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Dynamic balance of fiscal decentralisation and sectoral regulations

The case of funding public education

Beyond intergovernmental transfer schemes

Invitation for this workshop called for papers on intergovernmental fiscal relations aiming to balance central policy objectives in a decentralised setting: "how to encourage decentralised allocation when national public finance objectives have to be fulfilled?" It is a highly relevant question, especially in the period of economic downturn, when systemic reforms are supposed to be launched. In the case of merit goods, such as the public education the critical issue is how to balance the intergovernmental fiscal relations and institutional-regulatory framework. Primary and secondary education is a public service, which should be made available for all the citizens, regardless of their ability to pay. It also means that there are externalities associated with the service, as the society at large benefits from public spending on education services provided for an individual.

The instruments available for governments to ensure effective education services in an efficient and equitable way are rather diverse. The basic models of education financing show huge variations ranging from centralized funding schemes to local government or school level control of education funds. Funding mechanisms of merit goods, such as public education, targeted some forms of per capita financing in many countries, especially in the transition ones during the recent decentralization reforms. Per capita financing serves the national fiscal policy objectives and guarantee sufficient local spending autonomy, assuming that the proper institutional framework is in place.

As it will be presented later there are different interpretations with diverse regulatory conditions for developing the simple concept of "per pupil" financing of public education. Our main message is that beyond the proper design of intergovernmental transfer schemes these institutional factors matter a lot. Funding mechanisms alone will not be able to ensure the efficient provision of merit based services. The institutional setting and the regulatory procedures should be adjusted to the rules on intergovernmental fiscal relations.

Factors influencing education service provision at local level

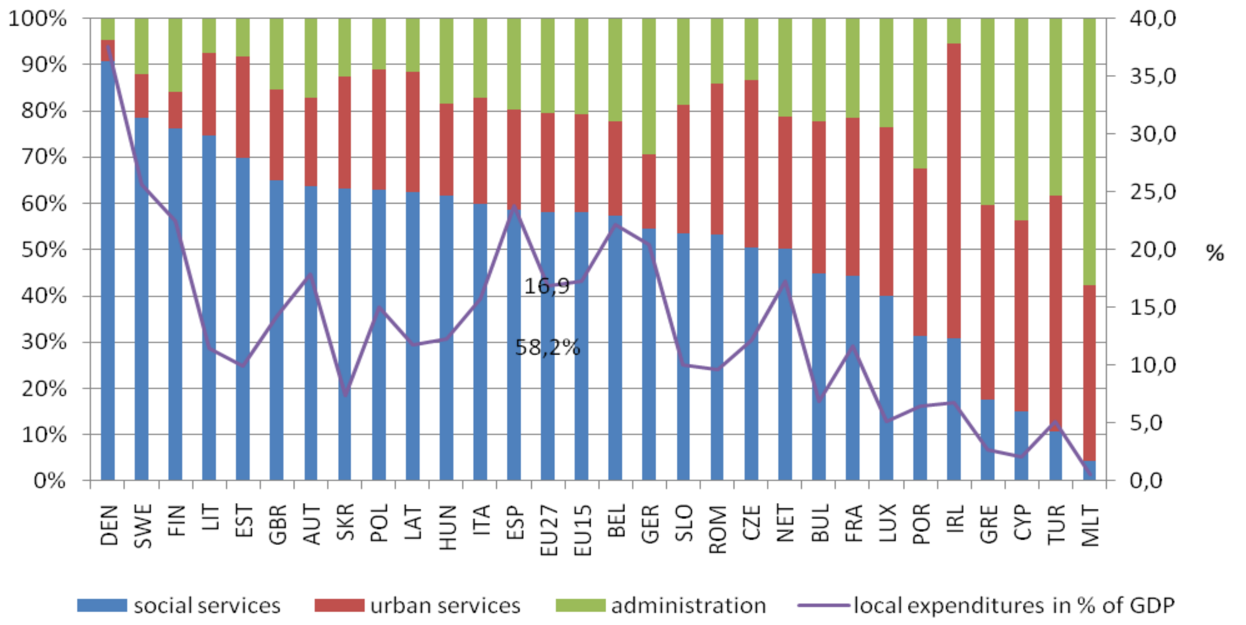
Schools operate as part of the education system, which is influenced by four sets of factors: 1. technical, administrative regulations; 2. funding mechanisms and financial management rules; 3. mechanisms channelling the customers' expectations and 4. the actual organisational and management autonomy of the educational institutions. Education policies targeting quality services, knowledge and skills development are aimed to focus on all these four aspects of the education system.

