



THE FINANCIAL AUTONOMY OF GREEK UNIVERSITIES: AN ATTEMPT AT QUANTIFICATION

Haris Lambropoulos,

George Stamelos,

Ourania Bousiouⁱ

Department of Education and Social Work,

University of Patras,

GR- 26504 Patras,

Greece

Abstract:

This study aims to assess the degree of financial autonomy of Greek universities, from a qualitative and quantitative perspective. The recent European University Association (EUA) research relating to University Autonomy did not include Greece since no input was provided for a series of years. Therefore, a thorough attempt to produce the necessary data, with special reference to the implementation period of Law 4009/11, will contribute to filling in the gap and provide useful country-specific outcomes. The methodology to be employed in our study complies with the one used by the EUA complemented with our own produced outcomes by studying the relevant literature together with the applicable legislation for the period in question. Thereby, the relevant outcomes produced (as numerical scores) allow for the ranking of Greek Universities as compared with their European counterparts. In specific, they level at a medium position in terms of financial autonomy. Having achieved that, proposals are offered for both the improvement of the EUA methodology for measuring financial autonomy as well as for changes in the Greek legislation and Greek University practices in order to increase their performance and competitiveness in a continually changing and dynamic environment.

JEL: H52; H83; I22; I23; I28; P43

Keywords: Greek universities, higher education, university autonomy, financial autonomy, European University Association (EUA)

1. Introduction

In modern societies, education has a significant impact on the countries' economic, cultural and social development (Stamelos, Vasilopoulos & Kavasakalis, 2015). Declarations by the European Union and different Organizations (OECD, World Bank,

ⁱ Correspondence: email bousiou@upatras.gr

etc.) urge European states to invest funds in promoting and developing education. Fund-raising in the field of higher education may drive States to develop productivity and international competitiveness (Pruvot, Claeys-Kulik, Esterman, 2015; Thomas & Pruvot, 2011; Gougoulakis, 2005; Montlibert, 2005). The economic, social and cultural development of the countries is affected positively by university establishments (Olsson & Wilberg, 2003; Gougoulakis, 2005). Universities, as autonomous organizations, operate at the heart of modern societies. The historical, geographical and cultural background of universities is linked to their organization (Pruvot, Claeys-Kulik and Estermann, 2015; Tierney & Lanford, 2014; Gougoulakis, 2005). It is only in the last decades (Ranson, 1995) that the European Commission has found that universities are key players in Europe's future and the successful transition to a knowledge-based economy and society. However, such an important economic and social sector is in need of deep restructuring and modernization if Europe does not want to lose its global competitive position in the fields of education, research and innovation (Gibbons, 2005; Felt, 2003; EC, 1995).

The results of the economic crisis affecting Europe in recent decades had a major impact on the universities' public funding, private sources (tuition fees, collaboration with industry, philanthropic funding and funding from donations) and an institutional level. The drastic reduction in public grants pressures Universities to look for alternative resources of funding (Pruvot, Claeys-Kulik, Esterman, 2015; Thomas & Pruvot, 2011; Estermann, Nokkala & Steinel, 2011). The new financial situation has forced governments to support a new model for the development of Higher Education Institutions (HEIs), which promotes the development of entrepreneurship and the university's connection to the market (Choi, 2019). It should be also mentioned that universities nowadays must operate as organizations that offer Lifelong Education in a massive way which increases their costs exponentially.

The modern university operates with new terms to establish communication and cooperation between public and private entities so that there is an exchange of ideas and knowledge, not only in the national but also in the international environment. It actively contributes to the economic development of the States by promoting research, supporting excellence and innovation (Pruvot, Claeys-Kulik and Estermann, 2015). In addition to its well-established role, the modern university, ready to serve the needs and the requirements of the industry and the market, prepares its graduates to have the skills and competencies needed to respond to the new environment according to market and industry needs and challenges (Choi, 2019; Davies, 2015; Gatsios, 2014; Tierney and Lanford, 2014; Gillon and Henderson, 2012; Watson, 2011; Marginson & Considine, 2000). While, in very recent years, various initiatives have emerged in this direction like the one of the European Commission's DG Education and Culture in partnership with the OECD Local Economic and Employment Development Programme (LEED) called "HEInnovate" which is a self-assessment tool for Higher Education Institutions who wish to explore their entrepreneurial and innovative potential (<https://heinnovate.eu/en>).

The management and organization of universities and their close connection with the State and the country's research centers is one of the topics that has generated intense debate and reflection over the last decades throughout Europe (Felt, 2003). The high

degree of university autonomy characterizes an organization as innovative and modern, as it is free to develop its own profile and effectively fulfill its mission (Pruvot, Claeys-Kulik and Estermann, 2015). However, the state shouldn't let completely free the financial management at the universities in order to prevent possible policies that could be economically disastrous for them. On the other hand, university autonomy is an important aspect of university education and a high priority for policymakers, as it appears to be directly linked to higher quality education and increased graduates' abilities and skills, while increasing the quality and quantity of research production (Felt, 2003). Political factors influence the extent of autonomy granted to public universities in specific countries. There is sufficient evidence to suggest that increasing university autonomy yields better educational outcomes and has a direct impact on labor market productivity (Ritzen, 2016; Hoareau, et al., 2013; Felt, 2003).

Europe has systematically dealt with University Autonomy since 2007. The European University Association (EUA) is the official European institution that expresses the views of the universities through their governing bodies. Moreover, EUA seems to consider the importance of autonomy in the context of European Higher Education Area (EHAE) (Bennetot-Pruvot & Estermann, 2017; Estermann, Nokkala & Steinel, 2011; Estermann & Nokkala, 2009). 47 countries (including individual sub-national entities) participate in this organization. The body's interest mainly revolves around finding new methods for the improvement of teaching, research and innovation. Alongside, the study and publishing of reports on a regular basis regarding the funding trends that prevail within the European universities are achieved through cooperation with reputable European and international organizations and promoting the independent voice of universities in Europe. The aforementioned elements reveal a trusted highly reputable institution, which through its decisions and activities can influence the European university "landscape".

In Greece, Universities are State-owned as constitutionally stipulated, and the establishment of private universities is banned (Article 16, Constitution of Greece). The funding of Greek universities is covered mainly by State funds. Thus, the educational policy is, to a large degree, under the control of the State. In the present study, which is a follow-up to the published research entitled "The Organizational Autonomy of Greek Universities: An Attempt at Quantification" (Stamelos, Lambropoulos, Bousiou, 2019), an attempt is made to evaluate qualitatively as well as quantitatively the degree of financial autonomy of the Greek universities, during the period of the implementation of Law 4009/11. This law was implemented in Greek universities from 2011 to 2016 and it is vital that this research was conducted during the period of EUA's last research (Bennetot-Pruvot & Estermann, 2017). This law was a major reform for Greek Universities and has been largely in force to this day. Greece did not provide the required data to EUA and was not included in the countries studied since official scientific data regarding the degree of university autonomy in our country were not given (Bennetot-Pruvot & Estermann, 2017).

At this point we must mention/refer that the data of this study concern the 14ⁱⁱ public universities that operate in Greece during the research period, while the study does not include the Hellenic Open University (HOU) and the International Hellenic University (IHU), which although are public universities governed by specific laws. The research refers to the Greek Higher Education System. Thus, the score of the country relates to the situation applying to the vast majority of the public university.

