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MASTER'S DEGREE IN SOUTHEAST EUROPEAN STUDIES

MASTER'S DEGREE THESIS

UNDERGROUND ECONOMY IN SOUTHEAST EUROPE

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I. Introduction

Several terms are commonly used to define what is generally called the underground economy: informal economy, shadow economy, black economy, second economy, informal sector. Underground economy is present more or less in every country in the world but in some countries rivals the size of the official economy. In the countries of eastern and south-eastern Europe underground economy is flourished both by their communist legacy and even more from the transition process in all sectors of economic activity.

The social and economic crisis that followed during the post communist period which was characterized by military activity, forced leave, fall of living standards, mass unemployment, low economic activity, together with the lack of appropriate institutions and the weakening of the state governments, played a very important role in the appearance of the shadow economy while in the same time worked as a shock absorber providing protection for the people from greater levels of poverty.

On the other hand the presence of underground economy is a source of considerable revenue losses for the government and can affect the public finances and the quality of public administration of a state as it reduces tax income and is proof of disrespect for juridical regulations and norms. The illegal nature of underground activity can also constrain private investment and growth as firms operating in the shadow are most of the times unable to use market-supporting institutions like the judicial system and courts, which can lead to under-investment and limited access to formal credit markets.

The underground economy can seriously affect the economic development of a country and distort the picture of the real economic and social situation contributing to the division and the polarization of the society and to the impoverishment of the urban classes.

In the developing transition countries of southeast Europe, with heavy tax burdens and excessive regulation imposed by the governments without the capability to enforce compliance and general bad quality of state intervention, drive firms and people into the underground economy. In addition unemployment, corruption, poverty, organized crime and other problems of the region may also drive people to illegal actions contributing to a large portion of the underground economic activity.

This paper presents the underground economic activity in southeast Europe. The first part of this paper includes an attempt to give a broad definition of the issue and also gives the general concept dealing with the underground economy and the importance of studying it. Following we will refer to the most common activities (legal and illegal) that underground economy is engaged with and the significant relationship that it has with the level of corruption in a country.

Continuing, we will analyze the main causes to which the development of underground economy is attributed, paying special attention to the transition countries' characteristics. Next it is crucial to refer to the most important methods for measuring the underground economy. A brief analysis of the underground economy to several southeastern European countries will be next, with some comparisons of its size among them as well as a presentation of the special causes and political situations that led to the rise of the informal economy.

The last chapter will try to draw useful conclusions of this analysis: What is the extent of underground economy in southeast Europe and what are the reasons responsible for the flourishing of the informal sector? Is underground economy always harmful or in some cases it can have also a positive impact? Is it a necessary evil that always existed and always will and what measurements can be taken by the governments to alleviate the situation and equilibrate the economic performance?

II. Definitions and Concepts

Though it is very difficult to comprise a simple definition, underground economy includes all economic activities and commerce which is conducted without regard to taxation, law or regulations of trade. There are many definitions that differ in the degree of complication and accuracy but the basic one define underground economy as all economic activities that contribute to the officially calculated or observed, gross domestic product (GDP),¹ but are currently unregistered. Another definition says that shadow economy is used to refer to those activities that go unreported or are unmeasured by the society's current techniques for measuring economic activity.²

According to the OECD³ definition, the shadow economy is expressed as legal production taking place outside formal frameworks. The production of these activities is in harmony with the laws and regulations but the quantity, the values and outcomes information is not given to the authorities, in order to avoid duties arising from tax policies and labor legislation. Generally shadow activity can be described as the tendency of people and firms to perform their economic activities without the intervention or cooperation of the state.⁴

These definitions are very simple and general but they include the main concept of the shadow economic activity. A more precise definition would seem rather difficult, if not impossible as underground economy evolves over time adjusting to taxes, regulations, enforcement changes and general societal attitudes.

Underground economy is an integral part of most economies where payments are mostly conducted in cash and transaction records, when held, are kept in secret account books. Though it employs illegal (and even criminal) methods, it is a survival practice in

¹ Schneider, Friedrich, Enste, Dominic (2000), "Shadow economies Around the World: Size, Causes and consequences," *IMF Working Paper 26*, pp 4

² Feige, Edgar L, (1979) "How Big Is the Irregular Economy?" *Challenge*, November-December, pp 6

³ Organization For Economic Co-operation and Development

⁴ Tanzi, Vito, (1983) "The Underground Economy in the United States and Abroad." Lexington: D. C. Heath

repressive tax regimens or where legitimate expression of entrepreneurial activity is made unnecessarily difficult by a set of regulations. It is also called parallel economy, shadow economy, black economy, informal economy and by many other terms.

There are several characteristics to define shadow activities. These include activities that: a. evade taxes (either as part of general fiscal collections or as specific service taxes) b. ignore currency requirements c. avoid regulatory requirements (e.g. licensing) d. fail to appear to statistic report mechanisms.⁵ However shadow economy includes also activities that are per se illegal, such as dealing of guns, drugs, illicit financial trading, smuggling etc. Generally it can be said that all these activities run through existing laws and regulations and destroys all definitions of profitability.

There are also other ways of defining underground economic activities and distinguish them from the formal ones. One of them is by whether these activities comply or not with the existing institutional rules, and are divided into the following groups depending on the type of rules which are not obeyed:⁶

1. Unreported economy which consists of activities that produce income not reported to fiscal authorities.
2. Unrecorded economy which consists of activities that are not reported to statistical authorities.
3. Informal economy, which consists of activities that circumvent costs incorporated in regulations but are excluded from benefits incorporated in those regulations.
4. Illegal economy which consists of activities that violate legal rules defining the scope of legal economic activities like drug trafficking, women trafficking, black market currency exchange etc.

⁵ Eilat, Yair, Zinnes, Clifford, (2000) "The evolution of the Shadow Economy in Transition Countries," *CAER II Discussion Paper No. 83*, September, pp. 12

⁶ Feige, Edgar L, (1990) "Defining and Estimating Underground and Informal Economies: The New Institutional Economics Approach," University of Wisconsin-Madison pp. 5-11

A very useful definition of shadow economy can also be found in the System of National Accounts (SNA) 1993⁷ which is based in statistics and therefore may be more accurate. According to the SNA, economic activities are divided into those which can be observed and directly measured in data and those which are not observed and which form the non observed economy (NOE).⁸

The non observed economy is then divided into:

1. Underground production-consisting of those activities that are productive and legal but are deliberately concealed from the public authorities to avoid payment of taxes or complying with regulations.
2. Illegal production-divided into two categories a) production of goods and services whose production, sale or possession, is forbidden by law (for instance drugs), b) production which is illegal when carried out by unauthorized producers.
3. Informal sector production-defined as those productive activities conducted by unincorporated enterprises in the household sector that are unregistered and/or are less than a specified size in terms of employment, and that have some market production.
4. Household production for own final use-defined as those productive activities that result in goods or services consumed or capitalized by the households that produced them. These can be a) production of agricultural products, hunting, fishing, forestry, processing of agricultural products; production of everyday items, b) paid domestic services, c) owner occupied dwelling services.

As far as labor is concerned, underground work can be separated to classic unorganized activities, with emphasis on tax avoidance, and to an informal sector which includes workers of small firms and workshops not reporting to the authorities and not constitute any part of the official statistics. These workers do not have access to

⁷ System of National Accounts has been created by UN, IMF, OECD World Bank and the European Commission. It sets international standards for national account statistics

⁸ Measuring the Non-Observed Economy, A Handbook, OECD, IMF, ILO and CISSTAT, Paris 2002

organized markets, credit institutions and services from public institutions. They are mostly abstracted from legal legislation and social protection.⁹

The main characteristic of working in the underground is the classic concealment of employment. This includes both people that do not have any other job in the official economy, those who fit in a second job besides their main employment and those who work for an unlawful employer that does not have a legal base, such as smuggle activities. Some of the most important causes for working in the shadow includes: unemployment, low wages and low pensions, high fiscal taxation and other social norms and practices that may exist to a society and encourage work in the shadow.

Shadow economy ranges from producers and firms with targets of sound profits to small workshops, small transportation firms, laundries, mobile shops, etc. However includes also people who provide services from which they can barely survive like street sellers, part-time workers, shoe cleaners etc.

Since hidden economy includes activities that apart from breaking the tax law are principally legal, like unregistered micro-enterprise, unregistered trade, under invoicing and smuggling of non-prohibited commodities, they seem as a problem of fiscal evasion that represents a vital challenge of economic policy-making. On the other hand hidden economy also includes those activities that by their very nature are illegal, like trafficking of arms, drugs and women and other organized crime activities. Although these illegal activities are mostly a problem of law enforcement, they can not be separated from the other legal activities of the informal sector because they also contribute to national income. Thus, the informal sector can be defined as the sum of all these undeclared commercial activities that “*de facto*” contribute to national income.

