Higher Education Financing: a Comparison Romania and United Kingdom

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Abstract

The present paper is motivated by the importance of financing for the higher education sector. The formulae based financing Romanian higher education system has been inspired from the British financing system. In this context the paper makes a comparison between the higher education financing system in Romania with the one from United Kingdom. Similarities and differences are identified and potential consequences for the sector. The paper concludes that at present at international level, public money is not enough to support higher education and that it is a necessity to encourage HEIs to attract also private funds. Based on the results of a country with a long experience in using the formulae based funding mechanism and the results of a country that recently started to use this funding mechanism, coupled with the fact that both countries use additional funding sources and mechanisms, we can conclude that at present formulae based funding mechanisms are suitable systems to allocate public funds. At the same time they have to be used together with other mechanisms to attract funds from both public and private sources in order to ensure a good financing of the higher education sector.

Keywords: *higher education, financing, comparison Romania versus United Kingdom*

JEL classification: I 22, I 28

Introduction

Higher education systems in Romania and UK have specific characteristics (private/public components funds allocated from state budget to the sector) that have an influence on the funding mechanisms in the two countries. The paper looks at the funding mechanisms in the two countries, focusing on the main higher education institutions' (HEIs') activities: teaching and research. Financing of public higher education, as a major part of the higher education sector, is analyzed in both countries.

In UK there are 132 HEIs and 143 further education colleges that are publicly funded. Besides those, it is only one private HEI (that calls itself an independent university) that does not receive funds from the state. In Romania there are 56 public HEIs and 48 private HEIs. The public HEIs have a dual financing system, with both public and private sources. The private HEIs have

mainly private financing sources (tuition fees and possibly donations) with the possibility to access some of the public money (research funds) based on competition. In Romania, public universities account for 70% of the total enrolments in higher education.

Both in UK and in Romania, public HEIs have multiple sources of financing: public and private.

In **UK**, under *public sources*, money comes from different governmental sources, as: SCL/LEA fees, public funding councils, TDA and LSC funding, research grants and contracts, postgraduate fees and others. Under *private sources*, money comes from charities, overseas students' fees, residences and catering and other research income. The sector's average share of the two categories of funds is 60% public sources and 40% private sources (Ferelli, 2008). Appendix no. 1 presents the structure of finance for the higher education sector in UK. The proportion of each financing source at institutional level depends on the ability of the institution to attract different public and private funds. The percentage of the HEFCE funds (for England) as a main funding source can vary at institutional level from 10% to around 80% (Ramsden, 2007).

In **Romania**, *public money* comes from the state budget through the National Council for Financing Higher Education (CNFIS), through the National Scientific Research Council (CNCSIS) and the National Authority for Scientific Research (ANCS). *Private money* comes mainly from tuition fees (of students enrolled on non-budgetary places) but also to smaller extents from donations, sponsorships and other sources. The sector's average shares of the two categories of funds is 50% public sources and 50% private sources, but the situation is different from one institution to another, with the public share varying from 28% to 80% of the total budget of a HEI (CNFIS, 2007b, p.25).

In both countries there are public bodies that administer the main source of public funds that go to HEIs. In UK there are: HEFCE in England, HEFCW in Wales, SFC in Scotland, NIHEC in Northern Ireland and in Romania is CNFIS. They all use a formula based mechanism to distribute funds to HEIs by signing annual contracts. Appendix no. 2 and 3 present details about the funding mechanism used by HEFCE (England) and by CNFIS (Romania).

1. Funding teaching: UK and Romania

In **UK** the teaching activity is financed both from public and from private sources. The main *public source* is represented by the public funding councils, such as HEFCE in England. The HEFCE funding of the teaching activity (63.2% of its total funds) is based on the principle of funding "similar resources to similar activities". Most of the HEFCE teaching funds are distributed based on a formulae that takes into account the number of full time equivalent students and few funding premiums (for subject, for student, for institutions).

