

**THE INFORMAL ECONOMY  
IN THE EU ACCESSION  
COUNTRIES**

*Size, Scope, Trends and Challenges  
to the Process of EU Enlargement*

*Boyan Belev*  
Editor



*Funding for this publication was provided by the Bertelsmann Foundation and the World Bank.*

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ISBN 954-477-087-9

**ISBN 954-477-105-0**

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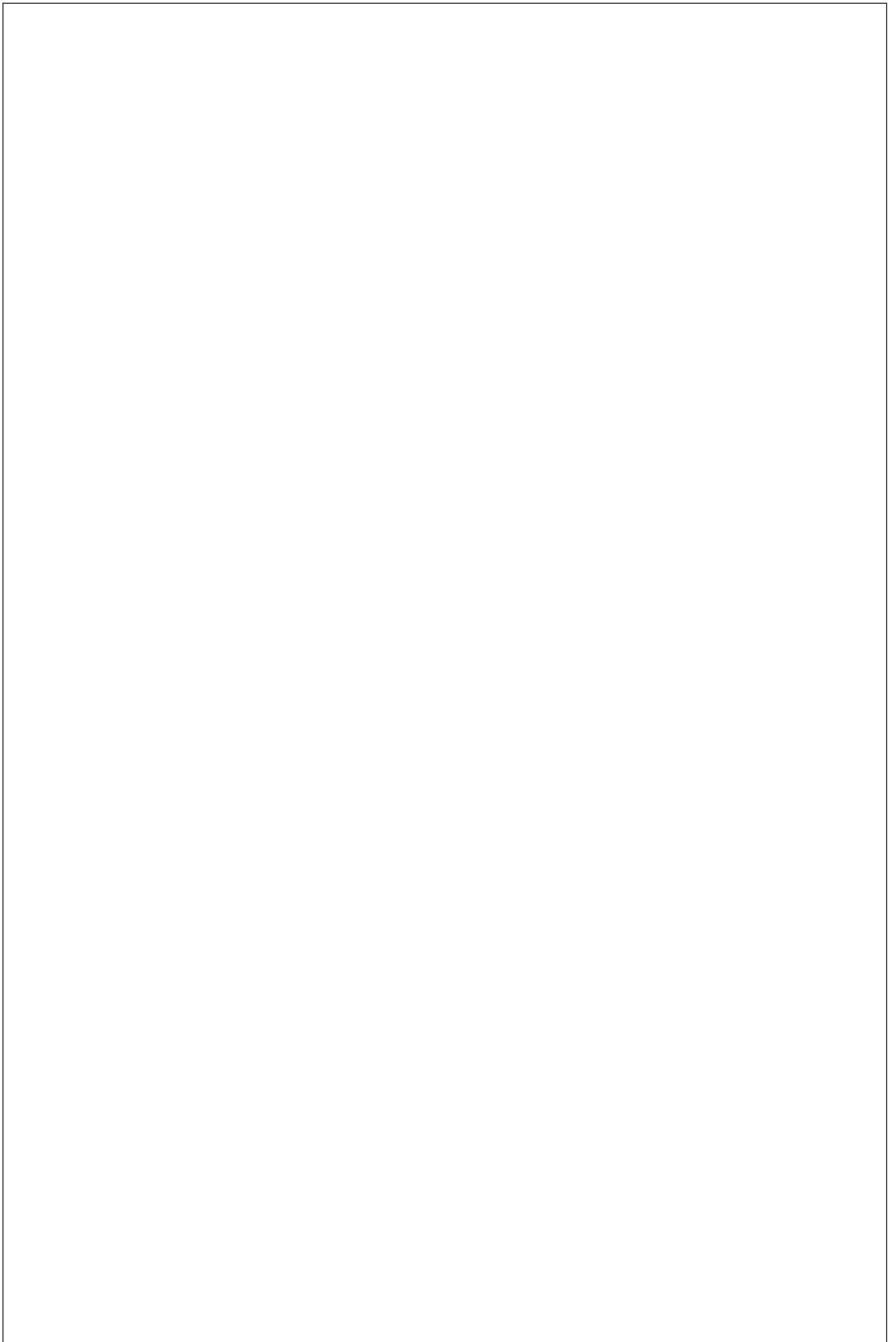
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**Assessment of  
the Informal Economy:  
Methods and Approaches**