Professional regulations in education gradually move away from the traditional input oriented, strictly controlled centralised administration of schools towards more complex regulatory mechanisms. They intend to focus on learning achievements, aim to measure and to monitor outputs and outcomes. The regulation should also recognise the various actors in education service management. Similar trends are evolving in the *financing* fields when the traditional forms of funding of authorised spending levels with limited managerial flexibility are gradually replaced by output based, multi-sectoral and customer focused funding mechanisms. *Users of education services* have more power to influence the schools, which creates a new line of accountability in the classical hierarchical system of administrative supervision. Benefits of all these changes can be realised only if organisational and *management autonomy* exists at local governments and at the school level.

Sharing responsibilities and funding

Scope of decentralisation is very much determined by the fact whether education is a devolved function or not. Chart 1. below shows how that proportions of the three main groups of public services (administration, urban services, social services, including education) is changing with level of fiscal decentralisation. In the average of the 27 EU member countries 48% of local expenditures are spent on social services (education, health care, welfare services), while the average ratio of local expenditures in GDP is 17% in these countries. In Chart 1. countries to the left from this EU average value are typically more decentralised and manage more social services; while in countries to the right, with lower level of decentralisation, the administrative and urban services dominate local budgets. So higher level of decentralisation means that more merit based services are devolved.

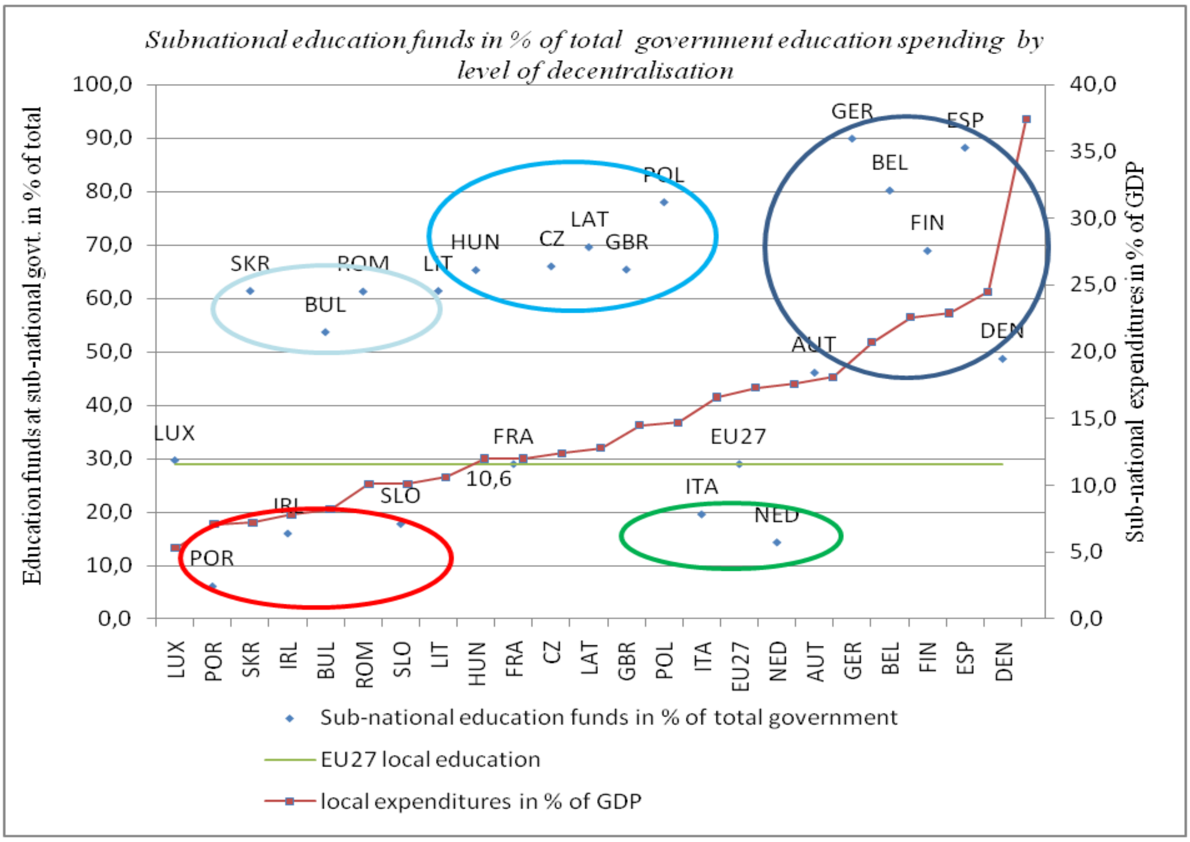
Chart 1. Expenditures by functions and decentralisation



