

**Globalization and Regionalization**

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**EDUCATIONAL FINANCE  
IN WESTERN EUROPE:  
SOME EXPERIENCES FROM  
A TANGLED WEB****Abstract**

Education is one of the most important services provided by public governments in almost every country worldwide. However, the most important cross-country observations about education – like the PISA report by the OECD or the TIMSS by the IEA – focus only on international benchmarks to compare the knowledge capacity of pupils. This paper provides a general overview of the different forms how education expenditures are financed in ten European countries. We observe the educational system in Austria, Belgium, Denmark, France, Germany, Italy, Spain, Sweden, Switzerland and the United Kingdom and point out the similarities and national distinctions.

**Key words:**

Intergovernmental transfers, educational finance, Austria, Belgium, Denmark, France, Germany, Italy, Spain, Sweden, Switzerland, United Kingdom.

**JEL:** H7, H1, I2.

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## 1. Introduction

Education is one of the most important services provided by public governments in almost every country worldwide. However, education and its indirectly linked expenditure – like for example school meals or the cost of school transportation – can be provided by public governments as well as private companies or households. Moreover, the expenditure for education is not only spent in the educational institutions themselves, because the agency and Ministry, which support the education process by developing curricula or generating further vocational training for teachers, are also cost-intensive.

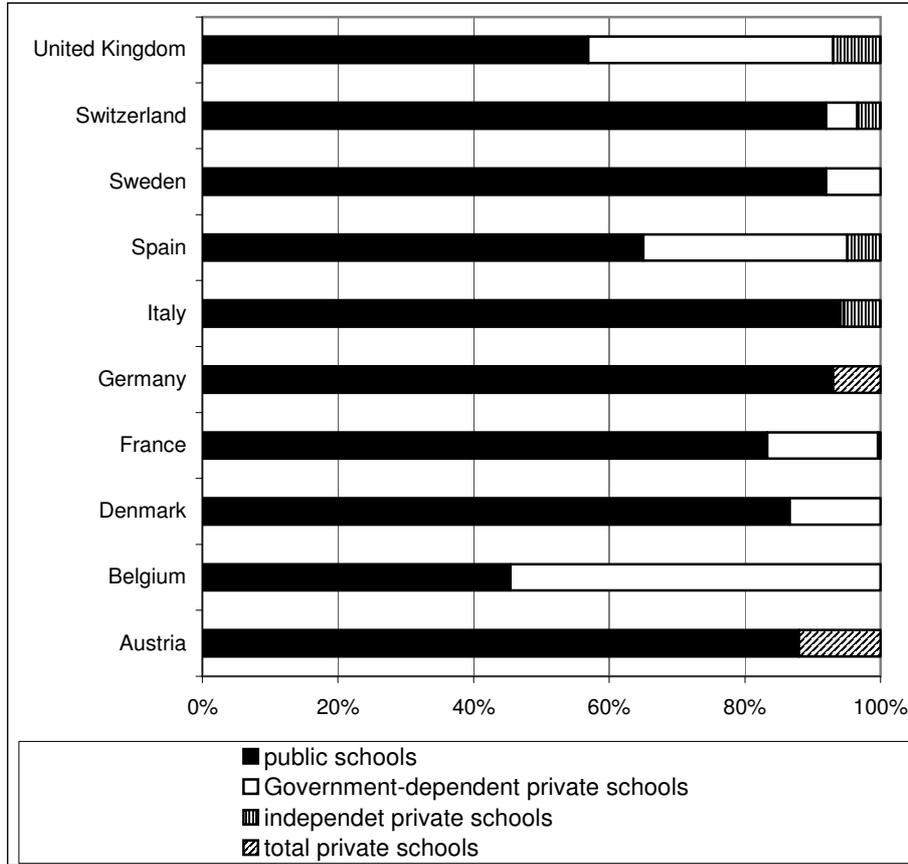
In the United States of America or Canada private institutions are a major source to finance educational expenditure. In Europe the impact of private institutions on the education sector is lower compared to the USA and Canada. In the majority of all European countries the pupils attend public schools, except in Belgium, where over 54% of all pupils in the primary and secondary schools go to private schools. However, all private Belgian schools are also mainly funded by the government. The following figure 1 presents a summary of the school landscape – as a distribution between private and public schools – in ten European countries in the school year of 2006 / 2007:

The total public expenditure on education related to the Gross Domestic Product (GDP), which can be observed in the following figure 2, varies between 4.2% in Spain and 8.3% in Denmark:

A number of professionals in the public administrations or politically interested groups opine quite often that a higher educational output can only be received by means of a higher concentration of expenditure on the education system. However, the empirical observations do not underline such an absolute argumentation, because additional funds available to an existing education system of a country have not improved the pupil performance in a sustainable manner [12; 13; 17; 35]. Furthermore, pupils from a country with a significantly higher level of educational expenditure or smaller class sizes than other countries are not necessarily in a better condition in an international comparison [36]. In fact, the actual research suggests that about two-thirds of the variation in student achievement is the product of home environments, not schools. Therefore, the following table 1 summarizes some of the empirical research about the factors that affected the education output:

Figure 1.

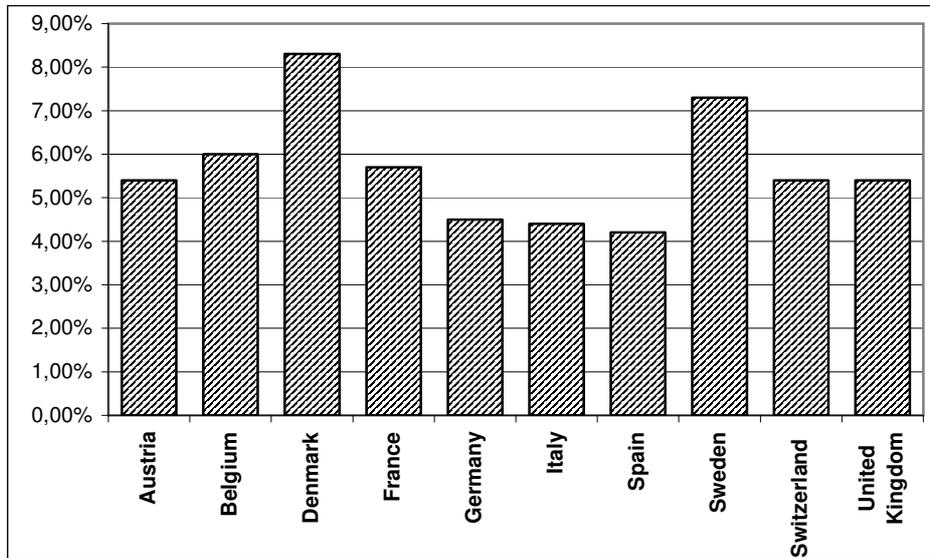
**Distribution of pupils in the secondary and primary schools according to the institution type, who attended school in the school year of 2006 /2007**



Source: own calculation based on various data from Eurydice and the national Federal Statistical Offices

Figure 2.

**Total public expenditure on education as a percentage of GDP in 2005**



Source: own illustration based on OECD, 2008, page 226.

Table 1.

**Survey of some empirical results of factors, which affect the education output**

Factor	Empirical result	Literature
<i>Personal situation of the pupil:</i>		
Socio-economic background of the pupil	Pupils with academic parents and high number of available books at home reach better performance than pupils from blue collar families and a lower number of books	Entwisle, Alexander and Olson, 1997; Cameron / Heckmann, 2001; Albouy / Waneck, 2003, Plug, 2004; Schütz, Ursprung and Wößmann, 2008; Schütz / Wößmann, 2005
Pupils from immigrants	Pupil with a migration background perform badly, however the main reason for this circumstance can be found in their socio-economic background	Entorf / Minoiu, 2005

