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# Greece in Economic Crisis: The Case of Health and Education

XENI DASSIOU

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**Summary:** In 2010 the Greek economy entered a deep economic crisis. This was the result of an accumulation of structural problems in the economy, including overspending and loss of competitiveness during the previous decades, translating into persistently large budget and trade deficits. In 2015, under its third EU and IMF bailout, Greece has entered a spiral of depression that has led to its economy shrinking by one-third and unemployment skyrocketing to more than 25 percent, both a result of the austerity measures introduced as required to receive bailout funding. As a consequence, the health and education sectors have each experienced a reduction in public spending of more than one-third. We look at these two sectors before the crisis in the early 2000s, finding that a combination of delays, lack of enforcement, and reversals of urgently needed reforms resulted in obvious weaknesses not being corrected. This has prevented these two systems from delivering the social principles of equity in provision, equal opportunities for all, universal coverage, accessibility, and affordability. Healthcare and education both lack oversight and evaluation mechanisms to ensure quality of service for its users. Additionally, there are no cost containment/efficiency mechanisms on the procurement side to avoid wasting taxpayers' money and valuable resources. This means that Greece has high cost/low outcome education and health systems. When the economic crisis struck, the ability of these two systems to deliver the above mentioned social objectives further deteriorated, as lower per capita spending on education, health and social protection lowered entitlements, benefits, and outcomes while increasing the burden of out of pocket expenses, user charges etc. We conclude by arguing that there is a need for a radical change in the institutional framework and governance of these two systems, by establishing truly independent regulators or agencies, answerable only to parliament) that can effectively exercise oversight over both the quality and the cost in the provision of health and education.

→ JEL Classification: I11, I18, I21, I28

→ Keywords: Reforms, evaluation, regulation, equity, austerity

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## I Introduction

Starting from 2010, Greece is in the midst of a severe economic crisis that has led to a drastic reduction in the funding of essential public services to an extent that the country's social coherence is starting to unravel. Debt has reached a staggering 178.6 percent of the GDP (the latest available figure from the Hellenic Statistical Authority for 2014), the result of a downward spiral in competitiveness, exports, and output, combined with years of excessive public spending and continued budget deficits until a budget primary surplus was achieved in 2013 and 2014. The three bailout austerity programmes between 2010 and 2015 underlie the 26.6 percent unemployment rate in 2014 and a fall in mean income of more than 25 percent. Household disposable income decreased by 11 percent, 9.9 percent, 7.9 percent and 8 percent in 2010, 2011, 2012 and 2013 respectively. Real GDP contracted at the rate of 5.4 percent, 8.9 percent, 6.6 percent and 3.9 percent over the same 4 years, returning to a paltry growth of 0.8 in 2014 while further reductions are predicted for 2015 and 2016 following a recent third bailout.

Since 2010, the vast majority of Greek people can no longer afford private health care, instead relying on public hospitals,<sup>1</sup> while a large number of pupils has transferred from private to public schools.<sup>2</sup> As a result, there has been a 28 percent increase in the demand for public hospitals between 2009 and 2013 as well as a 15 percent increase in the demand for places in public schools for the school year 2010/11.

An increase in co-payments for medicines and other user charges, together with the loss of social insurance health coverage by the unemployed and self-employed (Kentikelenis et al. 2014) has compounded problems, while on the funding side there has been a sharp contraction in public spending. Total public funding on health expenditures decreased by 31.39 percent over the 2009–2013 period.<sup>3</sup> At the same time educational spending was reduced by 33 percent over the same period, with, according to Stratis (2014), a further 8.1 percent planned reduction for 2015.

In this paper we first discuss, in Section 2, the principles that should characterise a health and an education system in their provision of services to the citizens of a country. We then explain, in Sections 3 and 4, that even before the crisis both the education and health sectors were unreformed, lacking independent oversight and evaluation mechanisms that should provide incentives to promote value for money and ensure efficient resource usage. Once the economic crisis struck, the spending cuts hit these two sectors hard; sectors that were cost inefficient, bloated, and characterised by unequal access, leading to a sharp increase in unmet medical needs in health and under provision (e.g. in the form of teacher and teaching materials shortages) in education. As Greece's bailout monitors emphasized spending cuts over ensuring the implementation of reforms, the symptoms were treated, but not their underlying causes. New health and

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1 Data for 2009–2011 show increases in admissions to public hospitals as patients can no longer afford private payments or access to private health insurance. Several authors report on a marked deterioration in accessibility, especially for vulnerable people (uninsured, unemployed, migrants, older people, children etc.), increases in suicide rates combined with a decrease in the spending for mental health, 40 percent cuts in hospital budgets, shortages in staff and medical supplies, and corruption in procurement and bribes (for example, see Economou et al. 2014a, Kentikelenis et al. 2011, 2014, Karanikolos et al. 2013, Karamitri et al. 2013, Kentikelenis and Papanicolas 2012, Karamanoli 2011 etc.).

2 What happens now? The fallout of Greece's education cuts at: <http://learnnow.org/departments/globalLearning/the-state-of-public-education-in-greece-2>

3 Calculated using data in Table 3, Hellenic Statistical Authority 2015.

education reforms were few and piecemeal, presented to the people as a result of austerity rather than sensible changes. Many of the reforms voted in by parliament were never implemented or, with trade union pressure, the reforms were reversed or seriously watered down. An exception in education, highlighted in Section 3, saw the introduction of a higher education evaluation system in order to secure EU research funding long before the crisis. For health care, an exception is the 2014 introduction of a standard health package for all citizens following decades of unequal access (promoting some equity in the system), the introduction of e-prescriptions, and the implementation of the OECD based accounting system in hospitals increasing transparency in the payment and procurement systems. As we argue in the conclusions presented in Section 5, Greece still needs to promote radical reform by introducing an institutional framework of independent regulation, oversight and evaluation that is answerable to, but not controlled by, the state. Such a system needs to be understood, supported and owned by the people of Greece as a way to ensure that the services that they are entitled to as taxpayers and citizens of the country are provided in a sustainable, cost efficient and equitable way, thus ensuring universal access and quality.