The four regulatory mechanisms in public education, briefly discussed above, work differently in countries with diverse level of decentralisation. In Chart 2. countries are grouped along two dimensions of public spending: the left hand scale shows sub-national share of education spending in percentage of total government education expenditures; the right hand scale is the measure of fiscal decentralisation.

Five main groups of countries can be identified (with a couple of outliers). Countries with devolved public education services are 1. the federal and the Scandinavian countries; 2. the decentralised countries of Central and Eastern European together with the UK and 3. the three slightly less decentralised countries of Central and Southern Europe; 4. the centralised countries without devolved education system (e.g. Ireland, Portugal, Slovenia) and 5. the more decentralised one, but having limited local responsibilities in public education.

Chart 2. Decentralisation and education financing



Source: http://epp.eurostat.ec.europa.eu/ education funds: 2007; sub-national expenditures: 2009

In these diverse decentralised settings not only the responsibilities for public education services, but the actual funding mechanisms are different, as well. Table 1. below gives a rough typology of public education financing by separating the country models along two dimensions: (i) *whether central or local* government is the main funding source of the typical education services (primarily salaries) and (ii) what is the typical method of financing: *traditional, incremental* budgeting based, input oriented systems or some *output measures* are used.

Table 1. Rough typology of public education financing, selected European countries

Basic method of financing public education:	*Primary forms (sources) of funding public education:*	
	centralized	*decentralized*
input oriented	FRA, GER (Länder), SRB	MD
output oriented, "per capita"	NL	DK, FIN, (GBR) BG, H, PL

Group of the most centralised countries in the upper left box are financed primarily through the national budget (e.g. in France teachers are civil servants hired by the national education administration) or the states (Länder) play the role of the central agencies in the federal Germany (leaving autonomy to local school maintenance organisations). The formally decentralised country of Moldova (upper right box) is in a unique position, because education is formally devolved, but the local government funding mechanism still follows the incremental budgeting, the traditional fund allocation method focusing on planning expenditure appropriations and estimating local revenue capacities.

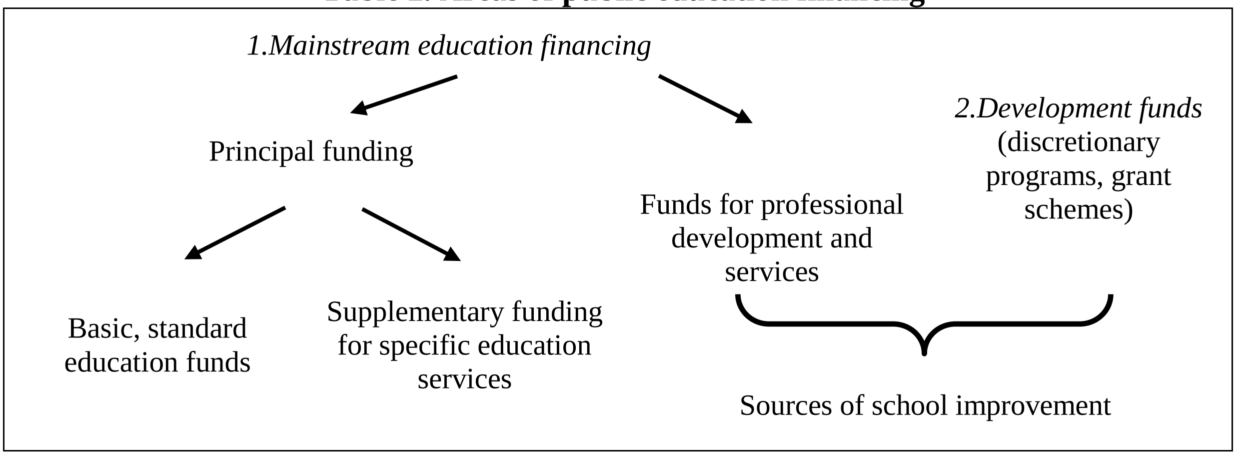
Diverse forms of per-capita-financing schemes were developed in the decentralised Scandinavian countries, in the UK and in Central-Eastern Europe (lower, right box). The Netherlands is an exceptional case, where centrally allocated teaching and non-teaching staff units are allocated to local school maintenance organisations, but their funding is based on a per-pupil financing scheme (lower left box).

