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THE SHADOW ECONOMY AND CORRUPTION IN GREECE

STAVROS KATSIOS*
Ionian University

Abstract

The paper highlights the interaction between the underground economy and corruption, focussing on the regional dimensions of the problem in south-eastern Europe. It discusses the theoretical approach to underground economic activities and focuses on the determinants of the Greek economy, the tax and national insurance burdens and the intensity of the relevant regulations in Greece, concluding that Greece shows profound signs of a transition country in terms of the high level of regulation leading to a high incidence of bribery and a large shadow economy. The taxation problems arising from high administrative-compliance costs and bribery indicate the urgent need for tax reforms designed to simplify the regulation framework. Improvement of the quality of Greek institutions and rationalisation of administrative-compliance costs are a prerequisite for successful and urgently needed tax reforms in terms of reducing the overall Greek shadow economy, through the simplification of the regulatory framework. The inability of Greek governments to tax underground activities, and the relevant impact on the scale of corruption, is related with a vast range of governmental activities distorting and weakening its allocative, redistributional and stabilising role. The paper finally argues that the strong and consistent relationship between the shadow economy and corruption in Greece is closely connected with the reflexes of those who are not willing or cannot afford to bribe central or local government bureaucrats, or who have no connections to these bureaucrats, systematically choosing the dark (shadow) side of the economy as a substitute for corruption (bribery) and making the shadow economy complementary to a "corrupt state".

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**Corresponding address:* Megaro Kapodistria, 491 00 Corfu, Greece
e-mail: katsios@dflti.ionio.gr

1. Introduction

One of the most important challenges that national tax systems confront is the problem of taxing "unreported economic activities" (UEA), "informal economic activities" (IEA), the "informal economy" (IE), "underground economy" (UE) or "shadow economy" (SE). The "shadow economy" consists of criminal activity, such as drug sales, smuggling, prostitution, bookmaking, gambling and other unlawful enterprises, as well as otherwise legal transactions that are mainly conducted in cash and unreported to fiscal or other competent authorities; this part of the shadow economy is also known as the "parallel economy".

The explosion of free trade and economic integration throughout the world, and especially in this hemisphere, facilitates the international activities of the shadow economy and requires more strategic global law enforcement policies to combat them. Unfortunately, political leaderships have not yet summoned the vision to even conceptualize a comprehensive strategy, let alone start recommending, negotiating, and implementing one.

It is obviously difficult to get accurate information about underground (shadow) economic activities because individuals engaged in these activities wish to remain unidentified. Hence there is little agreement about the size of the underground or shadow economy relative to the total economy and any attempts at measurement may be regarded as at least problematic[1]. Estimates suggest that the scope of underground economy/unreported economic activity ranges from as low as 8-10% of GDP in certain OECD countries to more than 50% of GDP in some developing countries in Asia and Africa[2]. The estimates of the size of the Greek Underground Economy are based on the results of the studies conducted in the last decade by the Institute for Economic and Industrial Research (IOBE) and the Institute for Tourism Research and Forecasts (ITEP). The researchers - having applied direct and indirect methodological approaches to evaluating the main financial sectors and the Greek GDP - estimated the range of the Greek Underground Economy at from 20% to 25% of GDP, ranking Greece among the most problematic OECD economies. The underground economy, defined as all off-the-books and unregulated activity, is considered as one of the main negative effects deriving from serious structural problems of the Greek economy. From the point of view of government policy, knowing the size of the shadow economy is less important than knowing who is operating there and how. Generally, no

1. Compare the interesting debate in Huw Dixon, "Controversy: on the hidden economy" Estimates-Introduction, Giles Davis, "Measuring the hidden Economy: Implications for Econometric Modeling and Vito Tanzi, "Uses and Abuses of Estimates of the Underground Economy" in *Economic Journal*, Vol. 109, No 456, June 1999.
2. Comprehensive survey of existing evidence of the size of underground economies in Schneider & Enste (2000), Shadow economies: size, causes and consequences, *Journal of Economic Literature*, Vol. 38, pp. 77-114 and in Schneider F. (2000).

matter how small or how large the shadow economy might actually be[3], it has important implications for public policy. In certain South-European countries the shadow economy is widespread and to a certain extent the phenomenon is so deeply rooted that one could think about the existence of a "natural rate of underground economy"[4] or of a "complementary intersectoral economic environment". The shadow economy may be characterized as a constructed response by civil society to unwanted state interference. The debate about an appropriate and effective public policy aiming to reduce the scope of the underground economy for the benefit of public expenditure has gained new importance in Greece since the last national elections, due mainly to the European Commission's pressure on the newly elected Greek government to deal with the public debt and the explosive budget deficit[5].