The specific research questions that we will try to answer are:

- Which is the percentage, rank and score of academic autonomy that Greek achieves in 2017?
- Which position does Greece occupy in relation to the other European countries that participated in the EUA survey?
- Can there be a forecast for increasing the percentage of academic autonomy for the Greek case?

We consider that this study is particularly important, as, on the one hand, Greece participated in the first EUA's survey, on the other hand, as a member of the European Union, it must participate in relevant surveys and the results from the research would be used by future designers of the Higher Education Institutions, in order to show improvement.

2. Sources

In attempting to measure and quantify the financial autonomy of Universities in Greece, our source refers to the respective EUA study which measures the four general indicators dealing with dimensions of autonomy as per the Lisbon Treaty (2007). The financial autonomy indicators include the ability to raise funds, own buildings and borrow money; while the rest three general indicators are organizational autonomy, staffing autonomy and autonomy in academic matters (Bennetot-Pruvot & Estermann, 2017; Pruvot, Claeys-Kulik and Estermann, 2015; Vidal, 2013; Estermann, 2012; Nokkala & Steinel, 2011; Estermann & Nokkala, 2009). The EUA study accounts for twenty-nine (29) countries (or individual sub-national entities) which participated in the respective research (Bennetot-Pruvot & Estermann, 2017).

In conducting our research, the methodology employed complies with the one adopted by the EUA (Bennetot-Pruvot & Estermann, 2017; Estermann & Nokkala, 2009) complemented with our own produced outcomes by studying the relevant literature together with the applicable Greek legislation for the period in question (i.e., Law of Greek State, 4009/11).

Specifically, after studying the cases collected from the European universities that participated in the research, we attributed at the Greek universities the case that best

ⁱⁱ University of Crete, University of the Aegean, Aristotle University of Thessaloniki, Athens University of Economics and Business, Agricultural University of Athens, Democritus University of Thrace, National and Kapodistrian University of Athens, National Technical University of Athens, University of Patras, National University of Thessaly, University of Ioannina, University of Macedonia, Technical University of Crete, Harokopio University.

suited each individual indicator, giving the degree of autonomy, according to what is detailed in the EUA research. It is clarified that there was a variation of the methodology we used to render the degree of financial autonomy for the case of Greece, as it was not possible, at least, at this time to collect the data of the questionnaires. Thus, in order to attribute and measure the percentage of the degree of financial autonomy and the integration in the specific case we took into account the current legislation.

3. Measuring the Financial Autonomy of the Universities in Greece

The methodology to be employed in our study complies with the one used by the EUA. In researching the Greek case, the applicable EUA data will be used and in case data is not available it will be complemented with its own produced outcomes after a thorough study of the applicable legislation. In saying so, we need to highlight that due to the fragmented nature of the data in question our research outcomes contribute to forming a more comprehensive view of the Greek case despite variances in methodology.

The EUA research on financial autonomy focuses on the dimensions given in Table 1.

Table 1: The individual indicators that comprise the general indicator for financial autonomy

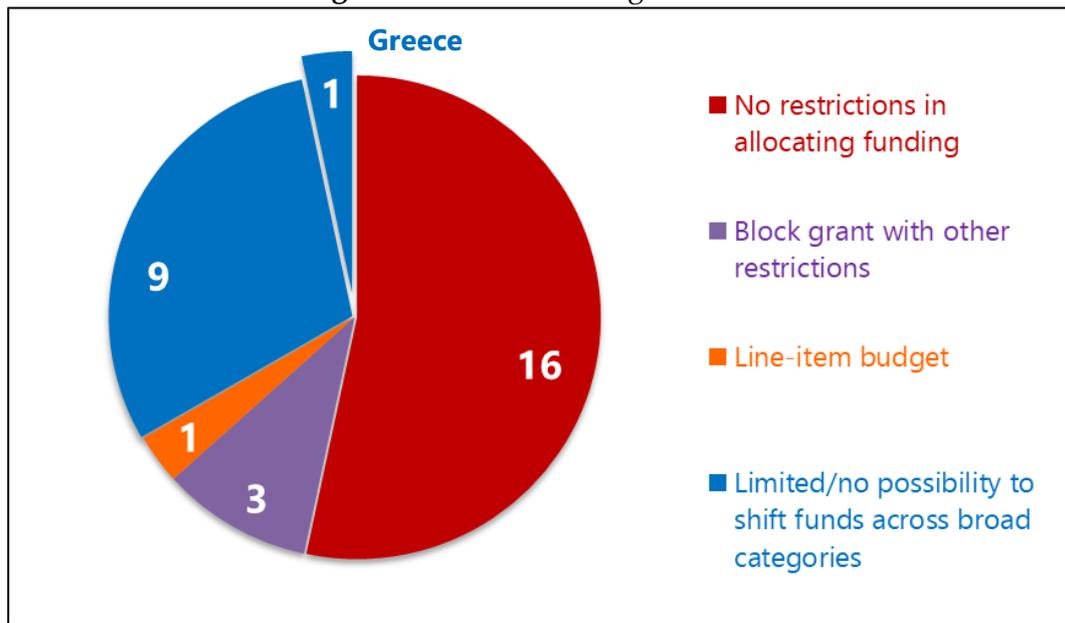
Financial Autonomy
Length and type of public funding
Capacity to keep surplus
Capacity to borrow money
Ability to own buildings
Ability to charge tuition fees for national/EU students
Ability to charge tuition for non-EU students

A. Length and type of public funding

According to the latest EUA study (2017), the allocation of public funding to universities differs across European countries. However, in most systems universities are periodically and categorically funded by the State to cover their core activities through a block grant (Pruvot, Claeys-Kulik and Estermann, 2015). The grants are intended to cover all costs, such as teaching, operating costs and research activities. Within this context, universities are free to allocate the funding they receive from the State in a way that serves their needs. However, some restrictions are imposed (Bennetot-Pruvot & Estermann, 2017).

As we can see in Figure 1, in about half of the European countries (16 out of 29) involved in the survey, the State allows universities to allocate their funding internally without specific restrictions, while at about 30% (9 countries), the block grant is divided into broad categories, such as research, teaching, infrastructure, salaries and operational costs. Moving funds from one category to another is not an easy task. In three countries the State gives a block grant to the universities and each university can freely use its funding, although they were some specific restrictions (Bennetot-Pruvot & Estermann, 2017).

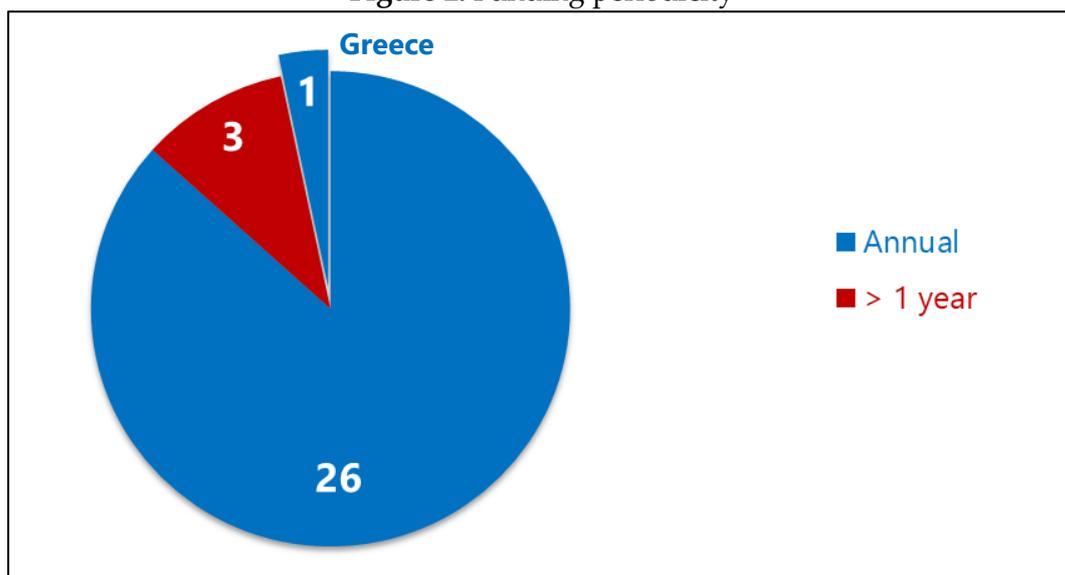
Figure 1: Internal funding allocation



Source: Data obtained from Bennetot-Pruvot & Estermann, 2017; Greece, own estimates