⁹ The International Labor Organization (ILO) observes the shadow economy in an open way, dividing it into two parts. Classic unorganized activities which avoid taxes (mostly in developed countries) and an informal sector which is characteristic of all countries in development (including transition countries in east and central Europe)

Furthermore since participation to the informal economy means also violation of the legal norms and obligations, even when the activities are per se legal, they tend to be accompanied by an increased level of public corruption, where state officials accept bribes in exchange for protection or other favors at the expense of the state. In this way officials and favored individuals receive a larger share of public benefits or bare a lower share of the cost of public goods, as economic incentives are distorted leading to lower private investments, lower government revenues and to an increase in inequality and poverty.¹⁰

The underground or shadow economy can also be divided into four broadly components: the criminal, irregular, household and informal sectors. The criminal sector is defined as illegally produced goods and services, such as the production and trade of drugs. The irregular sector includes legally produced goods and services which evade taxes. The household sector is defined as household production and the informal sector is defined as economic activities that circumvent the costs and are excluded from the benefits of law, such as unregulated micro-enterprise.¹¹

Underground economy by definition is perceived as illegal, since it works outside of the existing laws and regulations and parallel with the formal economy. However the term underground or black create images of illicit or illegal activities like drug dealing or prostitution. But in fact black economy covers usually two totally disparate and distinct fields of activity. One is legal activities that are not reported to tax authorities -- in other words, tax evasion. The second sphere is that of illegal activities, illicit activities and criminal activities. Most black transactions are for activities that are legal but concealed to avoid tax or other government regulations. This legal black economy is three to four times bigger than the illegal one.

¹⁰ Olters, Jan-Peter, (2003) "Albania's Informal Economy: An impediment to Economic Development?", *IMF Resident Representative*, pp. 4

¹¹ Fleming, Mathew H, Roman, John, Farrell, Graham, (2000) "The shadow economy", *Journal of international affairs*, 53, no. 2, Columbia University of New York, pp. 390

Thus the distinction between these two forms of informal economy is essential. Both are knowingly violating laws and regulations and defying political authority. But they differ radically in the role they play to the society. The underworld comprises criminals who are committing acts of bribery, fraud and racketeering and willfully inflicting wrongs to society. Most of the underground economy however involves otherwise law-abiding citizens who are seeking refuge from the wrongs inflicted on them by government.

III. The Importance of Dealing with the Underground Economy

There is no question that underground economy really exists and can have serious implications to the official economy and to society in general, therefore it deserves attention and study.

Since this activity is unrecorded, it is not included in national statistics accounts leading to misguided figures of a nation's economy. On the other hand these statistics are employed to generate economic policies, thus inaccurate figures may lead to inappropriate policy responses. When these policy responses are based on wrong official indicators of the economy (like unemployment, official labor force, income, consumption), or at least wrong in magnitude, they may lead to severe problems for policy makers and make their policies questionable.

At the same time, emergence and increase of the underground economy can also mean that current policies are misguided. The existence of an active and growing shadow economy most of the times means that state economic policies like tax regulatory policies are overly burdensome and oppressive. Therefore a growing shadow economy can be seen as a reaction of individuals who feel overburdened by state activities.

Moreover when the shadow economy is caused by a rise in the overall tax and social security burden, it may lead to an erosion of the tax and social security bases and

finally to a decrease in tax receipts, leading to an increase of the budget deficit and this to a further increase of the tax rates increasing the shadow activities once more and so on.¹²

A further important reason to cope with the underground economy is that since it is un-taxable, reduces potential state revenue. Finally, while a part of the underground economic activity is undesirable, such as illicit trade in narcotics, most of it is generally constructive. It can help people in developing or transition countries, and in rigid times to survive, providing them an income for their basic needs which otherwise would be very difficult to obtain.

Furthermore, shadow economy is providing strong incentives to attract domestic and foreign workers and other resources away from the official economy. However there is a contrary view on this, arguing that most of the income obtained by shadow economic activities is spent on the official economy,¹³ resulting in a considerably positive stimulating effect on the official economy.

IV. Activities of the Underground Economy

Underground economy includes both unreported income from the production of legal goods and services that would be taxable if they were reported to the tax authorities, and also illegal activities.

Both these activities, legal and illegal can be separated to monetary and non-monetary transactions depending on whether money was or not used. In both cases the main characteristic is that they are made in secrecy of the authorities.

Shadow activities with monetary transactions of legal nature with emphasis on tax evasion could be unreported income from self employment, wages, salaries and assets

¹² Schneider, Friedrich, (2000) "Illegal Activities, But Still Value Added Ones (?): Size, Causes and Measurement of the Shadow Economies All Over the World," *CESifo Working Paper No. 305*

¹³ An empirical analysis of Friedrich Schneider and Dominic Enste showed that at least two thirds of the income earned in the shadow economy is immediately spent on the official economy, resulting in a considerably positive stimulus effect on the official economy.

from unreported work, related to legal services and goods. Also they could be discounts made for employees and fringe benefits that an employee can have, which are unreported and thus avoiding taxes.

On the other hand there could be also non-monetary transactions of legal activities like barter of legal services and goods that evade taxes and all do-it-yourself, that is to say by a person not employed by someone else but working for himself or for helping a neighbor or a friend. This kind of work it is obvious that goes unreported and avoids taxes.

Furthermore illegal activities of underground economy with monetary transactions could be, trade of stolen goods, dealing and manufacturing of drugs, prostitution, smuggling of all kinds of goods, trafficking of human beings, gambling and frauds. The non-monetary transactions of illegal activities could be barter of stolen goods, drugs, smuggling etc. Also they could be production of drugs and theft for own use.

A further categorization of activities involved in shadow economy can be clandestine undertakings, involving partial or total avoidance of taxes and social insurance contributions e.g. the production of goods and services by self-employed people in micro-companies, hidden activities of different types of professional workers, provision of domestic assistance, sale of merchandise from home and illegal renting of apartment and houses.

In addition, it could be the work of an employee outside the main working time of his official job (for example, in a second part-time job), or for complementary activities in villages such as farming, repair of domestic and other machine and installations at home, re-selling activities, work done at home for another person, consultancies, journalists working at home etc.

Furthermore shadow activities include also the work of people who have no evident employment like baby-sitting and home help taking jobs, that go unreported and

without papers or permission, student and child labor and the work of unregistered migrant workers that have to stay underground for the fear of deportation. Finally hidden incomes from capital activity also form a part of underground economy. These can be incomes coming from renting rooms and apartments, incomes from usury, tax evasion from small co-operatives etc.

V. Corruption and Shadow Economy

At this point we must make a note to the relationship of the shadow economy and underground activities with the corruption of a state's public sector, as corruption plays a vital role and form a part of these activities. Corruption has been defined in many different ways but the most popular and simple definition of corruption is that it is the abuse of public power for private benefit.¹⁴ Corruption and underground economy most of the times are in complete interaction with each other as corruption accommodates and promotes the underground economy and *vice versa*. It is easy for someone to understand that corruption affects the shadow economy positively and the formal economy negatively.

Also a high level of corruption and shadow economy in a state poses a serious development threat as it undermines democracy and good governance by flouting or subverting formal processes. It reduces accountability, distorts representation in policy making, affects negatively the faith of the citizens in the system and the rule of law and results to the inefficiency of services in the public administration. Generally corruption erodes the institutional capacity of government as procedures are disregarded and public offices are bought and sold. Simultaneously it undermines the legitimacy of government and values as trust and tolerance.

Furthermore corruption undermines economic development by generating distortions and inefficiency. When corruption has penetrated the public sector it increases

¹⁴ Tanzi, Vito (1998), "Corruption Around the World: Causes, Consequences, Scope and Cures," *IMF Working Paper* 63, pp 8

the cost of business through the price of illicit payments, like briberies to state officials in order to circumvent rules, regulations and delays. Corruption also can affect the game rules of market economy as insufficient firms may have favored treatment towards others. Furthermore, it lowers compliance with regulations, reduces the quality of government services and increases budgetary pressures on government.

Generally when high level of corruption exists in a country the legislation to protect the economic environment cannot be enforced as officials can be easily bribed. This situation can result in people believing that nothing can be done if you do not bribe the right official. This situation may lead to inequality, unfairness and societal attitudes that might accommodate the shadow economy. People and firms often decide to go underground to avoid bureaucracy and corruption in the public sector, or when shadow economic activities are discovered, they prefer to pay a bribe in order to be free to continue and avoid heavy fines.

More specific the transition countries of southeast Europe with communist legacy had all the reasons to develop underground economies and a high level of corruption, as they had weak democratic and economic institutions and no experience of capitalist free market economy. Civil servants from the state machinery had no knowledge about the principles of the market economy and therefore, these professional categories were invaded by corruption. All these have lead to an economic and social environment that was encouraging for the underground economy.

Especially during the first years of transition, criminal acts related with corruption appeared with great complexity and diversity in respect to the number of participants, the methods used, the caused harms and the importance of the economic agents and institutions involved. The transition countries in this period faced the existence of a far reaching underground economy, characterized by the fact that corruption and shadow structures infiltrated the financial-banking markets and tried to take control over some important economic sectors.

The activities in which corruption is usually involved include:

- Regulations or licenses to engage in particular activities (e.g. opening a shop, a taxi license)
- Land zoning and other similar official decisions
- Access to publicly provided goods and services
- Control over decision making regarding procurement of public investment contracts
- Control over the provision of tax incentives
- Control over hiring and promotion within the public sector.