The purpose of this paper is to provide an overview of the critical factors which must be taken into account by Greek governments in their effort to evaluate the situation of the shadow economy and to highlight the structural challenges which must be faced in an effort to form a long term strategy to achieve its gradual integration in the legitimate Greek economy.

2. Defining The Underground Economy

The dark side of the economy has neither a commonly accepted definition, nor a commonly used name, using instead a plethora of appellations like black; grey; hidden; shadow; informal; illegal; unreported; underground; unrecorded; undeclared; second and parallel. Confusion about the nature itself of the shadow economy is obvious; for some it is also obvious that there is no single shadow economy but many, which are characterized by the particular institutional set of rules that they circumvent and the metric for measuring the dimensions of each underground activity is the aggregate income generated by the activity[6]. The official term used in Greece "paraoikonomia"

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3. Compare the different evaluations of Tanzi Vito (1999), "Uses and Abuses of Estimates of the Underground Economy", *The Economic Journal*, Vol. 109, No. 456, pp. 338-340, of Thomas Jim (1999), "Quantifying the Black Economy: Measurement without Theory Yet Again?", *The Economic Journal*, Vol. 109, No 456, pp. 381-389 and of Giles David (1999) Measuring the Hidden Economy: Implications for Econometric Modeling" *The Economic Journal*, Vol. 109, No 456, pp. 370-380.
4. Castelluci L. and Bovi M. (1999), "What we know about the size of the underground economy in Italy beyond the 'common wisdom'? Some empirically tested propositions". *Quaderni CEIS*, p. 120.
5. Greece recorded a budget deficit of 6.1 percent of gross domestic product in 2004, the biggest deficit in the EU since the introduction of the euro.
6. Feige Edgar (1990), "Defining and Estimating Underground and Informal Economies: The New Institutional Economics Approach", *World Development*, Vol. 18, No 7, distinguishes four specific underground economies, naming them as: the illegal economy, the unreported economy, the unrecorded economy and the informal economy.

gives a surprisingly accurate 3-D picture, implying a parallel rather than a negative phenomenon functioning independently, with a semi-organised structure.

Regarding the causes of the underground economy, one school of thought identifies high tax rates as the main issue, that is, companies that operate in the unofficial economy are simply trying to keep all of their profits for themselves. An alternative view holds that when unregistered economic activity rises, the political and social institutions that govern the economy are to blame. In fact economic theory suggests that taxation, excessive regulations, efficiency of the bureaucracy and corruption are the main causes of the shadow economy[7]; alike the bigger is the tax wedge[8] the greater should be the shadow economy.

Facing the problem of defining the shadow economy, it might be appropriate to include the production of legal as well as illegal goods and services. In this context tax evasion associated with legal activities in the shadow economy is itself illegal and subject to criminal punishment. Additionally, money laundering issues offer a distinction based on "public acceptance": investment of tax evasion proceeds from legal activities tend not to be viewed as money laundering as the proceeds are not related to "criminal" activities. Indeed the illegal sector of the shadow economy includes goods and services and generally activities illegal *per se* such as distributing drugs, smuggling and trading in contraband goods, prostitution and unauthorized gambling. In contrast legal activities in the shadow economy include a wide range of goods and services that are also produced in the legitimate ("above-ground") economy, such as home repair and renovation, entertainment, gardening, babysitting, private teaching etc.

Legal or illegal, the shadow economy includes in this sense only activities adding to the total level of consumer satisfaction and representing a buyer-seller relationship, thus excluding criminal activity like theft, forgery, robbery, extortion, fraud and blackmail. Table 1 makes clear that a broad definition of the shadow economy (underground economic activities) includes unreported income from all economic activities that would generally be taxable were they reported to the authorities[9].

7. Schneider and Enste (2000) op. cit.

8. Difference between the total cost of labour and after-tax earnings from work.

9. Feige (1990) defines the shadow (informal) economy as "those actions of economic agents that fail to adhere to the established institutional rules or are denied their protection", proposing his own taxonomy as a way of specifying the relevant environment.

Table 1. A Taxonomy of Types of Underground Economic Activities*

Type of Activity	Monetary Transactions		Non-monetary Transactions	
ILLEGAL ACTIVITIES	Trade in stolen goods; drug dealing and manufacturing; prostitution; gambling; smuggling, fraud etc.		Barter: drugs, stolen goods, smuggling etc. Produce or growing drugs for own use. Theft for own use.	
	Tax Evasion	**Tax Avoidance**	**Tax Evasion**	**Tax Avoidance**
LEGAL ACTIVITIES	Unreported income from self-employment; Wages, salaries and assets from unreported work related to legal services and goods	Employee discounts, fringe benefits	Barter of legal services and goods	All do-it-yourself work and neighbor help

* Structure of the table taken from Lippert and Walker (1997), with additional remarks from Friedrich Schneider (2002).

