From Incremental Funding to Quality & Performance Indicators: Reforms of Higher Education Funding in the Czech Republic

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The article describes the changes in the financing of Czech tertiary education since 1990 in the wider context of the development of the tertiary education system, focusing on its key moments. It aims at analysing the impact the three different funding systems – Incremental, Per Capita, and Performance Based – have had particularly on stimulating the transformation of higher education, proving that funding is one of the most powerful tool of indirect steering by the state.

1. Starting the transformation in 1990

The objectives and priorities of reforms of Czech higher education more than twenty years ago were to a large degree a reaction to the then existing situation. Before 1990, the education system was rigid and highly centralised as the economic and political system. Higher education was of a very small size (it catered for only about 15 per cent of the age group) and elitist in nature. Central authorities prescribed the types of specialisation and controlled the number of students, and in all fields of study the *numerus clausus* – determined on the basis of detailed development plans for the Czech economy, albeit mostly not implemented – was enforced (moreover, access to higher education was influenced by class criteria and Party membership of students or their parents). The planning machinery was based upon attitudes of representatives of state enterprises and other organisations, which in fact were blocking any more substantial growth of higher education sector.

The demand of the young generation for study places was far higher, although the relationship of qualification to wages was neither direct nor straightforward (Czechs have always highly valued cultural and social functions of education). Admission to upper secondary and higher education even became a very efficient tool for manipulating parents, as applications had to be recommended (officially by local authorities, previous school or employer, in fact by the Party who had the decisive voice everywhere) and this depended on the behaviour of both student and parents alike. The development of higher education had stagnated and responded neither to people's rising educational aspirations nor to their demand for higher education.

After the political turnover in 1989, the basic structure of the whole education system in the Czech Republic remained intact but its functioning and nature were significantly transformed, a closed and uniform system was changed into an open and pluralistic one. This happened largely because four fundamental top-down measures of education policy were introduced:

- recognition of the right of students to choose their own educational path;
- per capita funding (which motivated schools to increase their intake);

- recognition of the right to establish private and denominational schools (but for higher education);
- devolution of power and increase in autonomy of schools.

These reform steps led to the overall liberalization of the education system, allowing educational supply to respond to changes in demand. They also led to expansion in quantity, structure, and diversity of education, particularly concerning technical education at the upper secondary level.

This, however, was not quite the case of higher education. Its situation differed in one crucial aspect: for certain, basically political reasons, the right to establish private institutions was denied to higher education, which remained the monopoly of the state. In consequence, a similar expansion in structure and diversity of higher education did not happen. Although a need for shorter and vocationally oriented types of tertiary education emerged, during the first half of the 1990s higher education still consisted of traditional universities only focusing on academically oriented studies. They remained highly selective, and their limited capacity could not by far satisfy the individual demand.

2. Initial reforms – the 1990 HE Act and Per Capita Funding

New initiatives reacted in the first place to the situation of the day. They aimed to rectify the development of the past forty years which had negated former traditions and deformed universities in many ways. First, both civic and academic freedoms were substituted by total subordination to the Party and State bureaucracy. The ruling ideology permeated all activities (most nefariously in social sciences and humanities) and dictated the selection of teachers who were moreover subject to periodic purges. Second, the function of the institutions of higher learning was considerably narrowed to teaching, most of research was transferred to the Academy of Science and government research institutes established by individual ministries. Third, natural development of schools offering higher education was retarded: there was just a single long (mostly five-year) cycle with a theoretical content, without differentiation of form, content or aim of study. Compared with developed countries, the proportion of enrolled to the relevant age group remained very low.

In the beginning of the 90s, two major steps were taken in the area of higher education policy. The first one was the 1990 HE Act, the second one the introduction of Per Capita Funding in 1991 (affecting university budgets from January 1992).

The preparation of the 1990 HE Act was driven predominantly by the post-Velvet revolution initiative of higher education institutions (HEIs). Its main focus was to restore the traditional position of universities, their autonomy, the so-called academic freedom (understood, in particular, as absolute independence from political structures of any kind), and to devise a corresponding mechanism of governance and steering, independent of the state. All crucial decisions concerning HE institutions – their internal structure, content and organisation of study, fields of study, appointment of academics, number of students and their enrolment – have been returned to the hands of an elected functionaries (rectors, deans) and bodies (academic senates).

Another important step was the introduction of short, bachelor degree studies. Although they mostly remained to be just the first part of master degree studies, and only rarely were conceived as a terminal, practically oriented programme, followed by a direct entry on the labour market, they opened the way for so-called short cycles as the first signs of diversification of higher education.