## 2 Models of education and health provision

### 2.1 Supply and demand criteria in health and education

Every country has an obligation to provide healthcare and education as these two services are essential to enable the people of the country to effectively participate as citizens in society. The provision of these services must satisfy, on the supply side, the main social criteria of equity, equal opportunities for all, universal coverage, accessibility, and, where appropriate, affordability. On the demand side, as both services are experience, or even credence, goods, their quality cannot be easily ascertained by direct users, either before its use or, in many cases, even after.<sup>4</sup> Moreover, as there is an informational asymmetry on the users' side, the state must ensure not only the continuity and sustainability in the provision of such services, but also their quality, irrespective of whether these are publically or privately provided. Hence there is a need for an institutional framework ensuring the independent regulation of such systems using a transparent system of evaluation, assessment, oversight, and accountability in their provision.

Since the late 1990s, there has been an attempt in some developed countries, such as the UK, to transform the provision of such services into “user choice” public service markets, where the focus is on the promotion of competition and, through it, increased user choice, without sacrificing any of the above social principles, a theme discussed in more detail below.

OECD countries offer a variety of models in health and education provision. The acceptance of services provided by private-for-profit companies, social companies (mutuals, charities etc.) and state providers varies across populations. For example; US families are used to the idea of paying for their children's university education as private universities were established earlier than public universities (Musselin 2010). Similar arrangements apply to countries like Cyprus. In Greece, education is viewed as being an exclusive concern of the state (Education Act 1985), and its con-

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<sup>4</sup> See Dassiou et al. (2015, 2016), on credence goods in terms of time lags (time required to establish quality through criteria such as survival rates, employment outcomes etc.), difficulty of establishing a counterfactual, or problems of attrition (e.g. health and education being two factors among many that define educational or health outcomes).

stitution prohibits the establishment of private universities. Total private spending on health was consistently about 1/3 of total health spending in the years immediately before the recession and was even higher in the early 2000s.<sup>5</sup>

## 2.2 Health and education as merit goods

Health and education are categorised as merit goods in economic theory i.e. they are characterised by large positive externalities in their consumption.<sup>6</sup> While such services are not public goods, as they are both rival (e.g. prone to congestion and hence there is rivalry in their consumption) and excludable (e.g. in principle it is possible to exclude people from being served), the social benefit to society of “consuming” health and education services significantly exceeds the private benefit to the direct beneficiary. If the provision of these goods was left solely to the private sector, these services would be massively under consumed and society would miss the large positive externalities. In other words, the market mechanism cannot meet the wider policy objectives as the users do not internalise the full social benefits of their actions. Hence state funding is required to correct a market failure (under consumption) for these two merit goods, whose significant spill overs are not wholly captured by their immediate users.

While state funding is therefore justified, in principle there is no reason why the state could not just hand out vouchers or direct payments to users, letting them choose a supplier. This approach creates a user choice based quasi- market approach where the providers chase the funding by the state, now in the hands of the consumers of such services. Providers have an incentive to compete with each other for consumers’ custom. This should lead to improvements in quality and innovation. For example, Sweden gives parents vouchers that they are able to redeem not only in state schools, but also in private schools, where they have the choice to top up if required.<sup>7</sup> The UK started offering personal budgets to older and disabled people wishing to buy their own care, while UK universities compete with each other for students, while the state (through the Student Loans Company) provides the latter with loans to “purchase” tertiary education. The reason why this does not happen more widely is that even if we assume hypothetically that all the users had the ability to effectively choose in this manner (plurality of providers, free entry and exit in the market, ability of users to access, assess and act on information regarding all aspects of the service etc.), the state may wish to pursue different objectives like fairness, equity, social justice, and, most importantly, implement budget constraints in their provision.

Ultimately, even where the user may exercise choice by directly purchasing the service, the user’s choice is restricted by the funding for the service from the state or the relevant regional/local authority. For example, in the case of school choice in the UK, it would be more accurate to say that the user (the parent) can state a preference rather than being able to exercise the right to choose which school their child attends. Hence the choice of available school places is restricted by how many schools there are in the area, as well as the capacity of these schools.

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5 See OECD data on Government expenditure by function (COFOG). [https://stats.oecd.org/Index.aspx?DataSetCode=SNA\\_TABLE11#](https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE11#)

6 For a closer analysis on merit goods, externalities and market failures, the reader can refer to any microeconomics or industrial organisation textbook (e.g. Griffiths and Wall 2000).

7 This is far more radical that it may seem at a first glance. It means that taxpayers’ money in the provision of education ends up with private firms and also that the taxpayers using private education no longer cross-subsidize (by paying for a service they do not use) the ones using state provision.

### 3 The Greek education system

#### 3.1 Primary and secondary education

The education system in Greece has the following structure: primary education (PE), lower secondary education (gymnasium—LSE) followed by upper secondary education (USE) in lyceums or technical vocational schools (EPALs). Education is mandatory until the completion of gymnasium at 15. Students aged 15–18 complete either lyceum or go to a technical school; both lasting 3 years.

Higher education consists of universities and vocationally oriented technological education institutes (TEIs), both offering 4 year study programmes. Graduates of lyceums are eligible to take national exams that determine eligibility for entry into universities and TEIs, while graduates of EPALs are eligible for admission to TEIs and, as of 2009,<sup>8</sup> also universities. Further education also exists, in the form of vocational education institutes (IEKs) (Xochellis and Kesidou 2007). There is plethora of such institutes across the country, both public and private (the duration of study at these is two years, with a further 6 months of work experience).

According to Eurostat data, Greece's spending on education as a percentage of the GDP is one of the lowest in Europe, at 4.1 percent in 2005, compared to 6.8 percent in Germany, 5.4 percent for the UK, 6 percent in Sweden and 8 percent in Denmark (2006 figures). About 6–7 percent of all pupils attend private schools. However there is another form of private education spending, in the form of a parallel system created since the mid-1990s. Private cramming groups (phrontistiria) or home tutors are used by the majority of pupils who wish to be admitted to university during the last year (or last two years) of upper secondary education (Papapolydorou 2010: p. 123). In 2008 spending on phrontistiria was, on average, 20 percent of a household's expenditure. Prices for daily 3-hour lessons are around 500 euros per month. Obviously pupils from more affluent families can afford to spend more time taking such lessons; the BBC reports that children from affluent families spend 4 times more time in these classes than those from less affluent families.<sup>9</sup> Given the one-third reduction in median income and an unemployment rate at around 25 percent, this gap in affordability has increased further, violating the principles of equal opportunity and accessibility to higher education.<sup>10</sup> Many public school teachers also work in such tuition centres in order to supplement their low salaries. Obviously if the students are taught by the same teacher both at school and at the tuition centre, there is a conflict of interest leading to perverse incentives.