3. The Size of the problem

Focusing on Greece, we might as well use some data, which can allow us to see the country's position internationally. The following Table 2, based on the survey of Schneider and Enste (2000) and Schneider (2000), gives existing evidence of the sizes of underground economies around the world and serves to indicate approximate magnitudes of the size and development of the underground economy, defined as productive activities, i.e. using the narrow definition. Table 2 provides a rough comparison of the size of the underground economies relative to GNP for a selection of Western European countries, Japan and the United States for the late 1990s, using the currency demand approach[10].

10. This approach by Cagan P. (1958), "The Demand for Currency Relative to the Total Money Supply", *Journal of Political Economy*, 66, Gutmann P.M. (1977), "The Subterranean Economy", *Financial Analysts Journal*, 34, and Tanzi V. (1980), "The Underground Economy in the United

Table 2. Size of the underground economy relative to GNP in various European countries, late 1990s. Estimation based on the currency demand approach.*

Greece – Italy	27-30%
Spain Portugal Belgium	20-24 %
Sweden Norway Denmark	18-23%
Ireland - France – Netherlands - Germany - Great Britain	13-16%
Japan United States Austria Switzerland	8-10%

* Source: Compiled from Schneider Fr. and Enste Dom. (2000).

States: Estimates and Implications", *Banca Nazionale del Lavoro Quarterly Review*, 135 Tanzi V. (1983) "The Underground Economy in the United States: Annual Estimates, 1930-19809, *IMF Staff Papers*, 30) estimates the currency as a function of conventional factors such as the interest rate, the evolution of the payment system etc, plus black-money triggering variables like the tax burdens. These are based on the hypothesis that the shadow economy transactions are carried out in cash for the obvious reason – not to leave traces. Estimating the currency holdings based on the zero income tax we compute the "excessive" (i.e. tax induced) currency holdings due to the shadow economy. The size of the shadow economy is then calculated by multiplying the excessive currency by the velocity of money prevailing in the regular economy. The other so called "physical input" approach by Lacko (1998), "The hidden Economies of Visegrad Countries in International Comparison A Household Electricity Approach", in Halpern L.-Wyplosz C. (Eds) (1999), *Hungary: Towards a Market Economy*, Cambridge University Press, Cambridge, MA, separates the electricity consumption of households in two parts, one independent from the hidden economy and another related to it. The output of this calculation is an indicator of the hidden economy, which is transformed to an indicator expressing the magnitude of the shadow economy.

According to these estimates two southern European countries, Greece and Italy, have an underground economy almost one third as large as the officially measured GNP, followed by Spain, Portugal and Belgium, with a shadow economy between 20-24 % of official GNP. The Scandinavian countries also have an unofficial economy between 18-20% of GNP, which is attributed mainly to the high fiscal burden. “Central” European countries like Ireland, the Netherlands, France, Germany and Great Britain have a smaller underground economy (between 13-16% of GNP) probably due to a lower fiscal burden and moderate regulatory restrictions. The lower underground economies are estimated to exist in countries with relatively low public sectors (Japan, the United States and Switzerland), and comparatively high tax morale (United States, Switzerland).

2.1 Developed Countries

Looking generally at the size and development of twenty-one highly developed OECD countries, calculated using the latent estimation approach (DYMIMIC approach)[11] in Table 3, the average size of the shadow economy has decreased over the period 1999/2000 to 2002/2003, a tendency also present, on a limited scale, in Greece.

The average size of the shadow economy in these countries in 1999/2000 was 16.8% of official GDP, and it decreased to 16.3% in 2002/2003; a decrease of 0.5 percentage points. If we consider single countries, Greece, Italy, and Spain have the largest shadow economies by far in 2002/2003 with 28.2%, 25.7%, and 22.0% of official GDP. The median country is Ireland with 15.3%, surrounded by Germany with 16.8% and Canada with 15.2% of official GDP. At the lower end are the United States, Switzerland and Japan with a shadow economy of 8.4%, 9.4% and 10.8% of official GDP. The contraction of the shadow economy of the OECD countries is mainly a result of decreased direct and indirect tax burdens, of government deregulation, and of a liberalization of the labour markets.

2.2 The Transition Countries

In the late 1980s, initial efforts at estimating the size and development of the shadow economy in the transition countries yielded extremely large figures. This was partly due to the method used (physical input – electricity), and the results have since been critically evaluated[12]. In Table 4, the case of twenty-five eastern and central European