Besides the public funding councils' contribution to the teaching activity, there is also the state support through the SLC/LEA system. Tuition fees for UK

undergraduate students are initially supported by the state (through the SLC/LEA system). Basically most undergraduate UK students receive a loan from the state to cover tuition fees (and possibly living expenses) of their studies, loan that they have to start repaying after they finish their studies and if they earn more than 15.000£/year. This is a kind of "public becoming private source of funding", but at the time it is awarded it is a public source and it is becoming private only if the graduate starts earning above a certain level. At present undergraduate tuition fees for UK students are fixed (3145£ for 2008/2009) and they cover only a portion of the teaching cost.

Some of the postgraduate fees[1] are also supported from public sources through the funds the Research Councils[2] distribute to HEIs to cover some research and taught Masters' tuition fees.

The *private sources* for financing teaching include: a) tuition fees paid by UK students at postgraduate level. These tuition fees can be supported from the students' own and their families' savings, from charities and from employers and b) tuition fees of overseas students at undergraduate and postgraduate level. Usually postgraduate fees and international students' fees are set at a level that covers all costs of teaching.

In **Romania,** teaching is also funded from both public and private sources. There is one main *public source* that funds teaching through basic financing. The basic financing is distributed on a yearly basis to HEIs, based on a contract between the institution and Ministry of Education and Research (MER). MER through its consultative body CNFIS allocates the funds to individual institutions based on the principle: "the money follows the student". Therefore, HEIs receive a block grant every year, a grant that is meant to support the basic activity of the institutions (teaching according to CNFIS) and that can be used at their discretion.
The *private sources* for funding teaching in Romania are represented by the tuition fees paid by undergraduate and postgraduate students[3], either from their own sources (their or their families' savings) and/or from different employers' sponsorship especially for postgraduate students who have jobs).

[1] Around 2% of the total income of the higher education sector in 2005-2006.

[2] There are 7 Research Councils in UK, established under Royal Charter: Arts and Humanities Research Council (AHRC), Biotechnology and Biological Science Research Council (BBSRC), Engineering and Physical Sciences Research Council (EPSRC), Economic and Social Research Council (ESRC), Medical Research Council (MRC), Natural Environment Research Council (NERC) and Science and Technology Facilities Council (STFC)

[3] In Romania, public HEIs have both at undergraduate and postgraduate level, two types of places: state budgeted places and tuition fee paying places. The number of budgeted places at undergraduate level is higher than the number of places at postgraduate level. The state budgeted places (free for students) are occupied based on academic performance at the entrance exams and during the years, while students enrolled on tuition fee paying places pay the whole amount of the tuition fees established by each university individually.

2. Funding research: UK and Romania

In **UK** research activity has also public and private sources. Among the *public sources*, there are the public councils' funding, the research councils' funding and other governmental sources.

The HEFCE funding for the research activity for instance**,** is distributed selectively and has the purpose to support research infrastructure. The HEFCE research funds are distributed only to HEIs that demonstrated the quality of their research by reference to national and international standards. Quality is measured on a periodical basis through the Research Assessment Exercise (RAE). Beside HEFCE's research funds, HEIs receive research funds from Research Councils for specific programs and projects as grants obtained through competition.

Private sources for HEIs' research in UK are different charities (such as the Wingate Foundation, the Leverhulme Trust, the Wellcome Trust) and/or the industry[4].

In **Romania**, research in HEI is mainly publicly funded. The *public funds* for research are distributed based entirely on competitions organized by two bodies: the National Authority of Scientific Research (ANCS) and the National Council for Scientific Research in Higher Education (CNCSIS). The research funds are distributed through programs directed to scientific research, but also to institutional development (infrastructure) and students' mobility, as research grants and contracts. However, research results have also an influence on the funds received by a HEI from state as a block grant under its qualitative component. See appendix no. 3 for details.

There is also a contribution of the private sector to research conducted in HEIs, but the contribution is limited to a small extent (CNFIS, 2007b) and is represented by research contracts signed with the industry.

Besides funding teaching and research as main activities of a HEI, in both countries HEIs gather also funds to finance other activities (social expenses for students, capital expenses).

3. Similarities and differences in funding mechanisms: Romania and UK

There are a large number of similarities in the funding mechanisms of the two countries as Romania used the British system as a model in conceiving its new (starting 1999) funding mechanism in higher education. However, in spite of the numerous similarities, there are also a number of differences that have consequences for the possible outcomes.