A far more important fact was the extension of the existing network of schools offering higher education by turning former self-standing regional faculties of education (once known as teacher-training colleges), and also some HEIs of technology, into fully-fledged universities matching regional needs. Eight new regional universities thus emerged, that is roughly one third of all public HEIs in the Czech Republic.

However, even the new representatives of academia were only little aware of the huge progress that after the WW II was made in widening the participation in higher education. They thought it was right that the access to it was rather limited. In 1991 the proportion of newly enrolled students decreased even further, down to 14 per cent of the age group (mostly as a result, however, of a great inflation caused by liberating the exchange rate of the Czech currency, which threatened the financial stability of HEIs in 1990 and 1991). Some representatives of academia strived to restore an elite system with stringent entry achievement criteria and a limited number of students.

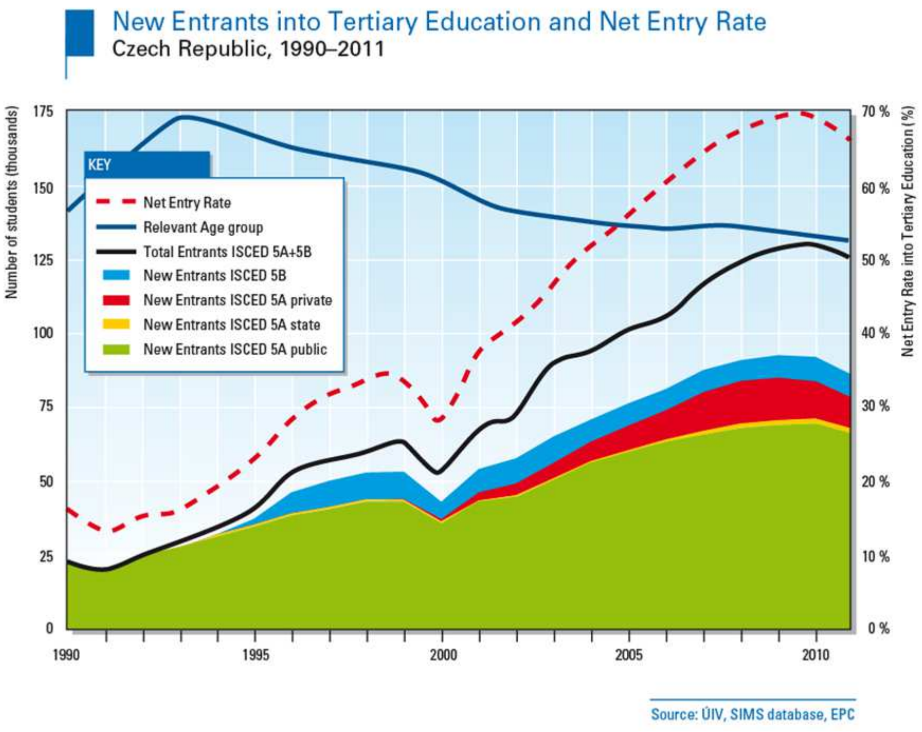
Most of the public, the new political representation and the state have a different view. The Ministry of Education realised that one of their most important task is to substantially increase the participation in HE in order to be really able to “return to Europe” – as the popular slogan of the day had it –, and that they must find a way how to do it while limited by two factors: by respecting the newly gained autonomy of HEIs which excluded direct steering on the one hand, and by being barred from establishing private HEIs on the other.

Ministry of Education offered a solution: to reform the funding mechanism in such a way as to motivate HEIs to constantly increasing the number of students. The system of incremental funding inherited from the old regime was far from meeting this requirement: the budget of HEIs for the new financial year was always based on the previous one, any change was negotiated directly between the Ministry and the HEI in question, no long-term strategy existed. Subjectivity of the process, lack of motivation of HEIs to improve their quantity or quality, and no commitment to long-term aims and objectives were the main set-backs of the incremental funding.

Therefore a new mechanism of Per Capita Funding was introduced in 1991 (to be used for calculating school budgets in 1992) in order to motivate HEIs to expand. Its basic principle is very simple: HEI´s will be funded by the number of their students (and/or graduates), also taking the relative cost of the field of study into account (when introducing the new mechanism, budgets of individual HEIs could be reduced only by 10 % against the previous year). The decisive factors are the demand to study at a particular HEI and the number of students enrolled. Or in other words, the HEIs themselves will decide by their activity, how much money they will get.

The new mechanism of Per Capita Funding worked. In the period 1991-2010 the number of new entrants has increased almost four times, and the number of total entrants more than five times. In relative terms the increase has been even more pronounced, as the relevant age group has been steadily declining, and the net entry rate has finally reached as much as 70 % against about 14 % in 1991.