Factor	Empirical result	Literature
Gender of the pupil	Female pupils have a better reading performance than male pupils, while male pupils in general perform better in Mathematic and Natural Science than female pupils	Fuchs / Wößmann, 2007
<i>Equipment and personal resources of the school</i>		
Total expenditure per pupil	No significant effects on the pupil performance	Hanushek, 2003
Class sizes	No significant effects on the pupil performance	Meuret, 2001; Hanushek, 2003; Wößmann, 2003
Class sizes and teacher salaries as well as teacher qualifications	Positive effects on the pupil performance	Hedges et al, 1994; Sutton and Soderstrom 1999; McNeal, 1997
Ratio of computers per pupil	No significant effects on the pupil performance	Fuchs / Wößmann, 2004
General teaching materials	Textbooks and construction materials have the highest impact of all education utilities on pupils' performance	Pritchett / Filmer, 1999; Fuchs / Wößmann, 2007
<i>Institutional environment</i>		
Infantile education / preschool	Positive effect on the pupil performance, especially on pupils with a migration background	Currie, 2001; Cunha, Heckman, Lochner and Masterov, 2005
Ratio of trade union members per total number of teachers	Negative effect on the pupil performance	Hoxby, 1996
Competition between private and public, state run schools	Positive effect on the pupil performance	Neal, 2002; Hoxby, 2003

Source: own illustration

## 2. Educational expenditure assignments between the different tiers of government in Western Europe

Decentralisation of education is one possibility to strengthen the accountability and to produce some positive incentives for all actors in the education process. Education decentralisation can be classified as follows:

- *Education deconcentration*, Deconcentration describes the situation in which the central ministry of education shifts some responsibility to their own regional or local offices, but these offices are still a part of the central administration. In Germany the states are the major decision-makers for primary and secondary schools and every state has its own regulation concerning the maximum number of pupils for a class. However, the final decision of whether an additional class will be offered at a school belongs to the local educational administration (*Staatliche Schulämter*) and the school itself can only file an application for a further class.
- *Education devolution*, Devolution includes the transfer of responsibility from the central government to an independent and elected tier of government like states and provinces or even local authorities. This form of educational decentralisation can be observed in Belgium and Spain, where the central government has shifted major responsibility in the secondary and primary system to the Belgian language communities and the Spanish Autonomous Communities.
- *Education delegation*, Delegation means that one tier of government has shifted the decision-making responsibility to the school, but de jure this responsibility still belongs to this tier of government. A practical example is the Danish primary school system where some municipalities have delegated the responsibility to their respective schools, but the Danish municipalities can reclaim their rights in this respect at any time.

A huge number of possible educational functions and areas exists, which can be decentralized like teacher hiring and dismissal, teacher salary specification, school construction and maintenance, the evaluation of the performance of the schools as well as universities, examination and degree of supervision of a school head, faculty dean or university president and finally the structure and organisation of the schools and universities itself. Moreover, in some European countries, like Belgium, Spain or Switzerland, the question of the official teaching languages is a very hot «political potato», while in Denmark and Italy with their small German-speaking minorities as well as the Danish minority in the northern German state of Schleswig-Holstein, the teaching language plays only minor role. In Western Europe, the curriculum and the teaching methods are mainly

fixed by the central ministry of Education and their respective regional offices and only the subnational governments of Belgium, Germany and Spain possess an independent in this area. Finally, as a matter of fact it is also possible to decentralise the financing of education from the central government to the subnational and local authorities. Under the goal of strengthening the accountability, decentralisation of the financing of the educational expenditure is reasonable, because on the one hand the school providers have to consider the preferences of the citizens and clients and on the other hand the educational providers are not influenced by the central government and can make their decisions quite independently.

In many Western European countries, local authorities play a significant part in the provision of compulsory education. This participation is the result of different levels of autonomy in every country and the different kinds of schools considered.

