

The Shadow Economy and Institutional Change in Transition Countries

Dr. Dominik H. Enste
Institut der deutschen Wirtschaft, Köln

1	The Shadow Economy – A Challenge for Economic and Social Policy	3
2	Shadow Economy, Tax Evasion and Illicit Work.....	7
3	An Evolutionary Theory of the Shadow Economy	9
4	What are the Main Causes of the Growth of the Shadow Economy?	12
4.1	The Influence of Tax and Social Security Contribution Burden	13
4.2	Intensity of Regulations.....	14
4.3	Labor Market	15
4.4	Public Sector Services	16
4.5	Main Causes in Eastern Europe.....	18
5	The Effects of the Shadow Economy on the Official Economy	19
6	The “Two Pillar Strategy” - „Exit“ and „Voice“ as Behavioural Options.....	20
6.1	Decreasing the Attractiveness of the “Exit” Option.....	22
6.2	Strengthening the “Voice” Option.....	23
7	Conclusion and Outlook.....	25

Figures

Figure 1: Categorisation of the underground economy	8
Figure 2: Correlation Between Tax Yield, Tax Rate and the Growth of the Shadow Economy	10
Figure 3: Economic and Institutional Change	17
Figure 4: Consequences of the Increasing Shadow Economy.....	20
Figure 5. Behavioural Options by Households and Firms.....	20
Figure 6: Economic Policy Recommendations to Reduce the Attractiveness of the Shadow Economy	22

1 The Shadow Economy – A Challenge for Economic and Social Policy

The causes, effects and problems generated by increasing shadow economic activities are extensively and controversially discussed in OECD and transition countries. Attention is drawn to the shadow economy due to the dramatically rising unemployment (e.g. in the EU), and the financing problems of public expenditure, as well as the rising vexation and disappointment with economic and social policies. Broad initiatives on behalf of the EU Commission and the EU Parliament as well as initiatives at national level show that politicians eventually felt the need to act.¹

But they face a dilemma. While the fact that the wealthy are evading taxes leads to widespread public indignation, illicit workers are often much less criticised, although, as some politicians argue, they are behaving anti-socially and represent a source of growing unemployment and social injustice. This opinion is broadly shared with regard to social fraud, illegal employment and extensive tax evasion. But what about part time illicit work in the evening (“moonlighting”), which roughly half of the population of Germany would tolerate or even take advantage of if these people had the opportunity to make use of it?² Can more sanctions and control combined with more regulation become the ultimate solution to combat illicit work, or what is the right way to deal with undeclared work?

In popular scientific media and daily newspapers the discussion about the nature of the shadow economy fluctuates between two extremes: the shadow economy is either blamed for many problems of the economy, such as unemployment, high public debt and recession, or it

¹ See, for example, EU Commission (1998) and EU Parliament (2000).

² See Enste (2001a, pp.158f; 2002).

is regarded as a legitimate free space in an economic system characterized by high taxes and excessive regulation. In social science articles and papers dealing with the shadow economy often focus only on a single aspect, mostly the difficulties and challenges to measure its size. In addition, the basis of the analysis of the causes and consequences of the increasing shadow economy is often quite narrow and does not take into account the results and insights of the work of other social sciences. Therefore, a comprehensive overview and scientific analysis of this complex phenomenon is necessary.³

Research on the shadow economy focuses on three of its major aspects, which will be analysed in more detail here:⁴

a) In *economic and social policy* the driving force in dealing with illicit work is the fact that these illegal and semi-legal activities are undesirable to official institutions. A growing shadow economy can be seen as the reaction of individuals who feel overburdened by the state and who choose the “exit option” rather than the “voice option”. If the increase of the shadow economy is caused by a rise in the overall tax and social security burden together with “institutional sclerosis” (Olson, 1985), then the “consecutive flight” into the underground may erode the tax and social security bases. The result can be a vicious circle of additional increase of budget deficit or tax rates, further growth of the shadow economy and gradual weakening of the economic and social fundament of collective arrangements.

In addition, the effects of the shadow economy on the official one should also be taken into consideration because illicit work can be a source of allocation distortions, since resources and production factors are not used in the most efficient way. On the one hand, a growing shadow economy may attract (domestic and foreign) workers away from the official labour

³ For a comprehensive and more detailed analysis see Enste (2002).

⁴ For more details see also Weck, Pommerehne and Frey (1984), Gaertner and Wenig (1985), Petry and Wied-

market and create competition for official firms. On the other hand, at least two-thirds of the income earned in the shadow economy is spent in the official economy, thereby having a positive and stimulating effect on the official economy.⁵

Furthermore, a prospering shadow economy may cause severe difficulties for politicians because official indicators, e.g. on unemployment, labour force, income, GDP, and consumption, are distorted. Policy based on erroneous indicators is likely to be ineffective, or even worse. Therefore, the reciprocal effects between the shadow and the official economy have to be considered when planning measures of economic policy, especially fiscal policy. Due to underground economic activities the tax revenue might reach the negatively sloped part of the Laffer Curve where higher tax rates result in a lower tax yield.

b) In *social sciences* the shadow economy is foremost a challenge both for economic theory and economic policy as answers have to be found to questions, such as why people work illicitly, why transactions are made in the shadow economy and what are the effects resulting from this behaviour. Currently there are theoretical approaches in different social sciences which concentrate on individual aspects of this complex phenomenon. A coherent, integrative and interdisciplinary model for the analysis of the causes has just been published (Enste, 2002) and it is necessary to use this approach to boost research in this area.⁶

c) The most difficult task for *economic policy analysts* is to convey the often not very much appreciated results of their work to politicians and to convince them, that the findings are correct and relevant. But the suggestions with regard to specific economic policies are based

Nebbeling (1987), Feige (1989) and Thomas (1992).

⁵ This figure has been derived from polls of the German and Austrian population about the effects of the shadow economy. For further information see Schneider (1998b). Moreover the results of these polls show that two-thirds of the value added produced in the shadow economy would not be produced in the official economy if the shadow economy did not exist.

⁶ See for empirical research Schneider and Enste (2000a and 2000b), Cowell (1990), Thomas (1992), Pozo

on an analysis of the relationship between the causes and the effects of the shadow economy. They go far beyond the guidelines laid down by the EU Commission in their pan-European employment strategy for combating illicit work calling for exchange of “good practice models” and co-ordination at the EU level to combat illicit work, including stricter controls and harsher sanctions.⁷ Unfortunately, these ideas are not new and hardly go beyond trying to cure the symptoms. Instead, reforms of the tax system and the social security system are necessary to improve the dynamics of the official economy and make the official institutions more competitive within the different institutional arrangements at national and international level.

The discussion about adequate economic policies is often influenced by various ideological preferences. One can come across contradictory arguments ranging from a forced denial of the phenomenon “shadow economy” to imaginative exaggerations of its size and impact. The starting point of nearly all controversies are the different estimates of the size of the shadow economy which makes the assessment of the validity of the findings really hard. Due to this attitude, unfortunately, research efforts are fixated on questions, such as which is the best method to estimate the extent of the shadow economy, how large is the shadow economy labour force and how it changes over time.

But the analysis of the causes and consequences of the increase of the shadow economic activities is much more important. Knowledge of these causes and effects on resource allocation, income distribution and stabilisation policies as well as on the official economy in general provides the foundations for proposals for policy change on treating illicit work as an economic and social challenge. I would argue for a “Two-Pillar-Strategy”, including two

(1996), Spiro (1997) and Lippert and Walker (1997).

⁷ In Europe illegally employed people take between 10 and 28 million regular employment positions. See EU Kommission (1998).

elements: (1) reducing the attractiveness of evading taxes and regulations (“exit” option), and (2) increasing the opportunities for influencing the formal institutions in the right direction (“voice” option).

2 Shadow Economy, Tax Evasion and Illicit Work

When examining the phenomenon of the shadow economy its definition is of utmost importance. Many theoretical controversies and political discussions are due to the use of different or inadequate definitions.⁸ To analyse the causes and, above all, to estimate and evaluate the consequences of the increasing shadow economy it is necessary to clarify what is meant by the latter in different contexts.

Since the term “shadow economy” comprises numerous economic activities it is difficult to provide a formal definition. For example, one has to distinguish between goods and services produced and consumed within the household, “soft” forms of illicit work (“moonlighting”), illegal employment and social fraud, as well as criminal economic activities.⁹

In general, the shadow economy can be seen as the „emigration from the established ways of working” (Stützel, 1980, p.453; own translation) or, as the German Council of Economic Experts defines it, it is “a decision against the official norms and formal institutions for economic activity.” (SVR, 1980, p.145, Tz. 296 own translation)

From the point of view of economic policy particularly relevant are those shadow economic activities related to the added value as well as their influence on the allocation of resources.

⁸ Here is a small selection of terms used either synonymously or in different issue areas, according to the respective author: underground economy, illicit work, informal sector, irregular sector, leisure economy, alternative economy, black economy, hidden economy, unofficial economy, parallel economy, shadow economy, unobserved economy, unrecorded economy. See, amongst others, Thomas (1992, p.125).

⁹ See Bhattacharyya (1999), Dixon (1999), Giles (1999b), Tanzi (1999) and Thomas (1999).

Concerning the evaluation of the activities in the context of an economic order, one has to distinguish between the output of illegal and legal activities, on the one hand, and legal and illegal production and distribution of these activities, on the other. Figure 1 illustrates this definition. Yet, the boundaries between the sectors are not clearly defined and they change with the level of economic development.¹⁰

Figure 1: Categorisation of the underground economy

The underground economy can, in principle, be divided into four sectors. The informal economic activities may be defined in terms of the two concepts of market transactions and legality/ VGR-conventions. Hence, the underground economy can be logically separated into a legal and an illegal sector.¹¹ The legal sector then can be defined as the self-sufficient economy while the illegal one as the shadow or hidden economy.