## CHAPTER 2

# **The Size and Development of the Shadow Economies and Shadow Economy Labor Force of 22 Transition and 21 OECD Countries: What Do We Really Know?**

*Friedrich Schneider*

## **Introduction**

As crime and other underground economic activities (including shadow economic ones) are a fact of life around the world, most societies attempt to control these activities through various measures like punishment, prosecution, economic growth or education. Gathering statistics about who is engaged in underground (or crime) activities, the frequencies with which these activities occur and their magnitude are crucial factors for making effective and efficient decisions regarding the allocations of a country's resources. Unfortunately, it is very difficult to get accurate information about these underground (or as a subset shadow economy) activities in terms of value added and of labor market, because all individuals engaged in these activities wish not to be identified.

---

<sup>1</sup> The literature about the "shadow", "underground", "informal", "second", "cash" or "parallel", economy is growing. It covers various topics, including its measurements, causes and effects on the official economy. See, for example, survey-type publications by Frey and Pommerehne (1984), Thomas (1992), Loayza (1996), Pozo (1996), Lippert and Walker (1997), Schneider (1994a, 1994b, 1997, 1998a), Johnson, Kaufmann, and Shleifer (1997) and Johnson, Kaufmann and Zoido-Lobaton (1998a). For an overall survey of the global evidence of its size in terms of value-added, see Schneider and Enste (2000).

Although quite a large body of literature<sup>1</sup> on individual aspects of the hidden (shadow) economy exists and a comprehensive survey has just been written by Schneider (the author of this paper) and Enste concentrating on the size of the shadow economy in terms of value added, the subject is still quite controversial<sup>2</sup> and there are disagreements about the definition of shadow-economy activities, the estimation procedures and the use of the estimates in economic analysis and policy making.<sup>3</sup> In spite of these difficulties in transition and OECD countries, there have been strong indications for an increase of the shadow economy since the late 1980s, but little is known of the size and development of the shadow economies in transition and OECD countries over the 1990s.

The scientific fascination with the underground economy has inspired me to tackle this difficult question and undertake the challenging task to estimate the shadow economy in transition and OECD-countries over the 1990s. In section 2, an attempt is made to define the shadow economy. Section 3 presents the empirical results of the size of the shadow economy in 22 transition and 21 OECD countries as well as first and preliminary empirical results of the size of the shadow economy labor force (informal employment) in some of these countries. Section 4 examines the main causes of the shadow economy. In section 5, some methods for estimation of the size of the shadow economy are shortly presented; section 6 gives a summary and draws some conclusions.

## **The Definition of a Shadow Economy: An Attempt**

Most authors trying to measure the shadow economy face the difficulty of how to define it. One commonly used working definition is: all currently unregistered economic activities, which contribute to the officially calculated (or observed) Gross National Product.<sup>4</sup> Smith (1985, p. 18) defines it as “market-based production of goods and services, whether legal or illegal, that escapes detection in the official estimates of GDP.” As these definitions still leave a lot of questions open, table 1 may be helpful for developing a better idea of what could be a reasonable consensus definition of the legal and illegal underground or shadow economy.

From table 1, it becomes clear that the shadow economy includes unreported income from the production of legal goods and services either from monetary or barter transactions – hence, all economic activities which would generally be taxable were they reported to the state (tax) authorities. In general, a precise definition seems quite difficult, if not impossible, as “the shadow economy develops all the time according to the ‘principle of running water’: it adjusts to changes in taxes, to sanctions from the tax authorities and to general moral attitudes, etc.” (Mogensen et. al., 1995, p. 5).

<sup>2</sup> See, for instance, the feature “Controversy: On the Hidden Economy” in the *Economic Journal*, vol. 109, no. 456, June 1999.

<sup>3</sup> See the different opinions of Tanzi (1999), Thomas (1999) and Giles (1999a,b).

<sup>4</sup> This definition is used for example, by Feige (1989, 1994), Schneider (1994a), Frey and Pommerehne (1984), and Lubell (1991).