No significant differences were observed in the frequency of regular funding. Usually, the funding period of the university is annual, but there are also some systems with longer funding periods (Figure 2). A remarkable observation of the EUA researchers was that universities funded on an annual basis have exhibited a degree of greater stability in managing their finances. In this way, universities can plan better and determine their needs, arrange their obligations and expenses and determine the number of students to be admitted in the next academic year (Bennetot-Pruvot & Estermann, 2017).

Figure 2. Funding periodicity



Source: Data obtained from Bennetot-Pruvot & Estermann, 2017; Greece, own estimates

In Greece,

"... 1. HEI's are subsidized by the State for the purpose of fulfilling their mission under the programming agreements ... and the rules for allocating public funding

... 2. (a) Universities' resources are:

(aa) State subsidy in accordance with the preceding paragraph;

(bb) the proceeds of the exploitation of their property;

(cc) funding from any source related to scientific research, development and scientific study;

(dd) donations, inheritances and bequests; and

ee) resources from any other source ..." (article 56, Law of Greek State, 4009/2011).

The allocation of appropriations under the national strategy and economy is based on specific and objective criteria and indicators.

Specifically:

"... (b) This proposal by the Ministers of Finance and of Education, Lifelong Learning and Religious Affairs, issued following recommendation by the Hellenic Quality Assurance & Accreditation Agency (ADIP) and published in the Government Gazette, specifies the above criteria and indicators, and in particular the field of higher education the institution belongs to, the cost of study per student, the duration of the programmes of study, the number of students enrolled annually, the subject of study, the size and geographical distribution of the institution and as well as its budget balance.

The specific criteria and indicators for the allocation of credits for the recruitment of staff to universities, especially, the proportions of teaching, administrative and other staff and students are also defined..." (article 63, Law of Greek State, 4009/11).

Additionally, the State grants extra credits to institutions that have demonstrated high achievements in their performance (Pruvot, Claeys-Kulik and Estermann, 2015). Achievement indicators are the quality and effectiveness of the educational process, research excellence and internationalization (article 63, Law of Greek State, 4009/2011).

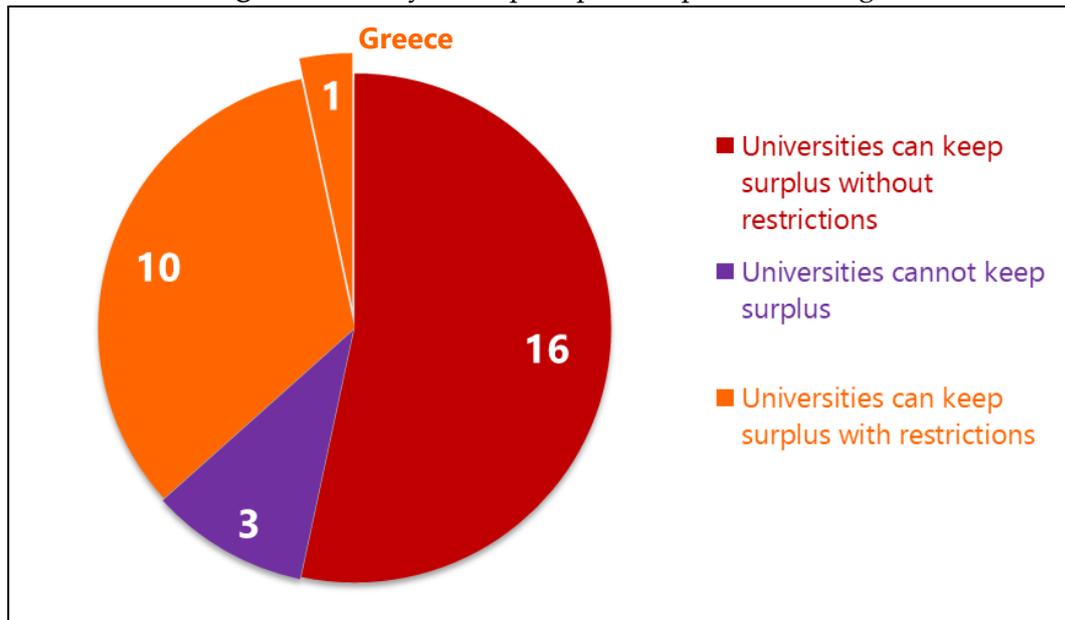
In Article 57, the legislator adds:

"... HEI's have the responsibility of managing their resources...". "...Within the framework of their full authority under Article 16 of the Constitution, HEI's enjoy the wide discretion of choosing and configuring, based on their judgment, the appropriate means for carrying out their mission and serving their purposes ... and 2. (a) Authorizing officer of HEI expenditure is the Rector..." (article 57, Law of Greek State, 4009/2011).

B. Keeping surplus on public funding

Almost all of the participating States allowed universities to keep surplus, although sometimes restrictions are imposed in some countries (Figure 3). An important limitation was the approval by the supervisory authority of the ceiling of the amount that could be kept as surplus and transferred to the next year's budget (Bennetot-Pruvot & Estermann, 2017).

Figure 3: Ability to keep surplus on public funding



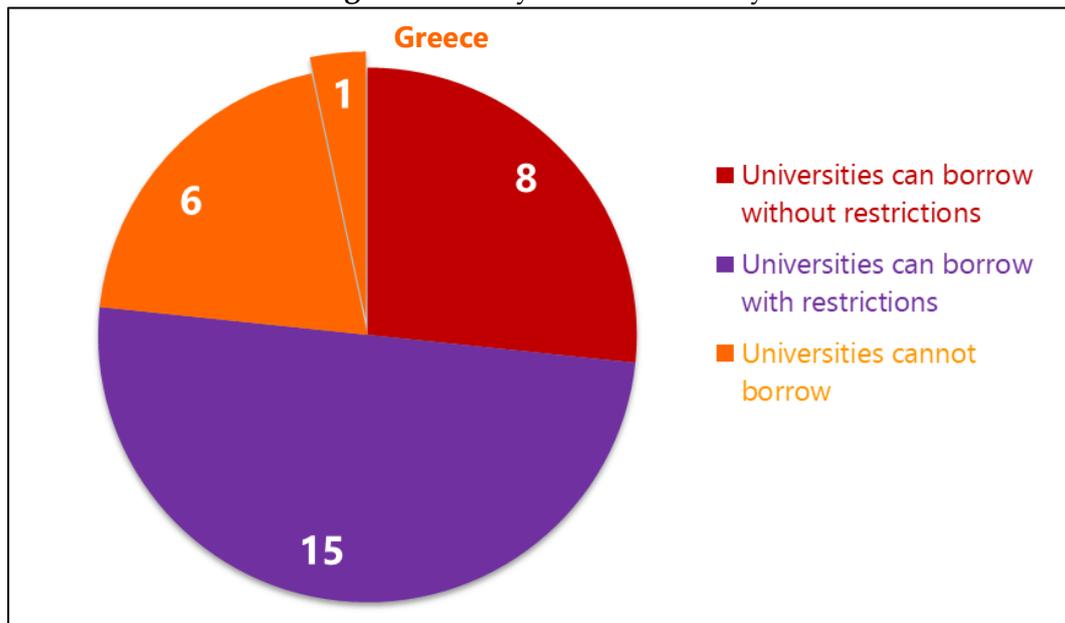
Source: Data obtained from Bennetot-Pruvot & Estermann, 2017; Greece, own estimates.