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11. For details Schneider Fr. (2005), “Shadow Economies around the World: What do we really know?” forthcoming *European Journal of Political Economy*, and Schneider and Enste (2000), *op. cit.*
12. Alexeev Michael and Pyle William (2003), “A note on measuring the unofficial economy in the former Soviet Republics”, *Economics in Transition*, 11/1

and former Soviet Union countries are presented. Turning again to the growth of the shadow economy over time, the average size of the shadow economy of these twenty-five eastern and central European countries was 38.1% of official GDP in 1999/2000, and increased to 40.1% in 2002/2003 - which is an increase of two percentage points over these four years. Georgia, Azerbaijan, and the Ukraine have the highest shadow economies with 68.0%, 61.3%, and 54.7%, respectively. The median country is Bulgaria, surrounded by Serbia and Montenegro with 39.1%, and Romania with 37.4%. At the lower end are the Czech Republic with 20.1%, the Slovak Republic with 20.2%, and Hungary with 26.2% of official GDP. Before liberalization most day-to-day products were produced in the underground, but with very different motivating factors; there were few options in the official planned economy. When these states turned into market economies, the motivating forces behind the shadow economy changed; people suddenly faced a higher direct and indirect tax burden and a different set of government regulations interfering in their business. This, coupled with a general distrust of the state, rather than the necessity of survival, now drove citizens underground[13].

13. Schneider Driedrich (2004), The size of Shadow Economies in 145 Countries from 1999 to 2003, Working Paper, Johannes Kepler University Linz, p. 10.

Table 3. The Size of the Shadow Economy in Twenty-One OECD Countries

	Country	Shadow Economy (in % of off. GDP) using the DYMIMIC and Currency Demand Method		
		1999/00	**2001/02**	**2002/03**
1	Australia	14,3	14,1	13,5
2	Austria	9,8	10,6	10,9
3	Belgium	22,2	22,0	21,0
4	Canada	16,0	15,8	15,2
5	Denmark	18,0	17,9	17,3
6	Finland	18,1	18,0	17,4
7	France	15,2	15,0	14,5
8	Germany	16,0	16,3	16,8
9	Greece	28,7	28,5	28,2
10	Ireland	15,9	15,7	15,3
11	Italy	27,1	27,0	25,7
12	Japan	11,2	11,1	10,8
13	Netherlands	13,1	13,0	12,6
14	New Zealand	12,8	12,6	12,3
15	Norway	19,1	19,0	18,4
16	Portugal	22,7	22,5	21,9
17	Spain	22,7	22,5	22,0
18	Sweden	19,2	19,1	18,3
19	Switzerland	8,6	9,4	9,4
20	United Kingdom	12,7	12,5	12,2
21	United States	8,7	8,7	8,4
Unweighted Average		**16,8**	**16,7**	**16,3**

* *Source:* Compiled from Schneider Fr. and Enste Dom. (2000)

Table 4. The Size of the Shadow Economy in 25 Eastern and Central European and Former Soviet Union Countries*

No.	Country	Shadow Economy (in % of off. GDP) using the DYMIMIC and Currency Demand Method		
		1999/00	**2001/02**	**2002/03**
1	Albania	33,4	34,6	35,3
2	Armenia	46,3	47,8	49,1
3	Azerbaijan	60,6	61,1	61,3
4	Belarus	48,1	49,3	50,4
5	Bosnia and Herzegovina	34,1	35,4	36,7
6	Bulgaria	36,9	37,1	38,3
7	Croatia	33,4	34,2	35,4
8	Czech Republic	19,1	19,6	20,1
9	Estonia	38,4	39,2	40,1
10	Georgia	67,3	67,6	68,0
11	Hungary	25,1	25,7	26,2
12	Kazakhstan	43,2	44,1	45,2
13	Kyrgyz Republic	39,8	40,3	41,2
14	Latvia	39,9	40,7	41,3
15	Lithuania	30,3	31,4	32,6
16	Macedonia, FYR	34,1	35,1	36,3
17	Moldova	45,1	47,3	49,4
18	Poland	27,6	28,2	28,9
19	Romania	34,4	36,1	37,4
20	Russian Federation	46,1	47,5	48,7
21	Serbia and Montenegro	36,4	37,3	39,1
22	Slovak Republic	18,9	19,3	20,2
23	Slovenia	27,1	28,3	29,4
24	Ukraine	52,2	53,6	54,7
25	Uzbekistan	34,1	35,7	37,2
	Unweighted Average	**38,1**	**39,1**	**40,1**

**Source:* Compiled from Schneider Fr. and Enste Dom. (2000) *op.cit*.

3. Main Determinants of the Greek Shadow Economy

We observe that in many countries the shadow economy has reached a remarkably large size; regardless of the development level, it is extending in all types of economies due to a variety of reasons. The phenomenon is especially profound in Greece, which might be the consequence of long overdue policy decisions and the lack of analysis of the relationship between shadow and official economy.