As marked in grey in the figure, the production of private households as well as voluntary work for charities is excluded from further analysis. Following Tanzi's line of argumentation (1999, p. 338), activities, which do not generate added value but merely imply a financial gain for the individual, are also ruled out (prostitution, murder, kidnapping etc.). Furthermore, pure tax evasion is not included in the following analysis either. Hence, the shadow economy, especially illicit work combined with tax evasion, is the subject of this study. Illicit work, carried out either on a part-time basis by individuals ("moonlighting") or as part of the activities of a firm ("sole job") constitutes the largest element of the shadow economy.

¹⁰ See also Asea (1996), Mirus and Smith (1997, p.5), Smith (1997, p.13), Petry and Wied-Nebbeling (1987, p.14ff), Thomas (1992, p.6).

¹¹ See also Thomas (1992, p. 4 and 6).

3 An Evolutionary Theory of the Shadow Economy

A growing shadow economy can be seen as the reaction of individuals who feel overburdened by the state and who choose the “exit” option rather than the “voice” option. As increase of the shadow economy is caused by a rise in the overall tax and social security burden coupled with institutional sclerosis, the increase of underground activities erodes the tax and social security bases. The result is a further increase in the budget deficit or tax rates, additional growth of the shadow economy and gradual weakening of the economic and social fundament of collective arrangements. This effect is illustrated in Figure 2.

Apart from the shadow economy, physical or economic migration into other countries are important “exit” options. The increasing mobility within the EU strengthens the effectiveness of these options, as long as there is no harmonisation of the tax and social security systems. When dissatisfied with the public goods offered in his or her own country a tax-payer can emigrate. Also, the possibility to engage in shadow economic activities limits the taxation capacity of the government. Thus, the shadow economy forms an endogenous boundary.

The correlation between individual reaction and taxation is illustrated in the following figure of a modified Laffer Curve (1979), which originally shows the effect of tax evasion through additional leisure time. Gutmann (1981) modified the figure by integrating the possibility to engage in shadow economic activities.

The top part of the graph shows the correlation between tax rate and tax yield which is in the centre of political debates, especially in the USA. Still, this has not yet been justified either theoretically or empirically. The axes show the aggregated tax rate in percentage of the income and the tax yield. The more the state increases the tax rates, the more opposition

grows. If the yield maximum in S (tax rate t^*) is surpassed, the internal revenue decreases despite rising tax rates as citizens try to avoid paying. Lowering the rates would in this case even result in a higher yield as the negative incentives are no longer evident.

Figure 2: Correlation Between Tax Yield, Tax Rate and the Growth of the Shadow Economy

The lower part of the graph shows the link to the shadow economy.¹² To simplify, the economy is divided into three sectors (public sector, official and shadow economy). With regard to the development of an economy over time we should note that at the beginning the informal sector was strong. The introduction of an extensive official economy is not possible without state activity. If the former grows, so does the latter as it requires resources.

When taxes are introduced positive effects predominate. There are positive incentives to switch to the official economy if the state actually guarantees property rights in exchange for taxation. Where the optimum combination of taxes and supply of public goods lies, cannot be generalised as the situation and tax culture differs from country to country. One possibility is that citizens get accustomed to the increasing use of resources by the state, so that this does not necessarily result in a growing shadow economy.

But, since politicians and bureaucrats as modelled in Public Choice Theory act rationally, they try to maximise their utility. This finally leads to tax yield maximisation by politicians and budget maximisation by bureaucrats, resulting in higher taxes rates to finance the growing public sector. Frey und Weck (1983a) show that this also leads to an additional supply of jobs in the public sector. The rising tax burden means stronger incentives to work illicitly. Once the tax yield has reached its maximum, the public sector can no longer expand as taxpayers will increasingly engage in shadow economic activities if tax rates are increased any further.

¹² For a simplified figure, which ignores the effects of state activity, see Frey and Weck (1983a), Neck, Schneider and Hofreither (1989), Blankart (1998, pp. 240f) and Windisch (1984).

If the public sector is becoming larger and larger, then people might not accept this limitation of their freedom due to high tax rates and strict regulations any longer. The migration into the shadow economy is one way of showing opposition and resistance to the existing rules and institutions (like tax laws, regulations etc.). A new set of rules and institutions is necessary. In extreme cases in history, revolutions changed the established institutions, replacing those, who were in power. A new government, other laws and institutions will be implemented, because a situation without any state activity - anarchy - is not desirable for anybody as in such a situation all economic activities take place in the shadow economy (see figure 2). At this point of institutional change, the development of regulations and supplying resources for state activity is advantageous for all people. But the supply of public goods by the state (e.g. protection of property rights) requires resources, so that some activities are transferred to the public sector. The process of institutional development starts again and the "new institutions" are supported by the people, because they increases their welfare and are perceived as legitimate.

These considerations show that the perception of public equivalents is an important criterion for the decision whether or not to work illicitly. If the combination of taxes and supply of public goods is perceived as legitimate, then it will not result in a rise of shadow economic activity.¹³

¹³ See for an integrated model explainig this notion in more detail Enste (2002).

4 What are the Main Causes of the Growth of the Shadow Economy?

The growth of the shadow economy has been caused by many different factors but the most important and most often cited ones are:¹⁴

- the rise of the burden of taxes and social security contributions combined with the increase in the density and intensity of regulations in the official economy, especially on labor markets’,
- the (forced) reduction of weekly working time, the early retirement and the growing unemployment rate, and
- the long-term decline of civic virtue and loyalty towards public institutions combined with a declining tax morale.

An interdisciplinary analysis of the causes of the increase of the shadow economy seems to be necessary as the economic factors can only partly explain this increase.¹⁵ Micro-sociological and psychological approaches can provide very interesting additional insights in individuals’ decision process choosing to work in the underground. An interdisciplinary approach, similar to that applied in Economic Psychology, focuses on variables such as tax morale, which was

¹⁴ When dealing with the various causes in the following sections 4.1 to 4.5 the most important references are given. For an overall view see the studies by Tanzi (1982); Frey and Pommerehne (1984); Thomas (1992) and Schneider and Enste (2000b).

¹⁵ Although interdisciplinary research has focused on tax compliance, for instance, Alm, McClelland and Schulze (1999), Cowell (1990), Pommerehne, Albert Hart and Frey (1994) and the special issue on “Economic Psychological Perspectives on Taxation” of the Journal of Economic Psychology (December 1992), there is a need to explain the factors for other (hidden) activities. See Frey (1997b) for details.

first discussed by Günter Schmolders (1960, 1975), and other factors like acceptance and perceived fairness of the tax system.¹⁶

4.1 The Influence of Tax and Social Security Contribution Burden

In almost all studies the rise of the tax and social security contribution burdens is one of the most important causes of the growth of the shadow economy.¹⁷ Since taxes affect labor-leisure choices and stimulate labor supply in the shadow economy, or the untaxed sector of the economy, the distorting effect of this choice is a major concern of economists. The bigger the difference between the total cost of labor in the official economy and the after-tax earnings from work, the greater the incentive to avoid this difference and to work in the shadow economy. Since this difference depends largely on the social security system and the overall tax burden, they are key factors of the existence and the growth of the shadow economy.

A macroeconomic analysis of some of the causes for the increase of the shadow economic activities is given by Loayza (1996). He presents a simple macroeconomic endogenous growth model in which production technology depends on congestable public services. The determinants and effects of excessive taxes and regulations on the informal sector are studied; in the model the government lacks the capability to enforce compliance. His empirical approach treats the informal sector as an unobserved variable for which multiple causes and multiple indicators exist and he uses the Multiple Indicator Multiple Cause (MIMIC) model. Loayza estimates the size of the informal sector in 14 Latin American countries and finds some evidence for three determinants being significantly relevant at the 10 percent confidence level. Tax burden (0.33) and labor-market restrictions (0.49) affect the relative size of the

¹⁶ For a further discussion of the importance of interdisciplinary research see Elster (1998) and Lewin (1996). For a broader view see Frank (1988) and Frey (1997b).

¹⁷ See, for instance, studies by Tanzi (1982), Frey and Pommerehne (1984a/b), Feige (1989), Pozo (1996), Lippert and Walker (1997), Schneider (1994a, 1994b, 1997, 1998a); Thomas (1992), Hernando De Soto (1989),

informal sector positively, while the strength and efficiency (−0.42) of the government institutions have a negative influence leading to a decrease of the informal sector.¹⁸

4.2 *Intensity of Regulations*

The increase of the intensity of regulations, often measured by the number of laws and regulations, such as licenses requirements, is another important factor which limits the freedom of choice for individuals engaged in the official economy.¹⁹ In this context one can think of labor market regulations, trade barriers and labor restrictions for foreigners. The influence of labor regulations on the shadow economy has also been analyzed in various studies. Regulations lead to a substantial increase in labor costs in the official economy. Since most of these costs can be shifted to the employees, these costs provide another incentive to work in the shadow economy, where it is possible to avoid them.²⁰

The empirical findings show that governments should put a greater emphasis on the reduction of the density of regulations or, at least, on improving enforcement of laws and regulations, instead of increasing the number of regulations. Some governments, however, prefer this latter policy option (more regulations and laws) when trying to reduce the shadow economy, mostly because it leads to an increase in power of the bureaucrats and to a higher rate of employment in the public sector. In addition, politicians might not really have an interest in a substantial decrease of the shadow economy since a lot of voters stand to gain from unofficial activities. The slogan of “fighting for law and order” might therefore be more useful for

Zilberfarb (1986), Tanzi (1999), Giles (1999a) and Schneider and Enste (2000b).