Although, maximum class size is defined by law to be 25 pupils in primary education and 30 in secondary education, in practice many schools in Greece have significantly fewer pupils.

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8 With the aim of promoting equality of access in tertiary education, as working class students were over represented in EPALs and, hence, effectively excluded from access to the more academic type of higher education offered by universities.

9 [www.bbc.co.uk/news/business-34384671](http://www.bbc.co.uk/news/business-34384671)

10 Hanushek and Wößmann (2006) find that Greece is the second most inequitable country after Germany, as measured by the increase in inequality between primary and secondary education. Also the parents' occupational status is largely related to the student performance and this correlation is stronger in Greece than in other non-selective countries such as Scandinavian ones.

The 2011 OECD report stressed that pupils to teacher rates (as highlighted in tables 1–3) were very low in Greece compared to the OECD averages: the figures for 2007 were 10.1, 7.7 and 7.3 in PE, LSE and USE, respectively, versus OECD averages of 16.0, 13.2 and 12.5. To correct for the existence of schools with very few pupils, in 2011 the government consolidated 1,933 schools into 877 schools. This decrease in the number of schools is reflected in Tables 1 and 2, showing primary and lower secondary education, as well as, to a lesser extent, in Table 3, showing upper secondary education.

The need to improve efficiency and rationalisation in the coverage of the school networks is limited by the geographic diversity of Greece. Approximately 54 percent of primary school students are clustered in two regions: Attica and Central Macedonia, with pupils concentrated in the city of Athens and Thessaloniki respectively. The remainder of pupils are dispersed across thousands of communities in mountainous, isolated, regions across Greece and on its 227 populated islands, of which only 78 have more than 100 residents.

Net teaching time in Greece is strikingly lower than both OECD and EU averages. This, combined with persistently low pupils to teacher ratios, leads to high salary costs in education, despite low teacher salaries. In addition, teaching time is inversely related to qualifications and experience, meaning that the less prepared and less experienced teachers have to teach more. Some modest increases in teaching hours were introduced in 2013 with the aim of bringing these to OECD averages by 2015, albeit once more by increasing the teaching hours of junior staff more than those of senior staff. Unfortunately many of the policy recommendations either were never implemented or were reversed, and it is only at the time of writing this paper, in late 2015, that there is talk of evaluating and approving the OECD 2011 recommendations for implementation in the 2016/17 teaching year, if not later. This is unfortunate as it misleadingly links sensible reforms, which should have been implemented years ago when the Greek economy was experiencing fast growth, to austerity measures in the minds of parents and pupils.

Schools in Greece have no autonomy and virtually no say in the hiring of teachers, their dismissal, establishing starting salaries or increases, or formulating the school budget. All of these decisions rest with the regional or national education authority. This is in stark contrast with what is common practice in other OECD countries. As the selection and remuneration of teachers is isolated from the school itself, the teachers have no incentives to build a commitment to the school that they are appointed to. Teachers are hired using a waiting list where ranking is determined using various socio-economic criteria. Progression rules are based on seniority rather than criteria relating to their effectiveness or training related experience as teachers.

The OECD 2011 policy recommendations suggest a simple conceptual framework of evaluation and analysis with assessment at different levels: at the pupil level (in the classroom), teacher appraisal (by the school leadership), school assessment (by the local authority), and system evaluation (by the regulator or education department).

However, what is required in the long term is that the budget allocations to schools should follow a carefully set up algorithm using a per-pupil funding formula with weights for age, education level, family income, and other background characteristics, including special needs and learning difficulties. The formula would allow funds according to school location, teacher positions, operational costs and investments. For this to be implemented a reliable database is needed, with live data reporting on pupils, teachers, and schools, including information on buildings

Table 1

**Primary education (primary schools): School units, teaching staff and pupils, end of the school years 2000/01–2012/13**

Type of school	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Public													
School units	5,708	5,600	5,541	5,471	5,398	5,297	5,220	5,174	5,127	5,075	4,991	4,392	4,350
Teaching staff	48,872	50,986	52,775	57,305	59,387	60,814	63,513	64,058	64,977	66,409	66,018	63,396	61,726
Pupils	593,094	597,847	600,254	605,961	599,843	596,652	593,583	590,491	590,640	589,578	590,203	590,070	588,832
Pupils per teacher	12.1	11.7	11.4	10.6	10.1	9.8	9.3	9.2	9.0	8.9	8.9	9.3	9.5
Private													
School units	386	389	384	383	380	378	374	372	369	365	365	354	348
Teaching staff	3,218	3,334	3,360	3,465	3,495	3,602	3,829	3,985	4,041	4,066	3,967	3,918	3,831
Pupils	46,838	48,484	48,233	48,819	47,700	46,548	46,378	46,818	46,836	46,357	43,845	43,221	41,211
Pupils per teacher	14.6	14.5	14.4	14.1	13.6	12.9	12.1	11.7	11.6	11.4	11.1	11.0	10.8

1 Also including –“absent” teachers, but only for public schools. Absent teachers are the teachers with a fixed post in the school unit who are absent for more than 20 working days (due to illness, training, maternity leave, etc.) and their replacement is pending, as well as the teachers who are seconded to other administrative posts of the Ministry of Education and Religious Affairs, Culture and Sports or elsewhere.