3.1. Tax and social security contribution burdens

In almost all studies[14], the increase in tax and social security contribution burdens is one of the main causes of an increase in the shadow economy. Since taxes affect labor-leisure choices and stimulate labor supply in the shadow economy (untaxed sector of the economy), the distortion of this choice is a major concern of economists. The bigger the difference between the total cost of labor in the official economy and after-tax earnings (from work), the greater is the incentive to avoid this difference and to participate in the shadow economy. Since this difference depends broadly on the social security system and the overall tax burden, they are key features of the existence and growth of the shadow economy[15]. It is possible to estimate the relative labor intensity of underground production by comparing fractions of the labor force reported to be engaged in underground employment to ratios of underground output to GDP. Indications that the fraction of the labor force participating in underground production exceeds the size of the shadow economy as a fraction of GDP would provide suggestive, albeit far from conclusive, evidence that underground production is relatively labor-intensive.

3.2. Intensity of Regulations

Under intensity of regulations we mean the (growing) number of laws and regulations, which centrally steer the Greek economy in the form of market regulations, license requirements, labor restrictions, trade barriers, etc. and which lead to a substantial increase in labor costs in the official economy. The greater the general regulation of the economy the higher the share of the shadow economy in total GDP; this prediction, supported by empirical analysis[16], suggests that Greek governments

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14. See Thomas (1992); Lippert and Walker (1997); Schneider (1994a,b, 1997, 1998a,b, 2001a,b,c); Schneider and Enste (2000); Johnson, Kaufmann, and Zoido-Lobatón (1998a,1998b); De Soto (1989); Tanzi (1999), to quote just a few recent studies.
15. Schneider Fr. (2002), Shadow Economy, JKU Working Paper.
16. Johnson S., Kaufmann D. and Schleifer A. (1997), *The unofficial economy in transition, Brookings Papers on Economic Activity*, Washington D.C. Further Johnson S. Kaufmann D. and Zoido-Lobaton (1998), *Corruption, Public Finances and the Unofficial Economy*, World Bank Discussion Paper, p.18 where they suggest that a one point increase in the regulation index (ranging from one to five, with five being the highest degree of regulation), *ceteris paribus*, is associated with an 8.1 percentage point increase in the share of underground economy, when controlled for GDP *per capita*.

should put more emphasis on improving the enforcement of laws and regulations, rather than increasing their number.

3.3. Public sector services

The bigger the shadow economy the lower the state revenues, which in turn reduce the quantity and the quality of publicly provided goods and services. Studies find that smaller shadow economies appear in countries with higher tax revenues (with or without lower tax rates), fewer laws and regulation and less corruption; countries with a better rule of law, financed by the tax revenues also have smaller shadow economies[17]. Greece, though officially ranked in the twenty-one highly developed OECD countries, shows pronounced signs of a transition country: High level of regulation leading to a significantly higher incidence of bribery[18], high effective taxes on official activities and a large discretionary framework of regulations leading to a large shadow economy.

4. Tax Reform v. Underground Economy?

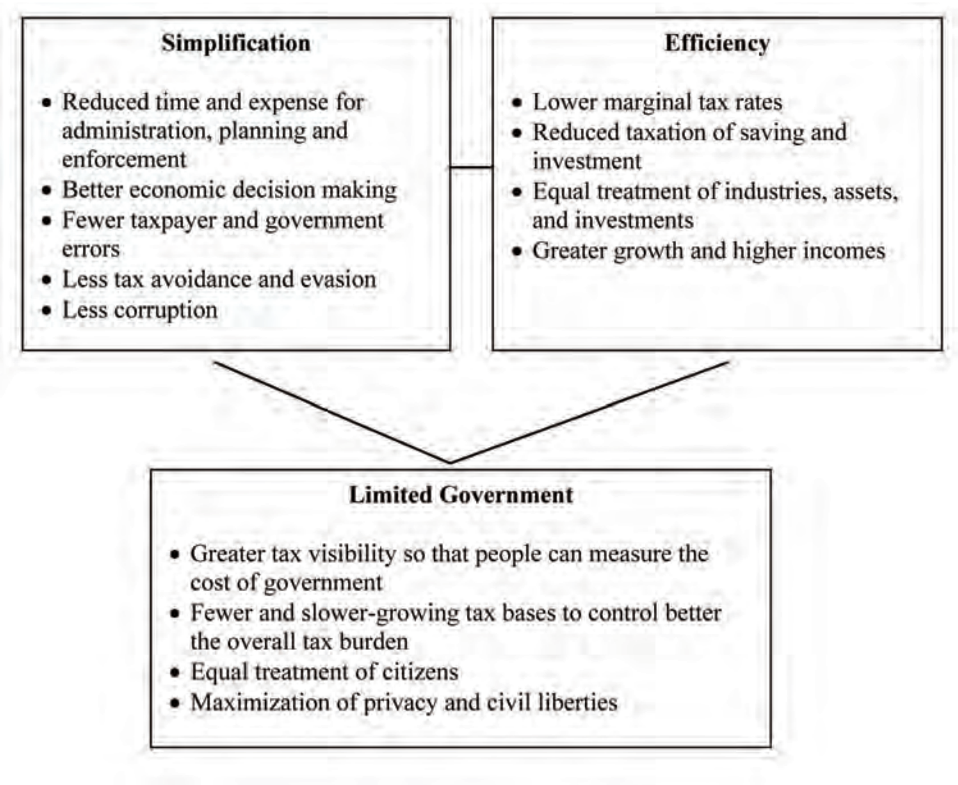
At this point we might address a Greek chimera: many believe, wrongly, that a major tax reform with major tax rate deductions will lead to a substantial decrease in the shadow economy. The only possible effect of such a step would be to succeed in stabilizing the current size of the shadow economy and avoiding a further increase. The high profit from irregular activities, the associated investments, the strong personal relations and the relative low cost of operating due to poor institutional quality will certainly prevent people in Greece from returning to the official economy; accordingly, owing to the slight gain expected, a major reform isn't considered a priority by the politicians. In this respect we should also bear in mind the importance of the large number of self-employed Greeks in the dynamics of the underground sector.