¹⁸The numbers indicate a change of the size of the informal sector (in standard-deviations) with a one-standard deviation increase in each of the determinants. For further empirical data see Schneider/ Enste (2000a).

¹⁹ For a psychological explanation of this fracture (theory of reactance) see Brehm (1966, 1972); for an application of this theory to the shadow economy see Pelzmann (1985). See also Enste (2002) for an integration of this theory in an interdisciplinary (rational choice) approach.

²⁰ See Johnson, Kaufmann, and Zoido-Lobatón (1998b, p. 18) and Friedman, Johnson, Kaufmann and Zoido-

getting re-elected in office than implementing radical reforms of the tax and the social security systems.²¹

4.3 *Labor Market*

The numerous regulations on the official labor market and the total wage costs also represent driving forces for the shadow economy. Two main factors - the effects of the reduction in official working hours and the influence of the unemployment rate on the increase of the shadow economy - are discussed quite often in this context:

- As in most OECD countries unemployment is to a large extent caused by the fact that total labor costs are too high, this can be seen as a cause of the increase of the shadow economy.
- The reduction in working hours in the official economy was introduced by governments (e.g. France) and/or labor unions (e.g. Germany) in order to reduce the unemployment rate. An overview of these economic policy measures is given in OECD (1998, pp. 123-188). The idea behind this is that there is only a limited amount of work and that this quantity has to be “redistributed“. But this idea neglects a key factor - a forced reduction of working hours against the preferences of the employees increases the potential of hours that can be worked in the shadow economy.²² Early retirement can also lead to more unofficial activities; part time work offers great opportunities to the individual to adopt another job in the untaxed, unregulated economy, as argued by de Gijssel (1984) and Riebel (1983, 1984). The redistribution of work can only be successful if the reduction is

Lobatón (1999). De Soto (1989) analyzes in more detail the costs of regulation in Peru in his famous book.

²¹See for example Frey (1989) for an application of the Public Choice Theory to the shadow economy and for a further discussion Enste (2001).

²² For example, see for example Jennifer Hunt (1999). After Volkswagen in Germany reduced the working hours considerably there is some evidence, until now basically anecdotal, that in the area around the firm much more

either in accordance to the individuals' preferences and they want to maximize their leisure time or they are incapable of work, because otherwise they might choose to keep on working in the underground.²³

A reduction of the official working hours can therefore lead to a growth of the shadow economy as, like the German example shows, almost all recent empirical studies show that most of the employees do not want a further reduction at all (Enste 2002, DIW 1998, Bosch and Lehndorff 1998). Hence, a reasonable economic policy suggestion is a higher flexibility of working hours in accordance with the preferences of the employees as this minimizes the distortion of the individual decision by this kind of labor market restrictions.

4.4 Public Sector Services

The growth of the shadow economy leads to reduced state revenues which, in turn, reduces the quality and quantity of publicly provided goods and services. Ultimately, this can lead to an increase of the tax rates for firms and individuals in the official sector, quite often combined with a deterioration in the quality of the public goods (such as the public infrastructure) and of the administration, with the consequence of even stronger incentives to participate in the shadow economy. Johnson, Kaufmann, and Zoido-Lobaton (1998b) present a simple model of this relationship. Their findings show that smaller shadow economies exist in countries with higher tax revenues, if these revenues result from lower tax rates, fewer laws and regulations and less bribery facing enterprises. Countries with a better rule of the law in the collection of taxes also have smaller shadow economies. Transition countries have higher levels of regulation, leading to a significantly higher incidence of bribery, higher effective taxes on official activities and a large discretionary framework of regulations and

reconstruction and renovation of houses took place compared to similar other regions.

²³ See Gary S. Becker (1965) for a theoretical explanation and Juster and Stafford (1991) for a more detailed

consequently to a higher shadow economy. Johnson et al.'s overall conclusion is that “wealthier countries of the OECD, as well as some in Eastern Europe find themselves in the ‘good equilibrium’ of relatively low tax and regulatory burden, sizeable revenue mobilization, good rule of law and corruption control, and (relatively) small unofficial economy. By contrast, a number of countries in Latin American and the Former Soviet Union exhibit characteristics consistent with a ‘bad equilibrium’: tax and regulatory discretion and burden on the firm is high, the rule of law is weak, and there is a high incidence of bribery and a relatively high share of activities in the unofficial economy.”²⁴.

Therefore, in a lot of countries the public sector is facing the challenge to impose substantial reforms of the social security and tax systems in order to prevent the total defeat of the protective welfare state, because the vicious circle of high tax and regulation burdens causes growth of the shadow economy, additional pressure on public finance resulting in higher tax rates, which, in turn, increase the incentives to evade taxes and to escape in the shadow economy and so on. The shadow economy can therefore be seen as a challenge to the welfare state. Since in a cumulative process existing institutions and rules might lose their acceptance in the society, ending up with a situation, in which democratic voting (“voice”) is less attractive than using the “exit” option of the shadow economy. Eventually, the loyalty to the democratic political institutions is abandoned or can hardly be restored as in some countries of the former Soviet Union. The institutional and economic change is described in the following, simplified figure.

Figure 3: Economic and Institutional Change

analysis of the allocation of time.

²⁴ Johnson, Kaufmann and Zoido-Lobaton (1998a), p. I.

4.5 *Main Causes in Eastern Europe*

In Eastern Europe, in addition to the causes mentioned above, the following main factors for the growth of the shadow economy are important:

- Lack of competence and trust in official institutions (e.g. legislation, administration/bureaucracy, courts).
- The administration is often inefficient and corrupt.
- Property rights cannot be guaranteed by the official institutions and people search for other options.
- The development of informal and unofficial institutions has negative side effects of the (for instance, greater power for the mafia); but also the positive side effect on the creation of informal social structure supporting the weak official structures.
- Inadequate enforcement of laws and regulations.
- High costs and administrative burden for entrepreneurs.
- High taxes – in combination with no adequate supply of public goods and infrastructure – lead to lower acceptance of formal rules and laws.
- A low probability of being caught as an illicit worker or tax evader results in a cost-benefit-calculation where illicit work is more attractive than regular and official work.
- Sometimes “hiding in the shadows” is essential for surviving or to establish a business.
- Finally, a broad acceptance of illicit work (e.g. access to credits and banks in the shadow economy), makes it difficult to fight this phenomenon.

5 The Effects of the Shadow Economy on the Official Economy

The analysis of the effects of a growing shadow economy is quite difficult and comprehensive empirical evidence is not available. Most studies focus on the influence on allocation of resources and the loss of revenue for the state. But the impact on the official institutions, norms and rules is even more important. The shadow economy can be seen as an indicator of a serious deficit of legitimacy of the present social order and the existing rules of official economic activities. The “exit” option of the shadow economy represents an important limitation on the Leviathan state to secure economic freedom and liberty.²⁵

Depending on the prevailing view of the informal sector, the underground economy might be seen as optimal in the sense that it responds to the economic environment's demand for urban services and small-scale manufacturing. From this point of view the informal sector provides the economy with a dynamic and entrepreneurial spirit and can lead to greater competition, higher efficiency and strong boundaries and limits for government activities. The informal sector may also offer significant contributions “to the creation of markets, increase financial resources, enhance entrepreneurship, and transform the legal, social, and economic institutions necessary for accumulation“ (Asea, 1996, p. 166). The voluntary self-selection between the formal and informal sectors may provide a higher potential for economic growth and, hence, a positive correlation between the growth of the informal sector and economic growth in general. The effects of an increase of the shadow economic activities on economic growth remain, therefore, to a large extent ambiguous.

²⁵ On the importance of institutions and the impact of the shadow economy see, for example, Brennan and

A summary of main consequences is presented in the following figure:

Figure 4: Consequences of the Increasing Shadow Economy

6 The “Two Pillar Strategy” - „Exit“ and „Voice“ as Behavioural Options

Following Hirschman (1974), the behavioural options for people can be divided into the “exit“ and “voice“ options which are the two aspects of the “Two-Pillar-Strategy“.

Figure 5. Behavioural Options by Households and Firms

In a democracy one has the possibility to voice ones preferences on public goods through elections. One votes for the party whose policy corresponds best to one’s own attitude. To further influence economic order and policy choices one can use democratic communication channels, e.g. referendums or direct elections, or organise citizens initiatives. Actively participating in pressure groups and unions has an even more intensive impact on the contents of the political process as they not only follow their own interests but represent an important source of information for politicians.²⁶

Furthermore, mass media can be involved in manipulation. Even though the power of the media has not yet been fully explained in theory, its importance cannot be denied.²⁷ Its “Agenda Setting Function” is very well suited to bring certain topics to the public attention

Buchanan (1980, 1985).

²⁶ See e.g. Kirchgässner and Frey (1994, pp.201f) and Pommerehne and Weck-Hannemann (1996).

²⁷ For an illustration of the theoretic approaches on media effects and their empirical results, see Schenk (1987).

and raise public awareness.²⁸ One example for such an influence is the discussion about the 325-Euro-jobs, actively fed by the media in Germany.²⁹ If the mass media publishes surveys, these could possibly influence the public opinion and election results.³⁰

Policy consulting also plays a significant role. Various expert councils and economic research institutes form an opinion on political decision on a regular basis and strive to influence politics through numerous publications. To complete the story of influencing policy choice, expert opinions by commissions and boards or committees are another possible avenue.³¹

The alternative to this “voice” option, which is regarded as unsuccessful by many, is the market reaction of “exit”. Free trade firms have the option of changing locations to evade an unwanted economic, taxation or social security system and households can decide to migrate.³² Engaging in shadow economic activities is another possibility. Here, the options are either tax evasion, for instance, through financial transactions or a fictitious change of location. Individuals can alternatively decide to work illicitly in the informal, the household or the criminal sector.