In Greece, after a positive proposal from the Senate and the approval of the Council, the Rector may transfer the annual operating resources to the next year's budget. The transfer may concern either the annual budget or the public investment programme. There is a limitation on the percentage of the transferred amount, which may not exceed 20% of the total (article 57 par. 3, Law of Greek State, 4009/2011).

C. Borrowing money

Borrowing money from the State is an important issue and, in most cases, several restrictions are imposed. Only 8 of the 29 countries allow unrestricted lending (Figure 4). Most states (15) lend money but allow a maximum lending rate and a loan approval decision of an external authority (Figure 4). In other countries, as in Greece, borrowing is not allowed (Bennetot-Pruvot & Estermann, 2017).

Figure 4: Ability to borrow money

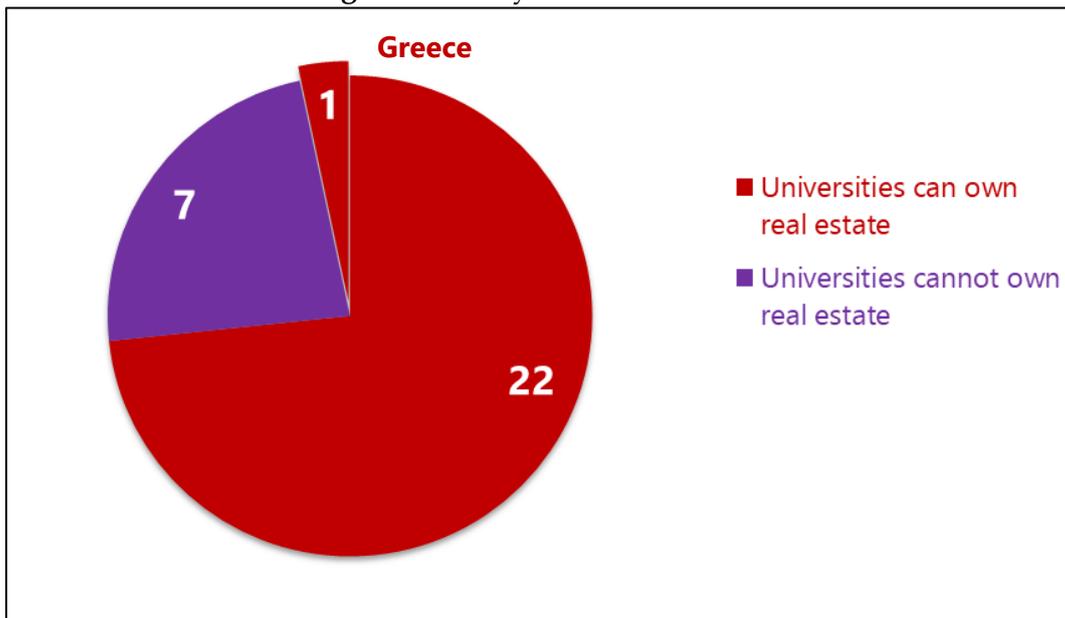


Source: Data obtained from Bennetot-Privot & Estermann, 2017; Greece, own estimates.

D. Ownership of land and buildings

The capacity of universities to buy, sell and build infrastructure is closely linked to the degree of autonomy in freely deciding on their strategic and academic profile. However, the high cost of maintenance, coupled with the restrictions on historical monuments, prevent universities from desiring to own property. Only in seven (7) states among twenty-nine (29) the universities own property, while in the remaining twenty-two (22) they did not have the property (Figure 5). It should be noted that some intermediate cases have also occurred. In recent years, ownership of buildings concerns deeply the administration of the universities in Europe, as the advantages and disadvantages of ownership (Bennetot-Privot & Estermann, 2017) are seriously discussed.

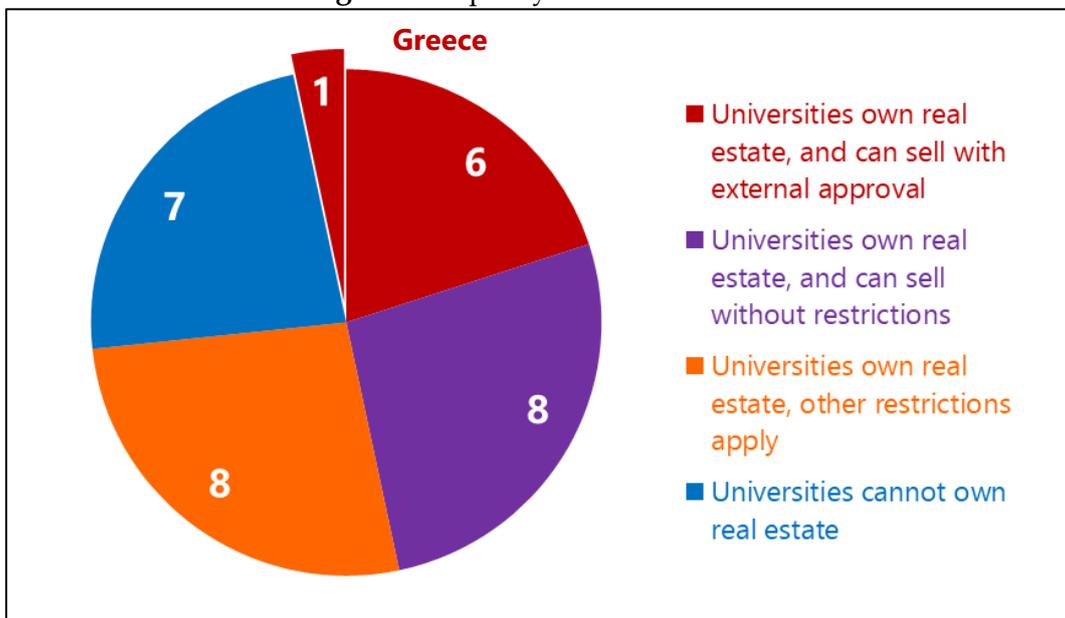
Figure 5: Ability to own real estate



Source: Data obtained from Bennetot-Pruvot & Estermann, 2017; Greece, own estimates.

In fact, only 1/3rd of universities involved in the research can freely manage their property and sell it. In most cases, restrictions are imposed that require the external validation of decisions by an external authority (Figure 6).

Figure 6: Capacity to sell real estate



Source: Data obtained from Bennetot-Pruvot & Estermann, 2017; Greece, own estimates.

