

« Corruption and Education in Economies with private
and Public Education»

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Investigation of the Problem

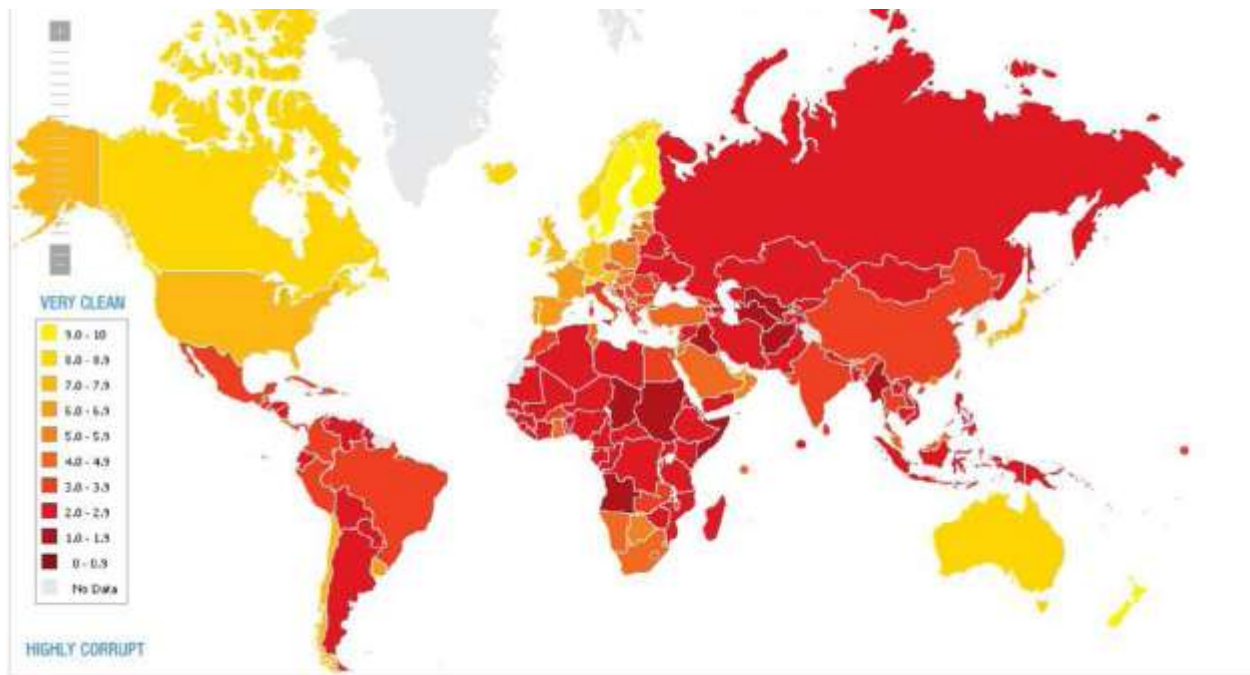
The term corruption, as defined by the World Bank, implies the use of public power for private gain. The manifestations of corruption are diverse and include bribery, embezzlement, rent seeking, fraud, extortion, nepotism, etc.

One of the most difficult issues in relation to the phenomenon of corruption is its quantitative determination. The difficulties lie not only in that the involved parties make conscious effort to conceal their involvement, but also in that it is not easily measurable. For example, one could quantify the number of extortions and bribes that have been recorded, but there will always be a large number of transactions not reported. On the other hand such a measurement would not be sufficient to determine the extent of the phenomenon. Furthermore, another fact that makes this quantification is that certain acts that constitute corruption may be unethical but not illegal. In these cases, if an act of corruption is legitimate is a matter of perception and perception can vary considerably from one society to the other. A widely used indicator is the CPI (index of perceived transparency). CPI is being published annually for almost all the states (currently 180) by Transparency International (TI) and is ranking countries on a scale from 1-10, where (1) indicate the most corrupt country. Characterized as the "index of indices", it is the result of 13 different polls, which in total aim to describe the phenomenon called corruption. According to the CPI in 2009, Greece scored 3.8, occupying the 71th position, thus indicating it as a highly corrupt country and occupying the lowest ranking among all 15 and 27 European countries.

