EUA
Public Funding Observatory
2015

Contents

Methodology update

EUA has been collecting data on the level of public funding received by higher education institutions since 2008, and through this established the Public Funding Observatory. This has enabled EUA to identify trends and keep track of the evolution of funding for universities The continued input of EUA's collective members, the National Rectors' Conferences, who have provided numerical data and qualitative information for their systems, has been crucial to compile the analytical report and create the online tool. Without their valued participation this would not have been possible.

The 2015 report is based on data provided by the National Rectors' Conferences during spring and summer 2015. It complements the online tool by providing a comparative analytical overview of the trends both over 2013-2014, and over the full period (2008-2014), as consolidated data has been provided this year by many countries[1]. Finally, the report gives insights on the ongoing developments in the different parts of Europe as regards public funding for universities.

The Public Funding Observatory, 2015 edition, tracks public funding to universities in 25 systems.

Table 1 Higher education systems included in the Public Funding Observatory 2015 edition

Austria	Finland	Italy	Portugal
Belgium – Flanders	France	Latvia	Serbia
Belgium – French-speaking Community	Germany	Lithuania	Slovakia
Croatia	*Greece*	*Luxembourg*	Slovenia
Czech Republic	Hungary	Netherlands	Spain
Denmark	Iceland	Norway	Sweden
Estonia	Ireland	Poland	United Kingdom

In italics: data provided in 2014

As in 2014, National Rectors' Conferences were invited to fill in and update the same form, enhancing consistency over time and offering the possibility to correct previously submitted figures. Public funding in this report is therefore defined as in the previous edition (public funding by national and, in federal structures, regional public authorities granted to higher education institutions). It should be noted, however, that funding data is nevertheless computed in different ways in the various higher education systems referred to in this report[2].

Several systems have also provided updated funding figures and student numbers for previous years; where these have been amended, it is noted on the datasheet of the respective system that can be downloaded via the online tool. The following countries have corrected their dataset in full this year: Iceland, the Netherlands, Slovenia and the United Kingdom. The datasheets include details on the reasons for these changes.

The methodology supporting the calculations for the Observatory has also been amended in one aspect. In the 2014 edition, an interim inflation rate had been used to enable the calculation of

[1] The report therefore focuses on areas of change and can be read in conjunction with the 2014 report.
[2] The Public Funding Observatory online tool makes available datasheets which include the detailed data, definitions used and sources for each system.

inflation-adjusted results for the current year. Therefore the report released in October 2014 included a provisional 2014 inflation rate. However, after checking these values against final 2014 inflation data, the decision was made to not repeat this as the difference between the provisional and final inflation data was considered too high.

Therefore, the inflation-adjusted total is only provided up to2014 because inflation rates are typically calculated on a twelve-month annual cycle and are therefore not available yet for 2015. Inflation data is sourced from Eurostat, except for Serbia for which the data comes from the World Bank.

It should also be noted that, for non-Eurozone countries, the conversion rate used is that of September 2015, which was applied to all data. Countries that have adopted the Euro in 2014-2015 (Latvia, Lithuania) have had their data converted from the local currency to the Euro on the basis of the final fixed exchange rate applicable.

1. Outlook for 2015

Countries and systems participating in the 2015 Public Funding Observatory have been able, to a large extent, to indicate estimates (or figures officially announced by the public authorities) for the 2015 public funding to the sector. It was therefore possible to analyse ongoing developments in 19 countries.[3]

From the onset, it is important to underline that the 2015 figures are bound to be subject to changes – this is the reason why the developments over 2013-2014 feature now in the next section of this report in their consolidated form. They can also be analysed in terms of "nominal change", as 2015 inflation data is not yet fixed. However they provide useful hints as to the shape of things to come.

Diverging funding trajectories

In 2015, public funding is projected to increase in comparison to 2014 in 10 out of the 20 systems. Figures are higher by up to 5% in Latvia, Lithuania, Norway, Slovakia, Slovenia and Sweden. Portugal, Iceland and the French-speaking Community of Belgium show estimates between 5 and 10%. Finally, officially announced figures in Hungary amount to an increase of almost a quarter since last year.

Austria, as per its three-year funding system, does not show any change in the funding allocated to the sector, with 2015 being the last year of the current cycle.

Out of the 9 systems where funding is forecast to decrease, the Netherlands and UK/England[4] foresee nominal decreases inferior to 1%. Italy, the Czech Republic, Flanders (Belgium), Croatia and Spain expect decreases between 1 and 5%. In Ireland however, the officially announced figures are more than 5% lower than in 2014. Serbia announced a drop of over 13% compared to last year.

In line with last year, the new data confirms the positive long and short-term trajectory of a series of systems: the French-speaking Community of Belgium, Norway and Sweden.

In **Norway**, a ten-year plan is providing resources for infrastructures, while funding has been earmarked to increase the number of doctoral candidates. The discussion in the country revolves around merger projects to re-structure the higher education and research landscape of Norway.

At the other end of the spectrum, the data also confirms the negative trajectory (both short and long term) of the Czech Republic, Spain, Croatia, Serbia, Ireland and the United Kingdom.