Figure 1 is showing the overall increase in number of students – the coloured area that of new entrants (that is students entering HE for the first time), and the black line that of total entrants (that is including students entering HE for second or even third time for various reasons, as maybe a new and better start or choosing another study programme).



The number of new entrants was steadily increasing till about 2010 with the only exception of the year 2000, when the number fell down by about 20 %. It was caused by a reform of the basic school, extended by one year in 1996. Consequently, almost the entire age cohort of upper secondary school graduates was missing four years later, and almost all new entrants were recruited from applicants who were not successful in previous years and who tried again. This eased a bit the pressure on available study places; although their number was increasing every year, they still were not meeting the demand.

While the number of students was increasing, the corollary process of diversifying the HE provision was rather delayed and, unfortunately, rather deformed. After a four-year experiment a new type of tertiary institutions, the Higher Professional Schools (HPSs, in Figure 1 marked in blue), came into existence (1996). However, they were not granted the higher education status, although it had been originally presumed that they would become the main way of diversifying higher education (which is a corollary to its expansion) as its lower tier. They could have been established only as an extension of upper secondary vocational education under the 1996 amendment of the existing School Act (which also abolished other existing forms of post-secondary studies), without any systemic links to existing public universities (enabling, for instance, transfers of credits or recognition of studies).

This has proved to be a serious setback for their development. In the long run it has undermined their position when competing with professionally oriented bachelor programmes that have begun to be offered by traditional universities during the second half of the 90s as part of the Bologna Process. Although the duration of studies is the same, links to enterprises are much closer and vocational orientation is more pronounced in higher professional schools, yet their diplomas (classified as ISCED 5B) enjoy less prestige than the first university degree (classified as ISCED 5A), as they do not allow their graduates to enrol in postgraduate programmes. In consequence, the further development and even the existence of higher professional schools have become thwarted.

Two minor points have to be mentioned. First, that while only the number of students was considered in the beginning, later it was partly substituted by the number of graduates in order to introduce some measure of support given to students, and consequently, of the quality of studies. Later again, this change has been suppressed because it might have some contradictory side effects of being less rigorous at final examinations.

Second, the range of the Coefficient of Field of Study Cost (CFSC) is too wide, even excessive, about twice as much as in other countries. As the CFSC range was proposed by HEIs themselves, it was feared at the time of its introduction that excessive differences would seduce the HEIs to gradually move students from less costly fields of study to those more costly. However, data for the period 2005-2011 indicate that the proportion of students in each category remained stable.

Since 1992—Per Capita Funding
(Per Student and Per Graduate—SGF)

Budget of HEI = Number of Students / Graduates × Coefficient of Field of Study Cost

		Number of students in public HEIs			
Field of study	**CFSC**	**2005**		**2011**	
Humanities, Economy	1.00	86 184	33.0 %	113 904	34.3 %
Philosophy, Education	1.20	38 942	14.9 %	50 221	15.1 %
Technology	1.65	80 687	30.9 %	95 595	28.8 %
Agriculture, Forestry	2.25	26 083	10.0 %	37 818	11.4 %
Chemistry, Medicine	2.80	23 314	8.9 %	25 906	7.8 %
Veterinary medicine, Stomatology	3.50	3 827	1.5 %	6 318	1.9 %
Arts	5.90	2 329	0.9 %	2 660	0.8 %
Total		**261 365**	100.0 %	**332 420**	100.0 %

3. Further developments – the 1998 HE Act

The second key moment of the past twenty years was the year 1999, when the new Act on HE, the second one after the Velvet Revolution, came in force. The new Act introduced some important changes, in particular, it permitted to establish private HEIs (it was presumed at that time that only few private schools would be established and further that they would focus only on programmes not offered by public HEIs or those where the demand for study placers is far higher than can be provided for by public HEIs)..

First of all, as the new HE Act stipulated, almost all state HEIs became independent public institutions, and were endowed their premises and sites, formerly the state property (only two HEIs, serving armed and police forces, have retained their status as state institutions). Their autonomy thus increased significantly, for example, in property management or in financial matters allowing long-term use of their resources at their discretion. In order to increase also their financial accountability, a new steering body alongside the Academic Senate, the Board of Governors (or Trustees), was introduced.

Further, at public HEIs limited tuition fees were introduced – as a relative high sanction fee when the length of studies exceeded the standard duration by more than a year, and for programmes delivered in a foreign language. A necessary pre-requisite, an information system on students and study processes, was established as well. (In this respect it is interesting to note that the development has not been as favourable as intended. Today, more than three quarters of foreign students come from Slovakia, and since their language is very close to Czech, they naturally study Czech programmes without paying a fee. Other major group of foreign students, coming from former socialist countries, prefers to enrol in an intensive course of Czech in order to be able to study in Czech as well. Only a comparatively very small part of foreign students studies in English or other world languages and has to pay a high tuition fee. Although HEIs are quite happy to have bright and motivated Slovak students – to study in the CR is a matter of prestige for most Slovaks – this aspect of internationalisation of higher education does not work very well.)