A group of certain local authorities – mainly in the Nordic countries and in the United Kingdom – themselves undertake the funding of schools and determine the amount of funds, which are used for education. These local authorities use their own tax revenues as well as vertical government transfers to provide primary and secondary education. In other countries, the educational expenditure is fixed at a higher government level, but the local authority may – or must – supplement it with its own resources. In a third group, the budget volume for education is determined and financed completely by higher tiers of government, but the local governments can decide how this fixed budget is distributed between the different forms of schools as well as between equal school forms. These three forms of classification can be observed in the field of teacher salaries, in the maintenance and construction of new schools as well as in the necessary equipment for schools.

A further classification, based on the level of autonomy and the highest level of government which participates in the education system, can also be used to characterise the European education landscape. While the British and Scandinavian local authorities consider about huge autonomy, the local authorities in Germany, Spain, France, Italy and Austria are only responsible for the operational resources and the school buildings. However, in this second group of these five European countries the local authorities are not responsible for the salaries of the teachers and in Italy and Spain are the local authorities are not completely responsible for the equipment and the operational resources in the schools.

Belgium and Switzerland can be placed into a third group, because on the one hand the complete education finances of the primary and secondary schools are shifted from the central government to the respective regional governments<sup>1</sup>.

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<sup>1</sup> Spain can be placed into this group as well, because the delivery of educational services is mainly the responsibility of the seventeen Autonomous Communities. The Autonomous Communities also regulate school programmes beyond the minimum structure and content determined by the State. However, how important such minimum struc-

However, the 26 Swiss cantons and the three Belgian (speaking) communities empower their local authorities with different forms of autonomy and therefore both countries can be described as a huge «tangled web». For example, the Canton of Schwyz claims a tuition fee for secondary schools, while the parents in the canton of Zurich do not have to pay such a school fee. Moreover, the municipalities in the Canton of Schwyz are able to pay higher salaries at the primary schools to attract highly qualified teachers, whereas in the canton of Zurich such a «salary competition» does not exist.

The following tables 2 and 3 summarise the different education assignments and financial responsibilities for the universities, the secondary schools and primary schools regarding the teacher salaries, the maintenance and the construction of new educational institutions as well as the necessary equipment for education between the respective tiers of government:

Table 2.

**Financial responsibility of education between the different tiers of government**

	Universities			Secondary schools			Primary schools		
	Salaries	Buildings	Equip-ment	Salaries	Buildings	Equip-ment	Salaries	Buildings	Equip-ment
<b>Austria<sup>2</sup></b>									
central	X	X	X	X	X	X			
regional							X		
local								X	X
<b>Belgium<sup>3</sup></b>									
central									
regional	X	X	X	X			X		
upper-local					X			X	
lower-local					X	X		X	X

ture could be politically developed, can be observed in the bilingual education in Catalan and Spanish in the Autonomous Community of Catalonia, which is one example of the famous pork barreling politics in Spain. Moreover, the university education in Spain is regulated by the State through the Ministry of Education and Culture and therefore we have decided Spain should not be put into the same class as Switzerland and Belgium.

<sup>2</sup> In Austria the salaries of the teachers for the primary schools, for one wing of the secondary schools (*Hauptschule*) and for the polytechnic institutes (*Polytechnischen Schulen*) are completely financed by the central government.

<sup>3</sup> In Belgium some differences exist between the French, the Flemish and the German (speaking) communities. In Belgium the investments in school buildings are financed by the upper-local authorities (provinces) or directly by the school, which is itself mainly financed by the municipalities.

	Universities			Secondary schools			Primary schools		
	Salaries	Buildings	Equipment	Salaries	Buildings	Equipment	Salaries	Buildings	Equipment
<b>Denmark<sup>4</sup></b>									
central	X	X	X						
upper-local									
lower-local				X	X	X	X	X	X
<b>France</b>									
central	X	X	X	X			X		
upper-local					X	X			
lower-local								X	X
<b>Germany<sup>5</sup></b>									
central		X	X						
regional	X	X	X	X		X	X		X
upper-local					X			X	
lower-local									
<b>Italy<sup>6</sup></b>									
central	X	X	X	X			X		
regional						X			
upper-local					X			X	X
lower-local									
<b>Spain</b>									
central	X	X	X						
regional	X	X	X	X	X	X	X	X	
upper-local									
lower-local									X
<b>Sweden</b>									
central	X	X	X						
upper-local									

<sup>4</sup> In Denmark the costs of primary and secondary schools are borne by the municipalities or directly by the respective school, which has a global budget financed by the municipalities.