The fact that these options exist implies that the democratic state has a restricted number of options as it cannot ignore the preferences of its citizens. This internal pressure to correct economic policy is intensified by external pressure stemming from the globalisation. Mobility is increased and so is the number of alternatives. The limits of loyalty are reached if the financial burden becomes too great. The political and social stability and the “bonum commune” are endangered by the rise of the shadow economy. This could cumulate in a

²⁸ See Enste (2001, 2002) and Schneider and Enste (2000a, pp.192-202).

²⁹ See Schneider and Enste (2000a, p.1-2) for a detailed record.

³⁰ See Noelle-Neumann (1982, 1989a/b) on the Theory of the “Silence Spiral”.

³¹ Kirchgässner and Frey (1994) elaborate on the different methods available.

³² For a simple explanation of the implications of the four basic freedoms within the EU, see Sinn (1995).

malfunction of democracy.³³ Thus, the growth of the shadow economy represents a sign of considerable disruptions within the regulatory system in general.

6.1 Decreasing the Attractiveness of the “Exit” Option

Implementing the “Two-Pillar-Strategy” decreases the threats to society. For this purpose the recommendations can be summarised as follows:

Figure 6: Economic Policy Recommendations to Reduce the Attractiveness of the Shadow Economy

Reducing the tax rate considerably is the main recommendation, as it has been determined to be the main cause of the rise of the shadow economy in the integrative model. In addition, the system has to be simplified in order to attain greater transparency and lower density in regulation. The latter has undermined the tax base and made tax laws really complicated which results in misallocations, distortions with regard to input and welfare losses. In the long run, tax ethics is eroded.³⁴ Furthermore, an extensive reform of the social security system is necessary to reduce the burden of contribution payments.

The Reactance Theory suggests the following opportunities to reduce the resistance against the tax burden: on the one hand, credibly setting a time limit to the burden could avoid reactance and negative economic consequences due to migration into the shadow economy;³⁵ on the other hand, if the infringement on personal freedom is perceived as legitimate it will not lead to reactance. The demand for greater transparency of the taxation system and the expenditure policy are then based on the objective, positive social-psychological theory. The loyalty to the state can also be increased by curtailing corruption and waste of tax revenue

³³ See Biedenkopf (1986), Enste (2002), Rürup (1983), Schmidt (1988), Pommerehne and Kirchgässner (1994).

³⁴ See section 3.

³⁵ The introduction of the solidarity contribution in Germany was an example for this. Keeping the set time limit, however, once again poses a considerable problem.

within the public administration. A significant correlation between the two is confirmed by various surveys.³⁶

Transfer payments should be increasingly reviewed with regard to the indigence and simultaneously made subject to a time limit. This would add to the motivation of the people concerned and make them avoid many wasteful habits. At the same time the transfer payers regard this as legitimate.

Reducing the density of regulation while at the same time increasing its security, especially with regard to the labour market, is a further element of a rational economic policy. Competition would increase due to the lower market entry barriers and would thus produce its dynamic welfare effects. Considering the preferences of the employed individuals on working time would ensure that they would have less time to engage in illicit activities.

6.2 Strengthening the “Voice” Option

In principle, reactance can be dismantled by solidarity. In economic policy, this has been dealt with under the term “moral suasion“. This means that if the individual accepts the necessity of infringement on personal freedom, she/ he declares her/ his solidarity with society and perceives the benefits offered by the state as being reasonable. Still, if the state informs the citizens about the extent of tax evasion and illicit work, this may have a contradictory effect: citizens willing to pay taxes will only then be informed about the size of the shadow economy. The consequence might be, that they will also work illicitly because they then perceive an unjustness of the burden and hence will try to do something about it.

This negative process can successfully be stopped by an active participation of the people in question. An often cited example deals with vendors and politicians who spiritualise the opinions of the persons they have to represent and make these their own, even if these differ

³⁶ For a more recent overview, see Bardhan (1997), Rose-Ackerman (1999), Mauro (1995) and Tanzi (1998).

from the opinion they had initially.³⁷ Transferred onto the democratic decision procedures, this means that the federalism has to be strengthened and further instruments of the direct democracy (e.g. referendums, legal initiatives) have to be introduced, so that the citizens can increasingly contribute, for instance, to the design of the taxation system. The interest in local policy, including regional projects and citizen initiatives trying to influence decision making, may mean a desire to keep or regain control. An increased participation will always diminish the perception of being subject to unfair restrictions of personal freedom. At the same time, morality and loyalty gain ground which helps counteract the rise of the shadow economy.³⁸

One should act according to the subsidiarity principle on all levels and a further centralization should be impeded.³⁹ The increasing shift of decision making towards Brussels and justifying this with European pressures (e.g. the increase of VAT in Germany for reasons of harmonisation) does not strengthen the perception of the taxpayers of control over spending. The rising centralization, often combined with harmonization, is not the correct way to deal with a growing shadow economy. An increasing fiscal federalism would counteract the “detachment of state activities from the desires of the citizens“ (Pommerehne and Kirchgässner 1994, p. 860; own translation). Hence, Frey (1996, 1997a) demands a “new federalism for Europe“. The objective is a combination of federalism and direct democracy. The main features of his proposed new governmental units can be summarized by the term “Functional Overlapping Competing Jurisdictions (FOCJ)“ (Frey, 1996, p.275), characterized by functional differences in size and geographic over-lapping, resulting in a competition of

³⁷ See Pelzmann (1985, pp.56f).

³⁸ The relatively small Swiss shadow economy can be accounted to the extensive “voice” options. See Kirchgässner (1999) and Weck-Hannemann and Pommerehne (1989).

³⁹ In public finances and social policy this principle is regarded as the axiom of the distributions of duties between the private and the public sector as well as communal institutions. Following the subsidiarity principle, one can conclude that the tasks can only be passed to a higher level if the lower level is unable to solve the problem. The state should assume social assignments only if the individual or the family is over-burdened.

regions or systems. Individuals can state their preferences in referendums or citizen initiatives. These measures correspond to the subsidiarity principle because they enable people to control politicians and bring back power to levels at which a lot of problems can be solved.⁴⁰

The increased participation of the public raises the commitment, i.e. the personal contribution and the interest for governmental issues, can as a consequence can dam up “moral hazard behaviour. Strengthening the participation right can reduce the “free-rider” problem, as state efforts are regarded as being a fair equivalent ultimately boosting tax moral. One important reason for the small extent of the Swiss shadow economy as opposed to other OECD countries is the considerable amount direct democracy elements.⁴¹ In the long run, this leads to a strengthening of social capital and the sense of community, both of which contribute considerably to the successful survival of societies and further supply of public goods.⁴²

7 Conclusion and Outlook

Failing economic policy is the driving force for the strong increase in shadow economic activities. Not only the rising tax burden and regulation density are important factors for the migration into the hidden economy but also the defensive labour market policy directed at a re-distribution of working hours. In addition, the lack of clear and stable institutions in transition countries are a driving force of informal economic activities. In combination with a reduced tax moral and less loyalty to the government, these are the most important causes. In opposite to this, increasing the costs of illicit work by intensified controls and setting higher

⁴⁰ For a theoretical explanation, see Pommerehne and Frey (1992).

⁴¹ See Pommerehne, Hart and Frey (1994) for an explanation of the differences in tax ethics and honesty in direct and representative democracy.

⁴² On the importance of social capital, see, for instance, Coleman (1990, pp.300f) and Hirschman (1994).

finances would merely not bring positive effects on the overall welfare. Besides the allocation and stabilisation effects are important for the whole economy as the black market acts as a stabilizing factor and a buffer, slightly reducing cyclical fluctuations. This holds especially in the current situation in transition country, with the major changes on the labour and capital markets, as well as in the institutional structure.

The tax deficit and the evasion of social security contributions are the main arguments, with which the state wishes to substantiate its fight against the shadow economy. Still, when taking a closer look at the further consequences, the yield losses are no longer as high as generally assumed. It has been clarified that not only the economy profits from the black market through higher supply and demand, but also the state receives additional revenue, e.g. through VAT. Nevertheless, substantial deficits remain and are heavily lamented by politicians. By adopting the recommended “Two Pillar Strategy” they could do a lot against the negative effects of the shadow economy. In the long run, the discussed reforms are inevitable not only due to the globalisation (leading to more flexibility for firms and capital) but also because of the rising importance of the shadow economy (offering an alternative for employees). The people will increasingly opt for the “exit” option if the “voice” option is not strengthened by more direct democratic elements, such as referendums on budget decisions, for instance. They will either choose to work illicitly (within his own country) or search for another official system (in other countries or states), which better fits to their preferences.

In this context, the shadow economy can be regarded as part of an evolutionary process, making economic and societal development increasingly dynamic. On the one hand, the societal pressure on deregulation and tax reduction is increased and, on the other hand, new innovative forms of living together and economising outside the restrictions are fashioned which could be regarded as a test for the official sector.

In the long run, however, a society cannot accept non-compliance with laws and rules as these form the basis of the state. Yet, it does not make much sense to fight illicit work with intensified controls and higher fines. The tendency to engage in shadow economic activities should be perceived as a warning signal by politicians. There is an increased resistance against the existing norms and laws in the economy which can best be met with adoption the “two-pillar strategy”.

List of References

Adam, Ginsburgh 1985

ADAM, Markus C.; GINSBURGH, Victor: *The effects of irregular markets on macroeconomic policy: Some estimates for Belgium*. In: *European Economic Review*, 29. Jg. (1985), H. 1, S. 15-33.

Alm, McClelland, Schulze 1999

ALM, James; MCCLELLAND, Gary H.; SCHULZE, William D.: *Changing the social norm of tax compliance by voting*. In: *Kyklos*, 52. Jg. (1999), S. 141-171.