Among the *similarities* can be included aspects such as:

a) in both countries the public higher education sector has both public and private sources of financing, with similar average distribution in the sector.

[4] They both represent 7% of the total income of the higher education sector.

b) in both countries public money represents a major financing source for public higher education and this makes public HEIs accountable to the state.

c) in both countries funds received from state budget are insufficient to cover the basic daily activities and public HEIs are expected to gather funds from extra-budgetary sources.

d) generally speaking the distribution mechanisms of the major source of public funds are similar, based on formulaes.

e) in both countries state funds are distributed based on yearly contracts between HEIs and the funding body (HEFCE in England, MER in Romania).

f) in both countries the basic formulae takes into consideration the number of equivalent students, that considers the differences in costs according to the form of education and the field of study/subject.

g) quality of research is considered in both countries, when calculating mainstream funding, but to a higher extent in the UK system (under the quality research funding) as compared to Romania (as only 5% in the qualitative index).

h) in both countries capital investment is separately financially supported according to the institutional needs.

i) in both countries the formulae calculations are based on data received from HEIs and in both countries there are concerns about the reliability of data.

j) both countries have schemes to support students in financial difficulties (orphans, single parents, low income families).

Among the *differences* can be included aspects such as:

a) in Romania the size of the private higher education sector is larger and private HEIs rely mainly on private sources (in majority tuition fees) for financing.

b) in UK there is a higher variety of financing sources for higher education than in Romania, both under state (more sources based on different mechanisms) and private money (more sources based on a higher involvement of the society and industry in the sector). For instance, in UK there are charities that contribute to financing of higher education (4%), while in Romania this system does not exist.

c) the main state funding institutions in the two countries (HEFCE in England and CNFIS in Romania) use both the formulae mechanisms for distributing the money between public HEIs, but the calculation of the formulae is different in the two countries: a) in UK (funds for teaching, research, special funding and earmark capital, additional funding of high cost and vulnerable science subjects) and b) in Romania (funds for *homogeneous allocations* -75% given mainly for direct costs of teaching, seen as the quantitative factor and funds for *differentiated allocations* -25% seen as a qualitative factor that includes inputs and outputs of teaching, research, social activities and others).

d) in Romania the formulae for the main stream teaching takes into consideration only two influencing factors (form of education and subject taught), while in UK there are taken into consideration three factors (the two above mentioned and institutional related factors).

e) in the Romanian system the mainstream funds support mainly the teaching activity, while in UK the mainstream funds support teaching and also research.

f) in UK the research activity is also funded through the block grant, while in Romania research is funded only based on competition. In UK HEFCE research funds are distributed according to proven qualitative results in the field. In Romania the results of the research activity influence however the differentiated allocation received by the institution based on the quality of its overall activity (including research).

g) in UK it is paid more attention to funding of special and potentially disadvantaged situations (e.g. disadvantaged and disabled students, high cost and vulnerable subjects) as compared to Romania.

h) in Romania the different coefficients of equivalence are more differentiated than in UK (in UK there are 4 price groups on subjects, in Romania there are 15; in UK there are 3 price groups on forms of study, in Romania there are 19).

i) in Romania, the public funding mechanism supports social services for students (such as subventions for catering, accommodation, transportation), while in UK it does not.

j) due to concerns about the reliability of data received from HEIs, the funding bodies in both countries monitor and control the data: in UK there are more control mechanisms: cross checking with two other sources of data and institutional selective audits, while in Romania control is done only based on selective institutional audits.

k) in Romania there is free higher education (as around half of the undergraduate level students do not pay tuition fees), while in UK there is no longer free state higher education (as graduates have to repay their loans). Exceptions are those graduates who do not make a minimum amount of earnings.

l) in UK there is state financial support for part time students (as grants for tuition fees), while in Romania there is no such support for part time and distance learning students, as they have to cover on their own the cost of their studies.

m) in UK at the moment (talk are for changes in the future) tuition fees at undergraduate level are set at a fixed level for all HEIs, while in Romania HEIs set their own levels of tuition fees (based on the university autonomy principle).