Ireland illustrates particularly well the type of pressures universities are increasingly operating under. The recurrent grant per student has been diminishing continuously in the last years, and research funds have progressively been shifted towards competitive funding schemes. Universities are also subject to the overall "employment control framework", which applies to the public sector as a whole, whereby objectives have to be met in terms of staff reductions. Consequently, universities have made cuts to a series of student services and student-staff ratios have been deteriorating. Further increases in tuition fees are expected in the next years. Universities are expected to secure more funding than in the past

[3] Representing 20 systems, as the Flemish and the French-speaking community of Belgium could provide data.
[4] Funding data provided for the United Kingdom includes research funding for institutions in the UK and teaching funding for institutions in England only (teaching funding is devolved and funding for the other entities of the UK is not reported here).

from third parties such as EU funding programmes, although with a weakened base (both in infrastructure and in terms of staff morale and availability). In the light of these challenges, an expert group set up by the Ministry of Education to explore the future funding of Higher Education will submit its report in December 2015.

A series of countries show different types of trajectories; on the one hand Iceland and Latvia, for instance, have faced a major drop in funding at the beginning of the period, which an upward trajectory since then has only marginally corrected. On the other hand, Portugal has technically compensated the cuts of 2012 and 2013 in 2014 and continues on an upward trend. Hungary is an extreme case, with very large cuts in the system that seem to have stopped last year and a positive outlook for 2015. There is however much to be done to restore funding anywhere close to its 2008 level. Slovenia and Slovakia have both irregular funding trajectories, although both negative over the long-term, with however a slightly positive outlook in 2015. Lithuania has also an overall negative trajectory, despite minor corrections over the years, and a possible small increase in the coming year.

Italy had in 2014 started to correct a downward trend, which is expected to resume in 2015. Flanders (Belgium) also registers cuts this year, following the significant funding increases of 2014 which accompanied the absorption by universities of academic programmes previously delivered in the university colleges. The moderate cut recorded (-1.43% in nominal terms) however hides a bigger disappointment as promises previously made by the regional government regarding additional funding for 2014-2018 have been discarded, in a context made more difficult by the massive increase in student numbers (+23% since 2008).

Warning signals in the North

Worryingly, countries that have so far shown comparatively high levels of investments, and stable or positive funding trajectories, have reported serious concerns regarding current and upcoming funding, although figures have not been fully disclosed yet. Denmark and Finland are two such cases.

The new Finnish government is introducing cuts to the core funding of universities as well as to the main public research funding organisations, the Academy of Finland and Tekes – the Funding Agency for Innovation. The University of Helsinki and the University of Eastern Finland will also not benefit anymore from special funding which until now served to compensate the corporate tax paid on their pharmacy business activities. The sector expressed concerns that while universities are proactively addressing structural development and profiling questions, this work cannot deliver outcomes as fast as the abrupt cuts proposed in the budget would demand.

In Denmark, the outlook is negative both in relation to core teaching funding and research funding – the target for research is 1% of GNP, which would entail a cut of slightly under 200 million Euros in 2016. As regards teaching funding, universities expect to see a cut in the neighbourhood of 215 million Euros.

The drive towards performance-based funding

Besides the level of public funding, the way in which it is allocated to universities also matters. Several systems reported this year an enhanced focus on performance-based funding. This means more traditional modes of funding such as historical allocation or funding based on input indicators (e.g. student numbers) are at least partially replaced by funding based on outputs (e.g. number of

graduates; amount of external research funding obtained) or on the achievement of specific policy goals (e.g. number of international students/staff).

This trend was for instance reported by the **Czech Republic** where the share of performance indicators increases every year. Similarly in **Italy**, the share of historical funding has diminished and is gradually being replaced by funding based on a standard cost per student; in parallel, the share of funding allocated based on performance has increased. **Latvia** also reported plans to introduce performance-based funding for the second half of 2015. EUA has looked at the impact performance-based funding can have on institutions and the university system as a whole and the results of this work together with country specific examples can be found in EUA's report *Designing strategies for efficient funding of universities in Europe*.[5]

A more prominent efficiency narrative

Whether countries maintain, increase or decrease public investment in the university sector, the institutions are called to deliver more for the resources they receive. In addition to shifts in public funding modalities, budget cuts are sometimes justified by public authorities by the need to incentivise institutions to operate more efficiently. In **Sweden**, this is integrated in the budget discussion through an indicator reflecting an assumed annual productivity increase. **Austrian** universities are pressed by the government to achieve 300 million EUR in savings through efficiency measures. **Irish** universities, faced with significant cuts for several years now, have embarked on a process of rationalisation of their academic offer, as well as on the re-organisation of their student services to generate efficiencies. In the **Netherlands**, where the funding trajectory remains stable, so-called "efficiency cuts" aimed at reducing administrative indirect costs for the teaching activities were introduced. Universities are actively seeking to improve their operations at institutional level. However the pace of change, in particular in funding models, makes it difficult for universities to adapt in the short run through strategic profiling and institutional development. These are issues which universities in **Finland** or **Estonia** are facing in particular (with Estonian institutions still in transition after the tuition fees were abolished in 2013, and plans for a funding model reform postponed). In 2016, EUA will start a project to examine the measures that are in place in universities across Europe to enhance efficiency at operational level. It will also analyse policies at system level that support universities in their efforts to operate more efficiently, with a view to identify good practice examples and develop recommendations to policy-makers[6].