Asea 1996

ASEA, Patrick K.: *The informal sector: Baby or bath water?* In: *Carnegie-Rochester Conference Series on Public Policy*, 45. Jg. (1996), S. 163-171.

Bardhan 1997

BARDHAN, Pranab: *Corruption and development: A review of issues*. In: *Journal of Economic Literature*, 35. Jg. (1997), S. 1320-1346.

Becker 1965

BECKER, Gary S.: *A theory of the allocation of time*. In: *The Economic Journal*, 75. Jg. (1965), H. 299, S. 493-517.

Bhattacharyya 1993

BHATTACHARYYA, Dilip K.: *How does the "Hidden Economy" affect consumers' expenditure? An econometric study of the U. K. (1960-1984)*. Berlin 1993.

Bhattacharyya 1999

BHATTACHARYYA, Dilip K.: *On the economic rationale of estimating the hidden economy*. In: *Economic Journal*, 109. Jg. (1999), H. 456, S. 348-359.

Biedenkopf 1986

BIEDENKOPF, Kurt H.: *Die Schattenwirtschaft: Grauzone zwischen Altem und Neuem*. In: *Verbraucherpolitische Hefte*, Jg. 1986, H. 3, S. 107-115.

Blankart 1998

BLANKART, Charles B.: *Öffentliche Finanzen in der Demokratie. Eine Einführung in die Finanzwissenschaft*. 3., völlig überarb. Aufl. München (Vahlen) 1998.

BMA 1998

BUNDESMINISTERIUM FÜR ARBEIT UND SOZIALORDNUNG (eds.): *Illegale Beschäftigung und Schwarzarbeit schaden uns allen*. Bonn 1998.

Bosch, Lehdorff 1998

BOSCH, Gerhard; LEHDORFF, Steffen: *Arbeitszeitverkürzung und Beschäftigung. Erfahrungen in Europa und wirtschaftspolitische Empfehlungen*. In: *Vierteljahreshefte zur Wirtschaftsforschung*, 67. Jg. (1998), H. 4, S. 300-325.

Brehm 1966

BREHM, Jack W.: *A theory of psychological reactance*. New York, London (Academic Press) 1966.

Brehm 1972

BREHM, Jack W.: *Responses to loss of freedom. A theory of psychological reactance*. Morristown (General Learning Press) 1972.

Brennan, Buchanan 1980

BRENNAN, Geoffrey; BUCHANAN, James M.: *The power to tax. Analytical foundations of a fiscal constitution*. Cambridge (Cambridge University Press) 1980.

Brennan, Buchanan 1985

BRENNAN, Geoffrey; BUCHANAN, James M.: *The reason of rules. Constitutional political economy*. Cambridge (Cambridge University Press) 1985.

Cebula 1997

CEBULA, Richard J.: *An empirical analysis of the impact of government tax and auditing policies on the size of the underground economy: The case of the United States, 1993-94*. In: *American Journal of Economics and Sociology*, 56. Jg. (1997), H. 2, S. 173-185.

Coleman 1990

COLEMAN, James S.: *Foundations of social theory*. Cambridge, Massachusetts, London (Belknap Press of Harvard University Press) 1990.

Cowell 1990

COWELL, Frank A.: *Cheating the government. The economics of evasion*. Cambridge, London (MIT Press) 1990.

de Gijsel 1984

DE GIJSEL, Peter: *Ökonomische Theorie des Schwarzarbeitsangebots und der Mehrfachbeschäftigung*. Aus: Gretschmann, Klaus; Heinze, Rolf G.; Mettelsiefen, Bernd (eds.): *Schattenwirtschaft. Wirtschafts- und sozialwissenschaftliche Aspekte, internationale Erfahrungen*. Göttingen (Vandenhoeck und Rubrecht) 1984. S. 76-96.

de Soto 1989

DE SOTO, Hernando: *The other path. Translated by June Abbott: "El Otro Sendero"*, 1987 New York (Harper and Row) 1989.

Deregulierungskommission 1991

DEREGULIERUNGSKOMMISSION: *Marktöffnung und Wettbewerb*. Stuttgart (Poeschel) 1991.

DIW Wochenbericht 37/1998

DEUTSCHES INSTITUT FÜR WIRTSCHAFTSFORSCHUNG: *Arbeitszeitpräferenzen in West- und Ostdeutschland 1997. Potential für Verkürzung der Arbeitszeit gesunken*. In: *DIW Wochenbericht*, 65. Jg. (1998), H. 37, S. 667-677.

Dixon 1999

DIXON, Huw: *Controversy: On the hidden economy. Editorial introduction*. In: *Economic Journal*, 109. Jg. (1999), H. 456, S. 335-337.

Elster 1998

ELSTER, Jon: *Emotions and economic theory*. In: *Journal of Economic Literature*, 36. Jg. (1998), S. 47-74.

Enste 2000

ENSTE, Dominik H.: *Lange Schatten. Schwarzarbeit: 640 Mrd. DM werden jährlich am Staat vorbei verdient*. In: *Rheinischer Merkur*, Köln, Nr. 35 (2000) S. 6.

Enste 2001

ENSTE, Dominik H.: *Schattenwirtschaft und Schwarzarbeit. Eine wirtschafts- und gesellschaftspolitische Herausforderung*. In: *Perspektiven der Wirtschaftspolitik*, 2. Jg. (2001), H. 2, S. 229-244.

Enste 2002

ENSTE, Dominik H.: *Schattenwirtschaft und institutioneller Wandel. Eine soziologische, sozialpsychologische und ökonomische Analyse*. Tübingen (Mohr) 2002.

EU-Kommission 1998

EU-KOMMISSION: *Die Kommission eröffnet eine Diskussion über die nichtangemeldete Erwerbstätigkeit*. Brüssel (COM 1998 219 – C4-0566/1998 – 1998/2082(COS)) vom 8.4.1998.

EU-Parlament 2000

EU-PARLAMENT: *Bericht zur Mitteilung der Kommission zur nichtangemeldeten Erwerbstätigkeit*. (Dokument A5-0220/2000) vom 30.8.2000.

Feige (eds.) 1989

FEIGE, Edgar L. (eds.): *The underground economies. Tax evasion and information distortion*. Cambridge, New York, Melbourne (Cambridge University) 1989.

Fichtenbaum 1989

FICHTENBAUM, Ronald: *The productivity slowdown and the underground economy*. In: *Quarterly Journal of Business and Economics*, 28. Jg. (1989), H. 3, S. 78-90.

Frank 1988

FRANK, Robert H.: *Passion within reason. The strategic role of the emotions*. New York, London (Norton) 1988.

Frey 1989

FREY, Bruno S.: *How large (or small) should the underground economy be?* Aus: Feige, Edgar L. (eds.): *The underground economies. Tax evasion and information distortion*. Cambridge, New York, Melbourne (Cambridge University) 1989. S. 111-126.

Frey 1996

FREY, Bruno S.: *A directly democratic and federal Europe*. In: *Constitutional Political Economy*, 7. Jg. (1996), H. 4, S. 267-279.

Frey 1997a

FREY, Bruno S.: *Ein neuer Föderalismus für Europa. Die Idee des FOCJ*. Tübingen (Mohr) 1997.

Frey 1997b

FREY, Bruno S.: *Markt und Motivation. Wie ökonomische Anreize die (Arbeits-)Moral verdrängen*. München (Vahlen) 1997.

Frey, Pommerehne 1984

FREY, Bruno S.; POMMEREHNE, Werner: *The hidden economy: State and prospect for measurement*. In: *Review of Income and Wealth*, 30. Jg. (1984), H. 1, S. 1-23.

Frey, Weck 1983

FREY, Bruno S.; WECK, Hannelore: *Bureaucracy and the shadow economy: a macroapproach*. Aus: Hanusch, Horst (eds.): *Anatomy of government deficiencies*. Berlin (Springer) 1983. S. 89-109.

Friedman, Johnson, Kaufmann, Zoido-Lobaton 1999

FRIEDMAN, Eric; JOHNSON, Simon; KAUFMANN, Daniel; ZOIDO-LOBATÓN, Pablo: *Dodging the grabbing hand: The determinants of unofficial activity in 69 countries*. Washington 1999.

Gaertner, Wenig (eds.) 1985

GAERTNER, Wulf; WENIG, Alois (eds.): *The Economics of the Shadow Economy*. Berlin, Heidelberg, New York, u. a. (Springer) 1985. (= Studies in Contemporary Economics.)

Giles 1999a

GILES, David E.A.: *Modelling the hidden economy and the tax-gap in New Zealand*. Victoria 1999.

Giles 1999b

GILES, David E. A.: *Measuring the hidden economy: Implications for econometric modelling*. In: *Economic Journal*, 109. Jg. (1999), H. 456, S. 370-380.

Gutmann 1981

GUTMANN, Pierre M.: *Implications of the subterranean economy*. Aus: Bove, R.X.; Klingenstein R.D. (eds.): *Wertheim's underground economy conference*. o.A. (Wertheim,Inc.) 1981. S. 31-58.

Hill, Kabir 1996

HILL, Roderick; KABIR, Muhammed: *Tax rates, the tax mix, and the growth of the underground economy in Canada: What can we infer?* In: *Canadian Tax Journal/ Revue Fiscale Canadienne*, 44. Jg. (1996), H. 6, S. 1552-1583.

Hirschman 1974

HIRSCHMAN, Albert O.: *Abwanderung und Widerspruch: Reaktionen auf Leistungsabfall bei Unternehmen, Organisationen und Staaten*. Tübingen (Mohr) 1974.

Hirschman 1994

HIRSCHMAN, Albert O.: *Wieviel Gemeinsinn braucht die liberale Gesellschaft?* In: *Leviathan*, 22. Jg. (1994), S. 293-304.

