and (c) are related to (1) and (6); (d) to (3) and (e) to (2).
The statistical series (a) to (e) above serve to construct for each commune five series of needs indices.; for each series the average is given 100 points. With them, a synthetic index of needs (SIN) is calculated for each commune. The five series are weighted according to the relative proportion of the local public expenditures they explain, for the five functions (1) to (5) considered.

3] The methods of needs assessment produce varying results and cannot be easily compared.[3] Each method requires critical assumptions about the relevant needs variables. Selection, availability, weighting, smoothing etc. may be difficult on purely technical grounds. The assessment is essentially driven by the needs variables. It is thus important to distinguish between technical difficulties and step-by-step economic policy choices in the process of organising equalization. The economic policy choices must be jointly discussed by partners (canton and communes), explicitly publicized and not simply fixed by an expert panel in black-box formulas.

The equalization formula is:

$$ENE_i = \frac{H_i \times SIN_i}{\sum_{j=1}^{168} H_j \times SIN_j} \times M$$

where

ENE expenditure needs equalization for commune "i";
H resident population;
SIN synthetic index of needs (weighted average of (a) to (e) for commune "i", calculated for each of the 168 communes in the canton of Fribourg;
M the amount at disposal for expenditure needs equalization.

1] An undisputable benchmark for the amount of expenditure needs equalization transfers is not available under the actual existing statistical or econometric methods.

In the canton of Fribourg, ENE is funded by the canton only (vertical) and M corresponds to 50% of revenue equalization (horizontal).

Political choices are inevitable: economic experts must simply facilitate these choices in a transparent and methodological manner by providing a policy grammar that exclude incoherent, arbitrary and ad hoc decisions. Economic efficiency in this matter is efficiency in the process, not in the result.

In the case study, political choices concern:
- the five local functions included in ENE ;
- the method for weighting the five series (a) to (e) of explicative variables in the SIN;
- the equalization formula (proportional) and
- M, the amount available for ENE.

4 Vertical versus horizontal equalizing transfers

Horizontal equalization is typically a "Robin Hood" type of equalization: high-tax potential SNGs directly transfer public revenues to a fund serving low tax potential SNGs. If the institutional procedure is well designed, horizontal equalization has also a moderating virtue: when SNGs take part in the

3 In a survey of the literature, Mischler (2009) distinguishes between four methods of needs assessment: regression-based cost approach and representative expenditure system, which use actual local expenditures; ad-hoc variables approach and statistical aggregation of variable, where local expenditures are not used in assessment. This comprehensive survey also compares the practice, the pros and cons, the technical difficulties of each method.

negotiation about M the amount of revenue equalization, the negotiated outcome will probably reach a politically acceptable balance between funding and benefit. Beneficiary SNGs must inform their own efforts to enlarge the tax bases and cannot simply require more; contributing SNGs will signal disincentive effects if required payments are too high.

Horizontal transfers are less conceivable for expenditure needs equalization (Dafflon, 2007: 370-371). This would imply that SNGs with relatively low needs and costs of local services accept higher tax prices which allow subsidizing other SNGs with relatively high expenditure needs. Horizontal money transfers would distort the relative tax prices of local public services and result in allocative inefficiencies. Two further arguments are: (1) for those local public services that are financed through user charges, consumers will face false price signals if the local "price" does not reflect benefit (this requires a "no equalization" statute); (2) when difference between local choices, X-inefficiencies and genuine disparities are not clear, SNGs might indulge in strategic behaviour with the aim of placing themselves in a more favourable equalizing position (in this case, higher costs and more needs). Vertical needs equalization can be set on expenditure standards that eliminate functions based on the benefit principle for their financing and that ignore SNGs potential strategies.

5 Funding

Indicators of revenue or expenditure needs disparities do not tell how much funds are necessary for equalization. How much solidarity is a policy normative choice. The funding of equalization may be fixed in different institutional settings: annual negotiations, multi-year agreements or even constitutionally defined. It may be the result of either a standard procedure of the legislative or the executive branch of government, a special forum where the different stakeholders can negotiate on the equalization process or an evaluation by a technocratic and independent agency. A wide range of approaches seem to work in practice in different countries around the world.

Yet, these systems should be able to provide a stable and predictable outcome of the transfer system. For the same reasons as the smoothing of the data with respect to the needs assessment, the funding should encourage stability-oriented local fiscal policies (Boadway and Hayashi, 2004). Therefore, a constitutionally fixed transfer program is preferable to annual negotiations on the funding. The system of expenditure needs equalization should be predictable for the concerned SNGs. The reasoning is the same as in the case of tax capacity equalization.

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