TABLE 1: A TAXONOMY OF TYPES OF UNDERGROUND ECONOMIC ACTIVITIES\*

<i>Type of Activity</i>	<i>Monetary Transactions</i>		<i>Non-Monetary Transactions</i>	
<i>Illegal Activities</i>	Trade with stolen goods; drug dealing and manufacturing; prostitution; gambling; smuggling and fraud.		Barter of drugs, stolen goods, smuggling, etc. Produce or growing drugs for own use. Theft for own use.	
	<i>Tax Evasion</i>	<i>Tax Avoidance</i>	<i>Tax Evasion</i>	<i>Tax Avoidance</i>
<i>Legal Activities</i>	Unreported income from self-employment; wages, salaries and assets from unreported work related to legal service and goods	Employee discounts, fringe benefits	Barter of legal services and goods	All do-it-yourself work and neighbor help

\* The structure of the table is based on Lippert and Walker (1997, p. 5).

## The Size of the Shadow Economies (Labor Force) in 22 Transition and 21 OECD Countries

### 22 Transition Countries

The physical input (electricity) method and the DYMIMIC method have been applied to the transition countries in Central and Eastern Europe, and to states of the former Soviet Union. The results are shown in table 2 and in figures 2.1 to 2.4; they cover the periods 1990-93, 1994-95 and 2000-2001. On the basis of the physical input method by Johnson et. al, out of the countries of the former Soviet Union over the period 1990-93 Georgia was found to have the largest shadow economy with 43.6 percent of "official" GDP, followed by Azerbaijan with 33.8 percent and Moldova 29.1 percent. Russia can be found in the middle with a shadow economy of 27 percent. According to Johnson et. al., Belarus with 14 percent and Uzbekistan with 10.3 percent have the lowest values. Except for Uzbekistan, all former Soviet Union republics experienced a strong increase in the shadow economy from an average of 25.7 percent for 1990-93 to 35.3 percent for 1994-95. Turning to the transition countries of Central and Eastern Europe for the period 1990-93 Johnson et. al. find that Hungary has the largest shadow economy with 30.7 percent of GDP, followed by Bulgaria with 26.3 percent. The lowest numbers are for the Czech Republic with 13.4 percent and Slovakia with 14.2 percent. The Johnson et. al figures show an average shadow economy of the Central and Eastern European states of 22.4 percent over 1990-93 and 25.1 percent for 1994-95. Using the DYMIMIC method for the 13 former Soviet Union republics, the average size of the informal economy is 32.9 percent, and for the 9 Central and Eastern European countries the average

percentage is 23.4 for 1990-1993. Both values are in a similar range as compared to the ones from the physical input method; most single country estimates come quite close to the estimates by Johnson et.al. (1997). In 2000-2001, Georgia has the largest shadow economy with 66.1 percent of the official GDP, followed by Azerbaijan with 60.1 percent and Ukraine with 51.2 percent. Uzbekistan has the lowest percentage of the shadow economy in the former Soviet Union with 33.4 percent of the official GDP, Kyrgyzstan with 39.4 percent and Latvia with 39.6 percent. On average, the shadow economy has reached the value of 44.8 percent of the official GDP for 2000-2001, which is a considerable increase as compared to the average for the years 1990-1993. If we turn now to Central and Eastern Europe using the DYMIMIC method, we see that in 2000-2001 Macedonia has the largest shadow economy with 45.1 percent of the official GDP, followed by Bulgaria with 36.4 percent and Romania with 33.4 percent. Slovakia and the Czech Republic have the lowest numbers, respectively 18.3 percent and 18.4 percent of the official GDP. The average size of the shadow economy in the 9 Central and Eastern European Transition Countries has increased from 23.4 percent for the years 1990-1993 to 29.2 percent in 2000-2001. With regard to the size of the shadow economy labor force as percentage of the population, we see that in the former Soviet Union republics Georgia has the largest shadow economy labor force with 53.2 percent, followed by Azerbaijan with 50.7 percent and Ukraine with 41.2 percent. Lithuania and Kyrgyzstan have the lowest numbers respectively with 20.3 percent and 29.4 percent. Turning to Central and Eastern Europe, the shadow economy labor force in the Czech Republic is the lowest at 12.6 percent, followed by Slovakia at 16.3 percent, while the largest is in Macedonia - 35.1 percent, followed by Bulgaria - 30.4 percent and Croatia - 27.4 percent. In general, the size of the shadow economy and also the size of the shadow-economy labor force is quite remarkable for the 22 transition countries – strangely, it has been on the rise up to 2000-2001.