Education grant schemes

Beyond these general characteristics of public education financing systems the actual methods of intergovernmental fiscal relations show further variations. In order to provide public education, as a typical merit based service, all countries have developed not only various funding schemes and financial management practices, but complex regulatory mechanisms, as well. They usually follow the main types of funds provided for public education.

As it is summarised in Table 2., funds for education are needed for the 1. *regular services*, which are standard and the specific local activities, supplemented by services for professional development; 2. program based grant schemes for *educational development*. The funding mechanisms assigned to these types of education activities might be different.

Table 2. Areas of public education financing



One of the most visible distinction among the education funding models is whether the financing of operation and maintenance is separated from the funding mechanisms of personnel and professional development costs. In the less decentralised countries the basic O&M expenses are usually left for the local governments, which are supposed to finance them from their own source revenues. The other, major part of education expenditures is funded exclusively by the national budget, without putting any burden on local governments (e.g. this is the case in Serbia). This type of sharing functions and funding responsibilities might simplify the education financing mechanisms. However, it does not really increase the service efficiency and effectiveness, because this funding arrangement artificially separates the two interconnected components of education, that is teaching activities and school operation.

In the fully decentralised countries the more refined system of national regulations on education standards, intergovernmental fiscal transfers and rules of local management guarantee that the main goals of public education services are met. The specific forms of education transfers fit into the overall system of intergovernmental fiscal relations and grant allocation logic.

These main criteria of a good intergovernmental transfer system are, as follows:

Firstly, a good grant schemes ensures the *minimum level of services* for different types of local governments. On the expenditure side it should recognise the objective differences in unit costs (e.g. explained by geography, urbanization level) and at the same time funding for specific spending needs (e.g. higher transfers for the poor). On the revenue side, equalization of local revenue-raising potential up to minimum level is required.

Secondly, the grant system should support *horizontal equalization* of local governments with similar functions. It should recognise the objectively measured variations in expenditure needs, measured by “workload” factors (e.g. number of enrolled pupils, children of school age, capacity of service organizations). Refined grant schemes are also able to support equal distribution of revenue raising capacity. It is based on the estimated revenue base of the local government calculating the standard tax effort by using an average rate. Thirdly, the grant system should provide *incentives* to localities for efficient local service delivery and own source revenue raising.

These objectives can be met only by using diverse forms of intergovernmental fiscal transfers. A “good” local government transfer and revenue sharing system is a mixture of various techniques. By responding on a particular objective one type of grant will have a specific impact on local fiscal autonomy and will create only one particular incentive for local service management.

Within this framework the actual intergovernmental fiscal transfer techniques can be characterized along three dimensions:

1. *Method of central allocation*: discretionary (limited partially by sectoral regulations, only) or formula based allocation of national budget funds;
2. *Funding requirements put on the recipient local government*: conditional grant, with local co-funding obligation (it might be open or closed ended matching grant) or unconditional transfer;
3. *Local autonomy in spending*: earmarked (categorical, block) grants or general grants, with local spending autonomy.

There are various combinations of these intergovernmental transfers and obviously there are huge variations by the role of local government tiers, by types of public services and whether they target current or capital budgets, etc. Even in public education several techniques of grant allocation might work in parallel. Each country uses a mixture of financial support schemes by combining funding methods for the typical, standard education activities and for supporting the specific programs.