The new Act also defined the role and function of higher education far wider. To both traditional functions – teaching and research – it has added as a third function (or better: mission/role), the involvement of HEIs in lifelong learning, community building, cooperation with business enterprises and support to regional economy. This amendment, at first seemingly without a direct effect, has in fact substantially modified and deepened the concept of diversification of HEIs.

Another amendment had a similar focus – to promote further diversification of HE by increasing the proportion of bachelor programmes. It defined a new category of *Non-university HEIs* that would be entitled to offer only bachelor programmes, by definition of vocational/professional orientation. It was also hoped that the best Higher Professional Schools would use this opportunity and eventually attain this higher education non-university status. However, so far only two of them have made it.

During almost ten years since the first HE Act, the political reasons blocking the establishment of private institutions at the HE level disappeared, and at last it was possible to employ this efficient measure for increasing the educational offer. Thus the new Act made possible to establish private HEIs (in Figure 1 marked in red), not funded by the state but charging tuition fee as a dominant source of their income (this is also why private HEIs usually offer those fields of study that are less costly and more asked for, as it is for example study of economy, business or humanities). In contrast to existing Higher Professional Schools (HPSs), most new private HEIs have embraced the opportunity and have been established as *Non-university HEIs*.

The 1998 HE Act has thus rounded off the Czech HE sector, composed of three categories of HEIs: Public HEIs, State HEIs and Private HEIs. However, if our perspective is changed from higher to tertiary education, we have to include also Higher Professional Schools (HPSs), established according the School Act. Both public and private HPSs form the fourth category of tertiary institutions. Each category has a very different mechanism and diverse sources of funding. In the academic year 2011-2012 the whole tertiary sector had nearly 430 thousand students.

The core of the sector is formed today by 26 Public higher education institutions (HEIs), financed from the budget of the Ministry of Education, up to 2009 by means of the Per Capita Funding (and Performance Based Funding since 2009). In the academic year 2011-212 they had about 340 thousand students that is 79 % of the total number of enrolled in tertiary education.

On the other hand the second category is very small, with only two State HEIs funded directly from the budgets of the Ministries of Defence and of Interior. In the academic year 2011-212 they had about 5 thousand students that is 1 % of the total number of enrolled in tertiary education.

The last HE category contains today 44 Private HEIs funded almost exclusively from private sources, mostly by the their students (who are entitled to receive the same study grants as students of public HEIs). In the academic year 2011-212 they had about 55 thousand students that is 13 % of the total number of enrolled in tertiary education.

Higher Professional Schools, both public and private, do not have the higher education status. They form the last segment of the tertiary sector. Because they fall under the School Act, even public HPSs can charge tuition fees, albeit comparatively small, far lower than private HPSs. In the academic year 2011-212 HPSs had about 30 thousand students that is 7 % of the total number of enrolled in tertiary education.

Nevertheless during the second half of the 1990s, and particularly after the turn of the millennium, when substantial changes (such as the strengthening of vocational education at the tertiary level, massive expansion of bachelor studies, and setting up of private non-university higher education institutions) were introduced, the number of study places substantially increased – gradually at first and steeply during subsequent years. It is important to note, however, that irrespective of the fact, how much short bachelor studies have been supported by the Ministry as part of the implementation of the Bologna Process, still about 80 % of bachelors do not directly enter employment but go on studying master programmes.

4. From quantity to quality, introducing performance indicators

From the quantitative point of view, the Czech tertiary education sector has thus already attained a level comparable to the average of other developed European countries. Already in the academic year 2006/2007 the proportion of enrolled students has surpassed 60 % of the respective age cohort, more than in some other countries with similar educational tradition (as Germany, Austria and Switzerland). The rapid growth has continued, its dynamics being one of the highest among developed countries, twice as great as the average of OECD countries. The increase in the net entry rate was even steeper, as the relevant age group (full blue line in Figure 1) was steadily declining. Finally, in 2010 total entrants (full black line in Figure 1) were almost equal to the relevant age group, and the net entry rate (broken red line in Figure 1) reached even 70 %.

First critical voices that quantitative expansion was more or less achieved, that it should be somehow tempered, and that one should concentrate on the problem of decreasing quality instead, were heard as soon as in the middle of the first decade of the new millennium, yet only in 2009 and 2010 some practical measures were taken. They were part of preparing the new strategic material of the Ministry of Education for the period 2011-2015 which changed the focus of further development from quantity to quality and to the support of further diversification of the HE sector. The funding mechanism had to be changed accordingly, not only to conform to strategic priorities but to become the most efficient tool how to put them through.