Source: Hellenic Statistical Authority at: [www.statistics.gr/portal/page/portal/ESYE/PAGE/themes?p\\_param=A1401&r\\_param=SED12&y\\_param=2012\\_00&mytabs=0](http://www.statistics.gr/portal/page/portal/ESYE/PAGE/themes?p_param=A1401&r_param=SED12&y_param=2012_00&mytabs=0)



Table 2

### Secondary education (lower secondary schools): School units, teaching staff and pupils, end of the school years 2000/01–2012/13

Type of school	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Public													
School units	1,760	1,762	1,723	1,811	1,797	1,834	1,847	1,851	1,859	1,860	1,826	1,729	1,729
Teaching staff(1)	37,340	38,757	38,892	41,627	43,137	44,477	46,606	47,727	49,335	50,208	46,762	43,071	40,585
Pupils	329,842	318,897	305,448	307,218	308,861	317,091	325,514	322,391	322,242	318,875	315,606	308,185	304,863
Pupils per teacher	8.8	8.2	7.9	7.4	7.2	7.1	7.0	6.8	6.5	6.4	6.7	7.2	7.5
Private													
School units	110	105	96	107	107	112	111	106	109	105	102	100	98
Teaching staff	2,327	2,135	2,095	2,297	2,309	2,446	2,495	2,473	2,523	2,397	2,277	2,202	2,080
Pupils	18,916	17,253	16,233	16,115	16,290	17,144	18,251	18,716	19,073	18,063	16,399	16,217	15,087

1 Also including "absent" teachers, but only for public schools. Absent teachers are the teachers with a fixed post in the school unit who are absent for more than 20 working days (due to illness, training, maternity leave, etc.) and their replacement is pending, as well as the teachers who are seconded to other administrative posts of the Ministry of Education and Religious Affairs, Culture and Sports or elsewhere.

Source: Hellenic Statistical Authority at: [www.statistics.gr/portal/page/portal/ESYE/PAGE/themes?p\\_param=A1401&r\\_param=SED12&y\\_param=2012\\_00&mytabs=0](http://www.statistics.gr/portal/page/portal/ESYE/PAGE/themes?p_param=A1401&r_param=SED12&y_param=2012_00&mytabs=0)

Table 3

### Secondary general education (upper secondary schools): School units, teaching staff and pupils, end of the school years 2000/01–2012/13

Type of school	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
<b>Public</b>													
School units	1,199	1,146	1,171	1,191	1,212	1,246	1,252	1,264	1,264	1,265	1,244	1,228	1,225
Teaching staff(1)	23,484	23,420	23,605	24,428	26,014	28,099	27,028	28,122	28,756	29,197	28,015	25,817	25,567
Pupils	225,057	214,361	212,628	217,530	219,134	222,519	217,061	223,527	225,507	231,766	231,593	232,145	230,998
Pupils per teacher	9.6	9.2	9.0	8.9	8.4	7.9	8.0	7.9	7.8	7.9	8.3	9.0	9.0
<b>Private</b>													
School units	90	92	97	99	100	106	109	105	103	96	94	92	93
Teaching staff	1,897	1,989	1,993	2,075	2,020	2,172	2,103	2,036	1,927	1,821	1,768	1,855	1,760
Pupils	16,157	15,804	16,119	16,193	15,963	16,456	15,825	16,125	16,219	15,675	15,627	15,572	14,894
Pupils per teacher	8.5	7.9	8.1	7.8	7.9	7.6	7.5	7.9	8.4	8.6	8.8	8.4	8.5

1 Also including –“absent” teachers, but only for public schools. Absent teachers are the teachers with a fixed post in the school unit who are absent for more than 20 working days(due to illness, training, maternity leave, etc.) and their replacement is pending, as well as the teachers who are seconded to other administrative posts of the Ministry of Education and Religious Affairs, Culture and Sports or elsewhere.

Source: Hellenic Statistical Authority at: [www.statistics.gr/portal/page/portal/ESYE/PAGE/themes?p\\_param=A1401&r\\_param=SED12&y\\_param=2012\\_00&mytabs=0](http://www.statistics.gr/portal/page/portal/ESYE/PAGE/themes?p_param=A1401&r_param=SED12&y_param=2012_00&mytabs=0)

and infrastructure. The system should encourage the formation of clusters where small schools team up with larger ones by sharing resources, teachers, management, and best practice teaching methods, while allowing for an alternative approach for small primary schools in isolated regions.

Incentives should be built into the system, not only in the form of sticks but also carrots recognizing and rewarding on the basis of output/outcomes (e. g. pupils' performance and learning achievement, as well as teaching, assessment, and leadership quality). Success should not just be recognised in the remuneration of the school's management and teaching staff, but also advertised to parents and pupils in order to secure their support of the reforms.

### 3.2 Tertiary education

Greece has 22 universities, while there are 16 TEIs operating a total of 212 departments in 46 municipalities. The establishment of a plethora of TEI locations since the mid-1990s means that Greece has the highest number of tertiary education enrolments per 100,000 people, at 5,478, in the world.<sup>11</sup> Although Greek universities have low graduation rates—around 17 percent in 2007, as opposed to an OECD average exceeding 35 percent—data from the same year suggests that graduation rates in TEIs at 12 percent in 2007, are above both OECD and EU averages at 10 percent and 8 percent respectively.

As Figure 2 illustrates, enrolment in Universities significantly increased until 2005, then decreased slightly before stabilising. The diagram reflects the caps in student numbers set by the state rather than actual demand as reflected by the number of pupils taking the higher education entrance examination. As an indication, in 2014 there were around 105,000 students taking the national entrance exams, but only 70,305 open positions at higher education institutions around the country. While it is relatively easy to gain entry in to a higher education institution, it is very difficult to gain entry at a university, especially the pupil's first preference, with many ending up at a TEI instead. Figure 1 shows the numbers of teaching staff and graduates in Greek universities. The relative static number of graduates, around 10,000–14,000 each year, despite the increasing number of students, reflects the aforementioned low graduation rates from Greek universities.