EU	CPI 2009²	CPI 2005
Austria	7.9	8.7
Belgium	7.1	7.4
Bulgaria	3.8	4
France	6.9	7.5
Germany	8	8.2
Denmark	9.3	9.5
Greece	3.8	4.3
Esthnonia	6.6	6.4
UK	7.7	8.6
Ireland	8	7.4
Spain	6.1	7
Italz	4.3	5
Cyprus	6.6	5.7
Latvia	4.5	4.2
Lithuania	4.9	4.8
Luxembourg	8.2	8.5
Malta	5.2	6.6
Netherlands	8.9	8.6
Hungary	5.1	5
Poland	5	3.4
Portugal	5.8	6.5
Romania	3.8	3
Slovakia	4.5	4.3
Slovenia	6.6	6.1
Sweden	9.2	9.2
Czech Republic	4.9	-
Findland	8.9	9.6

CPI Index

² Source: Transparency International, <http://www.transparency.org/>



CPI Index -World Map

RANK	COUNTRY	SCORE
69	Cuba	3.7
69	Montenegro	3.7
69	Romania	3.7
73	Bulgaria	3.6
73	El Salvador	3.6
73	Panama	3.6
73	Trinidad and Tobago	3.6
73	Vanuatu	3.6
78	China	3.5
78	Colombia	3.5
78	Greece	3.5
78	Lesotho	3.5
78	Peru	3.5
78	Serbia	3.5
78	Thailand	3.5

CPI Index-2010



The impact of corruption in general and systemic corruption in particular, which is the case of Greece, is very widespread and thus varies. Specifically, in education, corruption can affect: a) the cost of education, and b) the quality education perceived as training and life long training of teachers, the quality of school facilities, extracurricular activities and schooling infrastructure, services (like all-day schools), etc.

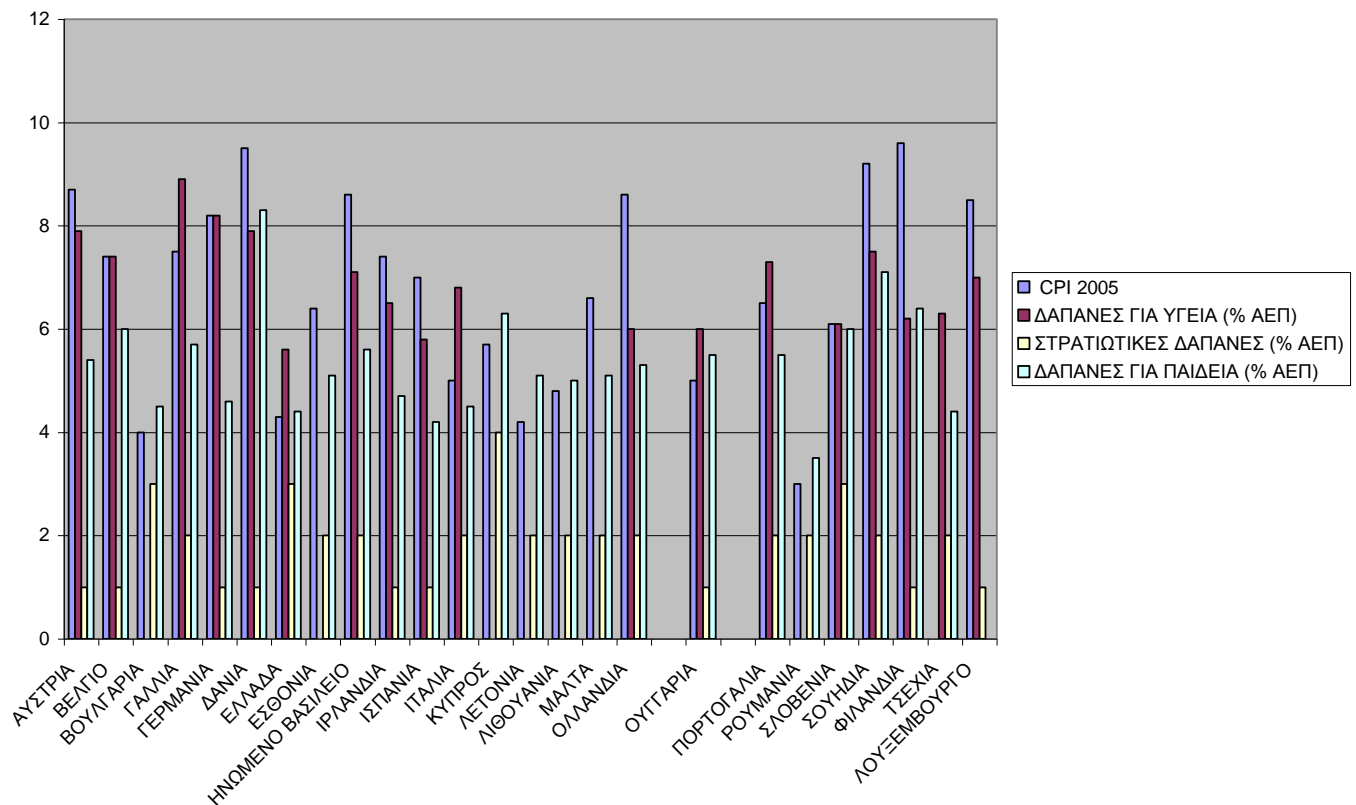
Regarding the first part i.e. how corruption affects education spending, the current scientific research has identified empirically a negative relationship between the two. In other words, an increase of corruption implies a reduction of expenditure on education. The reason for this result is that in more corrupt societies, bureaucrats allocate less money to the so-called "social expenditures", such as health and education, because there is limited opportunity for rent seeking as opposed to other expenditures such as infrastructure and military costs that eventually absorb much of the state budget. In the health and education sectors, particularly as regards the part of the costs that are more transparent, such as wages, the possibility of illegal rent seeking, is quite limited if not nil.