The effect of corruption to the official economy can be seen from different sides. However there is a negative correlation between corruption and investment rate or rate of GDP growth, as an increase in corruption decreases GDP growth. On the other side the process of economic growth ultimately generates enough forces to reduce corruption and any reform that increases the competitiveness of the economy will help reduce incentives of corruption. Thus policies that liberalize foreign trade and remove entry barriers for industry promote competition and reduce corruption. Such reforms will also encourage firms to move from the shadow economy into the official economy, where they can obtain access to capital at market rates. This concludes that going underground is a substitute for bribery, although sometimes firms bribe officials in order to avoid the official states.¹⁵

However the relationship between corruption and the shadow economy is still unsettled. The impact of corruption in the shadow economy and the influence of the shadow economy on corruption are yet a matter of study with no consolidated results, since neither of the two is easily lend to measurement. It is very difficult to gather correct information about these activities in the goods and labor market, because all individuals engaged in those activities do not wish to be identified.

¹⁵ Rose-Ackerman, Susan (1997), "Corruption and Development," Washington D.C, *The World Bank, Annual Bank Conference on Development Economics*, pp 21

Nevertheless research shows that corruption and shadow economy are in close relationship with each other, as a reduction on briberies and corruption leads to a decline in the shadow economy. Furthermore the relationship between the share of the unofficial economy and rule of law (including corruption) is strong and consistent and suggests that countries with more corruption have a higher share of the unofficial economy. In summary, countries with more corruption and briberies have a higher share of the shadow economy either when going underground is a substitute to corruption, therefore a substitutive relationship, or a complementary one which suggests that countries with more corruption have higher shares of the shadow economy.

There is good reason to expect that the relationship between corruption and shadow economy, either as complements or substitutes, differ in high and low income countries.

In high income countries corruption might be more independent of the size of the shadow economy, since for example bribing government officials, when detected engaging in the shadow market, is rarely an option. However shadow economy and corruption in a high income country can also be substitutes as in these countries entrepreneurs do not have to pay the bribes that the officials demand as they can always bring the corrupt officials to court. Consequently it is their choice whether to pay a bribe or decide to operate underground.

To the contrary, in low income countries entrepreneurs engaging in the shadow economy can reasonably expect to escape prison if their illegal activities are detected, since officials can reach an agreement and collude with entrepreneurs and tax payers in exchange for a bribe. In this case corruption and shadow economy are expected to be complements.

Of course to what extent corruption and shadow economy are substitutes or complements, is likely to be a variant among countries with high or low incomes with other factors to intervene as well.

In high income countries, the official sector provides public goods like the rule of law, enforcement of contracts and protection by an efficient police. Usually only small firms have, or take, the option of going underground. In this case shadow economy is hidden from tax inspectors and other officials and there are no bribes necessary or possible to buy the way out of the official sector. As a result, in high income countries there are comparably small levels of corruption because the individuals confronted by a corrupted official always have the choice to bring the official in court. Furthermore, in high income countries most cases of corruption take place, for example bribing an official for gaining a construction project from the public sector. But even if corruption is used as a means to win the project, it takes place in the official economy and not in the shadow economy. Thus in high income countries corruption is used to achieve certain benefits that make work to the official economy easier, like winning a construction contract from the public sector, getting a license etc. In high income countries people are bribing in order to be able to engage more to the official economic activities. Hence in high income countries corruption and shadow economy tend to be substitutes.

On the contrary in low income countries enterprises instead of providing additional services and working partly in the official sector, they completely engage in underground activity. A reason for this is that the public goods provided by the official sector in many developing countries are less efficient compared to high income countries. This drives many enterprises, from restaurants, bars, haircutters and even big production companies to work completely underground. The big companies however are easier to be detected and in order to escape taxation and punishment they may result to bribe officials and thus increase corruption. Corruption most of the times takes place in order to pay for activities in the shadow economy, so that the shadow economy entrepreneur can be sure not to be detected by the public authorities. Under this situation, shadow economy and corruption are likely to reinforce each other, as underground activity requires bribes and corruption and at the same time corruption is needed to expand shadow economic activities. It is natural for public officials to ask for bribes in order to get some additional income from the shadow economy and thus, benefit from the shadow market. Therefore in low income

countries a complementary relation is expected between corruption and the shadow economy.

In summary, although the relationship between shadow economy and corruption depends on how the regressions are specified and how corruption is measured, in high income countries going underground is an alternative to corruption, therefore consists a substitutive relationship, while in low income countries, corruption and shadow economy are complements.¹⁶

VI. Causes of the Underground Economy

For analyzing the causes of the underground economy the best way is to search why firms and individuals take the decision whether to be official or not, and discover the main costs and benefits of moving to the underground economy and *vice versa*.

The majority of the literature points out that tax and social security contribution burdens are one of the main causes for the existence of the shadow economy. The common theme is that high tax rates (both marginal and total) have a negative impact on the decision of economic agents (firms or individuals) whether to operate official. Furthermore taxes affect labor choices and also stimulate labor supply in the shadow economy. The bigger the difference between the total cost of labor in the official economy and the after-tax earnings (from work), the greater is the incentive to avoid this difference by working in the shadow economy. Since this difference depends on the overall tax burden and the social security burden-payments they are the main elements of the existence and increase of the underground economy. Nevertheless, some researchers recently suggest, that perhaps tax rates is not the most important cause. Friedman *et al.*¹⁷ suggest that higher tax rates are associated with lower shadow activity because higher taxes afford higher quality public services which attract firms into the official economy.

¹⁶ Dreher, Axel, Schneider, Friedrich, (2000) "Corruption and Shadow Economy: An Empirical Analysis," *CREMA Working Paper No. 2006-01*

¹⁷ Friedman, Eric, Johnson, Simon, Kaufmann, Daniel and Zoido-Lobaton, Pablo (1999), "Dodging the Grabbling Hand: The Determinants of Unofficial Activity in 69 Countries." *World Bank Discussion Paper*

However this probably is the case in countries that have good prospects to collect taxes like the OECD countries.

Another important factor for promoting shadow economy is the increase of the intensity of regulations (often measured in the numbers of laws and regulations, like licenses requirements). This is more than true if we consider that regulations lead to a substantial increase in labor costs in the official economy. But since most of these costs can be shifted on the employees, they provide a strong incentive to work underground, where they can be avoided. Every regulation represents a fixed (transaction) cost for the firm. This fixed cost, therefore, imposes the heaviest burden on small firms. This fact can push a disproportionate share of small firms into the shadow economy. One can think of additional causes like labor market regulations such as forced reduction of weekly working time, early retirement, trade barriers and labor restrictions for foreigners that may drive forces to the underground economy. Furthermore the social welfare system is also mentioned for providing negative incentives for beneficiaries to work in the official economy since by doing so they may lose some of their benefits. Such a system provides strong disincentives to people receiving welfare payments since their overall income is higher when they continue to receive these transfers, while possibly working in the underground.

Johnson, Kaufmann and Zoido-Lobaton¹⁸ and Friedman *et al.*¹⁹ find a significant empirical evidence of the influence of regulations on the shadow economy. More regulations are correlated with a larger share in the shadow economy. Furthermore, they believe that institutional aspects are more important than taxes. Institutional aspects include: the efficiency of administration, extent of control rights held by bureaucrats and politicians, bribery and corruption. They predict that three variables are the causes of shadow economy (the amount of regulation, the tax burden and corruption) and suggest that the key determinant of underground activity is not tax rates, but rather the extent of

¹⁸ Johnson, Simon, Kaufmann, Daniel and Zoido-Lobaton, Pablo (1998), "Regulatory Discretion and the Unofficial Economy", *American Economic Review*, 88:2, pp. 387-92

¹⁹ Friedman, Eric, Johnson, Simon, Kaufmann, Daniel and Zoido-Lobaton, Pablo (1999), "Dodging the Grabbling Hand: The Determinants of Unofficial Activity in 69 Countries." *World Bank Discussion Paper*

regulatory discretion. Moreover they conclude that the enforcement of regulations is what drives firms and individuals into the shadow and not the overall extent of regulations, which is mostly not enforced. When regulations are lax and the rule of law is weak, bureaucrats are taking decisions without supervision. This leads to corruption which drives firms to become unofficial. On the other hand the unofficial sector may be smaller in a country with a lower regulatory burden on enterprises, less corruption, better rule of law and more efficient and competent tax administration.

Regarding the relationship between corruption and shadow economy there is still no consensus in the literature as stated in the previous chapter. Are they complements since firms go underground to avoid corrupted officials or go underground by bribing them? Or are they substitutes which will be the case if the official economy is a sanctuary from corruption? Recent research suggests a complementary relationship²⁰ focusing on a third factor, e.g. a weak judiciary system that causes both corruption and shadow activities.

Finally, besides the direct causes of the shadow economy from a failure of the regulatory and generally the institutional system mentioned above, if present in a long period of time they can also have indirect effects, like a decline of loyalty towards institutions and a decline in tax morale.