Expectations towards European funding

Decreases in public funding at national level put high pressure on universities to look for other sources. In this context great hopes have been placed on European funding through EU structural funds, as well as on the Horizon 2020 and Erasmus+ programmes. Some governments explicitly set national targets for their participation in these programmes. The **Irish** government for instance wants to double the return from Horizon 2020 over the whole programme duration (2014-2010). In **Denmark**, the Ministry of Science, Innovation and Higher Education has established a target for Danish applicants, expected to secure 2.5% of the Horizon 2020 funds. EU structural funds represent much larger financial envelopes and are already playing an extremely important role in some countries for the university

[5] Bennetot Pruvot, E., Claeys-Kulik, A.-L. & Estermann, T., 2015, *Designing strategies for efficient funding of universities in Europe*, EUA, Brussels.
[6] See http://www.eua.be/activities-services/projects for more information on the USTREAM project.

sector. This is notably the case of **Lithuania**, where structural funds have rapidly grown to make up for a significant share of the public funding available to higher education institutions, while the funding from national authorities simultaneously declined. Therefore, for this country, the analysis this year was carried out in a differentiated way, examining how EU structural funds impact on the overall funding trajectory.

EUA has already warned that the trend of cutting funding at national level and redirecting institutions to European Union funding programmes entails the danger of entering a vicious circle. Reductions in public funding – which is still the largest financial source for universities in most European systems – has serious consequences also on the ability of universities to attract the best personnel, which in turn hampers their competitiveness in European funding programmes such as Horizon 2020. Furthermore, it should be borne in mind that European programmes never cover the full costs of projects, and participants need to be able to provide a significant amount of co-funding.

An initial analysis of the first round of calls under Horizon 2020 has shown that the success rate for universities went down from around 20% in the previous programme (FP7) to 14% in Horizon 2020 (considering the first 100 calls). This should be seen in conjunction with the mobilisation by the institutions of important own resources to develop and submit the proposals.

EU funding is also undergoing changes. The Horizon 2020 programme was seriously threatened this year when the European Commission announced a plan to divert 2.7 billion € from Horizon 2020 to support the EU guarantee needed to set up the European Fund for Strategic Investments (EFSI). Europe's research community obtained the support of the European Parliament, leading to a reduction of the proposed cuts. However, a total of 2.2 billion € were taken away from Horizon 2020 grants and transformed into a guarantee for EFSI loans[7]. This sets a worrying precedent; debt financing mechanisms, particularly in a strained economic environment, should not replace direct funding for research. Besides, annual budget discussions show that the programme is not beyond further cuts.

The financial frameworks in which European universities operate are evolving, both at national and European levels. Overall, it is getting increasingly complex for universities to develop strategies that integrate the multiple parameters they are working with to ensure their long-term financial sustainability. This situation makes it all the more crucial for the sector to get engaged in important discussions on system re-structuring and shifts in funding mechanisms.

[7] For further information on EFSI and its impact on universities, please see: http://www.eua.be/policy-representation/governance-funding-and-public-policy/public-policy

2. Consolidated short-term developments: 2013-2014

The analysis of the changes over 2013-2014 shows again the importance of looking beyond the nominal figures. To have a more accurate understanding of the situation it is essential to take account of other elements such as the inflation rate and the development of student numbers. It is particularly important to keep inflation in mind when considering the financial health of the sector over the entire period, because this limits the benefits of funding increases and accentuates the effect of funding cuts.

In last year's Observatory report, it was possible to consider the short-term developments (2013-2014) in 19 systems; with data having been consolidated in several systems, it is now possible to re-run the analysis on the basis of actual expenditure (rather than budget forecasts) **for 25 countries/systems**.

Taking into account final inflation data for 2014, it appears that **12 countries/systems have increased public funding, 5 where it has remained stable and 8 have experienced a decrease**.

Because of the relatively lower inflation rates in Europe, the overall picture is not significantly different when looking at nominal funding only (disregarding inflation).

Graph 1 Evolution of public funding 2013-2014 (adjusted for inflation)