Houston 1987

HOUSTON, John F.: *Estimating the size and implications of the underground economy*. o.O. 1987.

Hunt 1999

HUNT, Jennifer: *Has work-sharing worked in Germany?* In: *Quarterly Journal of Economics*, Jg. 1999, H. 1, S. 117-148.

Johnson, Kaufmann, Shleifer 1997

JOHNSON, Simon; KAUFMANN, Daniel; SHLEIFER, Andrei: *The unofficial economy in transition*. *Brookings Papers on Economic Activity*. Washington D.C. 1997.

Johnson, Kaufmann, McMillan, Woodruff 1999

JOHNSON, Simon; KAUFMANN, Daniel; MCMILLAN, John; WOODRUFF, Christopher: *Why do firms hide? Bribes and unofficial activity after communism*. Washington 1999.

Johnson, Kaufmann, Zoido-Lobato 1998a

JOHNSON, Simon; KAUFMANN, Daniel; ZOIDO-LOBATÓN, Pablo: *Regulatory discretion and the unofficial economy*. In: *The American Economic Review*, 88. Jg. (1998), H. 2, S. 387-392.

Johnson, Kaufmann, Zoido-Lobato 1998b

JOHNSON, Simon; KAUFMANN, Daniel; ZOIDO-LOBATÓN, Pablo.: *Corruption, public finances and the unofficial economy*. Washington 1998.

Juster, Stafford 1991

JUSTER, Stafford: *The allocation of time: empirical findings, behavioral models, and problems of measurement*. In: *Journal of Economic Literature*, 24. Jg. (1991), S. 471-522.

Kaufmann, Kaliberda 1996

KAUFMANN, Daniel; KALIBERDA, Aleksander: *Integrating the unofficial economy into dynamics of post socialist economies: A framework of analyses and evidence*. In: *Policy Research Working Papers*, 1996.

Kirchgässner 1983

KIRCHGÄSSNER, Gebhard: *Size and development of the West German shadow economy 1955-1980*. In: *Zeitschrift für die gesamte Staatswissenschaft*, 139. Jg. (1983), H. 2, S. 197-214.

Kirchgässner 1984

KIRCHGÄSSNER, Gebhard: *Verfahren zur Erfassung des in der Schattenwirtschaft erarbeiteten Sozialprodukts*. In: *Allgemeines Statistisches Archiv*, 68. Jg. (1984), H. 4, S. 378-405.

Kirchgässner 1999

KIRCHGÄSSNER, Gebhard: *Schattenwirtschaft und Moral: Anmerkungen aus ökonomischer Perspektive*. Aus: Lamnek, Siegfried; Luedtke, Jens (eds.): *Der Sozialstaat zwischen "Markt" und "Hedonismus"?* Opladen (Leske und Budrich) 1999. S. 423-445.

Kirchgässner, Frey 1994

KIRCHGÄSSNER, Gebhard; FREY, Bruno S.: *Demokratische Wirtschaftspolitik. Theorie und Anwendung*. 2. Aufl. München (Vahlen) 1994.

Klovland 1984

KLOVLAND, Jan: *Tax evasion and the demand for currency in Norway and Sweden: Is there a hidden relationship?* In: *Scandinavian Journal of Economics*, 86. Jg. (1984), H. 4, S. 423-39.

Laffer 1979

LAFFER, Arthur B.: *The economics of the tax revolt. A reader*. New York (Harcourt Brace Jovanovich) 1979.

Lemieux, Fortin, Fréchette 1994

LEMIEUX, Thomas; FORTIN, Bernard; FRÉCHETTE, Pierre: *The effect of taxes on labor supply in the underground economy*. In: *The American Economic Review*, 84. Jg. (1994), H. 1, S. 231-254.

Lewin 1996

LEWIN, Shira B.: *Economics and psychology: Lessons for our own day from the early twentieth century*. In: *Journal of Economic Literature*, Jg. 1996, H. 34, S. 1293-1323.

Lippert, Walker (eds.) 1997

LIPPERT, Owen; WALKER, Michael (eds.): *The underground economy: Global evidences of its size and impact*. Vancouver, B.C. (Fraser Institute) 1997.

Loayza 1996

LOAYZA, Norman V.: *The economics of the informal sector: a simple model and some empirical evidence from Latin America*. In: *Carnegie-Rochester Conference Series on Public Policy*, 45. Jg. (1996), S. 129-162.

Mauro 1995

MAURO, Paolo: *Corruption and growth*. In: *Quarterly Journal of Economics*, Jg. 1995, S. 681-712.

Mirus, Smith 1997

MIRUS, Rolf; SMITH, Roger S.: *Canada's underground economy: Measurement and implications*. Aus: Lippert, Owen; Walker, Michael (eds.): *The underground economy: Global evidences of its size and impact*. Vancouver, B.C. (Fraser Institute) 1997. S. 3-10.

Mogensen, Kvist, Körmendi et. al. 1995

MOGENSEN, Gunnar Viby; KVIST, Hans Kurt; KÖRMENDI, Eszter; PEDERSEN, Soren: *The shadow economy in Denmark 1994. Measurement and results*. Copenhagen (Rockwool Foundation Research Unit) 1995.

Monopolkommission 1998

MONOPOLKOMMISSION: *Marktöffnung umfassend verwirklichen. Hauptgutachten 1996/1997* Baden-Baden (Nomos) 1998.

Neck, Schneider, Hofreither 1989

NECK, Reinhard; SCHNEIDER, Friedrich; HOFREITHER, Markus F.: *The consequences of progressive income taxation for the shadow economy: Some theoretical considerations*. Aus: Bös, Dieter; Felderer, Bernhard (eds.): *The political economy of progressive taxation*. Berlin, Heidelberg, New York u.a. (Springer) 1989. S. 149-176.

Noelle-Neumann 1982

NOELLE-NEUMANN, Elisabeth: *Die Schweigespirale. Öffentliche Meinung - unsere soziale Haut*. Frankfurt a.M. (Ullstein) 1982.

Noelle-Neumann 1989a

NOELLE-NEUMANN, Elisabeth: *Die Theorie der Schweigespirale als Instrument der Medienwirkungsforschung*. In: *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, Jg. 1989, H. Sonderheft 30, S. 418-440.

Noelle-Neumann 1989b

NOELLE-NEUMANN, Elisabeth: *Öffentliche Meinung. Die Entdeckung der Schweigespirale*. Frankfurt a. M. (Ullstein) 1989.

OECD 1998

OECD: *Employment outlook. June 1998*. Paris (OECD-Publications) 1998. (= The OECD Employment Outlook.)

Olson 1985

OLSON, Mancur: *Aufstieg und Niedergang von Nationen. Ökonomisches Wachstum, Stagflation und soziale Starrheit*. Tübingen (Mohr) 1985.

Pelzmann 1985

PELZMANN, Linde: *Wirtschaftspsychologie. Arbeitslosenforschung, Schattenwirtschaft, Steuerpsychologie*. Wien, New York (Springer) 1985.

Petry, Wied-Nebbeling 1987

PETRY, Günther; WIED-NEBBELING, Susanne: *Die gesamtwirtschaftliche Bedeutung der Schattenwirtschaft*. Frankfurt am Main, New York (Campus) 1987.

Pommerehne, Frey 1992

POMMEREHNE, Werner W.; FREY, Bruno S.: *The effects of tax administration on tax morale*. Saarbrücken, Zürich, Basel 1992.

Pommerehne, Hart, Frey 1994

POMMEREHNE, Werner; HART, Albert; FREY, Bruno S.: *Tax morale, tax evasion and the choice of policy instruments in different political systems*. In: *Public Finance*, 1994, H. 49/ Supplement. S. 52-69.

Pommerehne, Weck-Hannemann 1996

POMMEREHNE, Werner W.; WECK-HANNEMANN, Hannelore: *Tax rates, tax administration and income tax evasion in Switzerland*. In: *Public Choice*, 88. Jg. (1996), H. 2, S. 161-170.

Pozo (eds.) 1996

POZO, Susan (eds.): *Exploring the underground economy*. Kalamazoo, Michigan (Upjohn Institute for Employment Research) 1996.

Quirk 1996

QUIRK, Peter J.: *Macroeconomic implications of money laundering*. In: *IMF-Working Paper*, 96/ 66. Washington D.C.

Riebel 1983

RIEBEL, Volker: *Die Schwarzarbeit als Problem der Zeitallokation*. Frankfurt am Main, Bern, New York (Peter Lang) 1983.

Riebel 1984

RIEBEL, Volker: *Arbeitszeitverkürzung und Schwarzarbeit. Auswirkungen einer Verkürzung der Wochenarbeitszeit auf das individuelle Arbeitsangebot.* In: *Zeitschrift für Wirtschafts- und Sozialwissenschaften*, 104. Jg. (1984), H. 5, S. 515-538.

Rose-Ackerman 1999

ROSE-ACKERMAN, Susan: *Corruption and government. Causes, consequences, and reform.* Cambridge (Cambridge University Press) 1999.

Rürup 1983

RÜRUP, Bert: *Risiken und Chancen der Schattenwirtschaft.* In: *Wirtschaftsdienst*, Jg. 1983, H. 10, S. 488-492.

Schenk 1987

SCHENK, Michael: *Medienwirkungsforschung* Tübingen (Mohr) 1987.

Schmidt 1988

SCHMIDT, Kurt: *Vom Nutzen und Schaden der Schattenwirtschaft.* Köln (Finanzwissenschaftliches Forschungsinstitut, Köln) 1988. (= Sonderveröffentlichungen des Finanzwissenschaftlichen Forschungsinstituts an der Universität zu Köln. 15)

Schmölders 1980

SCHMÖLDERS, Günter: *Der Beitrag der Schattenwirtschaft.* Aus: Küng, Emil (eds.): *Wandlungen in Wirtschaft und Gesellschaft. Die Wirtschafts- und Sozialwissenschaften vor neuen Aufgaben.* Tübingen (Mohr) 1980. S. 371-379.