As Martin Trow had shown as early as in the 70´s (and later modified for the European context), the expansion of higher education in the number of students has to be coupled with adequate diversification of HEIs as its corollary. The student population has become far more heterogeneous, students differ in their interests, aspirations and also individual capacity, moreover they have to be prepared for diverse positions in society and the economy. At the same time, it is necessary to maintain the high standard of best universities that are so important for the future of society.

While the HE sector has to fulfil many functions, no single institution is able to engage and compete in all of them. The range of functions naturally leads to the range of different characters and qualities of individual institutions. They have to "profile themselves" that is to focus on those activities they are doing best. Alongside with top research universities there would co-exist other HEIs focused predominantly on teaching and on their third function (or mission/role). The main aim of the new funding mechanism is to support them all, to guarantee to all of them adequate funding they need in order to reach their specific aims.

As a result, it has been decided to introduce a new mechanism of performance based funding encompassing the whole range of activities HEIs could perform. Three measures have been taken. First, the Performance Based Funding was introduced only in certain parts of the budget allocated to Public HEIs and its proportion has been gradually increasing. Second, further expansion of the sector has been capped by limiting the number of new students that would be funded by the state. And third, both measures were linked together – for each HEI the number of students funded by the state would depend on performance indicators attained. It is thus clear that the choice of performance indicators is very sensitive as it would significantly affect the behaviour of HEIs and their further development.

Measuring research performance objectively poses special problems. Yet only by using performance indicators it is possible to overcome traditional approaches based on subjective assessment. In this respect the new mechanism of Performance Based Funding was able to use indicators already developed for funding all research, both in and outside HEIs, particularly in institutes of the Academy of Science and in the research institutes of various government departments.

A reform of research funding started in 2006, when new Government regulations on research stipulated (following the 1998 HE Act) that all research funding from public sources should be allocated competitively. Two channels have been used for allocating the state budget for HEIs research since: first, institutional funding, that is direct support of HEIs in proportion to their R&D results measured by a newly introduced database of R&D output of all research institutions (RIV system), and second, targeted funding by gaining research grants from specialized grant agencies, various ministries and government agencies. Funds allocated by both channels are of similar size.

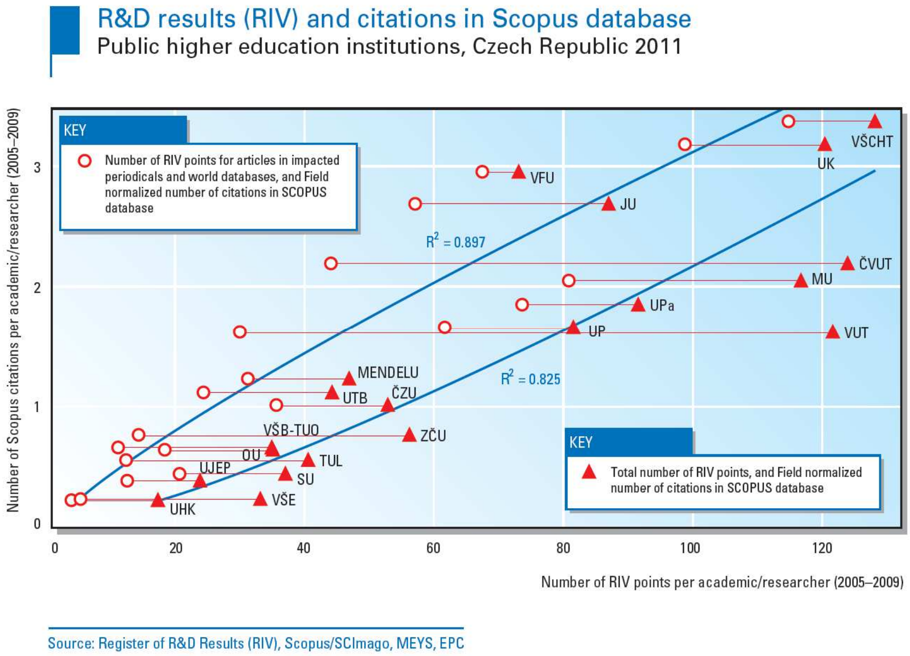
The RIV system (an abbreviation for Information Register of R&D Projects) has been the first attempt to objectively measure the R&D output by standard mechanism in the Czech Republic. All categories of R&D results were measured by acknowledging them a certain defined number of so-called RIV points. Table 2 illustrates, first, that RIV points are awarded for all types of results – for several types of publications, patents and other results of applied research – and second, what proportion of points was gained by various categories of research institutions.