Table 3. Financing public education activities: selected European examples

Recipients' obligations:	***1.Method of central allocation***	
	discretionary	*formula based*
2. Local funding requirements		
conditional (matching)	capital investments; Education Action Zone, Excellence in Cities (UK);	n.a.
unconditional	Education Priority Zones (ZEP, France)	school transportation (D) school development (UK)
3. Local spending autonomy		
earmarked (categorical), block	teacher salaries: Fr, D (Länder) education equipment: Fr	Dedicated School Grant, ring-fenced (UK); integration, minority language, SEN, building O&M, dormitories
general purpose	n.a.	needs based grants (Fi) per pupil norms (PL, HU)

Discretionary allocation of national budget funds could target specific groups of education expenditures. Examples are the techniques of equalisation policy, such as the British Education Action Zones, Excellence in Cities programs or the Education Priority Zones (ZEP) in France. They could be matching grant schemes or unconditional transfers. Local spending autonomy is limited in the case of centralized teacher salary funding mechanisms, which are strictly conditional, earmarked grants (France, Germany at state level).

The *formula based* funding schemes usually allow greater local spending autonomy. Even if they are categorical transfers for special purposes (e.g. teaching minority languages, support children with special education needs or target building maintenance), these grants are more predictable and transparent than the discretionary transfers. The formula based general purpose grants guarantee the highest level of local spending autonomy.

Within this last group of grants there are several models and experiments, which aim to balance on one hand the professional priorities of the education, as a merit good and the requirements of financial efficiency, on the other. Diverse forms of "per pupil" transfers ensure central control over education finances and support local autonomy.

Per pupil financing schemes

In *England* the primary form of education funds is the Dedicated Schools Grant, which is a per pupil block grant transferred to the schools through the local authorities (ring-fenced funding). The Dedicated School Grant is supplemented by various specific grants, directly allocated to schools: School Standards Grant, Area Based Grant, specific funds for meals, education of ethnic minorities, capital investments, etc. Particularity of the British system is that school funding formulae used by the local authorities are based on similar principles like the national ones and they are approved by the ministry (75% of the funds are allocated on a per pupil basis, with modifying factors). The schools are autonomous in managing the funds received through these various channels.

In transition countries, depending on the political commitment to decentralise and the basic features of local finances, the inherited input based control with incremental budgeting was gradually transformed by some form of per capita financing. In *Poland* education component is a major element of the general grants, especially in urban local governments. The present per capita financing system in the education sector was experimented in a longer period, but always followed the logic of per pupil based national grant allocation. The general grant in education ("subvention") is defined by the Ministry of Education and Sciences; it dominates the funds allocated to local governments.

The actual formula is rather complicated, but it is based on the number of enrolled pupils, using two types of weights. There are 47 multipliers of educational services, which estimate the extra cost of education in secondary and vocational schools, by types of education (e.g. music, bilingual teaching), according to the number of minorities, disabled, whether they are rural schools, etc. The other set of parameters is the teacher salary index of four categories: standard multipliers of teachers' salaries from trainees to full time, qualified teachers.

The Ministry of Education and Sciences is authorized to make reserves as 0.6% of the annually allocated education subvention. There are some specific grants, for example to provide textbooks for pupils in poor families, to finance school buses and computers in new comprehensive secondary schools, but the school improvement is mostly driven by the local and school level decisions.

The education grants in *Hungary* used to follow similar principles. However, starting from 2007 a new control element was built into the per pupil grant formula. The standard class size was introduced as the basis of grant allocation. This new formula takes into account the national regulations on average class size and the teachers' statutory teaching hours per week (modified by coefficient of education programme types). The expected number of classes (and the related teachers' positions) in a municipality is calculated by dividing the number of actually enrolled pupils with the standard size classes. This model led to some savings by increasing the average class size and consequently decreasing the need for teacher positions. It has also combined the former very detailed and fragmented per pupil grants into a funding scheme with lower number of coefficients.

The education needs based approach is followed by the *Finnish* model. The national grant allocation is a per capita funding scheme, but particularity of this model that it is not based on the number of enrolled pupils, but the number of population at school age (6-15 years old). The education grant component is weighted by the type of school and other cost factors, such as the population density, municipalities with minority languages or being located on an island. All the national budget funds are made available to local governments as a general ("one-tube") grant. The vocational training and the upper secondary education is financed by a per pupil grant scheme. In addition to the general grant for comprehensive education, the Finnish National Board of Education provides program based funds.