In accordance with article 58 of Law of Greek State, 4009/2011:

"... 1. (a) A Presidential Decree issued on the proposal of the Ministers of Finance and of Education, Lifelong Learning and Religious Affairs, having the approval of the Council, may be established to the HEI legal entity of private law in the form of a public limited company ...",

to exploit and manage all or part of its property, in order to achieve the maximum possible,

" ... increase of the value of capital and income return of this property, with the purpose of serving the mission of HEI...".

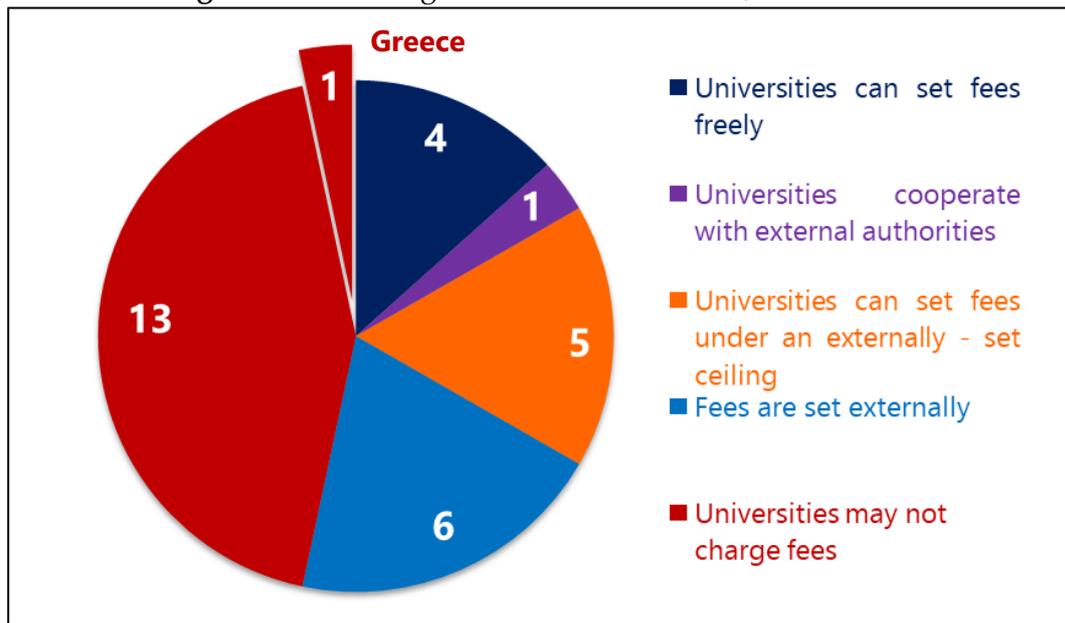
Property of Universities is any movable and immovable property acquired or given to it by donors, heirs, or bequests. The property is given to the legal entity of private law for exploitation, after a positive decision of the Rector and with the approval of the Council of the HEI.

E. Students' financial contributions

The setting of tuition fees in universities is an issue that is directly related to the degree of financial autonomy of universities. The freedom to set fees is a very important factor affecting the degree of autonomy of the universities, as this income increases the budget of the HEI's. It also broadens the prospects for growth and determines new goals and selection strategies (Ritzen, 2016).

The research shows that only in four (4) countries the universities can freely set fees for undergraduate students and in one (1) country the universities must cooperate with external authorities to set fees, but external validation is required. In most countries, tuition fees are set by an external authority (usually the responsible Ministry), while universities are not permitted to charge tuition fees (Figure 7) (Bennetot-Pruvot & Estermann, 2017).

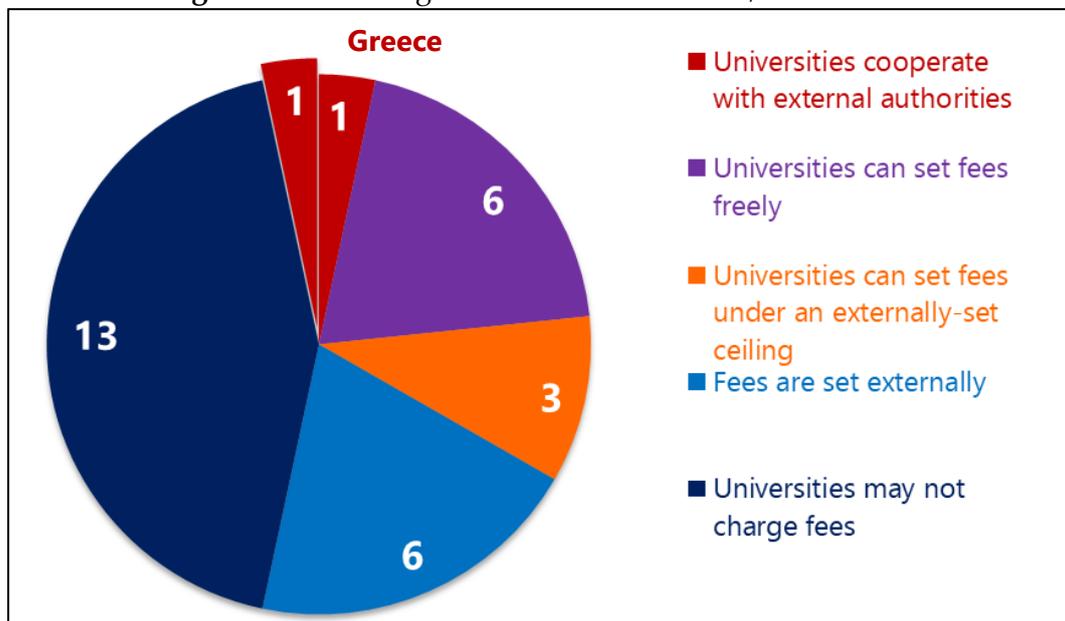
Figure 7: Fee-setting at BA level for national/EU students



Source: Data obtained from Bennetot-Privot & Estermann, 2017; Greece, own estimates

The same percentages apply to postgraduate tuition fees, with only a few variations (Figure 8).

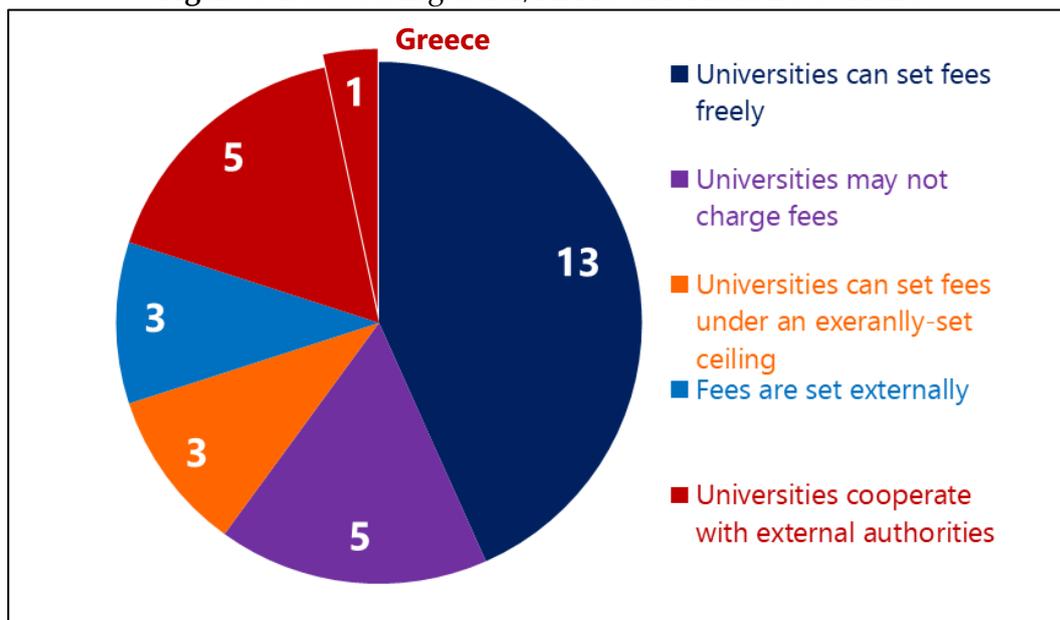
Figure 8: Fee-setting at MA level for national/EU students



Source: data obtained from Bennetot-Privot & Estermann, 2017; Greece, own estimates.