### *21 OECD Countries*

For the 21 OECD countries, the currency demand method or the DYMIMIC method are used to estimate the size of the shadow economy. The results for the period 1989-90 to 2000-2001 are shown in table 3 and figures 2.1 to 2.3. Considering again the latest year 2000-2001, Greece has the largest shadow economy with 28.5 percent of the official GDP, followed by Italy with 27.0 percent and Portugal with 22.5 percent. In the middle of the range we find Germany with a shadow economy of 16.3 percent, followed by Ireland with 15.7 percent and France with 15.0 percent. At the lower end we find Austria with 10.6 percent of the official GDP, Switzerland with 9.4 percent and the United States with 8.7 percent. In the OECD countries there was an increase of the shadow-economic activities in the 1990s - on average, these activities amounted to 13.2 percent in 1989-1990 and increased to 16.7 percent in 2001-2002, i.e. by 3.5 percentage points. We can also see that this increase is considerably smaller compared to the one

TABLE 2: THE SIZE OF THE SHADOW ECONOMY IN TRANSITION COUNTRIES

Transition Countries	Size of the Shadow Economy (in % of GDP) Shadow Economy			Labor Force in % of Working-Age* Population 1998-99	
	Physical Input (Electricity) Method		DYMIMIC Method		
	Average 1990-93	Average 1994-95			Average 1990-93
<i>Former Soviet Union</i>					
1. Armenia	39.4	40.3	40.1	45.3	40.3
2. Azerbaijan	43.8	59.3	45.1	60.1	50.7
3. Belarus	34.0	39.1	35.6	47.1	40.9
4. Estonia	33.9	38.5	34.3	39.1	33.4
5. Georgia	43.6	63.0	45.1	66.1	53.2
6. Kazakhstan	32.2	34.2	31.9	42.2	33.6
7. Kyrgyzstan	34.1	37.2	35.2	39.4	29.4
8. Latvia	24.3	34.8	25.7	39.6	29.6
9. Lithuania	26.0	25.2	26.0	29.4	20.3
10. Moldavia	29.1	37.7	29.3	44.1	35.1
11. Russia	27.0	41.0	27.8	45.1	40.9
12. Ukraine	38.4	47.3	29.4	51.2	41.2
13. Uzbekistan	20.3	28.0	22.1	33.4	33.2
<i>Unweighted Average:</i>	32.8	40.4	32.9	44.8	37.1
<i>former Soviet Union republics</i>					
<i>Central and Eastern Europe</i>					
1. Bulgaria	26.3	32.7	27.1	36.4	30.4
2. Croatia	23.5	28.5	24.6	32.4	27.4
3. Czech Republic	13.4	14.5	13.1	18.4	12.6
4. Hungary	20.7	28.4	22.3	24.4	20.9
5. Macedonia	34.5	40.3	35.6	45.1	35.1
6. Poland	20.3	13.9	22.3	27.4	20.9
7. Romania	26.0	28.3	27.3	33.4	24.3
8. Slovakia	14.2	15.2	15.1	18.3	16.3
9. Slovenia	22.4	23.9	22.9	26.7	21.6
<i>Unweighted Average:</i>	22.4	25.1	23.4	29.2	23.3
<i>Central and East European Countries</i>					

\* Working-age population means population between the age of 16 and 65.

Sources: Own calculations using the DYMIMIC method; values using the Physical input method come from Johnson, Kaufmann, and Shleifer (1997, table 1, p. 182-183), Johnson, Kaufmann, and Zoida-Lobaton (1998a, p. 351).

FIGURE 1.1: SHADOW ECONOMY LABOR FORCE IN PERCENTAGE OF (WORKING-AGE) POPULATION IN TRANSITION COUNTRIES – FORMER SOVIET UNION, 1998-1999

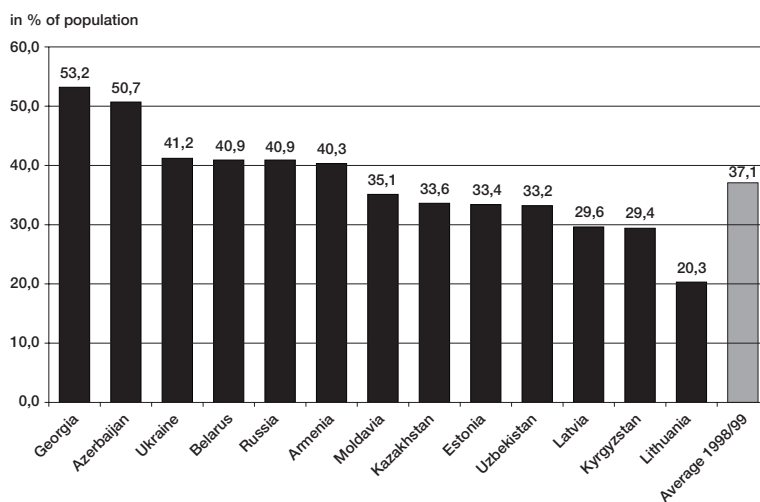


FIGURE 1.2: SHADOW ECONOMY LABOR FORCE IN PERCENTAGE OF (WORKING-AGE) POPULATION IN TRANSITION COUNTRIES – CENTRAL AND EASTERN EUROPE, 1998-1999