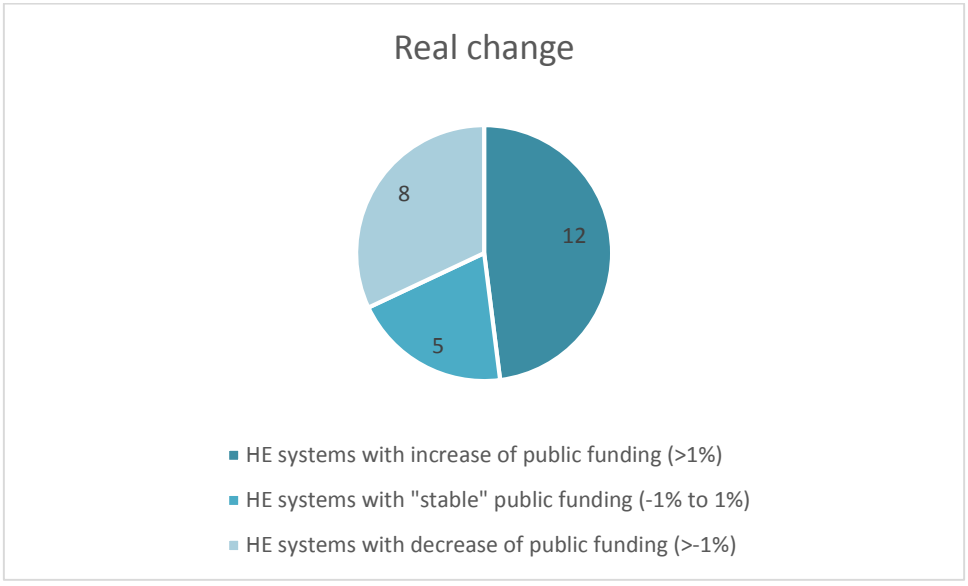


Table 2 Evolution of public funding between 2013 and 2014

Evolution 2013-2014	Country/system	
	change adjusted for inflation	Nominal change (not adjusted for inflation)
10% increase and above	**Belgium (fl)**, Portugal	**Belgium (fl)**, Portugal
Between 5% and 10% increase	Italy, **Latvia**, Poland	**Germany**, Italy, **Latvia**, Norway, Poland
Between 1% and 5% increase	**Germany, Denmark**, Hungary, Iceland, Netherlands, Norway, Sweden	Belgium (fr), **Denmark**, Hungary, Iceland, Netherlands, Serbia, Sweden
Stable (from -1% to +1%)	Belgium (fr), Czech Republic, Croatia, Serbia, Slovakia	Austria, Czech Republic, Croatia, **France**, Slovakia
Between 1% and 5% decrease	Austria, **France**, Spain	Spain
Between 5% and 10% decrease	Ireland, Lithuania, Slovenia, United Kingdom	Ireland, Lithuania, Slovenia, United Kingdom
Decrease superior to 10%	*Greece*	*Greece*

Greece: data provided in 2014

Notable short-term evolutions (inflation-adjusted):

- **Portugal** experienced the greatest rise in funding, increasing its budget for higher education institutions[8] by just under 20%. This is the first increase since 2010, following three years of cuts. This rise in funding is intended to offset a rise in employment costs arising from increased social security and pension costs faced by universities in Portugal.

- **Flanders (Belgium)**, now included in the 2013/2014 analysis, recorded a 12.86% increase in funding, unlike anything before in the period, which had been marked by stability until 2012 included. This increase accompanied the completion of the so-called "academisation process", whereby universities absorbed the academic programmes previously delivered by the university colleges.

- **Poland** reported another positive change in public funding, with an increase of just above 8%. This follows a rise of 5% in 2013. This is the second of three steps aiming at increasing salaries after several years of wage freezes.

- **Hungary** stopped the decline in university funding for the first time since the Public Funding Observatory started collecting data in 2008, recording a real-terms increase in funding of 2.77%.

- In the **United Kingdom**, the level of funding for higher education continues to go down for a third consecutive year, albeit at a slower pace, as England continues to transfer the cost burden for teaching activities to students via increased tuition fees.

[8] Figures provided by the Portuguese Rectors' Conference proceed from data supplied by each member university in the context of the preparation of the state budget each year.

- **Ireland** has also experienced a series of cuts, with a real-terms drop brought down to 5.40% in 2014, compared to what had been previously announced last year, thanks to comparatively more capital funding made available to universities. However, there has been no increase in tuition fees to offset this decrease in public funding in Ireland.

- **Greece** has continued to cut back on higher education funding, with a drop of around 11% this year, following a 24% cut in 2013. It should be noted that these figures do not include staff costs, as university staff are civil servants and as such are concerned by across-the-board cuts in the public service. It is important to underline though that it was not possible to collect updated figures this year from Greece and that this analysis is based on the figures provided in 2014.

Methodological note – reasons for changes from 2014 categorisation:

- *The use of **final inflation data** for 2014 has helped refine the figures for each country and has in some cases led to a change in the category which the country/system previously featured in. This is the reason of change for Austria, Belgium (fr) and Slovakia.*
- ***Actualisation** of the 2013 and/or 2014 figures (replacing estimates by actual expenditure figures) by the National Rectors' Conferences have also brought changes in the table. This is the case of Croatia and Italy.*
- ***Streamlined corrections across the whole period** have led to further moves in the table. There are two countries for which such corrections have generated a category change: the Netherlands and the United Kingdom. For the Netherlands, figures have been amended to include smaller universities and consolidate subsidies that had been recently integrated into the state block grant. Importantly, amounts corresponding to the performance agreements have also been integrated in the figures. Finally, as regards the United Kingdom, capital funding for research have been reconciled across funding sources.*

3. Overall trend for the period 2008-2014

Using the 2014 public funding data, it is possible to monitor the overall evolution in the level of funding since the establishment of the Public Funding Observatory in 2008. As for the year-on-year change, this evolution is presented both in terms of nominal investment and adjusted for inflation.

EUA has chosen to re-publish the table on the basis of the different corrections that have been detailed below, including as well the final inflation rate for 2014 in the analysis.

In comparison to last year, it is worth noting that it was now possible to include Denmark, France and Latvia in the table as new data could be obtained. Estonia, Finland and Luxembourg could not be included in the absence of 2014 data.