These "per capita" financing models make municipalities more interested in managing education services in an efficient way. They are less bound to operation and maintenance of existing school network, where the transfers are provided by number of enrolled pupils in the given schools. At the same time these models indirectly guarantee the minimum level of funding for public education, as a merit good.

However, there are significant differences in the actual per capita funding schemes. The first differentiating factor is whether the per-capita education grants *target the local governments* responsible for education services *or* they are allocated directly to *schools* or school maintenance organizations.

The *types of expenditures* covered by the formula could be different, as well. Capital expenditures are often left out from these models. Teacher training, textbooks might be included in the group of current expenditures. Another differentiating factor is whether local governments are fully *authorized to reallocate* the funds received or there are some limitations.

The most critical element of the per-pupil formulae is that *which factors* differentiating the education costs are taken into account. Usually there is a basic, standard component which is modified according to the special needs. So it might be supplemented by a curriculum related component, which provides fund for special education subjects (languages, arts, sports. etc.). There is a great variety of pupil related cost factors, such as school meals, extra funds for pupils with special education needs. Also the school-specific expenditure factors (size, location, heating costs, etc.) might further refine the basic per capita financing formula.

Balancing regulatory mechanisms

All these progressive and sophisticated per capita financing methods of public education have been developed during a longer period. They are regularly improved in a constant reform process in order to result the expected efficiency gains of these models. There are critical external conditions in the field of financial management and education administration which should be met.

In intergovernmental finances and financial management, there are several mechanisms which have to be in place. During the past decades priorities of intergovernmental fiscal reforms were to build local government finances on the own-source revenues and general purpose grants (or shared revenues). In a decentralised system merit goods need stable funding and greater protection among competing national and local service priorities. These requirements *raised the claim for categorical grants*, in the form of block or earmarked transfers.

Also the ministries responsible for public education should be informed about the fiscal position and motivation of local governments, which actually manage the schools. Otherwise at national level it will not be able to shape the grant system, as one of the most important instrument of education policy. Policy development requires proper *fiscal information system* at national level, which should be based on reliable data produced by the public sector accounting and local government reporting system.

It will also determine how the various *planning methods* can be used for influencing education spending. The traditional line-item, incremental budgeting helps to secure funds for the regular functions assigned to educational institutions. Despite the predictability and relative stability of this planning method, it limits the scope of manoeuvre for the education policy makers. The program based budgeting, built on agreed political priorities, following policy objectives across organisational units and using measurable outputs is more suitable for effective education policy development. New actors will be involved in the annual fiscal planning process, such as the local government associations, as they provide co-funding for public education.

There are other conditions of a successful per capita financing education scheme. Local governments and schools are able to realise the benefits of these block or general grants only if they have sufficient *financial management autonomy*. They should have power to use their savings and reserve in a flexible way, to manage school property with some autonomy and the necessary financial management capacity should be in place. Financial decisions of structural changes require funding for redundancy payments and support to school network rationalisation (e.g. school bussing).

Beyond the financial environment the *professional-technical regulations* are equally important conditions for realising the benefits of a good education grant scheme. The national agency for education policy is responsible for developing the institutions and procedures of education planning and policy implementation. School autonomy will bring results only if these professional regulatory mechanisms of school improvement are in place. So the – external and internal - evaluation mechanisms of educational performance should be developed, schools and local governments need technical support in their own education strategy and program design, professional services, capacities and funds should be available for helping decentralised implementation of these education plans.

The case of public education funding proves that development of the intergovernmental fiscal architecture goes beyond the design of a proper grant scheme. Financing of merit goods, such as the public education, by progressive intergovernmental transfer schemes requires several other conditions to be met. New regulatory mechanism should be introduced, otherwise the fiscal techniques will not have the anticipated positive impact. Coordinated interventions for establishing the system of performance measurement, service monitoring, quality control, support to innovation, school improvement, regulations on salary schemes and financial management techniques are needed for providing a decentralised service.

The overall tendency in public education financing and service management is decentralisation. The transition countries were able to experiment radically with new forms of per-capita-financing schemes in education, because their political-administrative systems went through a transformation at the same time. So despite the inherited centralised education system and funding mechanisms they could gradually move towards efficient forms of managing a merit good. However, this process is never completed, education and fiscal reforms always search for a new balance between the technical-professional, fiscal and management factors of education services.

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