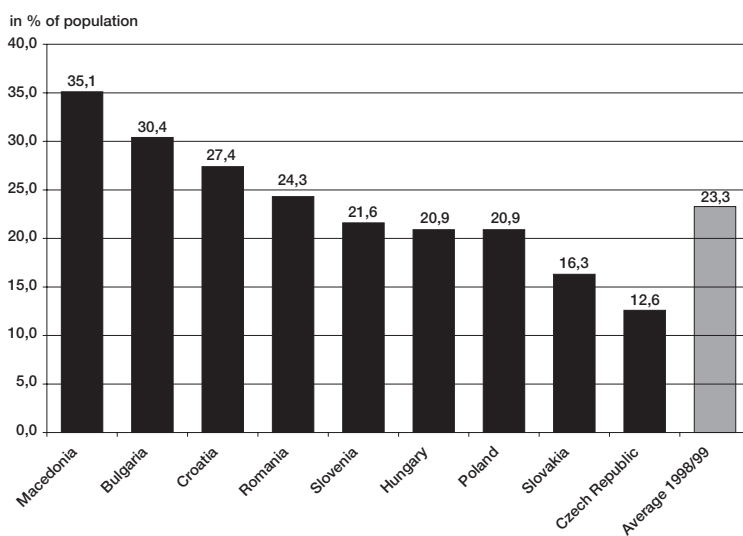


FIGURE 1.3: SIZE OF THE SHADOW ECONOMY (IN PERCENT OF GDP)  
IN THE FORMER SOVIET UNION – AVERAGE 2000-2001

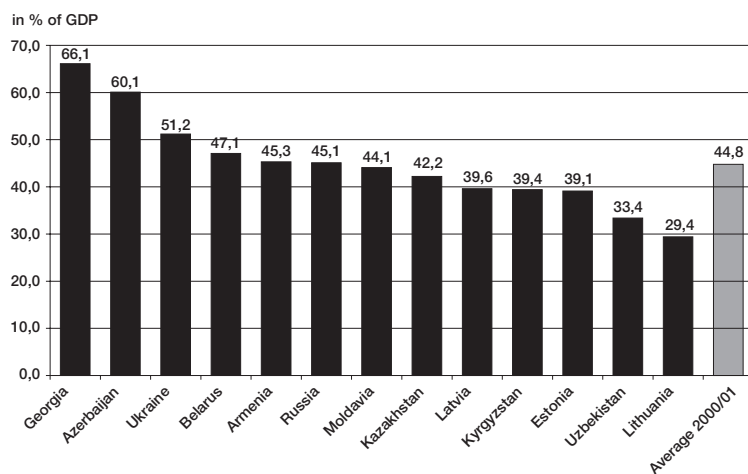
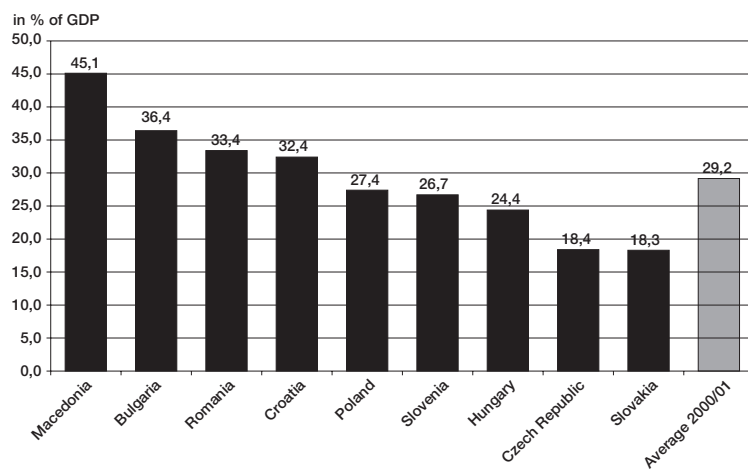