The Research and Development and Innovation Information System in the Czech Republic (IS VVI)

Information Register of R&D Results (RIV) 2011		Research institutions (RI)				
		Total	Higher Education	Academy of Sciences	Other Public	Private
Publications	J_{imp}–article in an impacted periodical	**60.6 %**	31.7 %	23.0 %	5.6 %	0.3 %
	J_{neimp}–article in world database SCOPUS, ERIH	**5.9 %**	3.8 %	1.1 %	0.9 %	0.1 %
	J_{neimp}–article in the Czech reviewed periodical	**5.1 %**	3.8 %	0.4 %	0.7 %	0.1 %
	B,C–monograph, chapter in a book	**9.7 %**	7.0 %	1.7 %	0.9 %	0.0 %
	D–article in proceedings	**2.7 %**	2.2 %	0.4 %	0.1 %	0.1 %
Patents		**1.0 %**	0.4 %	0.4 %	0.1 %	0.1 %
Results of applied research (prototype, pilot plant, software, …)		**15.0 %**	9.3 %	1.0 %	2.9 %	1.8 %
Total		**100.0 %**	**58.3 %**	**28.1 %**	**11.2 %**	**2.4 %**

The system has been heavily criticised (and also nicknamed as a "coffee-grinder") as being unfair and focused on applied research, and has already been partly modified. Yet at this moment there is nothing else to replace it

The existence of RIV system and the information gathered by it was one of the important pre-requisite for Performance Based Funding of higher education that began to be gradually implemented three years later. Figure 2 illustrates how RIV system is working and its relation to a well-known international *Scopus* database (all data have been taken from *SciMAGO World Institutional Report SIR 2012*).This relation is very close, as can be seen by comparing the outcomes of Czech HEIs by the number of citations in the *Scopus* database and by the number of gained RIV points (especially for articles in impacted periodicals). It also shows that and how the research performance of Czech HEIs differs, indicating the difference between basic research (illustrated by circles) and total, basic and applied, research (illustrated by triangles): the shorter their distance, the greater is the proportion of basic research. It makes quite clear that the new Performance Based Funding will have a great impact on the behaviour of Czech HEIs, and also may have an important role for instance for their categorisation and diversification.



5. Gradually introducing Performance Based Funding since 2009

The Performance Based Funding is being implemented only step by step. The Ministry of Education is fully aware of the fact that drastic changes in the way how funds are allocated would introduce insecurity into the budgets of HEIs and could have some unforeseeable adverse results and complications, and that a measure of stability should be maintained. It has been agreed that changes in the calculation of budget allocations could have only a very limited effect on new budgets of HEIs, in the range of plus/minus 10 % as compared to budgets of the previous year. If new parameters or indicators are considered, they must be backed by feasibility studies showing their sustainability, benefits and threats, and possible impact on the behaviour of HEIs.

When Performance Based Funding was introduced preparing the 2009 budget, it was limited to 9 % of the overall HEI budget. For the first time, a comprehensive system of indicators and their weights was devised. It was perhaps too simple, but it included all the main areas of evaluation: performance in research, quality of studies, and internationalisation. The possible effect of this innovation is illustrated by Table 3.

Table 3:	
Budget 2009: Public HEIs funding:	91 % Per Student (and Graduate) Funding (SGF), 9 % Performance Based Funding (PBF)

PBF 2009 Indicators and their weights:	R&D results (RIV points) – 50 %
	Income generated by the HEI – 15 %
	Number of Full and Associate Professors (FTE) – 10%
	Students mobility (incoming and outgoing) – 25 %

Since 2009, the gradual implementation of Performance Based Funding has continued. The mechanism has been perfected by discussing it with representatives of HEIs and by introducing further, mostly still more comprehensive indicators, and when the 2012 budget was prepared, another much bolder step was taken.

First, the proportion of PBF has been increased more than twice, to 20 % of overall budget of HEIs. And second, the composition of indicators has become more sophisticated, all the three areas have included further important indicators, such as grants obtained, employability of graduates and collaboration with foreign institutions (see Table 4).