Though the Greek government hastily enacted tax reforms in 2004, accompanied with cuts to certain individual and corporate tax rates, the Greek tax system remains terribly complex and inefficient, judged by the number and the quality of tax regulations; on the other hand there has been no progress towards making the tax code simpler or making the burden more equal and visible to help limit the government's growth. Another problem with the 2004 tax cuts is that they have not been matched by government spending cuts, making the large and persistent deficits even more difficult to master. At the same time high income, dividend, interest, capital gains and corporate tax rates are under growing pressure as global investment capital has

17. Johnson S. Kaufmann D. and Zoido-Lobaton (1998), *op. cit.*
18. Data available at www.transparency.de

become more mobile. On the other hand, trying to bring deficits down to under 3% of GDP, the Greek government was “forced” during 2005 to increase indirect taxes (VAT and consumption tax). The desperate search for measures of questionable effectiveness implies that the nature of the challenges poses priorities and goals of an urgently needed and comprehensive “institutional” tax reform: simplification, efficiency, and limited government.

Table 5. Goals of Tax reform



The complexity of Greece's tax system creates indeed a series of problems imposing high administrative and compliance (including bribe) costs. Moreover, Greeks spend millions of hours annually filling out tax forms, keeping records and learning hard to interpret tax rules - paying millions to a non productive "tax industry" for complying with them. Complexity impedes efficient decision making by individuals and companies, confusing tax-payers and injecting uncertainty into business decisions on matters such as investment spending, and is the cause of frequent and costly errors. Given the needs of the complex system for special documentation, the tax authorities require mortgage records for the mortgage interest deduction, education records for education tax breaks etc., promoting an overall invasion of personal privacy by the government. Finally, since complex tax rules are subject to multiple interpretations, they spur taxpayers either to take risks in the hope of deceiving tax authorities or to offer bribes in order to force the most favorable interpretation in their favour or in order to avoid tax controls. An efficient tax system is one that minimizes distortions that affect working, saving, investing and entrepreneurship and diverts resources into high productivity uses; in that sense the main argument for tax reform in Greece is to achieve greater efficiency in the way the tax code works.

To what extent do high taxes really affect the size of the shadow economy? Indeed, higher marginal tax rates do not appear to be associated with a larger unofficial economy. Discretion in the application of rules, and the corruption that this produces, seems to have a more important effect. We find smaller unofficial sectors in countries with a lower regulatory 'burden' on enterprise, less corruption, a better rule of law, and higher tax revenue. Both over-regulation and corruption amount to a higher effective tax on official activity and therefore induce firms to move into the shadow economy, a development which undermines public finance and further weakens the ability of the state to protect property rights (particularly from lower level officials). This does not imply that regulation *per se* drives activity underground. In fact, it is quite possible that sensible regulations, for example on health and safety at work, contribute to higher productivity. Unfortunately, in Greece as in much of the world, over-regulation by bureaucrats is a serious problem. In addition to producing corruption and distortion, over-regulation drives business underground and thus undermines government revenue and the sensible provision of productivity-enhancing public goods. In principle, higher tax rates could be an important reason for firms to move into the shadow economy, however, it appears that higher tax rates are associated with more tax revenue, a stronger legal environment, and less unofficial activity. The fact remains that a great deal depends on how the tax system is administered.

Greece is a leading example of a country that has moderate statutory tax rates but a corrupt system of tax administration which places a heavy burden on firms and individuals, many of them choosing to go underground. Without dramatically improving the quality of the institutions any fundamental tax reform in Greece is not only going to fail in terms of reducing the overall shadow economy but is likely to increase typical underground criminal activity. Furthermore, the recent decision of the Greek government in favour of increases in indirect taxes seems even more problematic, taking into account that greater reliance on indirect taxes and reduced reliance on direct taxes coincides with expansion of the underground economy[19].