FIGURE 1.4: SIZE OF THE SHADOW ECONOMY (IN PERCENT OF GDP)  
IN CENTRAL AND EASTERN EUROPE – AVERAGE 2000-2001



in the 22 transition countries, where it was 9.9 percentage points of the official GDP for the same period. If we consider the second half of the 1990s, we realize that for 14 out of the 21 OECD countries the shadow economy is not increasing any further – it is even slightly decreasing, for instance, in Belgium from 22.5 percent (1997-1998) to 22.0 percent (2001-2002), in Denmark from 18.3 percent (1997-1998) to 17.9 percent (2001-2002) or in Finland from 18.9 percent (1997-1998) to 18.0 percent (2001-2002). In 6 out of the 21 OECD countries, in New Zealand, for instance, it is still increasing from 11.9 percent (1997-1998) to 12.6 percent (2001-2002), or in Germany from 14.9 percent (1997-1998) to 16.3 percent (2001-2002) or in Austria from 9.0 percent (1997-1998) to 10.6 percent (2001-2002). Hence, one can draw the conclusion that for 14 out of 21 countries the shadow economy has been decreasing slightly at the end of the 1990s. The decrease differs from country to country but in some of them efforts have been made to stabilize (or to decrease) the size of the shadow economy although these efforts have not been successful everywhere, for instance, in Germany.

Having examined the size and the rise of the shadow economy in terms of value added over time, the analysis focuses further on the shadow labor market, as within the official labor market there is a particularly tight relationship and “social network” between people who are active in the shadow economy.<sup>5</sup> Moreover, by definition every activity in the shadow economy involves a shadow labor market to some extent: hence, the shadow labor market includes all cases, in which the employees or the employers, or both, occupy a shadow economy position. Why do people work in the shadow economy? In the official labor market, the costs firms (and individuals) have to pay when “officially” hiring someone increase tremendously as a result of the tax burden and the social security contributions on wages as well as by the legal and administrative regulations for control of economic activities.<sup>6</sup> In various OECD countries these costs are greater than the wages effectively earned by the worker, thus providing a strong incentive to work in the shadow economy. More detailed theoretical analysis on the labor supply in the underground economy is given by Lemieux, Fortin, and Fréchette (1994) who use micro-data from a survey conducted in Quebec City (Canada). Their study provides in particular some economic insight into the size of the distortion caused by taxation of income and the welfare system. The results of this study suggest that the hours worked in the shadow economy are quite responsive to changes in the net wage in the regular (official) sector. The empirical results attribute this to a (miss-)allocation of work from the official to the informal sector, in which it is not taxed. In this case, the substitution of labor-market activities between the two sectors is quite high. These empirical findings clearly indicate that “participation rates and hours worked in the underground sector also tend to be inversely related to the number of hours worked in the regular sector“ (Lemieux, Fortin, and Fréchette 1994, p. 235). The findings also

<sup>5</sup> Pioneering work in this area has been done by L. Frey (1972, 1975, 1978, 1980), Cappiello (1986), Lubell (1991), Pozo (1996), Bartlett (1998) and Tanzi (1999).

<sup>6</sup> This is especially true in Europe (e.g. in Germany and Austria), where the total tax and social security burden adds up to 100 percent on top of the wage effectively earned; see also section 5.1.