Conclusion

Comparing on the one hand the differences in the experiences with a formulae based funding system (in UK the system dates back at the beginning of 1900's, while in Romania has been introduced in 1999) coupled with the differences in the level of economic development of the two countries and on the other hand the limited differences in the outcomes of the two funding systems in

the two countries, makes us to believe that Romania is a good example of fast and successful assimilation of a formulae based system for funding higher education.

The two examples of funding mechanisms of higher education are an expression of the fact that at present at international level, public money is not enough to support higher education and that it is a necessity to encourage HEIs to attract also private funds. Based on the results of a country with a long experience in using the formulae based funding mechanism and the results of a country that recently started to use this funding mechanism, coupled with the fact that both countries use additional funding sources and mechanisms, we can conclude that at present formulae based funding mechanisms are suitable systems to allocate public funds. At the same time they have to be used together with other mechanisms to attract funds from both public and private sources in order to ensure a good financing of the higher education sector.

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List of abbreviations

General
HEIs: HEI(s)

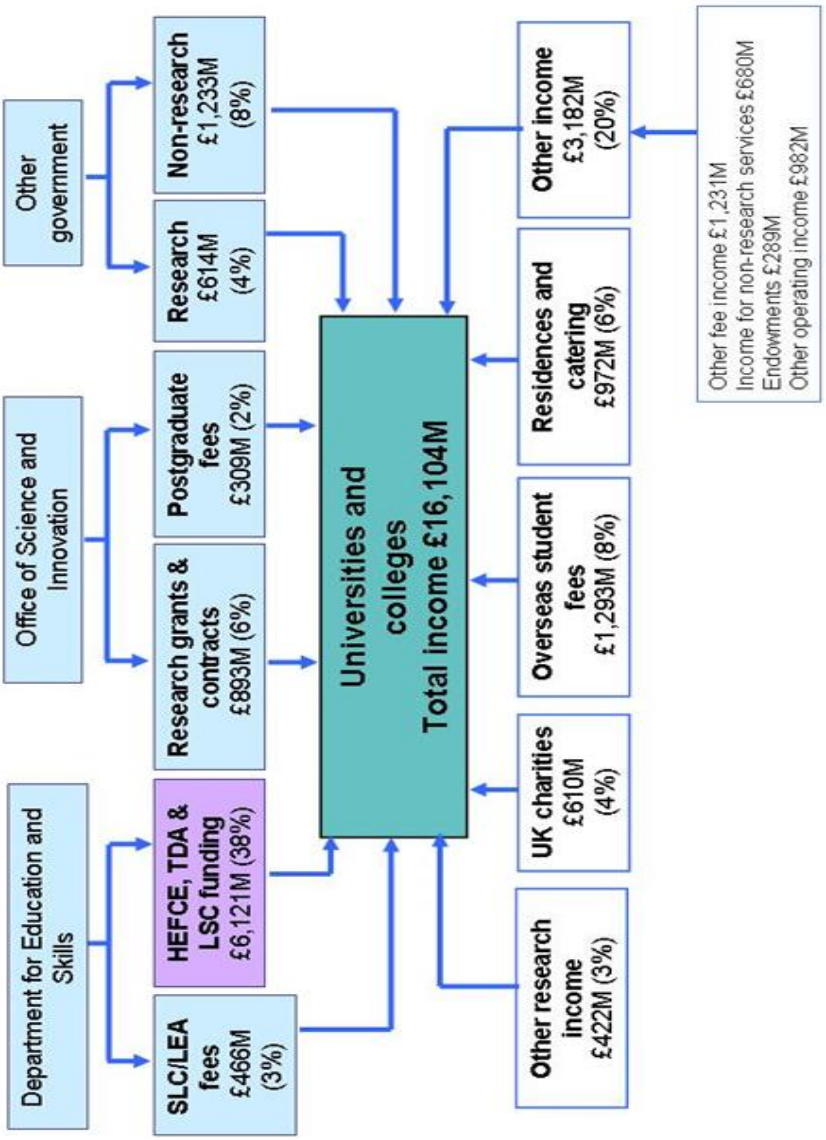
United Kingdom
HEFCE: Higher Education Founding Council for England
TDA: Training and Development Agency
LSC: Learning and Skills Council
SCL/LEA: Student Loans Company/Local Education Authority
HESA: Higher Education Statistics Agency
HEFCW: Higher Education Funding Council of Wales
SFC: Scottish Further and Higher Education Funding Council
NIHEC: Northern Ireland Higher Education Council