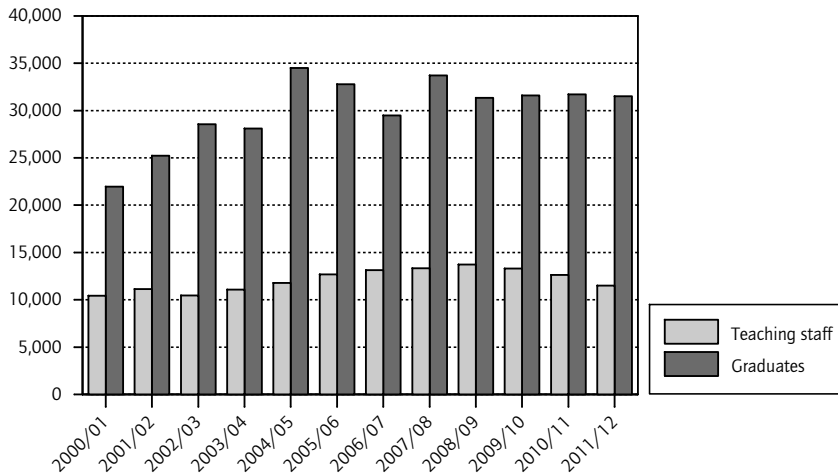
In the 1990s the EU emerged as a major funding source for academic research in higher education. The Bologna Process (1999) established the principles of an evaluation and quality assurance framework, and paved the way for the creation of a national system of quality assurance to be implemented by all EU countries (Mattheou 2004). The establishment of such a framework, was a pre-requisite for Greece to implement as part of the process of European unification, and also necessary to secure access to European funds for academic research. Universities wishing to participate in European projects had to familiarise themselves with evaluation mechanisms and discourse. As a result, they adopted criteria from the EU toolkit including internal and external evaluation, accountability, quality and efficiency. As part of the Europeanization process, universities had to offer new degrees with a more pragmatic orientation (vocation-wise) in finance, business and technology. Moreover, the EU's Operational Programme of Education and Initial Vocational Training (OPEIVT) led to the establishment of new university departments and TEIs across the country, as well as an increase in teaching staff numbers as shown in Figure 1. How-

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<sup>11</sup> OECD (2011: p. 65).

Figure 1

### Tertiary education in Greece over 2000–2012



Source: Constructed by the author using ELSTAT (Hellenic Statistical Authority) data on tertiary education.

ever the creation of these more served mayoral and local community ambitions, resulting in the creation of “flying professors,”<sup>12</sup> rather than the intended objective of fostering innovation and entrepreneurship in underdeveloped regions of Greece or responding to genuine demand from potential students in the region. In addition, a complex system of transfers of students between universities and TEIs in different regions using ad hoc and ever changing socioeconomic criteria, means that many departments in the regions end up with far fewer students that they planned for and vice versa for metropolitan areas such as Athens and Thessaloniki.

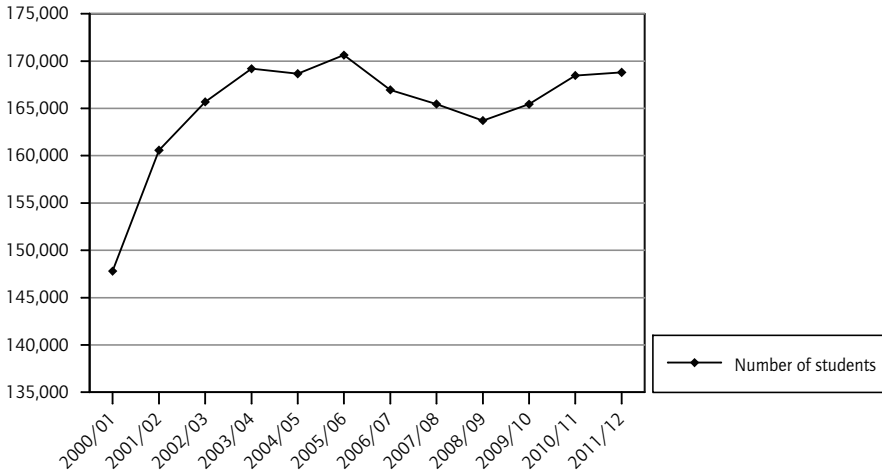
Despite the backlash (Prokou 2010), evaluation mechanisms in Greek universities were formally implemented in 2005; these included both internal and external evaluation, the use of evaluation indicators, the implementation of the European Credits Transfer Scheme (ECTS), and 4-year Development Academic Planning as a requirement for universities seeking to secure public funding (Zmas 2015).

Regardless of the significant reductions in research, investment, infrastructure and operational costs funding since 2011, the improvements made since the mid-1990s are becoming visible: Greek universities now have quality assurance mechanisms and the majority also have established mechanisms for internal and external evaluation, while an increasing number of institutions are finally adopting Development Academic Planning.

However when it comes to the student unions there is still a “beyond reasonable involvement in the political process in university campuses” (OECD 2011: p. 77) that started in the 1980s and persists to this day, endangering not just academic freedom but also the quality of teaching and

<sup>12</sup> Academic staff that taught for 1–2 days per week at a regional university or TEI, who then flew back home on subsidised tickets.

Figure 2

**The number of students in Greek tertiary education over 2000–2012**

Source: Constructed by the author using ELSTAT (Hellenic Statistical Authority) data on tertiary education.

learning in higher education institutions. In terms of attainment, Greek universities are still low in research league tables, while the employment prospects of Greek graduates are the bleakest in the EU with an almost 20 percent unemployment rate. The introduction of a law in 2011 based on the bailout requirements led to the merging of university departments and a change in university management with the aspiration of sharpening the strategic focus of universities to conducting innovative research that will lead to an improvement of their position in the research league rankings, attaining international recognition, as well as ensuring financial and administrative autonomy from the state.

#### 4 The Greek health system

The Greek public health system is a hybrid that includes a compulsory social insurance aspect, together with a National Health System (ESY), as well as co-payments by patients.<sup>13</sup> In addition the private sector includes profit making hospitals, diagnostic centres and independent practices. Table 4<sup>14</sup> gives a brief description of the three types of health systems typically found in most countries; we see that Greece is a combination of all three types.

13 For drugs there is typically a 25 percent co-payment fee. There are also fees for private afternoon outpatient clinic consultations. In the last 2–3 years fees for morning outpatient clinics and hospital admissions were introduced, but both were withdrawn following public outcry. (See Zaracostas 2011, and Doctors of the World 2013a, 2013b, on increases in user fees and access to health care.)