This might be accurate for a number of reasons: (a) considering the fact that sales taxes are collected only on sales of legitimate output, they provide a cost advantage for underground production (b) replacing income with sales tax will effectively eliminate the taxation of capital income. Firms in the legitimate sector respond to the tax change by demanding more capital and less labor at pre-reform prices, which in turn bids up the pre-tax cost of capital relative to wages. The induced change in factor prices affects the size of the criminal and underground sector of the economy. In particular, illegitimate activity will expand if it is more labor-intensive than legitimate activity, since the relative cost of labor falls following fundamental tax reform, and (c) evaluate existing evidence of the factor intensity of criminal and underground activity compared with the factor intensity of the legitimate activity. The evidence suggests that underground activity is more labor-intensive than is economic activity as a whole, and that the criminal sector is particularly labor-intensive. Accordingly there is reason to expect that a fundamental reform reducing the taxation of capital income will indirectly stimulate an expansion of criminal and other illegitimate activity[20]. Additionally we could contrast the prevailing mode of production in the shadow economy with that in the legitimate sector. Studies provide comparisons of labor force participation and aggregate underground output for selected European countries and worldwide in recent years[21], indicating that criminal activity appears to be significantly more labor-intensive[22].

The inability of Greek governments to tax underground activities may be problematic for at least three reasons: The first is that tax rates on legitimate activity must rise, and with them the associated efficiency costs, in order to compensate for revenues not collected from underground and unreported sources. The second problem is that the distribution of tax burden is shifted from the illegitimate to the legitimate sector of the economy, which is on the other hand inconsistent with widely held normative notions of equitable assignments of the tax burden. The third problem is that the non-taxation of the shadow economy acts as an implicit subsidy to underground activity, thereby encouraging such activity at the expense of the legitimate sector.

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19. Hill & Cabir (1996), Schneider & Neck (1993), Johnson & al. (1999), Friedman & al. (2000).
20. Hines James R. Jr., « Might Fundamental Tax Reform Increase Criminal Activity ?", *Economica*, Vol. 71, August 2004, No 282 pp. 483-492.
21. Schneider and Enste (2000 p. 108).
22. Greenfield (1993).

This implicit subsidy is particularly ironic and troubling in the case of criminal activity such as drug dealing, since governments devote considerable resources to discouraging and penalizing such behaviour.

5. Corruption and the Shadow Economy

The growing importance of corruption as an economic and political factor has led to systematic research into the phenomenon. According to the definition[23] rightly including the public and private sector: "corruption is intentional non-compliance, with arm's length relationship from this behavior for oneself or for related individuals' abuse of public power for private benefit". The linkage between the public sector's efficiency and the shadow economy has to do with the expected value of the penalty for underground agents, lowering the level of the shadow economy. Hence, the relation of the efficiency of the public-sector, that is of bribery, with the shadow economy remains ambiguous, taking into account the fact that bribery which serves control avoidance is sometimes the substitute for going underground[24]. Nevertheless high corruption levels are expected to act as an incentive for underground activities, and in general when regulations are costly –in terms of money and time - they stimulate the "exit option" (i.e. the decision to go underground)[25].

According to Transparency International[26] Greece is ranked in the 49th place out of 146 countries in the Corruption Perceptions Index 2004, scoring 4.3[27]. The prime principal in every economic decision should be that personal or other relationships should play no role[28]; in societies like Greece this would conflict with generally accepted norms that one has the obligation and even the right to favorably assist friends, relatives and personal "clients", even if this behaviour might require bending, or even breaking administrative rules or the Law itself; the employer who refuses to "act accordingly" will be seen as breaking the prevailing moral code and will make himself "unpopular" or even "unwanted". From assisting friends and relatives it is a small step to beginning to expect and even demand payment from more distant persons (citizens) for performing tasks that it should be the duty of civil servants to perform, or for treating them in the same way as others. Without such compensation, those who required particular permits or legal documents or other services might have to wait a long time to get them. Thus "speed money"[29], may be required to accelerate

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23. Tanzi, Vito (1998), "Corruption Around the World: Causes, Consequences, Scope, and Cures", *IMF Working Paper* 63, p. 8.
24. Schneider and Enste (2000) op. cit.
25. A comprehensive analysis of corruption by Transparency International at (http://www.transparency.de).
26. Transparency International (TI) Annual Report 2004, at www.transparency.org.
27. The TI-Index ranks between 0 (worst corrupted) and 10 (best - no corruption).
28. Also known as the "arm's-length principle".
29. "grigorosimo" in Greek.

the process and bribes to get a positive response in cases where the bureaucrat has the opportunity of delay or the power of refusal.