Schneider 1986

SCHNEIDER, Friedrich: *Estimating the size of the Danish shadow economy using the currency demand approach: An attempt.* In: *The Scandinavian Journal of Economics*, 88. Jg. (1986), H. 4, S. 643-668.

Schneider 1994a

SCHNEIDER, Friedrich: *Determinanten der Steuerhinterziehung und der Schwarzarbeit im internationalen Vergleich.* Aus: Smekal, Christian; Theurl, Engelbert (eds.): *Stand und Entwicklung der Finanzpsychologie. Clemens-August Andreae zum Gedenken.* Baden-Baden (Nomos Verlagsgesellschaft) 1994. S. 247-288.

Schneider 1994b

SCHNEIDER, Friedrich: *Can the shadow economy be reduced through major tax reforms? An empirical investigation for Austria.* In: *Public Finance*, Jg. 1994, H. 49/ Supplement, S. 137-152.

Schneider 1997a

SCHNEIDER, Friedrich: *Further empirical results of the size of the shadow economy of 17 OECD countries over time.* Linz 1997.

Schneider 1997b

SCHNEIDER, Friedrich: *The shadow economies of Western Europe*. In: *Journal of the Institute of Economic Affairs*, 17. Jg. (1997), H. 3, S. 42-48.

Schneider 1998a

SCHNEIDER, Friedrich: *Stellt das starke Anwachsen der Schwarzarbeit eine wirtschaftspolitische Herausforderung dar? Einige Gedanken aus volkswirtschaftlicher Sicht*. Linz 1998.

Schneider 1998b

SCHNEIDER, Friedrich: *Die im Dunkeln sieht man nicht. Schwarzarbeit als wirtschafts- und staatspolitische Herausforderung*. In: *Handelsblatt*, Nr. 40 vom 26.2.1998.

Schneider 2000

SCHNEIDER, Friedrich: *Arbeit im Schatten. Einige theoretische und empirische Überlegungen über die Schattenwirtschaft*. Linz 2000.

Schneider, Enste 2000a

SCHNEIDER, Friedrich; ENSTE, Dominik H.: *Schattenwirtschaft und Schwarzarbeit. Umfang, Ursachen, Wirkungen und wirtschaftspolitische Empfehlungen*. München, Wien (Oldenbourg) 2000.

Schneider, Enste 2000b

SCHNEIDER, Friedrich; ENSTE, Dominik H.: *Shadow economies: Size, causes and consequences*. In: *Journal of Economic Literature*, 38. Jg. (2000), March 2000, S. 73-110.

Sinn 1995

SINN, Hans-Werner: *Implikationen der vier Grundfreiheiten für eine nationale Fiskalpolitik*. In: *Wirtschaftsdienst*, 1995, H. V, S. 240-249.

Smith 1997

SMITH, Philip M.: *Assessing the size of the underground economy: The statistics Canada perspective*. Aus: Lippert, Owen; Walker, Michael (eds.): *The underground economy: Global evidences of its size and impact*. Vancouver, B.C. (Fraser Institute) 1997. S. 11-36.

Spiro 1997

SPIRO, Peter S.: *Taxes, deficits, and the underground economy*. Aus: Lippert, Owen; Walker, Michael (eds.): *The underground economy: Global evidences of its size and impact*. Vancouver, B.C. (Fraser Institute) 1997. S. 37-52.

Stützel 1980

STÜTZEL, Wolfgang: *Systemkonforme Sozialpolitik in der sozialen Marktwirtschaft*. In: *Wirtschaftsdienst*, 60. Jg. (1980), H. IX, S. 450-455.

SVR 1980

SACHVERSTÄNDIGENRAT ZUR BEGUTACHTUNG DER GESAMTWIRTSCHAFTLICHEN ENTWICKLUNG:
Unter Anpassungszwang. Jahresgutachten 1980/81. Stuttgart, Mainz (Kohlhammer) 1980.

Tanzi (eds.) 1982

TANZI, Vito (eds.): *The underground economy in the United States and abroad.* Lexington, Toronto (Lexington Books) 1982.

Tanzi 1998

TANZI, Vito: *Corruption around the world: Causes, consequences, scope, and cures* In: *IMF-Working Papers*, Jg. 1998, H. 98/63, S. 1-39.

Tanzi 1999

TANZI, Vito: *Uses and abuses of estimates of the underground economy.* In: *Economic Journal*, 109. Jg. (1999), H. 456, S. 338-347.

Thomas 1992

THOMAS, Jim J.: *Informal economic activity.* New York, London u.a. (Harvester/ Weatsheaf) 1992.

Thomas 1999

THOMAS, Jim J.: *Quantifying the black economy: 'Measurement without theory' yet again?* In: *Economic Journal*, 109. Jg. (1999), H. 456, S. 381-389.

Weck, Pommerehne, Frey 1984

WECK, Hannelore; POMMEREHNE, Werner W.; FREY, Bruno S.: *Schattenwirtschaft.* München (Vahlen München) 1984. (= Wist-Taschenbücher)

Weck-Hannemann, Pommerehne 1989

WECK-HANNEMANN, Hannelore; POMMEREHNE, Werner W.: *Einkommensteuerhinterziehung in der Schweiz: Eine empirische Analyse.* In: *Schweizerische Zeitschrift für Volkswirtschaft und Statistik*, 125. Jg. (1989), S. 515-556.

Windisch 1984

WINDISCH, Rupert 1984: *Irreguläre Ökonomie und Wirtschaftsordnung aus evolutionärer Sicht.* Aus: Schäfer, Wolf (eds.): *Schattenökonomie. Theoretische Grundlagen und wirtschaftspolitische Konsequenzen.* Göttingen (Vandenhoeck und Ruprecht) 1984. S. 229-262.

Zilberfarb 1986

ZILBERFARB, Ben-Zion: *Estimates of the underground economy in the United States, 1930-80. A comment on Tanzi.* In: *IMF-Staff Papers*, 33. Jg. (1986), H. 4, S. 790-798.

Figures

Sectors Criteria	Household sector	Informal sector	Irregular sector	Criminal sector
Production/ Distribution	legal	legal	illegal	illegal
Market transactions	no	yes	yes	yes
Output (goods/ services)	legal	legal	legal	illegal
VGR-conventions	Self-sufficient economy (legal)		Shadow economy (illegal)	
Examples	Do-it-yourself, home office work; baby-sitting; exchange of goods	Neighbourhood help; counselling centres; self-help organisations; honorary activities; network help	Illicit work: ⇒ because of offence against handicraft and trade regulations. ⇒ because of tax evasion ⇒ and abuse of benefits.	Trade with stolen goods and drugs; prohibited gambling; fraud; smuggling; receiving stolen goods

Figure 1: Categorisation of the Underground Economy

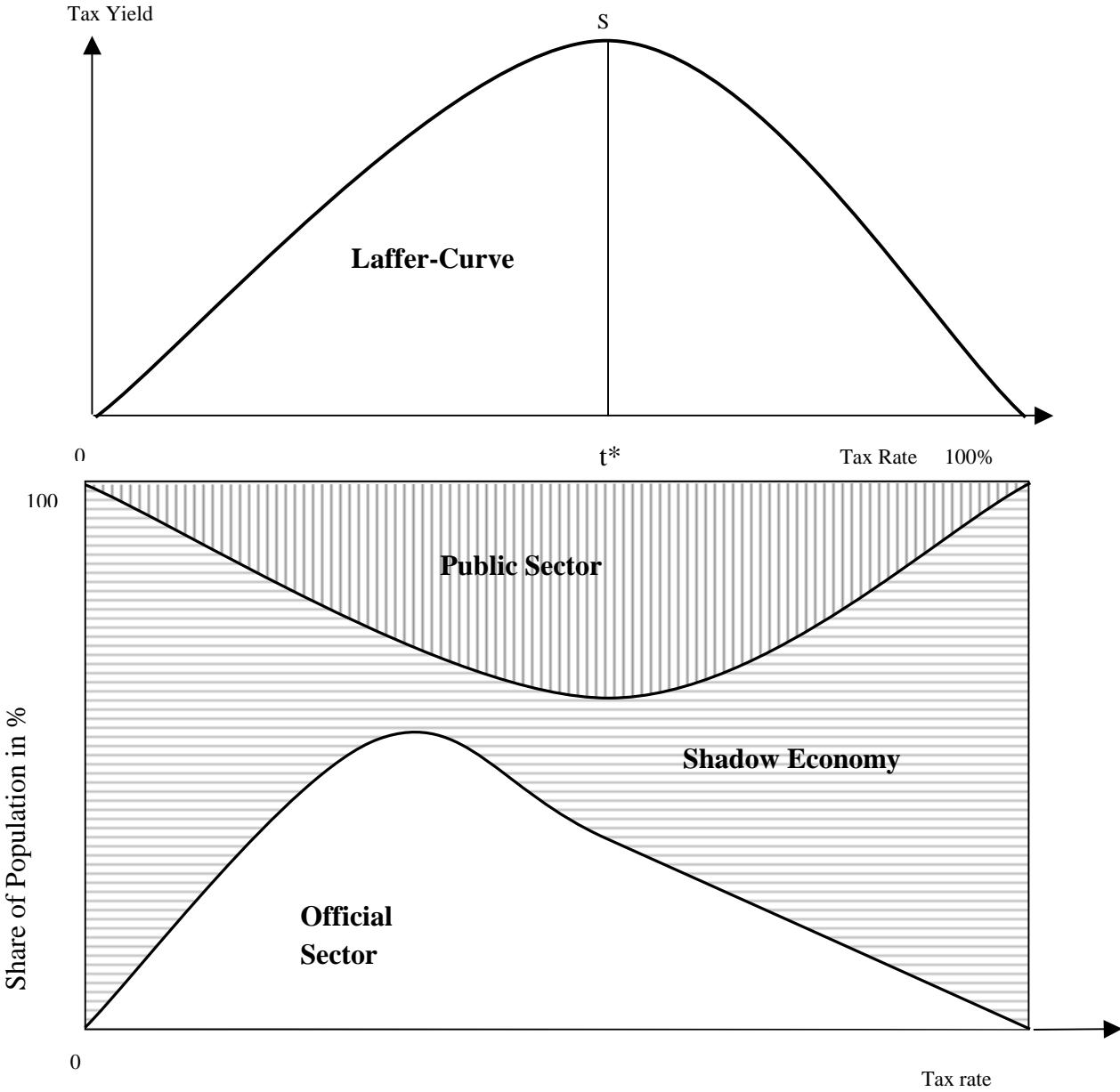


Figure 2: The Correlation Between Tax Yield, Tax Rate and the Development of the Shadow Economy