<sup>5</sup> In some German states the municipalities instead of the upper-local authorities (*Landkreise*) are responsible for the maintenance and construction of new primary schools.

<sup>6</sup> In Italy the teachers of the primary and secondary schools are civil servants of the central government and the level of the teacher salaries is mostly equal in Italy. However, in some tiers of government with a highly autonomous status, like the province of Bozen-Southern Tyrol, the administration of the teachers is enforced by upper-local administrations. Moreover, the province of Bozen-Southern Tyrol, with its own laws and different salary brackets, can offer its teachers higher salaries. These higher salary brackets are necessary, because the pupils are sometimes educated in a trilingual manner (German, Italian and Ladin). Furthermore, the central government and the province of Bozen-Southern Tyrol have also arranged special treatments for the University of Bozen.

	Universities			Secondary schools			Primary schools		
	Salaries	Buildings	Equip-ment	Salaries	Buildings	Equip-ment	Salaries	Buildings	Equip-ment
lower-local				X	X	X	X	X	X
<b>Switzerland</b>									
central	X	X	X						
regional				X	X	X	X		
local					X	X	X	X	X
<b>UK</b>									
central	X	X	X						
upper-local									
lower-local				X	X	X	X	X	X

Source: own illustration

Table 3.

**Content and administration responsibility for schools between the different tiers of government**

	Curriculum	Text-books selection	Teacher salary scale	Teacher pay out	Teacher promotion	Teacher & school evaluation	Additional classrooms
<b>Austria</b>							
National MoE	X	X	X				
Regional MoE				X	X	X	
Local education a.					(X)	(X)	X
School (board)		(X)					(X)
<b>Belgium</b>							
National MoE							
Regional MoE	X		X	X	X	X	X
Local education a.							
School (board)		X					
<b>Denmark</b>							
National MoE	X		(X)			EVA	
Regional MoE							
Local education a.			X				X
School (board)		X	X	X	X		X
<b>France</b>							
National MoE	X		X	X	X	académie	
Regional MoE							

	Curriculum	Text-books selection	Teacher salary scale	Teacher pay out	Teacher promotion	Teacher & school evaluation	Additional classrooms
Local education a.							X
School (board)		X					
<b>Germany</b>							
National MoE			X				
Regional MoE	X	(X)		X	X	X	(X)
Local education a.						X	X
School (board)		X					(X)
<b>Italy</b>							
National MoE	X	X	X	X	(X)	INVALSI	
Regional MoE							
Local education a.					X		X
School (board)							
<b>Spain</b>							
National MoE	(X)		X			X	
Regional MoE	X			X	X	X	X
Local education a.							
School (board)		X					X
<b>Sweden</b>							
National MoE	X					NAE	
Regional MoE							
Local education a.						(X)	
School (board)		X	X	X	X	X	X
<b>Switzerland</b>							
National MoE							
Regional MoE	X	X	X	X	X		(X)
Local education a.						X	X
School (board)		(X)					(X)
<b>UK</b>							
National MoE	X		X			Ofsted	
Regional MoE							
Local education a.					X	(X)	
School (board)	(X)	X		X			X

MoE = Ministry of Education ; a. = administration

Source: own illustration

### **3. Consideration of the education cost in the intergovernmental transfer system**

Grants and transfers from national to subnational governments or from subnational governments to local authorities exist in federal as well as unitary countries. However, the characteristics of these conceptions differ between the countries and are mainly influenced by the geographical, cultural and political circumstances.