Table 3 Evolution of public funding between 2008 and 2014

Evolution public funding 2008-2014	Country/system	
	change adjusted for inflation	Nominal change (not adjusted for inflation)
Between 20% and 40% increase	Germany, Norway, Sweden	Austria, Belgium (fr and fl), Germany, **Denmark**, Norway, Poland, Serbia, Sweden
Between 10% and 20% increase	Austria, Belgium (fr and fl), **Denmark**, Poland	**France**, Iceland, Netherlands
Between 5% and 10% increase	---	Croatia, Portugal
Between 5% increase and -5% decrease	**France (+)**, Netherlands (+), Portugal (-)	Slovakia (-), Slovenia (-)
Between 5% and 10% decrease	Croatia, Slovakia, Slovenia	Czech Republic, Italy
Between 10% and 20% decrease	Czech Republic, Spain, Iceland, Italy, Serbia*	Spain, United Kingdom
Between 20% and 40% decrease	Ireland, Lithuania, United Kingdom	Hungary, Ireland, Latvia, Lithuania
Decrease superior to 40%	*Greece*, Hungary, **Latvia**	*Greece*

*Inflation data is sourced from the World Bank

Greece: data provided in 2014

In a large majority of systems public funding for universities has either expanded or contracted within the monitored period. This highlights the fact that public funding remains in a state of flux, even in countries which are not implementing such far-reaching reforms as the United Kingdom. In some countries where universities have experienced sustained cuts continuously over the past years, it is clear that the consequences of the economic crisis are still resonating. In other systems, funding for universities has been ring-fenced and even increased; the extent to which this is because the crisis had less effect in these countries or because a conscious decision was taken to protect and prioritise investment in universities is open to debate. Even in systems where the funding has remained "stable" (in the range between a 5% decrease and 5% increase over the period), there have been sometimes wide variations over the six years.

Taking inflation into account, a polarised map emerges, with 10 countries/systems having increased funding to the sector, and 15 countries having cut funds to universities. With few exceptions, negative funding trends are mostly found in the geographical periphery, concerning countries in the East, South, as well as Iceland, Ireland and the United Kingdom in the West; while positive funding trends remain in the North (Scandinavia) and in Belgium, France, the Netherlands, Germany and Austria.

Because of high and continued inflation in some systems, nominal increases in funding sometimes represent cuts in real terms. The most extreme example is Serbia, where the 33.40% nominal increase in funding since 2008 represents a cut of 11.27% when inflation is taken into account. Iceland is another example (+19.19% nominal change corresponding to -17.91% inflation-adjusted change).

Table 4 Inflation rate between 2008 and 2014

Inflation over the period 2008-2014	Country
Above 40% inflation	Iceland, Serbia*
20% to 40% inflation	Hungary
10% to 20% inflation	Austria, Belgium, Estonia, Croatia, Italy, Lithuania, Luxembourg, Netherlands, Norway, Poland, Slovenia, Slovakia, United Kingdom
5% to 10% inflation	Czech Republic, Germany, Denmark, Spain, France, Greece, Latvia, Portugal, Sweden
Below 5% inflation	Ireland

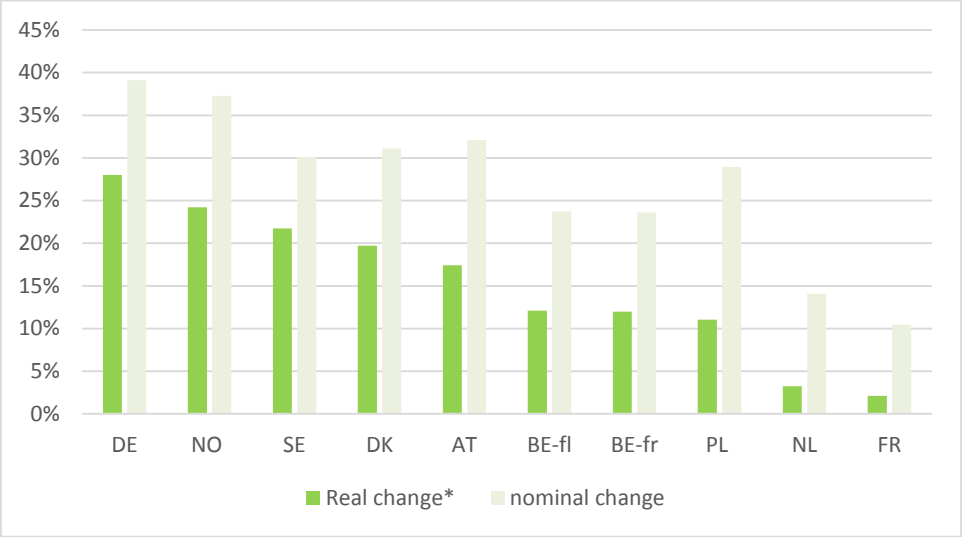
*Inflation data is sourced from the World Bank

Using the final inflation data for 2014, three countries change position in the table (compared to the table included in the 2014 report), with Belgium moving just above 10% overall inflation while Denmark and Latvia just below that mark.

The 2008-2014 overview is provided in further details for the two groups of countries/systems below.