TABLE 3: SIZE OF THE SHADOW ECONOMY IN OECD COUNTRIES

OECD-Countries	Size of the Shadow Economy (in % of GDP) using the Currency Demand Method								Increase (+) or Decrease of the shad. econ. (-) from 1997-98 to 2001-02
	Average 1989-90	Average 1991-92	Average 1994-95	Average 1997-98	Average 1999-2000	Average 2001-02*			
1. Australia	10.1	13.0	13.5	14.0	14.3	14.1			+0.1
2. Austria	6.9	7.1	8.6	9.0	9.8	10.6			+1.6
3. Belgium	19.3	20.8	21.5	22.5	22.2	22.0			-0.5
4. Canada	12.8	13.5	14.8	16.2	16.0	15.8			-0.4
5. Denmark	10.8	15.0	17.8	18.3	18.0	17.9			-0.4
6. Finland	13.4	16.1	18.2	18.9	18.1	18.0			-0.9
7. France	9.0	13.8	14.5	14.9	15.2	15.0			+0.1
8. Germany	11.8	12.5	13.5	14.9	16.0	16.3			+1.4
9. Great Britain	9.6	11.2	12.5	13.0	12.7	12.5			-0.5
10. Greece	22.6	24.9	28.6	29.0	28.7	28.5			-0.5
11. Ireland	11.0	14.2	15.4	16.2	15.9	15.7			-0.5
12. Italy	22.8	24.0	26.0	27.3	27.1	27.0			-0.3
13. Japan	8.8	9.5	10.6	11.1	11.2	11.1			0.0
14. Netherlands	11.9	12.7	13.7	13.5	13.1	13.0			-0.5
15. New Zealand**	9.2	9.0	11.3	11.9	12.8	12.6			+0.7
16. Norway	14.8	16.7	18.2	19.6	19.1	19.0			-0.6
17. Portugal	15.9	17.2	22.1	23.1	22.7	22.5			-0.6
18. Spain ***	16.1	17.3	22.4	23.1	22.7	22.5			-0.6
19. Sweden	15.8	17.0	19.5	19.9	19.2	19.1			-0.8
20. Switzerland	6.7	6.9	7.8	8.1	8.6	9.4			+1.3
21. USA	6.7	8.2	8.8	8.9	8.7	8.7			-0.2
Unweighted Average over 21 OECD countries	13.2	14.3	15.7	16.7	16.8	16.7			-0.1

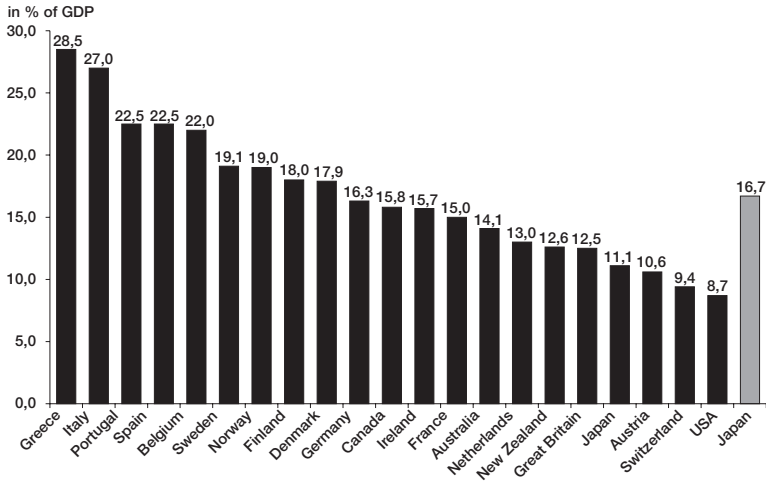
Sources: Currency demand approach, own calculations

\* Preliminary values.

\*\* The figures are calculated using the MIMIC-method and Currency demand approach. Source: Giles (1999b).

\*\*\* The figures have been calculated for 1989-90, 1990-93 and 1994-95 from Mauleon (1998), and for 1997-98, 1999-2000 and 2001-02 own calculations.

FIGURE 2.1: SIZE OF THE SHADOW ECONOMY IN 21 OECD COUNTRIES IN PERCENT OF GDP AVERAGE OVER 2001-02



Source: Own calculations.