Fiscal equalisation can obtain both a vertical and a horizontal dimension. Horizontal equalisation is typically combined with asymmetric vertical grants designed to close vertical fiscal gaps and to correct regional fiscal imbalances. A classic example of horizontal equalisation is the German equalisation system among the federal states or the Nordic local equalisation system. The Australian case can be described as a vertical equalisation with a strong horizontal effect. A very unique situation is the conception of national tributes to the European Community where economically weaker nations have to pay a smaller transfer, measured per capita, than the economically stronger nations. A similar weak supranational government without its own tax revenues like the EU existed in Bosnia and Herzegovina until the introduction of the VAT in 2006 [30].

Like the general characteristics of the intergovernmental transfer system, the ten European countries consider education costs in their respective transfer systems in very different ways. The following figure 3 summarises the different considerations of educational costs in the ten European countries:

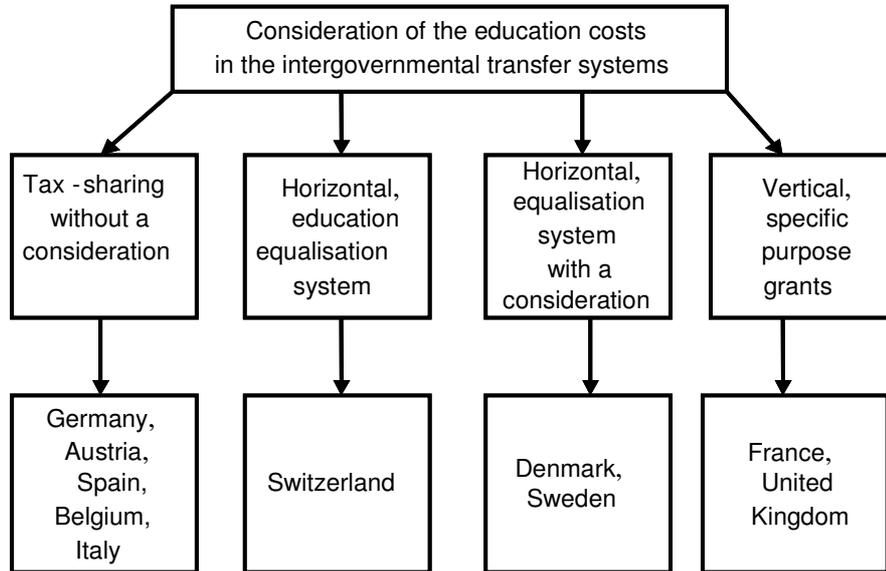
After the general classification of the ten European countries in four categories the following paragraphs will present a detailed description of the arrangements to finance education in Germany, Switzerland, Denmark and France.

Germany uses a tax sharing system between all tiers of governments for its most important taxes and the German equalisation system does not consider any education cost [32; 31].

However, from 1969 until 2007, the German constitution has determined that the new construction of a university is a common task of the central government and the 16 states. Therefore, a university building planning commission (UBPC) has existed, which consists of representatives of the Bund and the Bundesländer and decides about the priority of the new buildings. The exact distribution between the central government and the states as well as within the states varies from fiscal year to fiscal year, but the main goal is that the Bund covers nearly 50% of the total cost and each state has to pay 50% of the building cost of its respective university. The UBPC has developed 34 planning reports and the last 34 report covers the time period of 2005–2008. The following table 4 points out the result of the 1st planning report of 1972, the last planning report before the reunification in 1989 and the completed planning report for 2003.

Figure 3.

**Consideration of educational costs in the respective intergovernmental transfer system**



Source: own illustration

Table 4.