Evidently the corruption problem in Greece is related to a vast range of governmental activities distorting and weakening its allocative, redistributional and stabilising role in several ways and having serious economic consequences: (a) destroying the neutral scope of the tax system by favoring taxpayers who are able to reduce or avoid their tax liabilities, giving them a competitive advantage over their competitors; (b) granting licenses for certain activities (constructions, taxis, business or shop opening, factory operation, etc.) and giving preferences to some individuals over others particularly in connection to allocation of certain instruments (permits, subsidies, credits) genuinely developed to assist "infant industries"; (c) land uses; (d) access to public goods and services (electricity, health services, issue of certificates, etc.); (e) procurement of public investment contracts; (f) tax settlements and tax incentives; (g) hiring and promotion in the public sector. This means that public sector corruption in Greece is "vertical", reaching from the "dynamic" (administrative) through to the "static" (political) corruption that affects all levels of government activities and fields of responsibility.

The effects of this scale of corruption, which may be also seen as a tax on ex-post profits[30], are devastating for a developed country, mainly in terms of prohibiting foreign direct investments, slowing down development rates, harming competition and generating economic underground activities[31].

Useful data regarding corruption in Greece are available not only from NGO's like Transparency International but also from Governmental International Organizations like the Council of Europe and the Group of States Against Corruption (GRECO). The statutory aim of the GRECO is to improve its members' capacity to fight corruption by monitoring the compliance of States with their undertakings in this field. In this way, it will contribute to identifying deficiencies and insufficiencies of national mechanisms against corruption, and to prompting the necessary legislative, institutional and practical reforms in order to better prevent and combat corruption. GRECO is responsible, in particular, for monitoring observance of the Guiding Principles for the Fight against Corruption and implementation of the international legal instruments adopted in pursuit of the Programme of Action against Corruption (PAC)[32]. *Ad*

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30. Romer Paul (1994), "New Goods, Old Theory, and the Welfare Costs of Trade Restrictions", *Journal of Development Economics*, Vol. 43, No. 1, pp. 5-38.
31. Rose-Ackermann concludes that "going underground is a substitute for bribery, although sometimes firms bribe officials in order to avoid the official states" Rose Ackerman Susan (1997), Corruption and Development, Washington D.C., The World Bank, Annual Conference on Development Economies, p. 21.
32. So far three such instruments have been adopted, the Criminal Law Convention on corruption (ETS n° 173), opened for signature on 27 January 1999, the Civil Law Convention on corruption (ETS n° 174), adopted in September 1999, opened for signature on 4 November 1999 and Recommendation R (2000) 10 on codes of conduct for public officials, adopted on 11 May 2000.

hoc teams of experts are appointed, on the basis of the list of experts proposed by the GRECO members, to evaluate each member in each evaluation round. Evaluation teams are the cornerstone of the GRECO procedure, within which they play an essential role. In particular, evaluation teams will examine replies to questionnaires, request and examine additional information to be submitted either orally or in writing, visit member countries for the purpose of seeking additional information of relevance to the evaluation, and prepare draft evaluation reports for discussion and adoption at the plenary sessions. An evaluation report remains confidential after its adoption by GRECO as long as the authorities of the country do not agree to its publication. It becomes public once the authorities express their agreement to the lifting of the report's confidentiality. Once the report becomes public, it is made available on the public part of the GRECO website. The compliance and evaluation report for Greece remained till recently "confidential" as the last Greek government didn't authorize its publication - for obvious reasons.

The best policy to reduce corruption could be a sharp reduction of the effective control that government has over the Greek economy in a lot of aspects like spending and taxing activities and, especially, in economic regulations. Furthermore, owing to the fact that one of the factors that create the environment that promotes corruption is social intimacy, an effective policy in reducing corruption is that of forced and periodic geographical mobility for civil servants, in order to remove them from the region where they have their closest social or family relations and to prevent the formation of new relations. Although this could prove to be an effective policy for central government bureaucrats it might not be so effective in fighting local government corruption. These are the barriers, which every anti-corruption strategy in Greece has to overcome: the small size of the country and the lack of mobility in the population, especially the lack of mobility of firms and professionals. Thus the size and the vertical nature of corruption in Greece are closely connected or even complementary to the high share of the Greek underground economy and the big public sector deficits. Greek politicians seem to ignore the research findings that higher tax rates are associated with less unofficial activity as a percent of GDP and that corruption is associated with more unofficial activity. Entrepreneurs go underground not to avoid official taxes, but to reduce the burden of bureaucracy and corruption. As a result, only relatively honest governments can sustain high tax rates.

To summarize, the strong and consistent relationship between the size of the shadow economy and the amount of corruption in Greece is closely connected with the reflexes of the "less privileged": the ones who are not willing, cannot afford or have no connections to central or local government bureaucrats are systematically choosing the dark (shadow) side of the economy as a substitute for corruption (bribery), making the shadow economy complementary to a corrupt state.

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