A second characteristic of social spending, which restricts illegal rent seeking, is that their implementation does not necessarily involve technologically advanced means. Therefore, the cost can easily be calculated and in this way be reduced the rent seeking amount.

Moreover, these markets are quite competitive, which lowers their real cost. However, if the required technology is quite advanced, e.g. in infrastructure, it is very difficult to control government costs (Krueger 1974). A third characteristic is that most of these expenditures are either monopolistic or oligopolistic so prices are usually higher and more rigid. According to Tanzi and Davoodi (1997) and Krueger (1974) the higher the amount of money and the smaller the competition, the

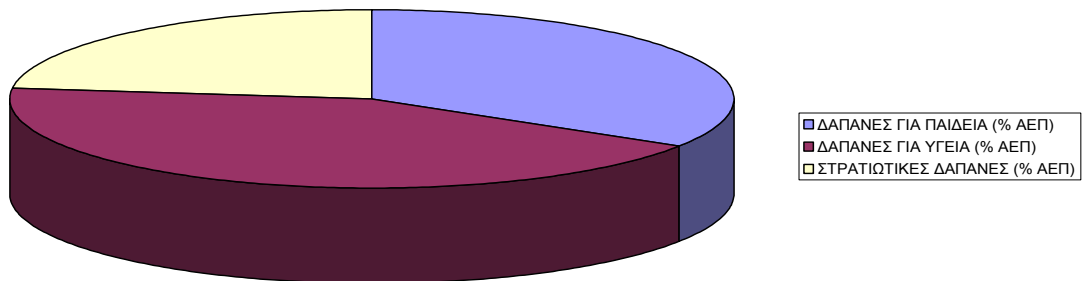
more opportunities exist for rent seeking. This may explain other phenomena observed in Greece, such as poor infrastructure.

For these three reasons, the more corrupt a country is, the greater the social costs. According to a research involving a range of countries (67 countries, Greece is among them) (Mauro 1998) the following results have been empirically verified the: a) Not all costs included in a budget, offer the same opportunities for rent seeking, and b) a significant reduction of corruption in a country (by about 2.5 points on the index of perceived corruption) could lead (If one considers that spending on education even in developed countries hardly exceeds 4%, such an increase is noticeable.

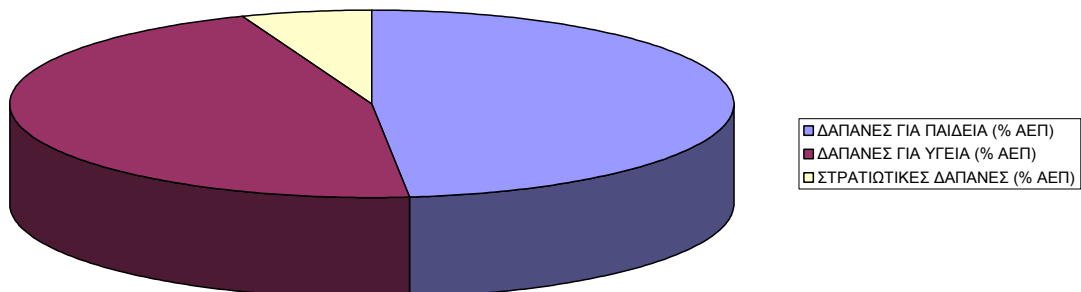


Is such a reduction feasible; If you consider that within a year, Greece has deteriorated by about one unit (2008-4.7), is obvious that the reverse process is not impossible. Of course in order to obtain such a result a significant effort at all levels must be made. One must also bear in mind that indicators like the CPI reflect mainly the perceived corruption and thus variations are more volatile.