An important cause for driving economic agents out of the official economy can also be located in the function of the public sector services. An increase in the shadow economy can reduce state revenues which in turn reduce the quantity and quality of publicly provided goods and services. As public goods and services are considered the legal system (important as a support for contracts), police protection, social services like those related to health and pensions etc. Ultimately, this situation can lead to higher tax rates combined with lower quality of public goods and a worsening of the administration in the official economy, consequently providing more incentives to participate in the

²⁰ Johnson, Simon, Kaufman. Daniel and Zoido-Lobaton, Pablo (1998), "Regulatory Discretion and the Unofficial Economy", *American Economic Review*, 88:2 pp 387-92

shadow economy. A model for this relationship is provided by Johnson, Kaufmann and Zoido-Lobaton²¹ who find that in countries where high tax revenues are achieved with lower tax rates, fewer law and regulations and less bribery, shadow economy appears lower. This mostly is the case in countries with better rule of law and better tax revenues like the OECD countries, while transition countries, where there is a large amount of regulation creating conditions for the developing of bribes and corruption and higher taxes on official economy, have a higher share in the underground economy. Their overall conclusion is that countries with a ‘good equilibrium’ of relatively low tax and regulatory burden, sizeable revenue mobilization, good rule of law and corruption control have a relatively smaller unofficial economy. On the other hand countries with characteristics of a ‘bad equilibrium’ where tax, regulatory discretion and burden on firms is high, combined with a weak rule of law therefore high incidence of bribery, the share in the unofficial activities is relatively high.

VII. Transition countries characteristics

Though the above aspects can be applied to most countries around the world, special focus must be given to the countries in transition, where additional unique dimensions provide additional causes for the presence and development of shadow activities. These dimensions include the communist legacy, the transition from a command to a market economy, the dramatic structural change in a short period of time of the industry and government and the process of quick and massive privatization. Furthermore, some of the transition economies are new states with little experience in “growing” free market and government institutions. These features affect all aspects of underground economy, including its impacts, measurement and public policy responses.

Some of the most important aspects of these specific characteristics in transition

²¹ Johnson, Simon, Kaufman. Daniel and Zoido-Lobaton, Pablo (1998), “Regulatory Discretion and the Unofficial Economy”, *American Economic Review*, 88:2 pp 387-92

can be summarized as follows.²² Firstly, in transition economies the state sector takes part in both official and unofficial activities. Large state enterprises participate in official and unofficial activities, allowing state officials and managers to extract private incomes from state firms. In such economies complex bridging channels are established between government agencies, state enterprises and non-state unofficial activities. Secondly, these unofficial activities sometimes are big and visible, partly due to the participation of the state itself. This means a deviation from the traditional concept of the shadow, which comprised mostly by rural household and micro-enterprises. Thirdly, most of the unofficial activity in these countries is nonviolent and noncriminal, having become unofficial in order to avoid tax and regulations.

Furthermore, these activities are characterized by a level of continuity in the official/unofficial sphere as they operate in both. Therefore, firms operating in the shadow economy are not excluded from having access to social services and state subsidies. This can be attributed to the socialist heritage and to the presence of mixed shadow/non-shadow entities. Moreover, the unofficial sector in transition economies is much more sensitive to economic incentives from governments (except for activities that are per se illegal). This is owe to the reason that in transition economies much of the unofficial economic output comes from misreported or undeclared production of registered firms, something that it is quite responsive to relative cost differences between the shadow and official economy, caused by government actions like taxation and regulatory burden. Finally, in transition countries unlike others, shadow activity transactions are made using barter or foreign exchange rather than local currency cash.

These features of the transition economies suggest that in these economies there are factors that affect the decision of an entrepreneur to join the underground more than others, like:²³

- political liberalization vs. repression,

²² Kaufmann, Daniel and Kaliberda, Aleksander (1996), "Integrating the Unofficial Economy into the Dynamics of Post-socialist Economies: A Framework of Analysis and Evidence," Washington D.C. The World Bank, *Policy Research Working Paper 1691*

²³ Based on the results of a micro survey conducted for the Ukraine in 1994 by Kaufmann and Kaliberda (1996) (op.cit.) to investigate the various elements of the shadow economy in transition countries

- the degree of administrative controls vs. economic liberalization of the official economy (foreign exchange, trade and price regimes, deregulation at the firm level),
- the official tax burden (including high taxes, multiple taxation, and constantly changing tax regimes),
- development of the rule of law and related institutional enforcement mechanisms, and
- macro-economic instability, which prompts use of foreign currency and barter transactions and makes it harder to keep track of firms' accounts.

VIII. Methods of Measurement of the Underground Economy

Measuring the shadow economy in a country is not an easy task. As stated before it is very difficult to gather correct information about shadow activities because people and firms engaged to these activities attempt to avoid detection. Also there are different factors involving to the shadow economy, which are not easy to be measured and different features from country to country to be taken into account.

While most concerns have been raised regarding work in the stable economies of the OECD, the difficulties are further amplified in the context of the chaotic period faced by the countries of transition. Moreover, while numerous methods have been used over the years to quantify the size of the shadow economy, methods developed for the OECD advanced industrial countries or the less developed countries (LDC), may not be suitable for a transition economy. To measure the shadow in transition one should take into account these countries' idiosyncrasies as well as the limitations of each method.

There are various methods for estimating underground economy. The optimum method for a country depends on the features of its economy and its tax and legal system. However estimates on the underground economy can vary widely depending on the estimation method as each approach has strengths and weaknesses and yields its own

insights and results. Based on some common features, the methods can be classified in the following way:²⁴

A. Direct methods:

- micro surveys,
- tax audit,

B. Indirect methods:

- currency demand
- transactions approach,
- total electricity use,
- household electricity use,
- discrepancy between official and actual labor force,
- discrepancy between national expenditure and income statistics,
- the model method

A. Direct methods

The direct methods try to detect directly the economic agents operating in the shadow, rather than indirect signs of shadow activities. These micro approaches employ well-designed surveys and samples based on voluntary replies or tax auditing and other compliance methods.

Micro surveys. Micro surveys offer a powerful opportunity to understand the nature of the problem because of their ability to provide detailed information about the structure of the shadow economy and the socioeconomic motivations related to the decision to enter the shadow economy. However the main disadvantage of this method is that it presents the flaws of all surveys: average precision and results suffer from a lack of trust, which may cause people to report incorrect information. This is especially true in such a sensitive matter as shadow economy participation. People interviewed by a direct

²⁴ Schneider, Friedrich, Enste, Dominic, (2000) "Shadow Economies: Size, Causes and Consequences," *The Journal of Economic Literature*, 38/1, pp 77–114.

questionnaire hesitate to confess a fraudulent behavior and quite often responses are rarely reliable so that it is difficult to make a real estimate of the extent of undeclared work for example. Furthermore another problem that a survey presents is the need to adequately sample all the potential segments of the shadow economy. If the method is focused only on households for example there will have to be augmented by firm-level surveys. Thus micro surveys may provide an extreme lower bound to shadow activity and their results are very dependent on how the used questionnaires are formulated.

Tax audit. This method is based on the discrepancy between income declared for tax purposes and that measured by selective checks. Designed to measure the amount of undeclared taxable income, this method audits taxpayer returns to identify tax evaders. If sampling is done well, the tax administration can then use the compliance rates to estimate the share of the shadow to the economy as a whole. The method can work well for determining the degree of revenue shortfall and for designing a cost-effective tax compliance program. However the drawback of this method is that it may not discover activities of unregistered economic units as inefficiency of tax administration and corruption- causes of the shadow economy in the first place- tend to make this method less effective. Finally estimates based on tax audits reflects that portion of black income which the authorities succeeded in discovering, thus it represents only a fraction of the hidden income. Furthermore this method may misunderstand the shadow economy's size as shadow economy is defined to be more than tax evasion.

In summary, although both direct methods (surveys and tax auditing) can provide detailed information about shadow economy activities and the structure and composition of those who work in the shadow economy they lead only to point estimates. Moreover, they do not capture all shadow activities and they are unable to provide estimates of the development and growth of the underground economy over a longer period of time.

B. Indirect methods

These methods, which are also called indicator methods, are mostly macroeconomic and use various economic and other indicators that contain information about the development of the shadow economy. Indirect methods are measuring total economic activity using these variables that are correlated with it, comparing the results to official GDP measures, and then attributing the gaps to between the two to the shadow economy. These methods are good at providing measures for changes in total economic activity and therefore, also can help to detect trends of the shadow economy over time.

However the usefulness of indirect methods to estimate the size of the shadow economy in transition countries is not so clear. The problem for this is, first, that these methods always require the assumption of a benchmark year in which the shadow size is known prior to the measurement attempt. Second, these estimators may not correspond completely to the precise definition of the shadow activity, since they cannot distinguish between activities that are supposed to be included in the GDP measures and activities that are not (e. g. household production). Third, they depend on whether the GDP measurement methods used by national statistics offices already include estimations of unreported activity.