An examination of the data in recent years shows a significant differentiation on increasing the degree of autonomy of universities to impose fees on non-European students. About 50% of participating countries allow the universities to impose fees without restrictions, while the remaining 50% allow for an external authority to impose fees (Figure 9) (Bennetot-Privot & Estermann, 2017).

Figure 9: Fee – setting at BA/MA level for non-EU students



Source: data obtained from Bennetot-Pruvot & Estermann, 2017; Greece, own estimates.

In Greece, there is a constitutional constraint that no undergraduate tuition is permitted. On the contrary, after the Law 4009/11 enactment, several universities were in a hurry to establish new postgraduate programs, that tuition fee were imposed. In specific, the Council has the responsibility for,

"... the imposition of fees and the determination of their amount for the postgraduate programs, following the opinion of the Dean of the graduate school ..." (article 8, par. 10, Law of Greek State, 4009/2011).

4. An attempt at the Quantification of the Financial Autonomy of the Universities in Greece

So far, we have presented the picture of European Universities - including national and individual sub-national entities - in terms of financial autonomy in accordance with separate criteria together with the respective classification for the Greek case highlighted in a distinct way. Following, it is attempted to quantify and derive a percentage score for the degree of Financial Autonomy of the Greek Universities as this is depicted by EUA (www.university-autonomy.eu/). In order to achieve that we have analyzed our data from two perspectives. That is, by (a) scoring all the individual indicators presented above, as well as (b) weighting each one of the individual indicators of financial autonomy, as per the corresponding EUA calculation methodology (Bennetot-Pruvot & Estermann, 2017). This enabled us to produce and present the percentage values in Table 2.

Based on the analysis that took place in the previous section, we know in which of the above cases of each individual indicator Greece falls. Therefore, using the weightings as well as the autonomy score for each case, we can calculate the total score of the general

indicator of financial autonomy. More specifically, the total score is the weighted sum (based on the weighting coefficients) of the individual autonomy scores. In Table 2, the way of quantification of the general indicator of the financial autonomy score is shown analytically together with the corresponding final result for Greece.

Table 2: Calculation of the degree of Financial Autonomy of the Greek Universities

Indicator of financial autonomy / Weighting factor	The case in Greece	Quantification of autonomy / Score (Greece)	
Length of public funding 14%	One year	60%	
Type of public funding 13%	Limited/no possibility to shift funds across broad categories	60%	
Ability to keep surplus 14%	Universities can keep surplus with restrictions	60%	
Ability to borrow money 9%	Universities cannot borrow	0%	
Ability to own buildings 12%	Universities own real estate and can sell with external restrictions	100%	
Ability to charge tuition fees for national/ EU students 17%	Universities cooperate with external authorities (MA level)	60%	30% (mean value)
	Universities may not charge fees (BA level)	0%	
Ability to charge tuition fees for non-EU students 21%	Universities cooperate with external authorities	80%	
Final weighted score of Financial Autonomy: $0,14 \times 60\% + 0,13 \times 60\% + 0,14 \times 60\% + 0,09 \times 0\% + 0,12 \times 100\% + 0,17 \times 30\% + 0,21 \times 80\% = 59\%$		59%	

Source: Own estimates.

5. Ranking and comparison of Greece with European countries in terms of Financial Autonomy

Table 3 shows where Greece stands, as far as university financial autonomy is concerned, as compared with the corresponding scores of its European counterparts according to the EUA study (Bennetot-Privot & Estermann, 2017).

Table 3: Financial autonomy ranking of European countries

Characterization /		Financial Autonomy	
Percentage clusters	Rank	Country	Score
High 81 – 100 %	1	Luxemburg	91%
	2	Latvia	90%
	3	United Kingdom	89%
Medium high 61 – 80 %	4	Estonia	77%
	5	The Netherlands	77%
	6	Flanders (BE)	76%
	7	Italy	70%
	8	Portugal	70%
	9	Slovakia	70%
	10	Denmark	69%
	11	Finland	67%
	12	Switzerland	65%
	13	Ireland	63%
	14	Lithuania	61%
Medium low 41 – 60 %	15	Croatia	60%
	16	Iceland	60%
	17	Greece	59%
	18	Austria	59%
	19	Slovenia	57%
	20	Sweden	56%
	21	Spain	55%
	22	Poland	54%
	23	French-speaking community of Belgium	52%
	24	Serbia	46%
	25	France	45%
	26	Brandenburg (DE)	44%
	27	North Rhine - Westphalia	43%
	28	Norway	42%
Low < 40%	29	Hungary	39%
	30	Hesse (DE)	35%

Source: Data obtained from Bennetot-Pruvot & Estermann, 2017; Greece, own estimates.

From the research results, as these are recorded in the table above, we arrive at certain conclusions, which we will attempt to analyze below. First of all, it is worth noting that the category "high autonomy" includes only three (3) countries (Table 3). Particularly in United Kingdom, the very high rate of financial autonomy is justified by the fact that between the years 2011 to 2017, there have been drastic reductions of 70% in government subsidies for university teaching, in England. At the same time, there was a significant increase in tuition fees paid by undergraduate students in order to cover financial needs. The second category, "medium high autonomy", includes 11 countries, covering approximately 30% of participating countries (Table 3). According to EUA's results and comments, the score of financial autonomy for Finland and Lithuania is significantly increased compared to the past. The reason for Finland is the freedom given at universities to impose tuition fees on foreign students, while Lithuania has abolished the ceilings on tuition fees.

Generally, the research shows that the universities that belong to “high or medium high” categories of financial autonomy have flexible types of funding as well as the ability to borrow money and keep surpluses of public funding. In addition, they have the ability to charge tuition fees for foreign students, but not for their international students. In the third category (“medium low autonomy”), there was relative stability in the financial autonomy of the countries included in it (Bennetot-Pruvot & Estermann, 2017). Although universities have the ability to own buildings or receive basic recurrent public funding, they do not have the ability to charge for tuition fees for undergraduate students, both for national/EU or non-EU students. The last category “low autonomy” includes Hesse and Hungary (Table 3). In Hesse, universities do not have the capacity to charge tuition fees while Hungary is the country with the lowest percentages of financial autonomy that were recorded in this research (Bennetot-Pruvot & Estermann, 2017).

To sum up, in the last decade there is relative stability in the way that universities manage their public funding, as most of the countries that participate in the research maintain the same financial system. Of course, there were some exceptions, especially from countries which attempted to increase the financial autonomy of their universities (e.g., Finland, Latvia and Lithuania) while in others there has been a decrease in the degree of financial autonomy (Estonia, Slovakia and Ireland) (Bennetot-Pruvot & Estermann, 2017).