Romania
CNFIS: Consiliul Naţional al Finanţării Învăţământului Superior (The National Council for Higher Education Financing)
CNCSIS: Consiliul Naţional al Cercetării Ştiinţifice în Învăţământul Superior (The National Council for Scientific Research in Higher Education)
ANCS: Autoritatea Naţională a Cercetării Ştiinţifice (The National Authority of the Scientific Research)
MER: Ministry of Education and Research

Appendix no. 1

Source of finance of HEIs in UK, 2005-2006

(Source: Marrio Ferelli, MBA in Management of HE's slides, IOE, January 2008)



Appendix no. 2

HEFCE funding mechanism

(Source: HEFCE (2007b) Funding Higher education in England – How HEFCE allocates its funds, July 2007, no. 20.)

The total HEFCE funds are distributed between teaching, research and other funding such as special funding, earmarked capital funding and additional funding for very high cost and vulnerable science subjects. In 2007 -2008 the proportion of these categories in the total HEFCE budget was (HEFCE, 2007b): teaching (63.2%), research (20%), special funding (6.4%), earmarked capital funding (10.35%), additional funding (0.04%). For each category the distribution of funds to HEIs is calculated separately according to different formulaes.

HEFCE funds are received by universities as block grants that have the purpose to support basic infrastructure for teaching, research and other related activities and can be used at the discretion of the universities for these purposes.

HEFCE signs on an yearly basis a funding agreement with each HEI through which the funds for teaching for instance, are distributed based on the formulae that takes into account the student data provided by universities. Such student data provided to HEFCE are permanently monitored by: 1) being compared with the student data universities have to provide on an yearly basis to other institutions (HESA and LSC) and 2) by carrying out selective audits of institution's data returns (around 20 every year).

A. HEFCE funding for teaching

The HEFCE funding of the teaching activity (63.2% of its total funds) is based on the principle of funding "similar resources to similar activities". Most of the teaching funds (90%) are distributed as *mainstream teaching funds*, based on a formulae that takes into account the number of full time equivalent students and a number of funding premiums (for subject, for student, for institutions). The *rest of the teaching funds* (10%) is distributed for widening participation and other recurrent teaching grants[5].

When calculating the standard resource at institution level, the number of full time equivalent students (FTE) is corrected according to the type of students, the nature of the subject and the location of the institutions, as such factors call for different levels of resources.

[5] For instance, funds for widening participation have the purpose to be used for the recruitment and the support of students from disadvantaged and non-traditional backgrounds or disabled students, and they have different elements such as widening access, improving retention and disabled students.

Subject related factors:

There are four groups of subjects for funding (price groups):

Price group	Description	Cost weight
A	The clinical stages of medicine and dentistry courses and veterinary science	4
B	Laboratory based subjects	1.7
C	Subjects with studio, laboratory and fieldwork element	1.3
D	All other subjects	1

Student related factors:

- for students on long courses: 25% of FTE weighted by price group
- part time students: 10% of un-weighted FTE
- foundation degree students: 10% of un-weighted FTE

Adjustments for each category of students are done, usually involving higher costs.

Institutional related factors:

- London weighting: premiums due to higher costs: (8% inner London, 5% outer London)
- institution specific premiums for specialist institutions, having more than 60% of their courses in one or two subjects only: variable percentage, usually 10%
- small institution premiums: variable percentage
- old and historic buildings (constructed before 1914): variable percentage

B. HEFCE funding for research.

The HEFCE research funds are distributed under two headings: a) quality related research funding and b) capability funding.

a) The *quality research funding* has a number of separate components:

- mainstream quality research. It is distributed based on volume of research (as number of research active academic staff) and on quality of the research (results of RAE ratings)

2001 RAE rating	Funding weights in quality research model
3a,3b,2,1	0
4	1
5	3.175
5*	4.036

For the very best 5* departments (that received 5* in both 1996, 2001 RAEs) supplementary funds are distributed as bonuses.