Currency demand. The currency demand approach was first developed by Cagan²⁵ and further by Tanzi²⁶. His approach assumes that shadow or hidden transactions are made in the form of cash payments for not leaving traces for the authorities. An increase in the size of the shadow activity therefore will increase the demand for currency. This method attempts to estimate a demand for currency function on the assumption that changes in demand that are not linked with changes in the official GDP must reflect changes in shadow economic activity. It needs to assume that the income

²⁵ Cagan, Phillip (1958), "The Demand for Currency Relative to the Total Money Supply" *Journal of Political Economy*, Vol. 66, No.3, pp. 302-28

²⁶ Tanzi, Vito (1980), "The underground Economy in the United States: Estimates and implications," *Banca Nazionale del Lavoro*, Vol. 135, No.4, pp. 427-53

Also cit. in Tanzi, Vito (1983), "The Underground Economy in the United States: Annual Estimates, 1930-1980," *Staff Papers*, International Monetary Fund, Vol. 30, No.2, pp.283-305

velocity is the same for currency used in the shadow economy as for legal activities. Regarding to the transition countries this method presents several flaws. First, this method requires stable, or at least predictable, demand for currency which is unlikely to be the case during transition when the banking and financial sector are undergoing profound restructuring and inflation volatility prevails. Second, due to the complexity of the changes during transition it may be difficult to determine all the relevant explanatory variables to use as controls. Third, in many transition countries the informal sectors tend to use foreign currency and barter rather than local currency. Finally, in transition the assumption that a base year exists with no shadow activities, as well as the assumption of the same velocity of money in both shadow and official economy that the method requires, are groundless.

Transactions approach. This approach developed by Feige,²⁷ assumes a constant relation over time between the volume of transactions and official GDP, and then uses Irving Fischer's quantity equation, $M*V=P*T$ (where M is money, V is the velocity of money, P is the price level and T stands for total transactions). This method also require assumptions on the velocity of money and about the relationship between the value of total transactions ($P*T$) and total (official and unofficial) nominal GDP. Relating total nominal GDP to total transactions, the GDP of the shadow economy can be calculated by subtracting the official GDP to total nominal GDP. However to derive figures for the shadow economy this approach has to assume a base year with no shadow, in which ratio of $P*T$ to total GDP was "normal". It becomes clear that in the case of the transition economies, the assumption of a base year and the assumption of a "normal" ratio of transactions over time are far from being realistic. Also, the need to obtain reliable estimates and precise figures of the total volume of transactions might be especially difficult and problematic since they depend among other factors, on the durability of bank notes in terms of quality. Furthermore, the assumption that all variations in the ratio between the total value of transaction and the official measured GDP are due to the

²⁷ Feige, Edgar L. (1989) (ed), *The Underground Economies. Tax Evasion and Information Distortion*. Cambridge, New York, Melbourne, Cambridge University Press

Also cit. in Feige, Edgar L. (1996), "Overseas Holdings of U.S. Currency and the Underground Economy" in Pozo, Susan (ed), *Exploring the Underground Economy*. Kalamazoo, Michigan, pp. 5-62

shadow economy, means that a considerable amount of data is required in order to eliminate financial transactions from “pure” cross payments, which are completely legal and have nothing to do with the shadow economy. In summary, although this approach is theoretically attractive, it may lead to questionable results because of the empirical difficulties that arise in order to obtain reliable estimates.

Total Electricity use. Also called and physical input method, this method was developed by Kaufmann and Kaliberda,²⁸ who assume that electric power consumption is regarded as the single best physical indicator of overall economic activity. The method measures overall economic activity by assuming that electric power consumption and total (official and unofficial GDP) move together so that the ratio of GDP to electricity consumption is constant. This means that growth on total electricity consumption is an indicator that represents a growth of official and unofficial GDP. Under this assumption the growth of total electricity consumption reflects growth in total GDP. After this growth in total GDP is found, the difference between the growth rate of registered (official) GDP and the growth of total electricity consumption that represents total GDP can be attributed to the growth rate of the shadow economy. The advantage of this method is that it is very simple and inexpensive to implement.

However the method can be criticized on various grounds: First, not all shadow activities use energy and electricity in particular (e.g. personal services) and other energy sources can be used as well (gas, oil, coal, etc.), so that only a part of the shadow economy will be captured. Second, technical progress that changes the efficiency of use of energy may change the GDP/energy ratio across time and countries. The same can happen with other factors such as changes in industrialization, efficiency changes in the industry and changes in energy prices. Especially during transition these problems become particularly significant where industry decreases profoundly and the share on non-energy intensive agriculture expands. In addition liberalization of the energy market could cause big changes in the pattern of energy and electricity use and the massive

²⁸ Kaufmann, Daniel and Kaliberda, Aleksander (1996), “Integrating the Unofficial Economy into the Dynamics of Post-socialist Economies: A Framework of Analysis and Evidence,” Washington D.C., The World Bank, *Policy Research Working Paper 1691*

modernization efforts associated with transition will probably increase the energy efficiency output.

Household electricity use. Developed by Lacko,²⁹ the method assumes that a part of the shadow economy is associated with the household consumption of electricity. It includes among others the household production, do-it-yourself activities and other nonregistered production and services. Lacko (in the spirit of Kaufmann and Kaliberda) assumes that in each country, a part of the household consumption of electricity is used in the shadow economy. Then it assumes that when in a country the shadow economy associated with the household electricity consumption is high, the rest of the hidden economy will also be high. The method uses two equations, the first for electricity consumption as a function of some of its possible determinants (one of which is the size of the shadow economy) and the second for the shadow size as a function of taxes and social welfare expenditures. Solving the two equations provides an estimate for the relation between electricity and shadow activity in a country. To get the actual size of the shadow economy, an estimate of how much GDP is produced by one unit of electricity in each country is necessary. However since these data are not known, she uses results from another estimation of the shadow economy, carried out in a market economy with a different approach and she applies the proportion to the other countries. Lacko uses the shadow economy of the United States as such a base, and she then calculates the size of the shadow economy for other countries.

The strength of this method is that it is not difficult or costly to implement and that it takes advantage of an additional source of data in a region where data may be scarce. On the other hand this method is also open to criticism. First of all not all shadow activities take place in the household sector, but also a great part of the unofficial economy takes place within medium and large firms. Unless there is a predictable relationship between household and firm shadow activity, this method may lead to incorrect results. Furthermore, as in the total electricity method not all shadow activities

²⁹ Lacko, Maria (1996), "Hidden Economy-An Unknown Quantity? Comparative Analysis of Hidden Economies in Transition Countries 1989-1995." Working Paper 9905, Economics Department, University of Linz, Austria

require a considerable amount of electricity, as other energy sources are used as well. Also normalization is necessary as Lacko uses U.S. electricity consumption figures as a base value, which may not be appropriate in each case. Last, it is doubtful whether the ratio of social welfare expenditures can be used as the explanatory factor for the shadow economy, especially in transition and developing countries.

Discrepancy between official and actual labor force. This method uses information about discrepancies between official and actual labor force participation rates to draw conclusions about changes in shadow activity. This means that a decline participation in the official economy can be seen as an indicator for an increased activity in the shadow economy. The method assumes that total labor force participation is constant. The main flaw of this method is that differences in the rate of participation may also have other causes. Furthermore many people take part in both official and unofficial activities as they have a job in the official economy and also a second job in the shadow economy. It is unclear then if people working in the shadow are also registered as being part of the labor force. Moreover, since much of the shadow activity is done in firms that participate in both official and unofficial sector, if all the workers of such firms are considered as officially employed the method will seriously underestimate shadow activity.

The method is probably weak and ineffective if applied in transition economies for various reasons beside the previously mentioned. First, the method assumes that labor participation is constant which is highly unlikely in the context of the contracting economies of transition. Second, during transition period large structural changes may take place that may imply a big change in the unemployment rate that is not attributed to a movement to the shadow economy. Third, there can be other explanations for differences in official and actual labor participation rates, such as an increase in poverty, which increases labor force participation. Finally the figures and data on the labor force may be unreliable.

Discrepancy between national expenditure and income statistics. This method is based on discrepancies between income and expenditure statistics. In national accounting, the income measure of GDP should be equal to the expenditure measure of GDP. This means that the value of expenditures on final goods must be equal to the accumulated value-added of factor payments (incomes) paid in all the intermediate stages of goods and services leading to the production of the final goods. According to this method, if an independent estimate of the expenditures of each side of the accounts is available, differences in these two sums are attributed to the shadow economic activity. However a serious drawback on this approach is that it cannot always rely on national statistics since, country statisticians will be anxious to close this discrepancy. Thus, the initial discrepancy or first estimate rather than the published should be employed for this purpose. If all the measurements were done without errors then this approach would give a good estimate on the size of black economy. Unfortunately, in reality omissions and errors in national accounting that always happen may distort this gap. Furthermore, in transition countries direct and independent estimates of the expenditure side of the national accounts may not be available. Therefore this method may lead to crude estimates and questionable results.