The case of Greece is worth noting, as it occupies the 17th position in the score of financial autonomy, accounting for 59% and still belongs to the category of "medium low autonomy" (Table 3), leveled at the upper part of its, "touching" in a very short distance (of only 2%) the category "medium high autonomy". Although - in recent years - our country went through a difficult financial crisis, the State wanted to leave sufficient autonomy in the management of the financing of HEI's, raising the level of financial autonomy from the last category (36% in 2007). As explained above, Greek Universities are subsidized on an annual basis, while HEI's have the ability to keep surpluses, as well as own and manage land and buildings. Specific restrictions are recorded on issues related to selling real estate and the ability of HEIs to borrow money. Greek universities cannot charge tuition fees for national/EU undergraduate students because of a Constitution constraint (art. 16 of Greek Constitution).

In addition, although the Law of Greek State, no 4009/2011, did not promote major changes in the management of HEI's financial affairs, it contributed significantly to the increase of the rate of financial autonomy (being almost 60%) since it allowed the imposition of tuition fees at Bachelor's (BA) level for non-EU students as well as on the Master's (MA) level for national/EU/non-EU students.

The big problem in Greece, which does not leave much room for increased financial autonomy in the Universities, is the desire of the state to control the management of finances through many bureaucratic procedures. For example, although the management and sale of public property are permitted under current law, in practice it is almost impossible to sell the public property. Here we can give an example. The sale of a public building requires a unanimous decision of the supreme collective governing body. The highest governing body in Greek universities is the Senate, consisting of about

50 members (step 1). Then, if there is not any single negative vote, the management proceeds to conduct public bidding (auction) (step 2). Then bids are submitted (step 3). If there are no bids within the limits, the tender is declared barren (step 4) and then the process starts from the beginning. In most cases, the prices required for the sale of public real estate are very high and the buildings are abandoned with high repair requirements resulting in unprofitable to buy from investors (Real Estate Utilization Guide, 2000. Retrieved from: <https://www.eetaa.gr/ekdoseis/pdf/086.pdf>).

Another very important problem that is found in Greek universities and limits the degree of financial autonomy is the high degree of supervision of universities by the Ministry of Education and the Ministry of Finance. Due to their very high funding from the state and because there are no private investors to subsidize the Universities, the resources of the universities are limited so they are subject to constant scrutiny. The state does not allow universities to manage resources as they wish. For example, a large percentage of the grant may not be transferred between codes or the balance of regular appropriations may not be carried over to the following financial year or further restrictions may be imposed on each item to reduce the purchase prices of products. Moreover, specific rules impose a ceiling on the distribution of amounts in codes, etc.

It is worth noting that among the 14 countries that fall into the category of low autonomy, we meet countries with healthy economies, such as Austria, Norway, Sweden, etc., as well as countries that faced an economic crisis or had reduced budgets e.g., Greece, Serbia, Croatia. In other words, we observe that the degree of financial autonomy is not only related to the wealthy economy and living standard of the countries but is also influenced by other factors, e.g., state laws which leave academic freedoms to manage their budget, reduced bureaucracy, freedom to impose tuition fees, etc.

6. Limitations of the Research – Proposals for further improvement

Certain weaknesses are evident in adopting the methodology which the EUA used to measure university autonomy in Greek reality. It is deemed vital to mention these weaknesses so they can be taken into consideration in future studies for locating and investigating similar data.

- 1) Since Greece did not participate in the research in question, a Greek representative could not be involved in discussions regarding the shaping of quantification criteria and values. Hence, the Greek reality may not be fully reflected. Thus, it was not possible to participate and submit proposals to integrate the applicable cases with the Greek data, in order to accurately measure the indicators of autonomy. Therefore, special cases referring to Greek legislation concerning the measurement of university autonomy, which did not coincide with those applicable in other European countries, could not be included and reflected in the measurement indicators of this research. For example, in the case of Greek universities, in the measure of the general index "financial autonomy" and in particular the sub-index, "Ability to set tuition fees on BA level for non-EU students" we achieve a score of 80%. In fact, however, this rate should be lower, if

not zero, as this article of the law remains inactive until today. The Universities have not adopted the Rules of Procedure, so there are no recorded procedures for the registration of foreign students and the operation of the BA programs for foreign students. Thus, although Greece received a quite high percentage for this particular case, in fact, this rate is fictional and reflects the degree that Greece should have had if this article of the Greek law had been implemented by the universities. If Greece had participated in this survey and the EUA partners had been informed, another sub-index might have been added in order to have the ability to measure in the right way this sub-indicator. Corresponding cases should also be included in several other sub-indicators.

- 2) The determination of the weightings for each indicator by EUA was not arbitrary but it was based on the answers of specialists in a well-organized questionnaire (Bennetot-Pruvot & Estermann, 2017). The above -in combination with the uniformity of the responses - rendered the results quite reliable. However, a higher number of participants in the research (than the 30 participating in the EUA study) is needed in relevant future studies, in order to guarantee the full reliability of the results. The aim should always be the participation of the maximum possible number of representatives and the involvement of various institutions in the process, such as the relevant Ministries, the Council of Rectors, and the units that implement the assessment evaluations of the Universities, and so on.
- 3) It should be noted that the results of the research on measuring university autonomy on financial issues in Greece, did not take into account the data concerning the units of the Special Account for Research Funds (SARF) and the Legal Entities (LE) established in the Universities for the utilization of the institutions' property. These units have separate budgets and the money they manage is not part of public funding. If these data were calculated in our research, the results would have been different and would increase the autonomy rates of Greek universities; as these units have a relatively higher degree of freedom and flexibility to carry out their main mission. However, it should be noted that most of the financial resources for research carried out in both European and Greek universities come from European funds, non – State or institutional sources (e.g., The Hellenic Foundation for Research and Innovation, a new institution which supports financially research in Greek universities). Hence, research is not a central issue in the discussion and measurement of university autonomy, and this is the reason why new university laws rarely address this area extensively. (OECD, 2019)
- 4) When assessing the percentage of financial autonomy in general and an autonomy indicator in particular, does not automatically mean that this reflects the real picture (Felt & Glanz, 2002) given that other factors and/or conditions may prevail. For example, concerning the Greek case, the score of the indicator “Ability to own building” (i.e., 100%) is ambiguous. This happens because there exist strict restrictions concerning buying and/or selling real estate by the management despite the fact that universities are allowed to possess and own real estate

property. However, the calculation methodology did not allow for such a case, since there were only two scoring options: (a) “universities can own real estate” (100% autonomy) and (b) “universities cannot own real estate” (0% autonomy). Greece, clearly falls into the 1st option, given that, in principle, universities can own real estate. Consequently, by adding a third option with a midway autonomy score would reflect better the actual situation for Greece. Similarly interesting is the case of the United Kingdom. As has been previously mentioned, the EUA’s research (Bennetot-Privot & Estermann, 2017) revealed that in the United Kingdom recent reforms increased greatly the degree of financial autonomy of universities, reaching 90%. Yet, this increase was mainly due to the drastic reduction of the respective government funding amounting to 70%. This very positive picture is mainly due to the fact that since UK Universities are not any longer subsidized by the State, the imposition of restrictive financial measures did not matter, as the resources of the institutions came from non-State funding. However, the high percentage of financial autonomy does not highlight the reality of pushing universities to look for other sources of funding. If another State had a 90% financial autonomy, but its resources were stemming mainly from public funding, then it could be argued that it is the government’s will to give a much higher degree of financial autonomy to the universities. Hence, we can argue that despite the importance of such research, the researcher has to critically examine and comment on the results of autonomy in order to acquire the true findings before arriving at applicable conclusions.