Systems with rising levels of public funding over 2008-2014

Graph 2 Systems with rising levels of public funding (2008-2014)

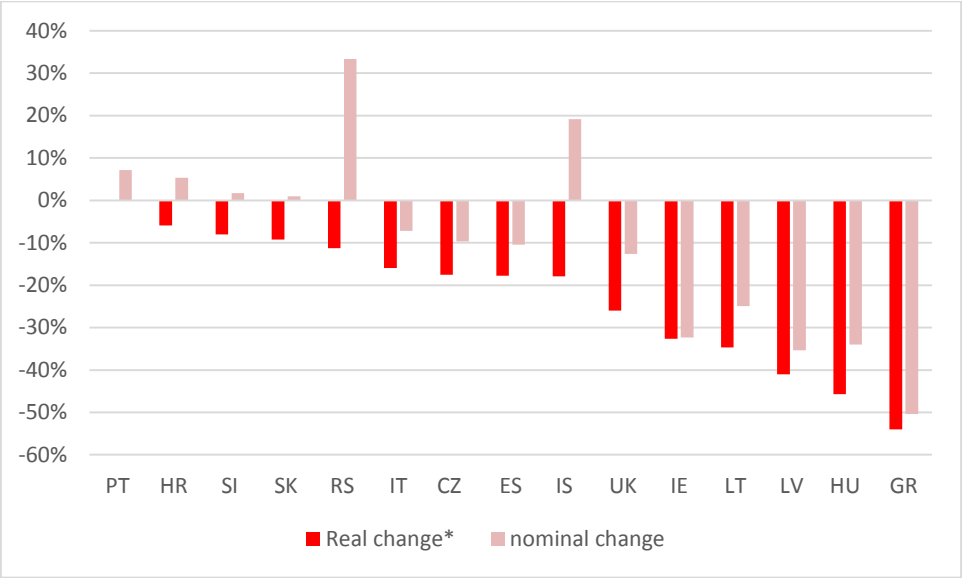


The first column for each system shows the inflation-adjusted evolution of public funding; the second column represents nominal change.

Several systems have been steadily raising the level of public investment in real terms over the period 2008-2014, often to enable universities to cater for rising student numbers. **Germany** could be included this year in the analysis as 2014 data has become available; the country records the steadiest increase in funding to the sector (28% in real terms), followed by **Norway** and **Sweden** (24.22% and 21.75% respectively). It should be noted that Germany also features the largest increase in student population between 2008 and 2015 (of 35%), while students have increased by about 18% in Norway and by 6% in Sweden over the same period.

Systems with declining levels of public funding over 2008-2014

Graph 3 Systems with declining levels of public funding (2008-2014)



The first column for each system shows the inflation-adjusted evolution of public funding; the second column represents nominal change.

Fifteen systems have cut funding compared with 2008 levels.

At the negative end of the spectrum, the greatest decrease is found in **Greece**, where the higher education budget has faced a real-terms cut of more than half since 2008 (excluding staff costs, which are part of the broader scheme concerning the reduction of costs in the public service). This coincides with the extremely damaging impact of the financial and economic crisis on the country[9]. **Hungary** is not far behind, with funding having dropped by over 45% since 2008 when inflation is taken into consideration. Public funding has also fallen by just over 40% in **Latvia** for the same period (2013 and 2014 figures have been made available this year; increases recorded for these years have only marginally corrected the overall trajectory). Simultaneously, student numbers in both Hungary and Latvia are going down significantly (by 20% in Hungary and 25% in Latvia).

The case of **Lithuania** requires some explanations. The figures provided this year by the Lithuanian Rectors' Conference allow to distinguish between state subsidies and EU structural funds received by the sector. It should be underlined that while Lithuania is not the only country that includes EU structural funds in the figures provided (Estonia, Finland, Slovenia and Spain include these sources as well), it is the only case for which it is possible to analyse the impact of the EU structural funds on the "funding trajectory" for the sector. EU structural funds have rapidly taken a tremendous importance in the Lithuanian university sector. Starting from a few percent of the total public funding going to universities, EU structural funds now make up for about 40% of this amount. On their own, these funds can reverse completely the funding trajectory for the country, showing an increase in real terms over

[9] Note that no new data could be retrieved in 2015. The analysis is based on the information collected in 2014.

the period 2009-2015. However, there has been in parallel a massive disinvestment process from the state authorities over the period (about -35%), which should be also put in the context of dwindling student numbers (about -30%).

The situation is different in **Ireland**, where student numbers have continued to increase since 2008 (near to +19% over the whole period), though public funding is almost one-third below the 2008 level. This clearly accentuates the financial pressure placed upon higher education institutions, and has led to increases in tuition fees.

In **the United Kingdom**, public funding in the sector has decreased by about 26%. The figure has been consolidated through updated data provided this year, which helped reflect better the actual levels of capital funding made available to universities over the period. It should be noted however that this figure includes the teaching grant for English universities only, while capital and research funding are allocated through the funding councils on a UK-wide basis – universities benefitting from about two-thirds of this income. The lower public funding is part of the reform process that has made tuition fees a central feature of the funding model, however backed by state-guaranteed student loans. During the period, there has been a moderate increase in student numbers (just under 5%, including international students).

A similar narrative is present in **Spain**, albeit with a smaller adjustment; public funding is down about 18% since 2008, which is only partially offset by higher tuition fees, while student numbers have increased by about 4% during this period. The areas most affected by budget cuts are infrastructures, followed by research activities.