**Structures of the planning report of the UBPC in € mil. in 1972, 1989 and 2003**

	1972			1989			2003		
	State	Bund	Total	State	Bund	Total	State	Bund	total
Saarland	5	3	8	36	21	57	24	14	38
Lower Saxony	67	68	135	53	46	99	92	70	162
Rhineland-Palatinate	13	34	47	53	39	92	33	28	61
Schleswig-Holstein	11	30	41	44	35	79	193	147	340
North Rhine-Westphalia	151	268	419	125	76	201	92	70	162
Baden-Wuerttemberg	67	148	215	193	109	302	186	153	339
Bavaria	86	97	183	207	99	306	188	218	406
Hesse	58	87	145	71	39	110	81	68	144

	1972			1989			2003		
	State	Bund	Total	State	Bund	Total	State	Bund	total
Berlin	14	19	33	50	36	86	36	46	82
Bremen	11	26	37	21	19	40	23	31	54
Hamburg	16	22	38	28	19	47	44	29	73
Saxony-Anhalt	–	–	–	–	–	–	53	47	105
Mecklenburg-Wes- tern Pomerania	–	–	–	–	–	–	36	38	74
Thuringia	–	–	–	–	–	–	68	48	116
Saxony	–	–	–	–	–	–	78	66	144
Brandenburg	–	–	–	–	–	–	42	30	72
All states	499	–	–	891	–	–	1,246	–	–
Total Central gov- ernment	–	802	–	–	528	–	–	1,060	–
All tiers of govern- ment	–	–	1,301	–	–	1,419	–	–	2,306

Source: UBCP, 2005, page 28-29

Furthermore, as a result of the recent federalism reform in Germany, the joint task of extension and construction of higher education institutions, including university clinics, ceased to exist at the end of 2006. On the other hand, until the year 2013, the Länder will receive an annual amount of € 695.3 million from the central government as a „transitional financing», because the Länder have to cover the cost for university buildings without any further support from the central government.

In Switzerland all three tiers of government can levy their tax rates independently on the direct taxes, but since 2001 the tax base of the direct taxes as well as the tax year have been completely harmonised. Therefore the tax «*jungle*» [6 p. 62] has now dwindled a bit but it has not yet been fully cut back, especially regarding the PIT and the wealth tax. On the other side, all revenues from indirect taxes like the VAT or all excises belong to the central government and only a small tax-sharing between the central government and cantons exist for the stamp taxes and the withholding taxes.

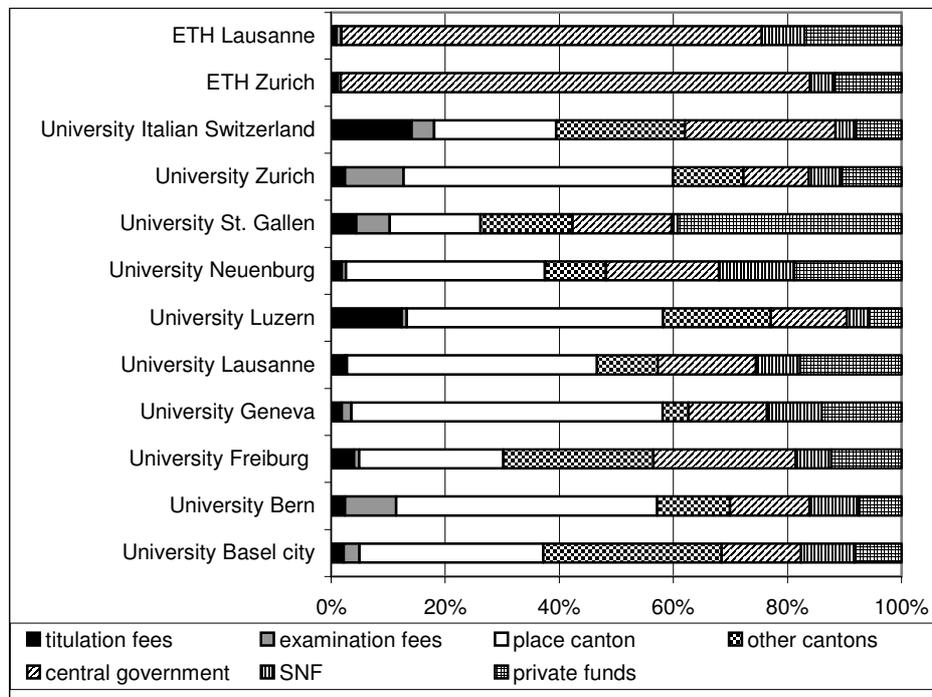
In the context of the educational cost, in Switzerland a very smart solution for the financing of the universities exists. In Switzerland 12 universities exist and two of twelve – the Swiss Federal Institutes of Technology (*Eidgenössische Technische Hochschule*, ETH) in Lausanne and Zurich – are institutions of the central government. The remaining 10 universities are located in 10 cantons and therefore 16 of 26 Swiss cantons do not have to finance a university directly. However, it happens very often in Switzerland that a student has his residence in one canton but he attends the university of a neighbouring canton.