- 5) University autonomy is often considered a kind of catalyst to enhance performance (Choi, 2019; Estermann et al., 2011). The adoption of EUA’s approach and methodology appears to serve this purpose given that it may be justified on numerous grounds; that is, by government budget priorities, industry’s demand for skilled workers, students’ desire to get high-income jobs and other economic purposes (Department for Business, Innovation & Skills, 2011, 2016; Ministry of Education, 2015; Christensen, 2011; European Commission, 2011; Byun, 2008; Felt and Glanz, 2003; Liefner, 2003; Gibbons, 1998). In view of the above, it is argued that a possible modification of the autonomy indicators could be necessary, in order to take into account that universities should also protect academic freedom and generate public good (Choi, 2019; Stamelos, Lambropoulos & Bousiou, 2019).

7. General Trends – Conclusions from the results of the study

Financial autonomy is one of the most critical indicators for the development and achievement of the institutions' strategic goals. This is the reason that restrictions in this area vary from country to country (Bennetot-Privot & Estermann, 2017; Privot, Claeys-Kulik and Estermann, 2015).

More specifically, it has been observed that Higher Education is subsidized by the State in all countries (Liefner, 2003; Felt & Glanz, 2002). It is worth noting that there are strict restrictions on the allocation of funds to the units of the various institutions. In most

states, block grants awarded to universities are already allocated to specific categories, with limited capability to move funds from one category to another in order to cover their core activities and to achieve the institutions' strategic goals and operations. It is important to note that in almost all European countries there has been a continuous decrease in the amount of public funding for Higher Education (Pruvot, Claeys-Kulik and Estermann, 2015). Low funding essentially leads to limiting the financial autonomy of universities - in particular, in their ability to transfer surpluses and borrow money (Felt & Glanz, 2002). The above two possibilities are practically completely theoretical since in the case that universities receive low public funding, they do not have surpluses and in addition, they do not have the necessary guarantees to secure satisfactory loans. To address this issue, not only government funding but also other sources of funding without restrictions should be sought for. For this reason, in many countries, it has been observed that the long-term sub-funding of universities is gradually leading to the adoption of a new strategy aimed at increasing the degree of financial autonomy of institutions in order to find financial resources. A typical example in Greece is the establishment in the universities of the Special Account for Research Funds (SARF) as an autonomous legal entity with a separate budget (but with cumbersome regulatory restrictions).

Further, no significant changes have been observed in the legislation on restrictions on the management of the funds. In most countries, universities have the ability to borrow money under specific restrictions and often have the capacity to keep their surpluses. The ability to own buildings and land is a quite complex issue linked to their academic freedom and institutional strategy (Bennetot-Pruvot & Estermann, 2017). Central political decisions made by governments affect important factors, such as the ability to set fees, as well as the degree of autonomy to set tuition fees (Pruvot, Claeys-Kulik and Estermann, 2015). In general, it has been observed that universities are rarely free to impose tuition fees at the undergraduate level (BA level), while there is more freedom to determine tuition at the postgraduate level (MA level). The inability to impose undergraduate fees is mainly due to the fact that in most cases universities are subsidized by the State in order to fulfill their social mission. On the contrary, universities may impose fees for non-EU students. There are different discussions as there are few cases where universities do not charge tuition fees.

The constant reductions in university grants reflect negatively on university autonomy. Recent observations have shown that the economic stifling policy pursued by universities has forced institutions to rethink their goals and tailor their strategy accordingly. The recent global financial crisis and European policies had a serious impact on the functioning of universities (De la Torre, Rossi, & Sagarra, 2019). States have been forced to make steady reductions in budgets and impose severe restrictions on reducing the operating costs of institutions, limiting significantly their autonomy (Bennetot-Pruvot & Estermann, 2017; Pruvot, Claeys-Kulik and Estermann, 2015; Ginkel, 2011).

Greece is perhaps the biggest victim of the global crisis (followed by an unprecedented financial crisis on a national level) as the implementation of the strict fiscal measures imposed by the European Union has directly negatively affected

universities. The only area where the State wanted to leave sufficient autonomy to universities was financial autonomy, specifically the issues related to the management of the financing and the property of HEIs. A very important point of reference was the fact that Law 4009/2011 made possible the ability of universities to set fees for undergraduate students outside the EU and for all postgraduate students. This served as a minor "antidote" to the underfunding experienced by Greek universities during the crisis.

Still, the Greek governments will have to make concerted efforts to follow European standards much further. The main aim of European universities is to modernize, become more autonomous and take on new roles so as to contribute to the development of the economy through education, research, excellence and innovation and in parallel by taking efficient measures in reducing administrative and academic costs (Pruvot, Claeys-Kulik and Estermann, 2015; European Commission, 2006; OECD, 2005; Svein, 2004; Geuna, 2001). Therefore, the Greek governments should promote measures so that universities can strengthen their financial autonomy. Increased university autonomy implies the operation of more competitive and efficient institutions having flexible and decentralized organizational structures (Pruvot, Claeys-Kulik and Estermann, 2015; Geuna, 2001). Changes should include changes in the funding sources (e.g., State or non-State) but also in the distribution of State funding based on the results of institutions' evaluation, through the measurement of specific indicators, with criteria related to the size of the institutions (e.g., number of students and staff, number of Schools and Departments, laboratories, etc.) or other indicators (e.g., number of graduates, publications, social involvement, etc.) and so on. In this way, universities can freely use government funds in order to serve their mission, but at the same time restrictions will be imposed as the money will be given based on the results of specific evaluation indicators and the effectiveness of the services they offer (Erichsen, 1997). Moreover, a further increase in the degree of financial autonomy could be given to universities interested in promoting research (Leslie, 2003).

The functioning of institutions should change shape and cease to be a passive public body but instead operate in a competitive context (Pruvot, Claeys-Kulik and Estermann, 2015). Certain studies conducted to study the autonomy of research revealed that the funding environment - to which the university belongs - its structure and the variety of financial processes may have an indirect influence on the institution's active position in the social and intellectual environment (Jongbloed, Enders, Salerno, 2008; Felt, 2003). In Greece, the biggest universities (NKUA, AUTH, NTUA, UP, AUEB, HOU) that have secured financial resources from a variety of funding sources like property management, tuition fees, the attraction of European research programs, etc.) are in a more advantageous position compared to universities based mainly on State funding.

In conclusion, financial autonomy is crucial for universities in order to be able to respond faster to a more competitive and constantly changing global environment, attract high-level and quality academic staff and students, compete for research funding effectively, to increase their performance in fulfilling their multidimensional role to the society as a whole (Estermann & Nokkala, 2009; Dominicis, Pérez, Fernández-Zubieta Aghion et al., 2007; Volkwein et al., 1997).

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Authors

Haris Lambropoulos (Ph.D. *econ.* LSE), Assistant Professor of Economics of Education at the University of Patras (Greece). His fields of interest refer to Human Capital, Innovation & Entrepreneurship and HR Development. He actively participates in a variety of activities.

Georgios Stamelos is a Professor at the University of Patras (Greece). His fields of interest are Educational Policy, Higher Educational Policy, European Educational Policy and Teacher Education. He has published up to 200 works in English, French, Greek and Spanish.

Ourania Bousiou, (Ph.D. University of Patras), Director of Public Relations at the University of Patras (Greece). Her fields of interest refer to Organization, Management and Human Resources. She has extensive experience in management of Public Educational Organizations.

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