Model method. Unlike all methods described so far designed to use one indicator to capture all effects and estimate the size and development of the shadow economy, the model approach considers multiple causes and multiple effects of the shadow economy over time. The method is based on the statistical theory of unobserved variables, which consider multiple causes and multiple indicators of the phenomenon being measured. It assumes that the shadow economy is an unobserved “latent” variable for the estimation of which, a factor-analytic approach is used to measure it. The DYMIMIC (dynamic multiple-indicators multiple-causes) model is using two equations in which the shadow economy appears, first as a dependent variable in the “causes” equation and second as an explanatory variable in an “effects” equation. Using the two equations and appropriate standardizations, the latent variable is recovered by searching for the series of numbers that are most likely to generate both the observed causes and the observed effects. There

is a large amount of possible causes and indicators of the shadow economy in which the following types are distinguished:

Causes

- The burden of direct and indirect taxation: a rising burden of taxation provides a strong incentive to work in the shadow economy.
- The burden of regulation: an increase in the burden of regulation gives a strong incentive to enter the shadow economy.
- The citizens' attitude towards the state, "tax morality", which refers to the tendency of individuals to leave their official occupations and enter the shadow market: It is assumed that a decline to tax morality increases the size of the shadow economy.

Indicators

A change in the size of the shadow economy may be reflected in the following indicators,

- Development of monetary indicators: If activities in the shadow economy rise, additional monetary transactions are required.
- Development of the labor market: Increasing participation in the shadow economy is reflected with a decrease (or in shorter working hours) participation in the official economy.
- Development of the production market: Rise of the shadow economy means that inputs, like labor force, move out of the official economy (at least partly). This may result to a depressing effect on the official growth rate of the economy.

The model method advantage is that it makes use of several indicators (effects) that capture the shadow economic activity presence, unlike the other indirect methods that force a single indicator to exclusively capture the shadow size. It also uses several causes whereas other methods mostly do not use causes at all or use a single cause (e.g. the burden of taxation). Furthermore, by using many dimensions of the existing data that can capture the presence of the shadow activities, it makes an effort to overcome the inherent poor quality of data, especially in the field of transition. Finally, the method makes

estimates based on known statistical property information which are inexpensive and rather straightforward to implement, producing results that make easy cross-country comparisons. On the other hand, interpreting the results is not such an easy task since not all of them correspond to a clear definition of the shadow economy. Additionally, in latent variant approaches estimates are sensitive to the proxies that are used as cause variables. Finally, as other approaches this method also requires a base-year knowledge of the size of the shadow economy as well as a standardization.

IX. SEE Country Analysis

Underground economy is present in every country in the world in greater or lesser extent. However shadow economy has flourished rapidly during the 1990s in the southeastern European region, comprising a very strong phenomenon with serious implications for the economy, the society and the process of democratization and development in the former communist transition countries.

As previously mentioned the quality of state intervention is one of the main reasons of the existence and growth of the shadow economy. In fact the onerous cost of state controls established in the former communist countries is what created the wilderness called shadow economy.

For the needs of this analysis a separation must be done between the former socialist transition countries³⁰ of southeastern Europe and the countries without communist legacy like Greece and Turkey. Only transition countries will be studied but, although there will be presented stats for several countries, we will not deal with all of them in a large extent but rather focus on selected ones.

³⁰ Including Romania, Bulgaria, Albania and the countries of former Yugoslavia: Serbia, Montenegro, Croatia, Bosnia and Herzegovina, F.Y.R Macedonia, Slovenia, Kosovo region

A. Bulgaria

In Bulgaria the political change in 1989 was not followed by an incremental institutional change something that caused structural deformations. This, in a combination with a large redistribution process, did not contribute to economic integration but rather to disintegration. In addition, economic “wars” begun between different groups like the former political and economic *nomenklatura*, the secret service networks, the “newcomers” in the political power elite and some criminal structures. Furthermore, political power became the only source of individual enrichment making an interest not only for the old but also for the new political elite that the state would function as a “political capitalist”

During this initial period towards capitalism, the insufficiency of private capital and lack of available credit for small businesses turned state plunder on the major path of private capital accumulation. Patron-client relations have reappeared in the behavior of small businesses and while in politics this led to the creation of a political oligarchy, in the economy it has stimulated a process of hidden privatization through illegal transfer of capital and income from state –owned enterprises to the private sector. In this way the private sector was strengthened at the expense of the state, the state transferred its losses to the population and the population did whatever they could to minimize them. In reality, while the wealth remained more or less the same a small group got richer at the expense of the majority who got poorer. The impoverishment of the Bulgarian population is also related to the high rates of unemployment (the rate was 18.8% of the active population in 2001 according to official data).

It has been argued that during this period of transformation in Bulgaria an institutional framework was missing to enforce market mechanisms. To fill up this institutional vacuum, informal institutions were recruited. Informal economy became a central element of economic and social dynamics and has penetrated deeply the Bulgarian society.

While in the period 1989-1996 the GDP has gradually decreased by 33.5%, the shadow economy in Bulgaria has grown significantly. According to estimates of the share of the shadow economy in GDP resulting from different measures, the shadow economy amounted from 24%³¹ to 33%³² in the early 1990s.

It increased by 32.7% from 1989-90 to 1991-92 according to Lacko (electricity consumption method); it had decreased 10.8-21.3% according to Kyle.³³ It was between 17.3-21.6% (Kyle *et al.*) and 40% (National Statistical Institute) in the mid 1990s, 18% (National Statistical Institute) to 28.2-34.4% (Kyle *et al.*) in 1996-97, and between 21% and 23% in 1998 and 1999.

Despite serious discrepancies between different estimates, all of them show serious peaks in the early and in the mid 1990s (with 32.2% in 1990 and 34.4% in 1996). After the introduction of the currency board on July 1, 1997 a macroeconomic stabilization as well as a price and trade liberalization took place with the result of decreasing the shadow economy by one third to 21.9% in 1998 according to Kyle *et al.* However, the informal economy did not shrink to an equal degree in all of its parts. The hidden economy in the Bulgarian case is comprised by corruption, hidden privatization and tax evasion. Since the introduction of currency board brought a steady rise in tax revenues and corruption is the main technique for avoiding taxes, Bulgaria climbed up to the Corruption Perceptions Index (CPI) from 66th to 47th place for the period 1998-2001.

In regard to the development of the black labor market in Bulgaria, the World Bank (1995) estimates show 8.5% of the active population was employed in the black economy in 1995. The most common way of participating in the informal sector was on a fake labor contract. Its share was relatively high- almost 22% of all contracts according to a national survey in 1996. Black labor became a surviving practice for many people as it

³¹ Johnson, Simon, Kaufmann, Daniel and Shleifer Andrei (1997) "The Unofficial Economy in Transition", *The Brookings Review*.

³² Lacko, Maria (1999) "Hidden Economy as Unknown Quantity? Comparative Analysis of Hidden Economies in Transition Countries in 1989-1995." Working Paper 9905. University of Linz, Austria

³³ Kyle, Steve *et al.* (2000), "The Shadow Economy in Bulgaria." Sofia: Harvard University, Agency for Economic Analysis and Forecasting. Institute for market Economics

absorbed part of the large unemployment mass, soften poverty and decreased social tension. Black jobs can be most found in agriculture and trade, in villages and small towns, but only in cooperatives and small firms and not in state-owned firms. Working on a fake labor contract is most typical for construction and trade and in private firms in regional centers.

In conclusion although firms and individuals were benefited in the short run from informal operations and gave a positive boost in the economy during the first harsh years, the total economic effect of the informal economy in Bulgaria is negative. At a micro level, it lowers the competitiveness of the national economy, slows down economic growth, prevents the implementation of state policies and labor regulations and thus distorts the proper functioning of the market.

B. Romania

The dimension of the underground economy in Romania like in all ex-communist European countries is significant and stem more or less from the same causes and conditions.

Furthermore the Romanian underground economy was analyzed and evaluated by numerous state institutions (National Institute for Statistics, The Ministry of Public Finances, Financial Guard, Romanian Intelligence Service, National Bank of Romania), non-governmental organizations (Romanian Centre for Economic Policies, The Centre for the Institutional Reform and the Informal Sector), independent researchers, with results being very different because of the diversity of the methods that were used.

The Romanian Intelligence found that illicit activities from Romania represent 35-40% of the GDP which demonstrates the existence of a parallel economy just as vigorous as the official one.

Furthermore according to a research made by the Romanian Centre for Economic Policies from the National Institute of Statistics, in 2000, the underground economy represented 31% of the entire GDP of the country and approximately 45% of the GDP of the official sector. For the same year official data presented by the National Institute of Statistics showed that the underground economy succeeded in making 21% of the entire GDP and 27% of the GDP of the official sector, while an evaluation of the same institution about the structure of the underground economy was as follows: Industry occupied the first place with 8.7% of the GDP, trade, public administration and tourism 5.2%, transports with 3.2%, other services 2.3% and constructions 1.7%. The study of the Romanian Centre for Economic Policies shows that there is 72% of the entire underground economy in the formal sector, meaning in the economic structures organized as judicial persons (enterprises, quasi-enterprises, public institutions). From the amount of the underground economy, 51% is realized in the field of services, the same proportion as showed in the data of the National Institute of Statistics.

Moreover, according to the National Institute of Statistics the most important part of the underground economy is represented by the evasion of the income taxes, the value added tax and labor on the black market with formal unregistered workers by convention.

These data show that in Romania the underground economy is a subsistence economy with the labor on the black market representing 46.5% of the entire underground economy.