14 This is a much reduced and modified version of a table constructed by Professor Mireia Jofre-Bonet as part of her lecture notes at City University London for the MSc in Economic Evaluation in Health Care.

The post war era saw the creation of a plethora of Social Security Funds (SSFs) in Greece (over 300 in 2001) providing health coverage to their members. According to Economou (2010) these have been merged into 4 funds covering 95 percent of the population in 2010, and the plan is to integrate all schemes into one by January 2018.<sup>15</sup> There is no regulator or other institutional body governing the relationship between ESY and the SSFs; nor is there a jurisdictional map. ESY is taxpayer funded while SSFs depend on employer contributions, employee contributions, as well as state subsidies funded by the taxpayers. This hybrid system has led to two sources of entitlement: the first is based on citizenship for access to outpatient services provided by ESY only, and the second is based on employment status, provided by insurance fund membership for access to doctors, diagnostic tests, etc. (see footnote 15), as well as access to inpatient services (e.g. hospitals) provided by the ESY. This has meant that health coverage was largely dependent on being employed or self-employed (with wives and children also enjoying coverage as the dependants of the insured). As a consequence, the fall in employment as a result of the economic crisis, combined with the fact that a large number of people are self-employed (40.6 percent of male and 31.2 percent of females according to 2012 figures provided by the OECD) meant that many people found themselves without coverage after one year in unemployment (recently this has been increased to two years) or with no coverage at all after ceasing their self-employment activity and/or stopping self-insurance payments.

Table 5 (constructed using Eurostat online data) shows the split between different financing agents in 2012 for different OECD countries. Private expenditure on health (including private payments and private insurance) in Greece is 31.8 percent, one of the highest by European standards, only surpassed by Cyprus, Bulgaria and Latvia, while being broadly similar to that for Portugal, Hungary, Lithuania and Switzerland.

Figure 3<sup>16</sup> shows the split among the three sources of health spending in Greece between 2009 and 2013, where we see the private funding share increase from 30.3 percent to 35.6 percent of total spending, while the role of social security funds shrank from 43.1 percent to 34.3 percent over the same period (because, as discussed above, there was an increase in unemployment, a reduction in the number of self-employed as many small businesses failed, while many self-employed could no longer afford to pay their own social security contributions or contributions for their employees). Figure 4,<sup>17</sup> shows the split of total funding to public funding (government spending plus social security funds) and private funding, with the former decreasing by almost 38 percent over 2009–2013 and the latter by 20 percent, amounting to a fall in total health spending of 32 percent. The fact that public funding fell faster than private funding explains the increase in the share of private funding as seen in Figure 3. Both are the result of the economic crisis and the imposition of austerity in Greece, which has led to a reduction in both availability and affordability of healthcare in Greece.

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15 These plethora of funds linked to different occupational groups gave different levels of health benefits coverage and access to health to their members (not directly linked to the level of contributions), violating equity, universality and social fairness objectives. The government provided subsidies to these funds also varied. Fortunately, as we report below, reforms since 2010 led to a standardization of health benefits package for all citizens (Economou et al. 2014).

16 Chart 3, p. 7, Press Release, System of Health Accounts of year 2013 & revision of SHA data of years 2009–2011, Hellenic Statistical Authority, 2015. [www.statistics.gr/portal/page/portal/ESYE/BUCKET/A2103/PressReleases/A2103\\_SHE35\\_DT\\_AN\\_00\\_2013\\_01\\_F\\_EN.pdf](http://www.statistics.gr/portal/page/portal/ESYE/BUCKET/A2103/PressReleases/A2103_SHE35_DT_AN_00_2013_01_F_EN.pdf)

17 Chart 2, *ibid.*

Table 4

**Comparison of different health systems**

	Private health insurance	Social health insurance	Taxation
<b>Key features</b>	<ol style="list-style-type: none"> <li>1. Insurance is voluntary</li> <li>2. Premiums are paid by the individuals and /or their employer</li> <li>3. Premiums are based on individual risk status</li> <li>4. Insurance providers may be profit maximisers or have goals other than profit maximization</li> <li>5. Insurance provision may be via indemnity plans or managed care organisations (MCOs)</li> </ol>	<ol style="list-style-type: none"> <li>1. Insurance is compulsory for all or part of the population</li> <li>2. Premiums are usually paid in the form of a hypothecated payroll tax</li> <li>3. Payments are related to ability to pay usually as a proportion of income; they are not related to individual risk</li> <li>4. Payments are made into a social insurance fund</li> </ol>	<ol style="list-style-type: none"> <li>1. Insurance is compulsory for the whole population</li> <li>2. Premiums are paid in the form of tax payments made to the government</li> <li>3. Payments are related to ability to pay; they are not related to individual risk</li> <li>4. Taxes can be: indirect or direct; general or hypothecated; set locally, regionally or nationally</li> </ol>
<b>Countries with predominantly this type of system</b>	USA, Switzerland	France, Germany, Luxemburg, Netherlands	Denmark, Finland, Ireland, Italy, Norway, Portugal, Spain, Sweden, UK
<b>Dealing with affordability</b>	<ol style="list-style-type: none"> <li>1. Retrospective reimbursement</li> <li>2. Selective contracting and vertical integration between the third party payers and health care providers</li> </ol>	Compulsory insurance in which payments are related to ability to pay	Compulsory insurance in which payments are related to ability to pay

Source: See footnote 14.

Given that health is free at the point of use, overconsumption may lead to waste. To prevent overspending, choice may be exercised on behalf of the user by the family doctor. In many health systems, general practitioners and family physicians form what is commonly called the primary care level, while the secondary health care sector includes specialised care and hospitals. In several northern European countries including the UK, as well as in Italy, Portugal, and Spain, the primary care level plays the role of the “gatekeeper” to the health system. The patient is not authorised to consult a specialist if she has not first consulted a general practitioner with whom she has a record.