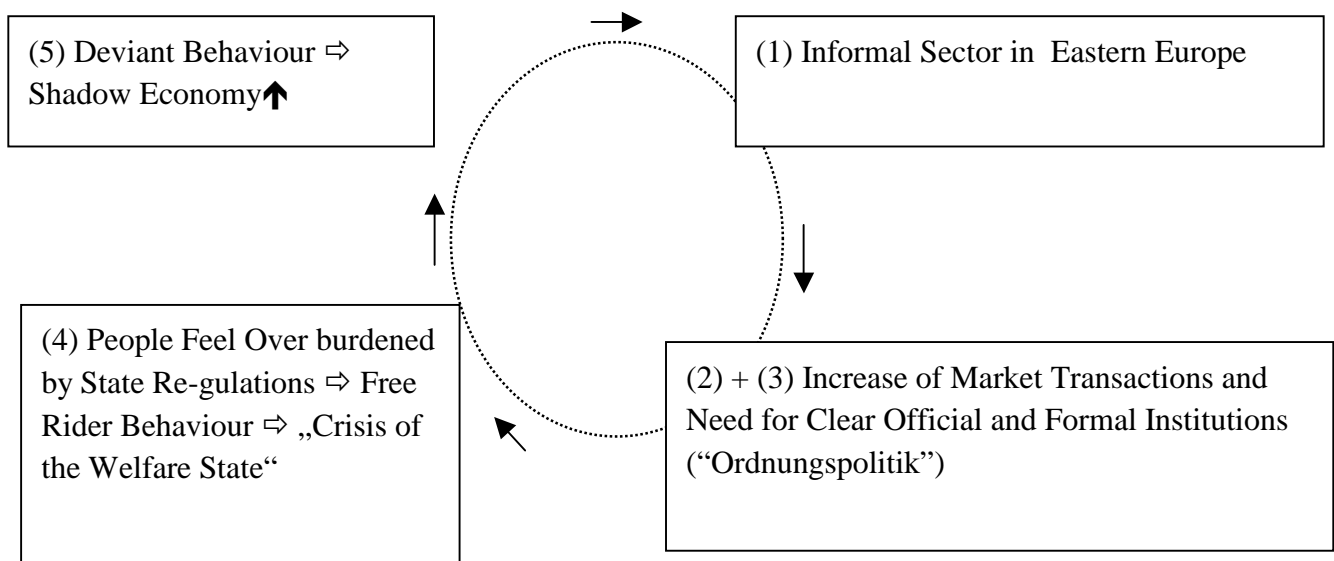


Figure 3: Economic and Institutional Change

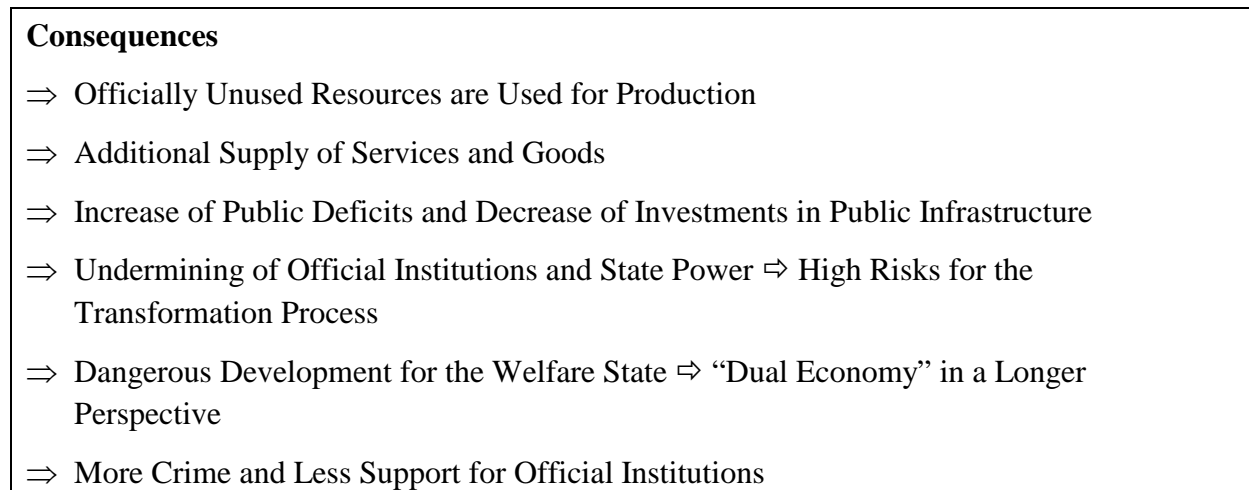


Figure 4: Consequences of the Increasing Shadow Economy

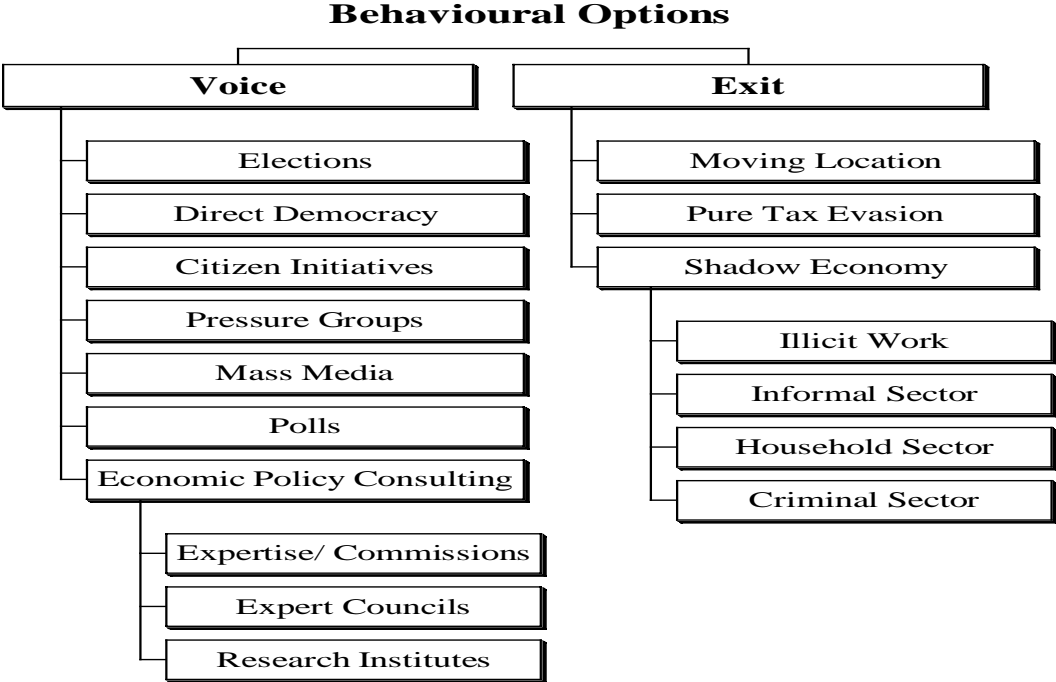


Figure 5: Behavioural Options by Households and Firms

Reduction of Financial Incentives to Escape into the Shadow Economy (Exit - Option)

- ⇒ Reduction of Tax Rates
- ⇒ Simplification of the Tax System
- ⇒ Substantial Reforms of Social Security Systems
- ⇒ Higher Efficiency in Administration and Combating Corruption
- ⇒ Focus on Transformation ⇒ Higher Growth Rate and Welfare Reduces the Pressure on Governments
- ⇒ Guarantee of Property Rights & Investment in Infrastructure (e.g. in Form of Private Public Partnership)

Changing Official Norms and Institutions according to the Preferences of the People

- ⇒ More Flexibility of Working Time for Employees and Employers (Individual Arrangements)
- ⇒ Less Regulation and Less Bureaucracy
- ⇒ Fighting the Symptoms does lead to more Action to Hide Shadow Economic Activities rather than to a Substantial Reduction of Illicit Work
- ⇒ Focus on Improvements and Reforms of Institutions and Systems and Explanation & Communication of the Necessity of Reforms

Strengthening the “Voice-Option” by Allowing more Active Participation of the People

- ⇒ Stabilisation of the Society
- ⇒ Less Centralisation and More Subsidiarity
- ⇒ Realisation of More Direct Democratic Elements in Some Areas
- ⇒ Increasing Participation of the Public leads to more Commitment and less “Free Rider” Behaviour

Figure 6: Economic Policy Recommendations to Reduce the Attractiveness of the Shadow Economy