Finally, according to some studies made by Friedrich Schneider³⁴ between 1990 and 2003, the underground economy in Romania had an ascendant evolution.

³⁴ Schneider, Friedrich (2004) "The Size of the Shadow Economies of 145 Countries all over the World: First Results over the Period 1999 to 2003", Discussion Paper No. 143, University of Linz and IZA Bonn
Schneider, Friedrich (2000) "Illegal Activities but Still Value Added Ones (?): Size, Causes and Measurement of the Shadow Economies All Over the World, CESifo Working Paper No. 305

-% in official GDP-

	1990	1990-93 (average)	1995	2000	2001	2002	2003
Underground economy	18	27.3	28.3	34.4	33.4	36.1	37.4

We may see that in 2003, the estimated underground economy represented the double of the estimated one for 1990.

C. Croatia

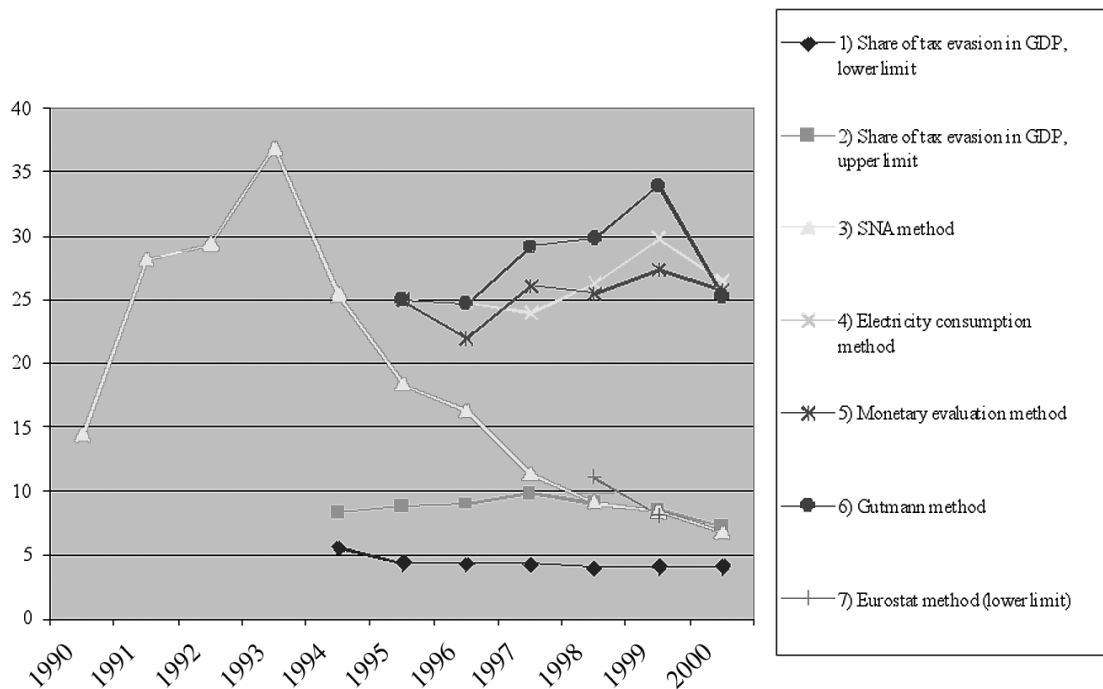
Trends in the unofficial economy in Croatia were influenced by structural conditions (impoverishment, increasing inequality, unemployment, destitution of the public services), as well as institutional changes (privatization, taxation policy, sanctions). Furthermore, reasons for the unofficial economy were inherited tradition; the transition with its vigorous sector and institutional restructuring; the great influence of the government in the economy, particularly through paternalism and privatization; the high tax burden; unclear and non-harmonized laws and regulations; the lack of independence and resources of the courts; and the lack or insufficiency of organization, efficacy, expertise and co-operation amongst state bodies. There are also ambitions and practices of the state to become large and paternalistic and to invest to the economy or subsidize it, which encourages corruption and illegal practices. Moreover, in Croatia a particular problem of the unofficial economy stems from its involvement in privatization because of the quantity of the social capital included into it, the impossibility of measuring it, the attitude that privatization auditing is a political rather than economic, legal and moral question and the lack of transparency in regulations and the concentration of power in the hands of state officials.

To measure the unofficial economy in Croatia various methods were applied: monetary methods, national accounts, labor force surveys and tax evasion estimates. As previously mentioned different methods provide discrepancy in the results. The

measurement with the national account discrepancy method always gives relatively low results, while monetary methods gives relatively high ones. Therefore the national account discrepancy method provides a general picture and as defining the lower limit it is a good point of departure for comparison with alternative methods.

According to the national account discrepancy method shown in the figure above, the unofficial economy in the period 1991-1995 reached an average of 25.4% of GDP while for the 1996-2000 period was estimated at an average of 10.4%. The results seem quite logical as in the earlier period in Croatia there was war, hyperinflation and the beginning of transition and reform, while on the second period there was stabilization and the strengthening of the ethical and legal system.

Share of the underground economy in GDP according to different methods



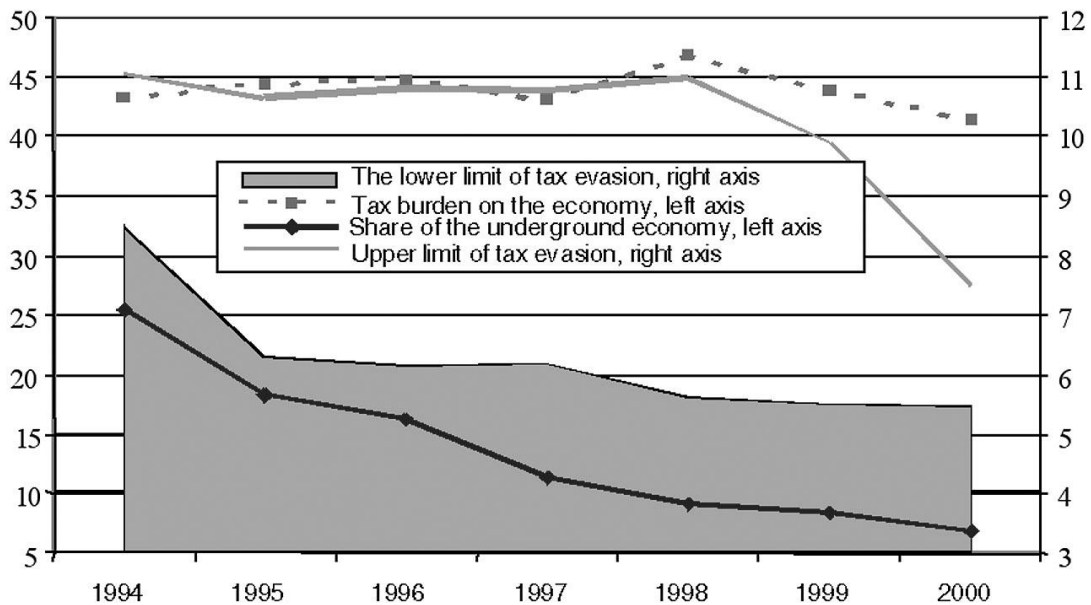
Source: Lovrinevic, Mikulic and Niksic-Paulic (2001), Madzarevic-Sujster (2001), Madzarevic-Sujster and Mikulic (2001), Sosic and Faulend (2001).

Results based on different approaches provided estimates that were a little bit different and perhaps questionable, but certainly indicative. According to the Eurostat

method adjusted to the needs of transition countries, employment data from official sources and labor force surveys are compared. The difference between the officially recorded and the expected rates of activity of the population is analyzed. Under this method the unofficial economy in 1998 came to 8.9% of GDP and in 1999 to 8.1%.

In respect to the level of tax evasion in Croatia from 1994 to 2000, the lower limit of evasion shows a declining trend, from 8.5% to 5.5% of GDP, while the upper limit was constant up to 1998, after which it fell from 11% to 7.5%.

Comparison of tax evasion and the share of the unofficial economy (% of GDP)



Source: Madzarevic-Sujster (2001).

An interesting point is that the upper estimate of tax evasion follows the tax burden until 1998. The rise of the tax burden in 1998 led to a rise in tax evasion, and in 1998-2000, the reduction of the costs of labor resulted in a reduction in tax evasion.

According to estimates of the underground economy in individual industries for the period of 1990-1999³⁵, the average lower limit in agriculture was 6.8% and the upper limit 16.9%. In industry the unofficial economy was relatively low but with a growing trend, from 2.3% in 1996 to 5.2% in 1998. The growth of stagnation of the unofficial economy in industry, unlike its fall at the level of the economy as a whole, can be explained by the lagging of the transition in this sector of activity. Estimates in trade vary but are nevertheless identical. A sudden growth in 1990-1993 to almost 60% of trade as a whole, a sudden fall in 1993-1994 to around 35% and a mild decline of stagnation from 1995 on. An explanation of the difference in the trends (reducing in trade, stagnating in agriculture, rising in industry) might be the speed of the transition by sector. The transition was more rapid in trade and slower in industry. In tourism, the unofficial economy in the period of 1998-2000 ranged from 18.6% to 28.8% of registered total foreign bed nights. This means that the forgone tax receipts of the government had risen from 0.4-0.6% of GDP in 1998 to 0.5-0.8% of GDP in 2000.