- research degree programme supervision fund
- charity support element
- business research element

- London weighting
- "Best 5" allocation
- supplementary funding to maintain quality research in real terms
- transitional special funding for research libraries

b) The *research capability fund* has the purpose to support research in emerging subject areas. At present such fields are nursing, social work, art and design, sport related subjects and others.

C. The **HEFCE special funding and earmark capital** (16.75% of the total funds) has the aim to provide support for specific purposes and to promote change that cannot easily be achieved through other routes. *Special funding* runs through a number of national programs (8 at present) that are periodically reviewed with some being phased out while other new introduced[6]. *Earmark capital funding* is additional funding provided by the Government to support sustainable investment in higher education, through two specific programs, at present.

D. The **HEFCE additional funding for very high cost and vulnerable science subjects** is designated to support very high cost science subjects, which are strategically important to the economy and society, but vulnerable because relatively low student demand[7].

[6] Such programs can be funding for Centers of Excellence in Teaching and Learning.
[7] At present such fields include: chemistry, physics, chemical engineering, metallurgy and mineral engineering.

Appendix no. 3

CNFIS funding mechanism

(Source: CNFIS (2007a) Metodologia de repartizare pe instituţii de învăţământ superior a alocaţiilor bugetare pentru finanţarea de bază în anul 2007, www.cnfis.ro)

CNFIS allocates the public money to HEIs through basic financing. Basic financing uses a formulae that initially (it was firstly introduced in1999) took into consideration only quantitative criteria (number of equivalent students), but starting 2002 included also qualitative criteria. The formulae is permanently improved based on experience and feed back coming from the sector. For the year 2007, the basic financing had two components: a) the homogeneous allocation (75% of the budget designated to basic financing) as the quantitative component and b) the differentiated allocation (25% of the budget designated to basic financing) as the qualitative component.

The *homogeneous allocation* (75% of the budget in 2007) is calculated for each institution according to the number of equivalent students that depends on the number of physical students corrected with equivalence coefficients for the form of education and for the subject taught (that have been introduced in order to reflect, the different costs incurred by different forms of education and by different fields of studies).

CNFIS coefficients of equivalence for 2007

Selective equivalence coefficients for different **forms of education**

No.	Education form	Coefficient of equivalence 2007
	Bachelor level	
1.	Studies in Romanian (long and short term)	1
2.	Studies in German - as a native language (long and short term)	2
3.	Studies in a language of international circulation	1,5
4.	Part time studies – evening classes	0.80
5.	Distance learning	0,15
	Master level	
6.	Master studies in Romanian	2
7.	Master studies in an international language	3
	Doctoral studies	
8.	Full time doctoral studies in all fields except fields: technical, agronomy, science and medicine	3
9.	Full time doctoral studies in technical, agronomy, science and medicine fields	4

There are 19 such coefficients in total.

Equivalence coefficients for different **fields of specialization (subjects)**

No.	Field of specialization	Coefficient of equivalence 2007
1.	Technical	1,75/1,9
2.	Architecture	2,5
3.	Agronomy	1,75
4.	Sciences	1,65/1,9
5.	Mathematics and applied mathematics	1,65
6.	Socio-human	1
7.	Psychology	1
8.	Medicine	2,25
9.	Economic	1
10.	Drama	5,37
11.	Film	7,5
12.	Musical Interpretation	5,37
13.	Music	3
14.	Arts	3
15.	Sports	1,86

The institutional allocation depends on the total amount of funds allocated from the state budget for higher education through CNFIS, in relation with which is calculated a reference unitary allocation, that is further on multiplied with the number of equivalent students of each institution.

The *differentiated allocation* (25% of the budget in 2007) is calculated using a formulae that takes into consideration quality indicators. In 2002 when the qualitative component was introduced there were 4 quality indicators in relationship with the overall activity of the HEI. In 2007 there were 12 quality indicators used to distribute the 25% of the CNFIS budget. The indicators are calculated for each institution and the results obtained by each institution are compared with the results of others. Funds are redistributed according to institutional performances[8] in relationship with each indicator.

[8] For a qualificative between 0 and 1 a HEI looses money and for a qualificative between 1 and 2 a HEI gains money.