Table 4:

PBF - budget 2012: 80 % Per Student (and Graduate) Funding (SGF)
20 % performance Based funding (PBF)

PBF 2012 Indicators and their weights:

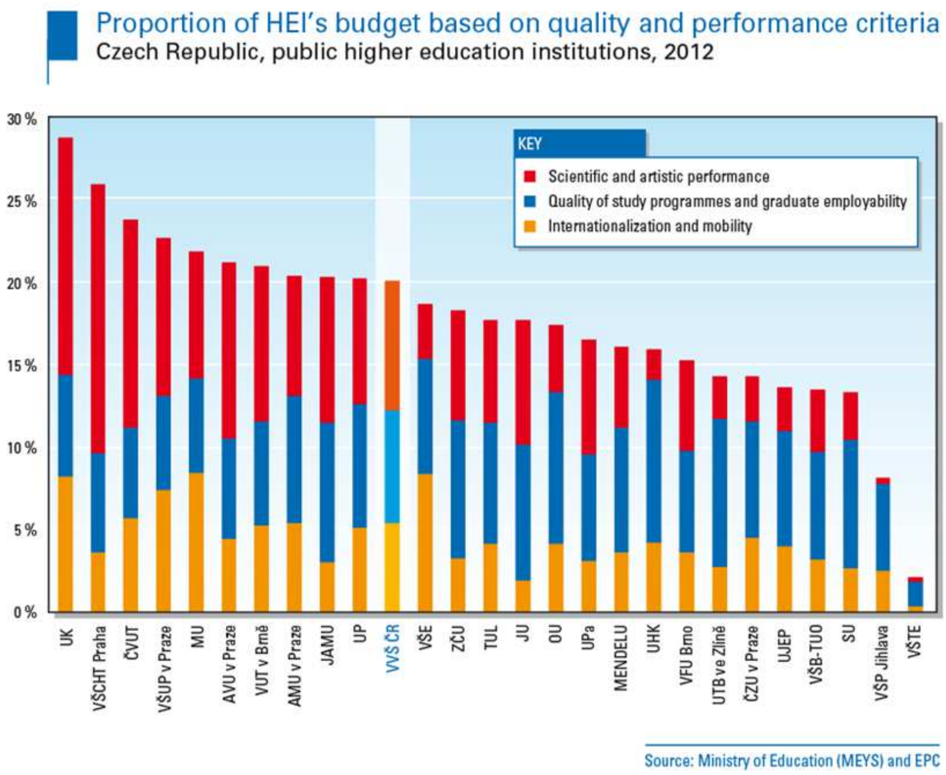
Performance in research and artistic activities – 39 %:
Performance in research activities (system of RIV points based on number of journal articles, publications, patents, applied research)
Performance in artistic activities (system of RUV points based on register and classification of artistic performance indicators)
Funds for research gained by the HEI through competition for grants
Income generated by the HEIs

Quality of study and Employability of graduates – 34 %:
The professional quality of teachers (measured by the staff structure because of lack of relevant indicators
Employability of graduates (unemployed in the period of 6 months to one year after graduation)

Internationalisation and mobility – 27 %:
International collaboration with foreign institutions
Number of foreign students
Self-funded students
Students mobility (incoming and outgoing)

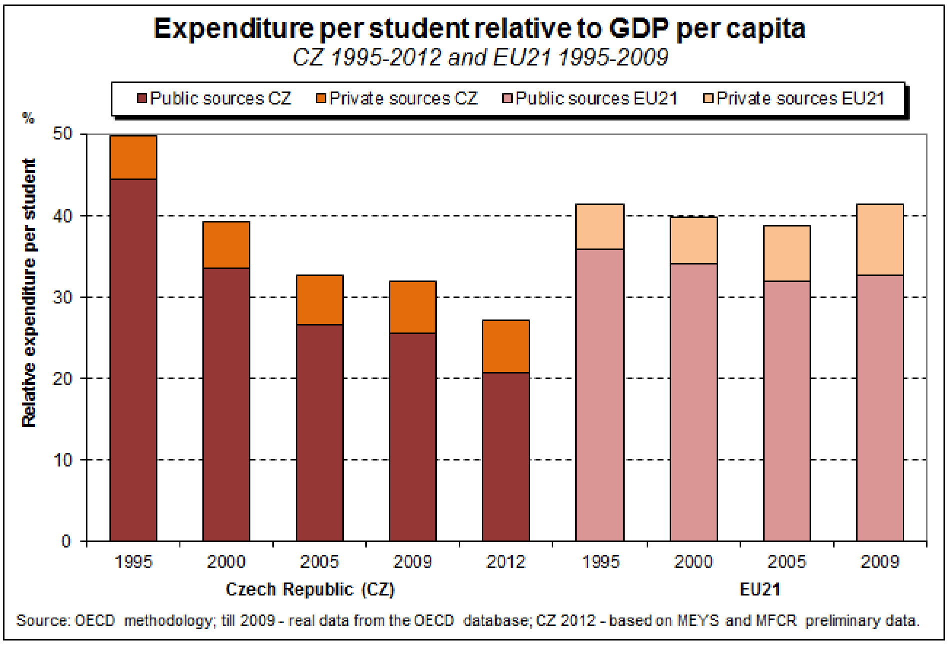
The effect of the increased proportion of PBF to the overall budget (see Figure 3) is really quite significant, especially as the new approach has just begun to be used and the right mix of ingredients is still tested. Beside its practical value, the new approach can serve as a powerful analytical tool. Figure 3 illustrates that it has already had a visible effect on differentiating Czech HEIs.