Consolidated 2014 data change the narrative for some countries. **Italy** has put a halt to recurrent budget cuts to the sector, with an increase in real terms of 6.39% compared to 2013.

In most of Eastern and Southern Europe, even if public funding cuts have sometimes decelerated or stopped in the short-term, there is no sign of funding levels returning to 2008 levels. In these systems, the pressure on universities to look to diversify their income streams for greater financial security is even greater than before.

The 2014 data confirms the entrenched disparity between countries where public funding to higher education continues to rise, and countries that disinvest in the field. This is a significant challenge to the consolidation of the European Higher Education and Research Areas.

4. Funding and student numbers

As in previous years, the Public Funding Observatory has also collected data from the National Rectors' Conferences on student numbers. The relation between the developments in funding of a system and the evolution of its student population is a complex one. Many other criteria may come into play when deciding on funding allocation, but some funding systems directly link funding to this data. When such a relation exists, for instance through a funding formula, there may also be a time-lag before a significant change in student numbers is reflected in the funding allocation and student numbers are only one indicator besides others. Keeping these points in mind, data on student numbers remains an interesting element of contextual information in this matter.

The long-term trends in student numbers are shown below, on the basis of the consolidated data received from the National Rectors' Conferences in 2015. Estonia and Spain have been added as new data has been made available this year[10].

Table 5 Evolution of student numbers between 2008 and 2014 (consolidated)

Evolution (2013/2014 compared to 2008/2009)	Country/system
Student numbers grew by more than 10%	Austria, Belgium (fl and fr), Germany, Denmark, Croatia, Ireland, Iceland, Netherlands, Norway
Student numbers grew by less than 10%	Czech Republic, **Spain**, Finland, France, Portugal, Serbia, Sweden, Slovakia, United Kingdom
Student numbers decreased	**Estonia**, Hungary, Italy, Lithuania, Latvia, Poland, Slovenia

Table 6 Latest evolution: 2014/2015 academic year compared to 2013/2014

2014/2015 compared to 2013/2014	Country/system
Student numbers grew by over 5%	Belgium (fl), Denmark
Student numbers grew by 1 to 5%	Belgium (fr), Germany, France, Ireland, Netherlands, Norway
Stable student numbers (-1% to 1%)	Austria, Finland, Croatia, Lithuania, Portugal, Serbia, United Kingdom
Student numbers dropped by 1 to 5%	Czech Republic, Spain, Iceland, Italy, Latvia, Sweden, Slovenia
Student numbers dropped by 5 to 10%	Estonia, Hungary, Poland, Slovakia

Over the whole period student numbers have been decreasing in a majority of Eastern European countries (as well as in Italy). The decrease is greatest in the Baltic countries. Lithuania has 27% fewer students in 2013/2014 compared with 2008/2009 (extending the period to 2014/2015, the decrease goes over the 30% mark). The decline is also worsening in Latvia (from roughly -22% to -25% over the

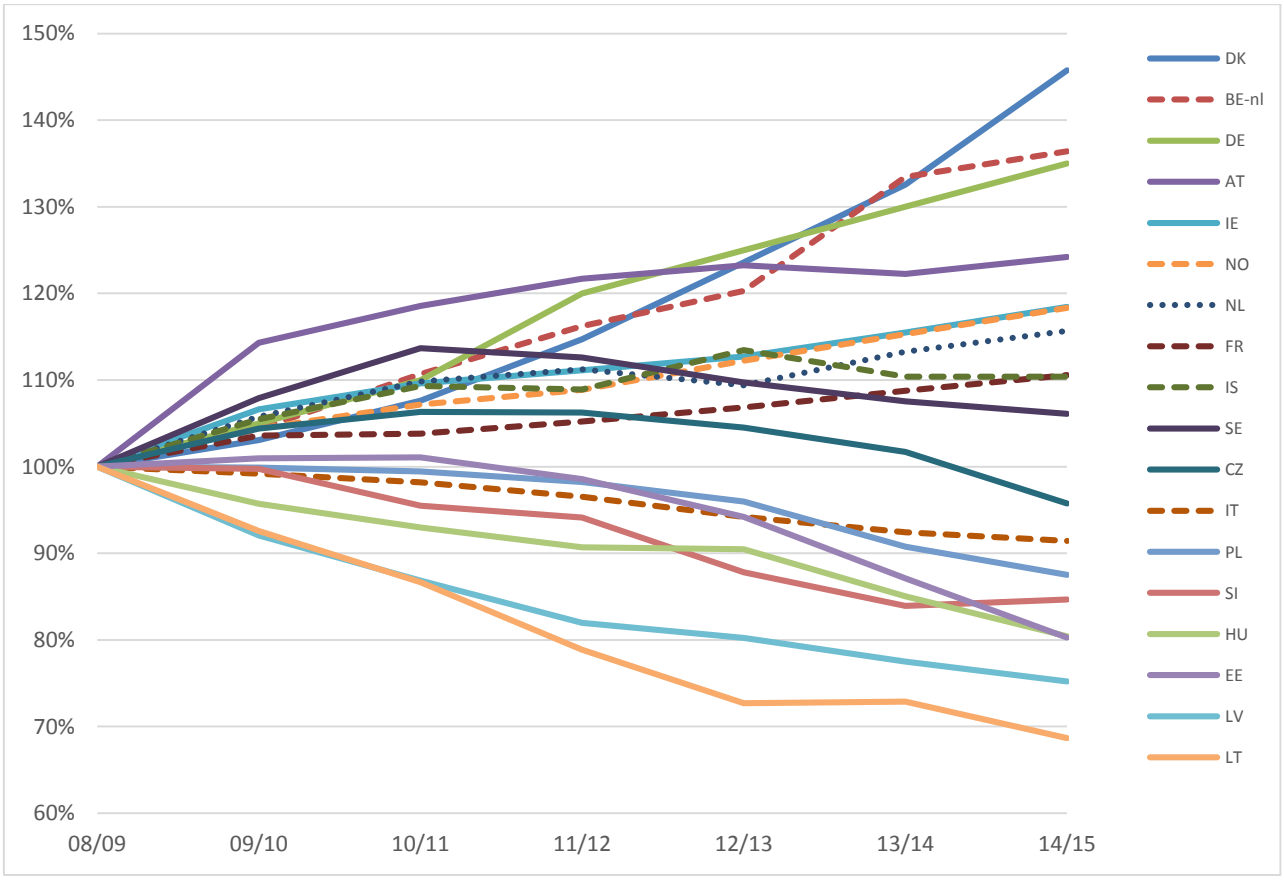
[10] Student numbers provided for the United Kingdom cover students enrolled at higher education institutions for the country as a whole (not only England)