The Swiss cantons solve this problem in the way that the canton where a university is placed receives funds from the other cantons, where the commuting students have their residence. The calculation of the funds is very detailed, which means that the different costs of a faculty towards a university as well as the respective duration of every student have to be borne in mind for the calculation.

The total expenditure cost of 12 universities amounted to € 3.16 billion in 2004, while nearly 20% originated at the ETH Zurich and 52% was generated by the ETH Zurich, the University of Zurich and the University of Geneva. Moreover, the impact of the inter-cantonal university equalisation differs from university to university and has its highest influence at the University of Basle city and the University of Italian Switzerland. A detailed overview of the financial structure of the twelve universities can be observed in the following figure 4.

Figure 4.

**Financing structure of the 12 Swiss universities in 2004**



Source: Werner, 2008b , page 120

Like in all Nordic countries, the Danish local authorities have a huge impact on all areas of public expenditure and generate one of the highest portions of the national GDP worldwide. The Danish local authorities are mainly financed by local surcharges on the PIT.

Moreover, in Denmark a very all-embracing local equalisation system exists which includes the following four elements: equalisation of the expenditure needs between the respective local tiers of government, equalisation of the tax bases between the municipalities and the respective local tiers, general grants from the central government and various special grants from the central government [31; 33].

The equalisation of the expenditure needs is based on the age of the municipal citizens as well as on some social factors like for example children with a single parent, the number of unemployed people or welfare recipients. Indeed, the actual educational cost of a municipality is not completely considered in the Danish local equalisation system, but the very detailed age diversification and the fact that one of the highest amounts per capita is assigned for pupils (age group 7-16) produces a strong bias.

France has a four-tier government structure and due to the «two decentralization laws» of 1982 the regions and départements received for the first time a completely constitutional status in France.

In the framework of the decentralisation laws of 1982, the départements gained the responsibility for the maintenance and new construction of the *collèges*, which is the mandatory secondary school for pupils of the age of 11 to 14, while the region have been responsible for the new construction and the maintenance of the second wing of the secondary school; the *lycées* are visited by French pupils from the age of 15 to 18. Because of shift of this fiscal burden from the central government to the upper local authorities, the regions and départements received a transfer called the *Dotation générale de décentralization* (DGD). Due to the grant reform of the year of 2004, the DGD was reduced significantly and the regions benefited for the first time from the *Dotation Globale de Fonctionnement* (DGF). A further important block grant in France is the compensation grant due to taxation of local investments by the national VAT (*Fond de compensation de la TVA*, FCTVA) and therefore the local authorities receive a rebate of their VAT payments for investments from the central government. Especially for the new construction of school buildings such a tax rebate for the VAT should not be underrated.

Moreover, the French ministry of education introduced a special programme called *zones d'éducation prioritaire* (ZEP) in 1982. The goal of the ZEP is to strengthen the education of pupils with a migration background or pupils whose parents receive social welfare. If a school is classified as a ZEP school, the average classroom size will be reduced and the teacher salary will be increased. This «positive discrimination» has not avoided the fact that the pupils from ZEP schools achieve lower results in national educational evaluation tests [19; 3]. But on the other hand, all opponents of the ZEP idea have to consider

that without these special subsidies the gap between the pupils would probably be much bigger.

(To be continued in the next issue)

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