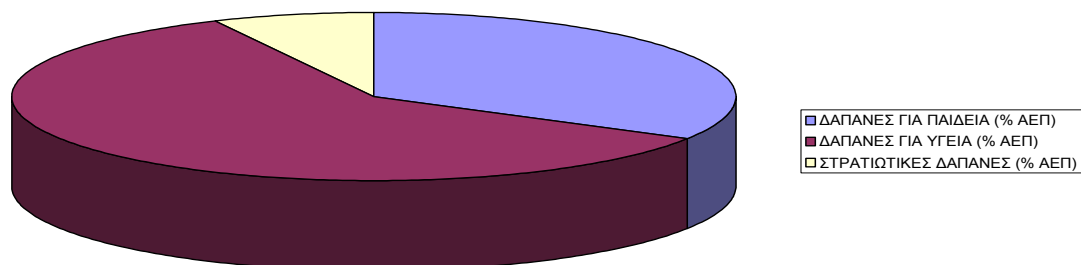
ΕΛΛΑΔΑ



ΔΑΝΙΑ



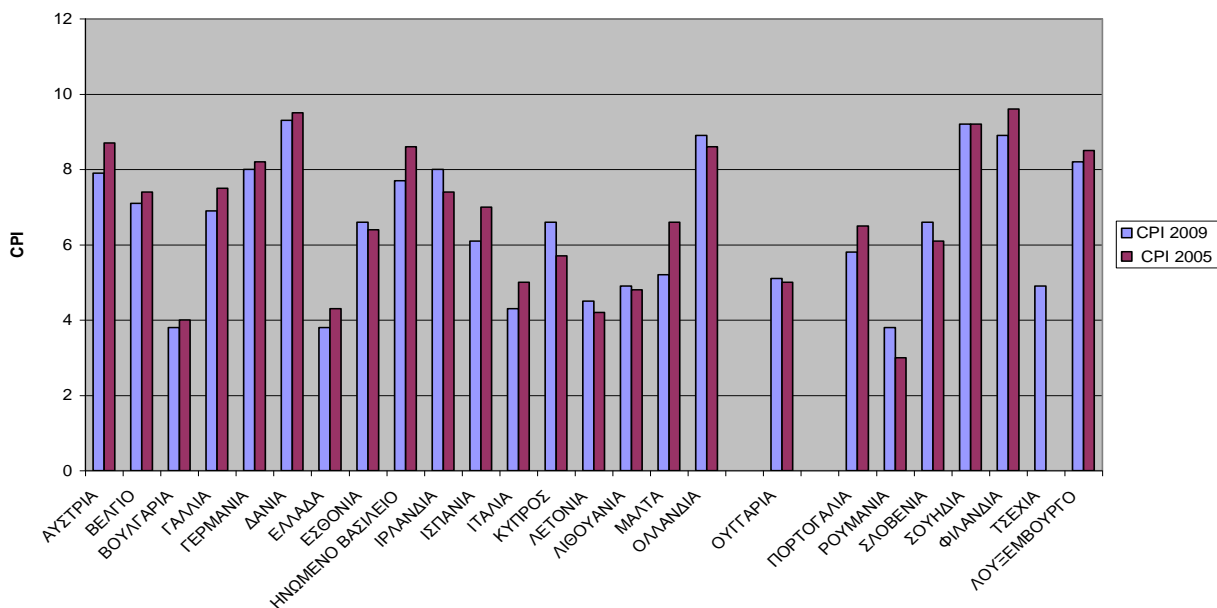
ΓΕΡΜΑΝΙΑ



Allocation of Public Expenditure in Greece Denmark and Germany

Amid the financial crisis plaguing Greece, it is particularly important to combat corruption, which among others will contribute positively to the problematic area of education both quantitatively and qualitatively.

ΕΞΕΛΙΞΗ ΔΙΑΦΘΟΡΑΣ ΣΤΗΝ ΕΕ



The Study

Objective of the Study

The aim of this study is to examine theoretically and empirically the impact of corruption in public education and the interaction of public and private education in such a context.