past year, considering 2008/2009 as a reference year) and in Estonia (almost -20% between 2008/2009 and 2014/2015).

In the rest of Europe, the student population has tended to grow. The most significant increases can be seen in Austria, Belgium, Denmark and Germany. Danish universities face a particular situation with an overall increase in the enrolled Full Time Equivalents in the 8 research universities of about 45% between 2008/2009 and 2014/2015 (figures based on completed exams). Reasons behind such rapid growth include a general rise in the student population after the start of the economic crisis combined with a political agenda focused on increasing higher education attainment. The objective of 25% of the youth cohort achieving university education has been met and indeed exceeded by the sector, and the government elected this year has dropped this objective.

The sample of 18 higher education systems below, for which all data relating to student numbers was available between 2008/2009 and 2014/2015, shows the variety of situations faced in different European countries. Large year-on-year variations may represent a challenge for universities, in particular when the calculation basis for public funding does not take these changes into account (or with a delay, for instance when using multiannual averages). It should be kept in mind that while datasets are individually coherent over time, the fact that they are based on different calculation methodologies makes direct comparisons relevant to only a limited extent.

Graph 4 Evolution of student numbers between 2008 and 2015



Fluctuations in student numbers do not necessarily coincide with fluctuations in the level of public funding. It is important to seek to establish whether, in countries where funding has increased, the investment in the field is sufficient to enable universities to cater for larger student cohorts. Conversely, where public funding is being cut, the extent to which decreasing student numbers justify the decrease in public funds should be carefully assessed.

5. Funding and GDP

The table below shows how the level of public funding to higher education institutions has progressed as a proportion of Gross Domestic Product in 2013 in comparison to the first year of data collection for the Public Funding Observatory in 2008. The consolidation of funding figures has enabled Denmark, Estonia and Latvia to be included in the table. In the absence of 2014 GDP figures (normally obtained from Eurostat), the table focuses on the 2008-2013 consolidated evolution.

Table 6 Evolution of public funding to higher education institutions as a percentage of GDP

Evolution (2013 compared to 2008)	country
2013 higher than 2008	Austria, Germany, **Denmark**, France, Croatia, Iceland, Netherlands, Norway, Poland, Serbia, Slovenia
2013 lower than 2008	Czech Republic, **Estonia**, Spain, Greece, Hungary, Ireland, Italy, **Latvia**, Lithuania, Portugal, Sweden, Slovakia, United Kingdom

Luxembourg is excluded from the table as the reference year for this country is 2009 (Public funding to higher education institutions in Luxembourg represented a higher share of the GDP in 2013 than in 2009). Finland, for which data is only comparable as of 2010, keeps its level of investment stable with a value in 2013 equal to that of 2010.

On the whole it is clear that the trajectories are consistent with the trends in absolute public funding ; in most cases, where systems are receiving an increasing absolute amount of public funding, this is mirrored as an increasing proportion of GDP, and vice versa. One notable exception to this trend is Sweden, where the increasing investment in higher education is not keeping pace with the rise in GDP. Another outlier is Serbia, where funding has increased as a proportion of GDP, yet fallen in real-terms, ostensibly because of the high inflation rate.

It should be noted that in some cases, there are discrepancies to the previous years' data for funding as a proportion of GDP. There are three possible reasons for this: because countries have provided updated funding figures, because the GDP figures have been revised by Eurostat, or because the updated conversion rate (September 2015) for non-Eurozone countries has affected the proportion.

The data analysed in this report is available through the EUA Public Funding Observatory online tool:

http://www.eua.be/publicfundingobservatory

EUA welcomes feedback on the report at the following address: funding@eua.be

European University Association

Governance, Funding and Public Policy Development Unit

Thomas Estermann, Director

Enora Bennetot Pruvot, Deputy Director

Anna-Lena Claeys-Kulik, Policy Analyst & Project Manager