Given that the family doctor should also promote the interests of the patient, a gatekeeping arrangement may lead to an obvious conflict. For example, in the UK a family doctor acts an agent for the patient (advising him on treatment options, choice of specialists, hospitals etc.), as well as an agent for the state in his roles of gatekeeper and budget-holder. This means that she may face conflicting incentives in her dual role.<sup>18</sup> Interestingly, referral by a general practitioner to a specialist or a hospital is necessary even in the case where the patient elects to go private. This

18 See Van Stolk et al. (2010) on the double agency issue: providers are expected to act as agents of both patients and payers. The shifting of the responsibility for commissioning care to GPs has given rise to questions concerning the commissioning skills, capacity, and incentives of GPs to ensure value for money for both their patients and the taxpayers (see Crowe et. al. 2014).

Table 5

**Healthcare expenditure by financing agent, 2012**

In percent of current healthcare expenditure

	General government excluding social security funds	Social security funds	Private insurance enterprises (including private social insurance)	Private household out-of-pocket expenditure	Non-profit institutions serving households	Corporations (other than health insurance)
Belgium	10.9	64.3	4.2	20.4	0.2	0.0
Bulgaria <sup>1</sup>	15.5	38.8	0.4	44.5	0.5	0.4
Czech Republic	4.5	79.2	0.2	15.3	0.4	0.3
Denmark	85.2	0.0	1.8	12.9	0.1	0.0
Germany	6.8	70.4	9.6	12.2	0.5	0.5
Estonia	10.5	69.1	0.3	18.4	0.0	1.4
Greece	28.7	39.3	3.0	28.8	0.1	0.0
Spain	67.0	4.7	5.8	22.1	0.4	:
France	3.9	73.8	13.8	7.8	0.0	0.6
Croatia	2.6	76.9	7.7	12.8	:	:
Cyprus	45.7	0.7	4.5	47.2	0.2	1.7
Latvia <sup>2</sup>	59.6	0.0	2.5	37.8	0.2	0.0
Lithuania	9.0	58.1	0.8	31.8	0.0	0.1
Luxembourg	8.6	74.0	4.6	11.6	1.2	0.0
Hungary	8.1	53.8	2.7	29.1	2.0	4.2
Netherlands	7.5	78.3	5.5	6.0	1.3	1.5
Austria	32.6	44.6	4.8	16.7	1.2	0.1
Poland	6.4	63.6	0.8	24.3	1.4	3.6
Portugal <sup>1</sup>	64.2	1.3	4.9	28.9	0.1	0.5
Romania	12.1	67.8	0.2	19.5	0.1	0.3
Slovenia <sup>1</sup>	1.8	71.3	13.7	12.2	0.1	1.0
Slovakia <sup>1</sup>	7.2	66.5	0.0	23.6	1.0	1.7
Finland	59.7	15.1	2.2	19.6	1.0	2.5
Sweden	81.2	:	0.3	17.5	0.2	0.8
Norway	73.6	11.4	:	:	:	:
Switzerland	20.3	45.5	7.2	26.0	1.0	:
Australia <sup>1</sup>	68.3	:	8.8	19.4	0.6	2.9
Canada <sup>1</sup>	68.5	1.4	12.9	15.5	:	1.6
Japan <sup>1</sup>	9.6	72.8	2.5	14.1	:	1.0
New Zealand <sup>1</sup>	74.9	7.8	4.8	10.9	1.6	0.0
South Korea	11.4	44.4	5.8	37.6	0.6	0.1
United States	5.3	43.3	34.8	12.5	3.9	0.2

1 2011.

2 2010.

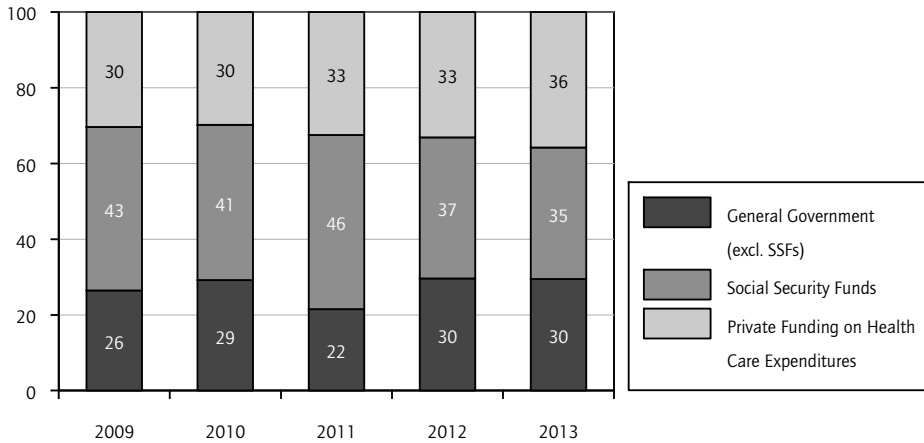
Source: Eurostat (online data code: hlth\_sha\_hf).



Figure 3

**Funding on health expenditures**

In percent



Source: See footnote 16.

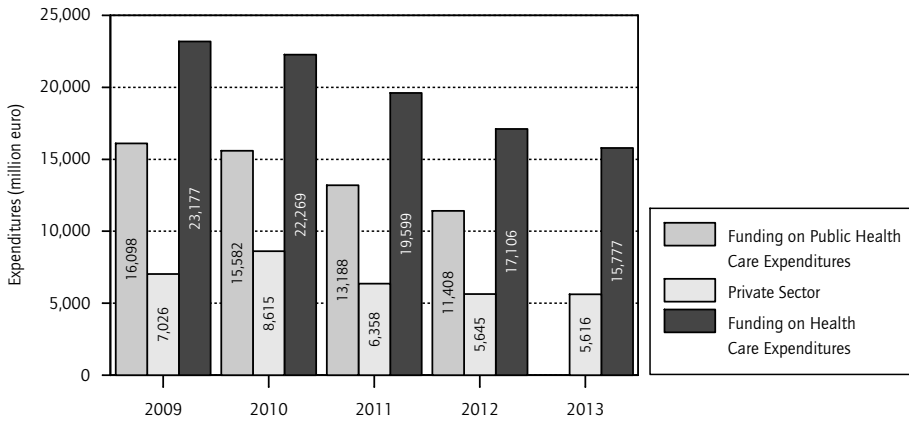
is because private healthcare is not only provided by the 200 or so private hospitals, but also by private patient units in National Health Service hospitals.<sup>19</sup>

This ‘gate’ system is not present in Greece (nor in Belgium, France, Germany, and Luxemburg). In terms of user choice, Greek patients enjoy a more market oriented approach than the UK. They can choose any public hospital to receive treatment and have access, as part of primary care, to any specialised doctor, provided that the doctor is contracted with the patient’s insurance fund. The pay of primary care doctors is on a “fee per service” basis, which leads to “supplier-induced demand” (Van Stolk et al. 2010, p. 18), where doctors use the information asymmetry to alter patient preferences and provide more services than necessary, thus leading to a waste of taxpayers’ money.