D. Overall Estimation of Underground Economy in SEE

In order to reach some comparative results, an overall estimation of the underground economy in SEE will be presented in this section. As previously stated to measure the unofficial economy is not an easy task. Furthermore, several methods have been applied by different scientists which all have flaws and advantages that may lead to a discrepancy in the results.

The measurement of the size and development of the shadow economies in the transition countries has been undertaken since the late 1980s starting with the work of Kaufmann and Kaliberda, Johnson *et al.* and Lacko. They all use the physical input (electricity) method and come up with quite large figures. Gathering their results

³⁵ Ott, Katarina, (2002) "The Underground Economy in Croatia" Occasional Paper No. 12, Institute of Public Finance

Friedrich Schneider and Dominic Enste have written a comprehensive survey.³⁶ Their results for SEE countries are shown in the table below.

Considering the physical input (electricity) method and the Johnson *et al.* figures for the period 1990-93 Serbia and Montenegro have the largest share with 30.9 percent of GNP followed by Bulgaria with 26.3 percent. The lowest is found in Romania with 16.0 percent. Considering the Lacko figures Macedonia has the largest shadow economy with 40.4 percent, followed by Croatia with 39.0 percent. According to Lacko the lowest two are Slovenia with 28.5 percent and Romania with 29.0 percent. Finally the Johnson *et al.* figures show an average shadow economy of 24.1 (Lacko 32.1) over 1990-93 and over the period 1994-95 Johnson *et al.* shows an average size of 28.2 (Lacko 35). In conclusion we can draw the result that the shadow economy in SEE transformation countries had an increase between the two periods.

Size of the Shadow Economy in Transition Countries (in % of GDP)

Physical Input (electricity) Method using values from Johnson et al. and Lacko in “()”						
Transition Countries	Average 1989-90		Average 1990-93		Average 1994-95	
Bulgaria	24.0	(26.1)	26.3	(32.7)	32.7	(35.0)
Croatia	22.8	(-)	23.5	(39.0)	28.5	(38.2)
Macedonia	-	(-)	-	(40.4)	-	(46.5)
Romania	18.0	(20.9)	16.0	(29.0)	18.3	(31.3)
Slovenia	-	(26.8)	-	(28.5)	-	(24.0)
Serbia/Montenegro	-	(-)	30.9	(-)	33.4	(-)
Average SEE States	21.6	(24.6)	24.1	(32.1)	28.2	(35)

Sources: Calculations by Schneider and Enste using values of Johnson, Kaufmann and Shleifer (1997), Johnson, Kaufmann and Zoida-Lobaton (1998) and Lacko(1999) in ()

³⁶ Schneider, Friedrich (2000) “Illegal Activities but Still Value Added Ones (?): Size, Causes and Measurement of the Shadow Economies All Over the World, CESifo Working Paper No. 305

In another study by Schneider, the size and development for 25 transition countries from 1999/00 to 2006/07 are presented. To calculate the shadow economy the MIMIC (Multiple Indicators Multiple Causes) approach was used together with the currency demand approach in order to overcome the shortcomings of the MIMIC method and get absolute figures. For the transition countries under the MIMIC method the cause variables that were used were the following: share of direct and indirect taxation (including social security payments and including custom duties in % of GDP) as the two tax burden variables; burden of state regulation (Index of regulation, Heritage Foundation, 2005), unemployment quota and GDP per capita as three cause variables for the status of the “official” economy. As indicators values were used the employment quota (in % of the population between 18 and 64), annual rate of GDP and annual rate of local currency per capita.

As shown in the table below, presenting the development of the size of the shadow economy over time for transition SEE countries, the average size was 33.7% of official GDP in 1999/2000 and increased to 37.3% in 2004/2005 which is an increase of 3.6 percentage points over these seven years. Then the average value decreased to 36.7 in 2006/2007- a reduction of 0.6 percentage points mainly due to the booming official economy. Furthermore, in 2006/2007 the higher shadow economy is presented in Serbia/Montenegro with 41.4% followed by Bulgaria, Macedonia, Bosnia and Herzegovina and Romania with 39.4%, 38.3%, 38.2% and 37.4%, Croatia and Albania with 36.5% and 36.0% respectively and the lower in Slovenia with 26.4% of official GDP.

Transition Countries	Shadow Economy (in % of official GDP) using the MIMIC and Currency Demand Method						
	1999/00	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
Albania	33.4	34.6	35.3	36.1	36.3	37.0	36.0
Bosnia/Herzegovina	34.1	35.4	36.7	37.2	38.1	39.0	38.2
Bulgaria	36.9	37.1	38.3	39.1	40.0	40.2	39.4
Croatia	33.4	34.2	35.4	36.1	37.2	37.3	36.5
Macedonia	34.1	35.1	36.3	37.3	38.4	39.0	38.3
Romania	34.4	36.1	37.4	38.2	38.9	38.3	37.4
Serbia/Montenegro	36.4	37.3	39.1	40.3	41.1	42.1	41.4
Slovenia	27.1	28.3	29.4	29.0	28.6	27.2	26.4
Average	33.7	34.7	35.9	36.6	37.3	37.5	36.7

Sources: Calculations by Friedrich Schneider (2009)

The conclusion that can be drawn from these results is that underground economy has a strong presence and a very high share on the total economy in the transition countries of southeast European region (at least higher than the transition countries of central Europe, though lower than those of the former Soviet Union). The underground economy has reached a remarkable large size in SEE; the average of all countries was 33.7% of official GDP in 1999/00 and rose to 37.3% in 2004/05, but decreased to 36.7% in 2006/07 due to the booming official economy.

X. Conclusion

The underground economy is an active component of the majority, if not all, of the world's economies, though its size appears to vary considerably among countries. In the countries of southeast Europe the informal economy flourished during the 1990s, something not surprising given the background of the entire process of transformation. These countries were challenged to create as quickly as possible a new system, based on market forces to replace the old one. In the beginning of the transformation process, the speed of destruction of the old system was higher than the speed of building up the new

institutions of the market economy. This is perhaps the most important reason of the presence and strength of the underground economy in these societies.

Starting with the difficult attempt to define the underground economy and give its general concept as well as the importance of dealing with it, we continued with presenting the most common activities that underground economy is engaged and the significant relationship that it has with the level of corruption in a country. Following, an effort to address the main causes responsible for the development of the shadow economy was made with special focus on the transition countries. Furthermore, a categorization of the most important methods developed by scientists for measuring the immeasurable, meaning the underground economic activity was attempted. Finally, a presentation of the size and development of the underground economy over time in the countries of southeast Europe was undertaken, together with some comparison results.

The analysis has shown that not only it is difficult to comprise a simple definition of the underground economy and enumerate its activities (legal and illegal) but rather it is even more difficult to measure it. Underground economy spreads in all the spheres of economic activity and the different existing methods of estimating it present disadvantages and flaws. Furthermore, by nature, people and firms engaging in the underground economy are hiding and do not want to be detected. It is very difficult then, not only to obtain accurate data but even more to find a single valid method that allows for the measurement and comparison of findings between countries, or within a country over time.

Moreover, based on research using some of the existing methods, this paper found that underground economy comprise a high share of the total economy of southeastern countries with an accelerative evolution over the years. Though a small decrease has been observed in the last years indicating a normalization of the economies with the new market institutions and regulations, more action for governments must be undertaken to curb the underground economy.

First of all governments must try to understand the causes that drive economic agents underground which many times are consequences of its own policies and actions, most notably, taxation and regulation. Governments must analyze the complex relationships between the underground and the official economy and undertake incentive orientated policy measures to make work less attractive to the underground and more attractive to the official one and thus, reduce it.

Some of the measures towards this direction are: better quality than quantity of state regulation. Governments should put more emphasis on the rule of law and on the strict enforcement of a minimum necessary set of regulations, rather than on increasing the number of regulations. Furthermore, reforms must be achieved in liberalizing regulations and make the economy more competitive, reducing the incentives for corruption and encouraging firms to operate in the official economy. Finally a reduction of the tax burden, together with more frequent tax audits, heavier penalties of tax evasion and better work of the rule of law may improve tax compliance and reduce the underground economy.

At the end, we must not ignore that underground economy besides its positive or negative impacts on the official one, it has served as a surviving practice, driving people away from poverty by providing income and work in harsh times of economic regression were otherwise it could not be attained.

This is even more important in the current period where the world faces one of the most serious financial crises of the 21st century. From the developed countries of the West to the transition countries of the Eastern Europe and Asia, millions of people are employed to the informal sector of the global market. Especially in the developing and transformation countries where the consequences of the crisis are multiplying, underground economy is evolving to an informal safety net for people. Having in mind the warning of the International Labor Organization that nearly 52 million of people will be unemployed because of the crisis; economists start to revise their views about

underground economy, focusing more to its positive impacts. Underground economy can be a blessing in disguise.

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