The current discussion on the problems of education, coupled with transparency and economy problems plaguing Greece are crucial topics. We attempted to reconcile these two problems and examine what are the links between them. Engagement with issues of corruption in relation with the ongoing debate made us realize that a direct correlation in the literature is absent.

This study focuses on the issue of corruption from a different aspect that has not been extensively analyzed in the literature. Specifically, while it is known that various forms of corruption have a negative impact on public spending and by extension on public education, it has not been emphasized in the literature that the various forms of corruption interact and ultimately affect public spending on various ways.

Deliverables

The deliverables of this study are two papers. The aim of the first study is to examine the relationship between the various forms of corruption and its effect on public education as well as to examine how the various groups interact with each other in the presence of corruption. The aim of the second study is to examine how corruption affects spending the quality of public education in the presence of private education as well.

Paper 1: Corruption and Tax Evasion in the Presence of a Publicly Provided Good.

We construct an overlapping generations model comprising two distinct groups of agents, citizens and politicians. Each agent derives utility from her own consumption level and the human capital of her offspring. Private citizens choose the proportion of their income that they declare to the tax authorities to balance a trade-off between their consumption and spending on public education. Similarly, politicians choose the proportion of the public education budget that they speculate to balance a similar trade-off. In such a context, two self-fulfilling stable equilibria can emerge, one with high corruption, high tax evasion and low spending on education and one with low corruption, low tax evasion and high spending on education. This accords well with existing empirical evidence and can as well explain part of the endemic character of corruption in Greece. Next we analyze the various treatments against corruption as well as the possibility of selecting equilibrium via the use of standard deterrence policies (e.g., fines). In such a context where corruption may corrupt we show that such policies are not always effective. Finally, we also explore the same issues in the presence of a social stigma towards law-breaking agents and show that the multiplicity of equilibria is eliminated and corruption and tax evasion are effectively reduced. Our aim is to highlight that any policy followed in order to be successful it must as well stigmatize the offenders. The strict and catholic appliance of any kind of punishment for corrupt agents is a typical example of such a policy.

Paper 2: Public Versus Private Education: Is There a Role for Institutions?

The aim of the second paper was to focus on the interaction between public and private education. What we attempted to answer was how the presence of private education affects the spending and hence (to some extent) the quality of public education. What is crucial in order to be able to answer this question is the level of corruption prevalent in the society. In this paper we assumed that there exists one kind of corruption namely that agents can evade part of their taxes. Moreover agents have the option to choose to send their children either in public or private education. In this economy we assumed inequalities in income as well as variations in inequality. The outcomes of this study are highly interesting because we do not predict a one way relationship between private and public education. Instead it is highlighted that the institutional framework of a society and the level of corruption define whether this relationship will be positive or negative. Analytically in societies with weak institutions and widespread corruption an increase in inequality might hurt the quality of public schooling. More importantly the difference in quality between public and private education may become even more widespread and this may further increase inequality. On the contrary in countries with strong institutions and limited corruption, public and private education coexist without damaging each other's quality. In such a society increases in inequality may increase participation in private education without hurting spending on public education due to increases in evasion.

In societies where widespread corruption is observed, as is the Greek society, which are on the verge of introducing educational reforms, comprehending this kind of interactions is crucial as it indicates that any kind of reform should also aim to limit corruption and strengthen institutions. The results of our study are also empirically verified for a large sample of countries. Specifically with respect to Greece, which

has an official rate of shadow economy approximately at 30% and a CPI index 3.8 (where 10 indicates the least corrupt country), it is among the countries with weak institution and therefore since spending on public education is rather low, private education may further hurt spending on public education unless institutional changes are adopted.

Disclosure of Study

These are scientific articles that have been presented in seminars and conferences and which will be submitted for publication in international refereed journals. An outline of the research has also been published in the newspaper “Kathimerini”.

Short CV's of the research team

Theodore Palivos is Professor of Economic Theory at the University of Macedonia. He has held appointments at universities in the USA and the Netherlands. He has been invited to lecture and give seminars at universities in North America, Asia and Europe. He has also served as a reviewer for most of the top journals in economics and for international scientific organizations. His research has been published in many leading journals. He has been a co-editor of the *Journal of Macroeconomics* since 2000.

Ms. Anastasia Litina is a lecturer at the Department of Economics, in University of Ioannina. Her research interests include economic growth, macroeconomic growth, public finances, corruption and environmental policy. Mrs Litina has participated in international conferences and has published articles in international journals.