Economou (2010) reports on sensible reforms introduced between 2001 and 2004, which, following the 2004 election, were either abolished or never implemented. Fortunately reforms since 2010 have led to the standardization of health benefits package for all citizens (Economou et al. 2014b), thus restoring equity, along with the introduction of a prospective payments system for hospital care, the implementation of the system of health accounting used by the OECD, the introduction of more transparency in the system of procurement, the introduction of e-prescriptions, and the increased use of generic drugs in prescriptions. However the improvements that such reforms would have brought would have been more pronounced and better received by people if they had been implemented when the economy was growing fast in the early 2000s,

<sup>19</sup> The German system differs substantially, as the funding is patient-based, so data on patients are not centralised, but are sent to the sickness benefit fund of each patient with the aim of financing the care for each patient and subsequently covering the costs of the hospitals.

Figure 4

**Total funding on health expenditures by financing agency**

Source: See footnote 17.

rather than during the economic crisis and presented to its citizens as a necessary by-product of the economic austerity.

Regarding universality and accessibility, the economic crisis led to medical needs increasing among both unemployed and employed people (Dubois and Anderson, 2013). In the European Quality of Life survey respondents indicated distance (45 percent of respondents), delay of appointment (67 percent) waiting time to see a doctor (66 percent) and cost (64 percent) as barriers to access in to healthcare in 2011; in addition there was a 50 percent increase in the reporting of unmet medical need in 2011 relative to 2007. A study by Karamitri et al. (2013) looks at the perceptions of health professionals on the accessibility to health services by vulnerable people. Physicians report bureaucratic procedures, the lack of translation of access procedures and medical interpreters, as well as the lack of a link between primary and secondary healthcare, leading to a clustering of vulnerable people in emergency departments, as the main impediments to access. The Thales European project in Greece is one example of attempting to remove barriers to informed access by establishing a website as well as information kiosks in large cities in Greece with information translated into different languages, on access to publicly funded services, on the rights of migrants with regard to access to healthcare services, on co-payments, and on the identification of symptoms of infectious diseases.

The lack of a health regulator in Greece leaves the problem of asymmetric information on the demand side unaddressed, as there is no one to oversee the quality of health care provided to the users of the health system. It is also problematic on the procurement side, given the lack of institutional oversight over the purchasing activities of insurance funds, thus leaving room for corruption and nepotism. Reimbursement levels and the prices paid to providers are regulated by the central government. A large part of the private sector enters into contracts with the social insurance funds, mainly providing primary care. In 2011 the government briefly investigated the option of transforming PODY (former EOPYY), the provider of primary care, to a purchaser only

body that commissions health care services from providers. However this step is not realistic unless the system is first subjected to independent oversight and regulation to ensure transparency in procurement through the establishment of an independent agency.

The other missing piece of the puzzle is the incentives for doctors. As we already noted, the fee for service pay that contracted doctors receive creates perverse incentives to overspend rather than economize. Doctors in hospitals receive a modest salary and there is no clear system for promotion given the lack of an evaluation system. As a consequence, some of these doctors also retain a private practice, while others solicit or accept bribes given by patients and their relatives who hope to jump the queue and/or receive prompt quality care.

## 5 Conclusions

The severe problems in funding for health and education induced by austerity measures (imposed as part of three successive bailouts) are magnified by a lack of coherence and continuity: even before the economic crisis (in fact, ever since the restoration of democracy in 1974) Greece has had a large number of education and health ministers with terms of service that, on average, amount to a few months, not years. This means that no minister has ever had the time to design a coherent policy, own it, and then implement it. The constant change of ministers has accelerated since 2008 as the negotiation of three bailout programmes has led to a political crisis in the country, with each party in government toppled after a maximum of 2 years, rather than serving a full 4 year term. Consequently, a completely new ministerial team is introduced by each successive new government as it takes office, in addition to the frequent reshuffling of ministerial positions in education and health by any given government. This has led to a further deterioration in policy design and implementation, just when it was most sorely needed: many laws were passed without proper design or stakeholder consultation only to be reversed by later governments or never implemented, unless said laws were pre-requisites for accessing bailout funding. In other words, there is a persistent and significant divergence between the enactment and the enforcement of legislation in the health and education sector. The state controls all economic activity related to the provision of health and education. Any attempts for reform, for rationalizing, evaluating or improving are either resisted or stalled.

Under these circumstances, it is clear that only a paradigm shift can provide a legitimate response capable of winning back the trust of the citizens, both as taxpayers and as the users of these services. The country urgently needs the establishment of an institutional framework for independent regulation (with a regulator/agency answerable only to the parliament rather than the government) in health and education so that a competent small group of health technologists, economists, healthcare managers and education specialists become responsible for monitoring these sectors, overseeing the implementation of policy, ensuring continuity, performing oversight and evaluating the system in order to protect the interests of the users, both present and future (i. e. ensure the system is sustainable). This is similar to the current regulatory arrangements in the European Union surrounding utility services (e. g. national watchdogs in energy markets, telecoms, etc.).

Reforms need to be coherent and fully owned with a strategy plan that clearly sets out the benefits and the risks. The system should include an evaluation system with clear rules and with

incentives in the form of a carrot (reward) and stick (punishment) approach. The anxieties and concerns of citizens should be addressed, with the reforms explained in a way that simplifies the stakes, making the necessity for specific reforms understandable. Finally the regulator should be granted independence, with a clear de-coupling from the state that allows it to overcome embedded resistance to the implementation of reforms from interest groups.

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