In 2012 20 % of Public HEIs funding were allocated by the above PBF indicators. As illustrated by Figure 3, “winners” are indicated left from the average value (VVŠ ČR, a white column), and “loosers” on the right side. The best “research-type” universities are indicated as the first three columns on the left (UK – Charles University in Prague, VŠCHT – Chemistry and Technology University in Prague, and ČVUT – Czech Technical University in Prague). On the other hand, many HEIs in the right part of the range clearly focus on preparing qualified and employable graduates (for example, UHK – University in Hradec Králové, JU – South Bohemia University in České Budějovice, and OU – University in Ostrava); also schools more attractive for foreign students can be easily identified (for example, MU – Masaryk University in Brno, and VŠE – Prague School of Economics). One can also see that both public *non-university* HEIs (two last columns on the right, VŠP Jihlava – Industry HEI – and VŠTE – Technology and Economy HEI) have gained very little from the new mechanism.



6. Budgetary cuts and discussion on tuition fees

The current situation is affected by the financial crisis and government budgetary policy. According to the three-year saving plan passed by the Parliament in December 2011 the education budget should be cut by 20 % by 2014. To make the situation even worse, funding of higher education in the Czech Republic has been problematic for a long time, when compared with other EU countries (see Figure 4). In the last 20 years, the increase in funding has been never compensated by the increase in the number of students. The last 3 years, from 2009 onwards, have only strengthened this adverse trend. Austerity in education has added fuel to a never ending debate about tuition fees and other income from private sources.



General introduction of a tuition fee in all public HEIs is a very sensitive and contested political issue in the Czech Republic. It was almost introduced in the mid-nineties, when a Bill, modelled on the Australian HECS, was prepared and was voted down in the last minute. The idea has always emerged again when a centre-right government came to power in 2006, but again its implementation failed (when a centre-right government was voted down at the beginning of 2009 during the Czech EU Presidency). After the last elections in 2010 and a renewed victory of a centre-right coalition, the introduction of tuition fees together with a student support scheme has even become a part of the Government Programme. However, it has proved to be too difficult to devise a loan system guaranteed by the state, and today it seems that only a very limited registration fee at the beginning of each term might be introduced (2013/2014), covering on average approximately one tenth of full study costs (about 200 €).

The disapproval of the introduction of tuition fees in public higher education is gradually growing in Czech society. Tuition fees are only supported by 21 % of respondents according to a survey conducted in September 2012. Three years ago they were still supported by 29 % of respondents.

On the other hand, a limited use of tuition fees in public HEIs was introduced in particular instances by the 1998 HE Act from 2006. While in public HEIs there only exists a sanction fee, in private HEIs the fee should cover most or all study costs. In higher professional schools, that is the non-higher education segment of tertiary education, tuition fees are charged in both public and private institutions; accordingly, their range is very wide, from 200 to exceptional 5 000 €. Altogether tuition fees are paid approximately by a quarter of students of tertiary education.

Beside tuition fees – that is income generated from households – HEIs can generate income from the business sector. Taken together, the total income from private sources is not too low, it amounts to 20 % of HEIs budgets. To increase it, it would be necessary to introduce tax incentives for enterprises to stimulate their co-operation with HEIs. Unfortunately, its most effective form, co-operation in research, is still developed very little, in fact, it is inhibited by the current tax system. However, the pending tax reform has not found much support in the Parliament and in the general public.

7. Conclusions – funding and HE transformation

The Czech experience can be summed up by stressing that the funding system is a powerful tool of indirect steering, that can be effectively used not only for achieving strategic aims in a long-term perspective, but also for implementing short-term objectives.

The choice of the funding model, its parameters and indicators is of utmost importance. They should be transparent and easily understood by both HEIs and general public, they should closely correspond to the aims of the long-term development of higher education, and they should be applied systematically, without interruption, and unsubstantiated doubts about main principles. Only indicators can be discussed, and they have to be applied with great sensitivity, as they will significantly affect the behaviour of individual HEIs.

At the same time, it is necessary to warn that the current period of budgetary cuts and of passionate discussions about the introduction of tuition fees is rather ill-disposed towards reforming rules how to fund higher education. The same also applies to current instability and turbulence of our political scene. It is too difficult to implement such reforms in times of austerity and deep cuts affecting not only HEIs but also the families of present and future students.