FIGURE 2.2: INCREASE OF THE SIZE OF THE SHADOW ECONOMY IN 21 OECD COUNTRIES IN PERCENT OF GDP OVER 2001-02

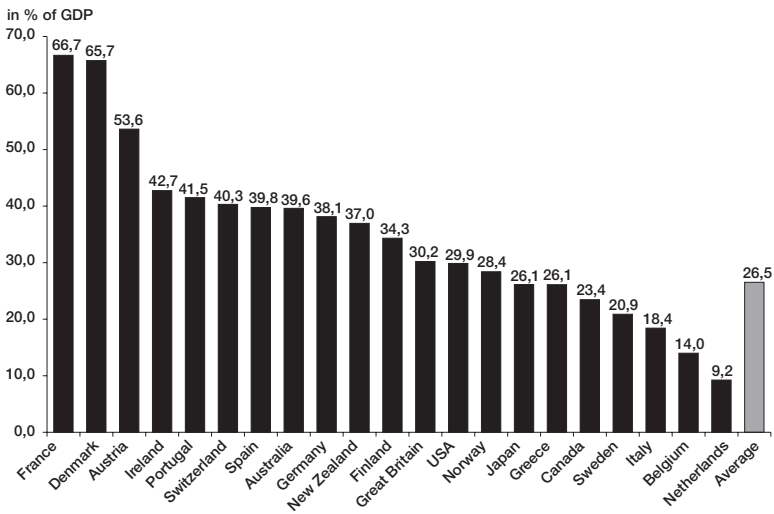
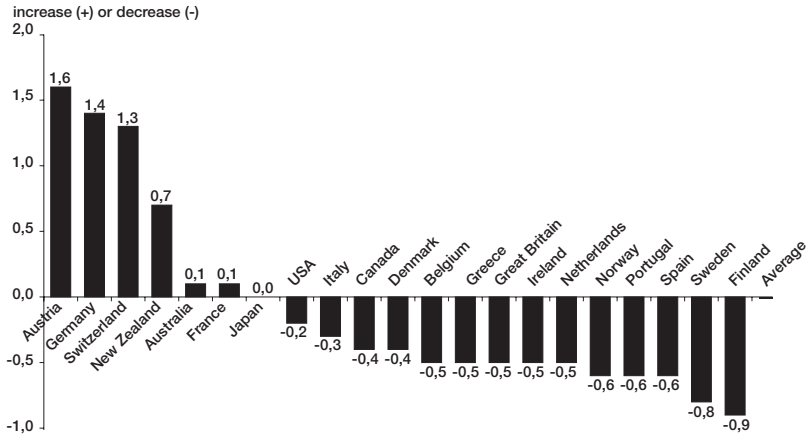


FIGURE 2.3: INCREASE (+) OR OF DECREASE (-) OF THE SHADOW ECONOMY IN 21 OECD COUNTRIES FROM 1997-98 TO 2001-02



Source: Own calculations.

demonstrate a large negative elasticity of the hours worked in the shadow economy with respect both to the wage rate in the regular sector and a high mobility between the sectors.

Illicit work can take many shapes. The underground use of labor may consist of a second job after (or even during) regular working hours. A second form is shadow-economy work by individuals who do not participate in the official labor market. A third component is the employment of people (e.g. clandestine or illegal immigrants), who are not allowed to work in the official economy. Empirical research on the shadow-economy labor market is even more difficult than that on the shadow-economy value added, since one has very little knowledge about how many hours an average “shadow economy worker” actually puts in (from full time to just a few hours); hence, it is not easy to provide empirical data.<sup>7</sup>

The estimates for the shadow economy labor force in 7 OECD countries (Austria, Denmark, France, Germany, Italy, Spain and Sweden) are shown in table 4. In Austria, the shadow economy labor force has reached 500,000 to 750,000 or 16 percent of the official labor force (mean value) in the years 1997-1998. In Denmark the course of events in the 1980s and 1990s shows that the part of the Danish population engaged in the shadow economy ranged from 8.3 percent of the total labor force in 1980 to 15.4 percent in 1994 – an increase of the shadow-economy labor force which is quite remarkable, i.e. it almost doubled over the period of 15 years. In France in 1997-1998

<sup>7</sup> For developing countries there is some literature about the shadow labour market, e.g. the latest works by Dallago (1990), Pozo (1996), Loayza (1996), and especially by Chickering and Salahdine (1991).

the shadow economy labor force reached a size of between 6 and 12 percent of the official labor force or in absolute figures - between 1.4 and 3.2 million. In Germany, this figure rose from 8 to 12 percent in 1974 to 1982, and to 22 percent (18 million) in 1997-98. For France and Germany there is again a very strong increase in the shadow-economy labor force. In other countries, the amount of shadow economy labor is quite large too: in Italy - 30-48 percent (1997-98), in Spain - 11.5-32 percent (1997-98) and in Sweden - 19.8 percent (1997-98). In the European Union, about 30 million people were engaged in shadow economy activities in 1997-1998, while in all European OECD countries 48 million worked illicitly.

These figures demonstrate that the shadow-economy labor market is lively, and may provide an explanation why, for example, in Germany one can observe such a high and persistent unemployment. Table 4 offers a first and preliminary calculation of the official GNP per capita and the shadow economy GDP per capita (in US dollars). One can easily realize that in all countries under investigation, the shadow economy GDP per capita is much higher - around 40 percent on average in all countries.<sup>8</sup> This clearly shows that the productivity in the shadow economy is quite likely to be considerably higher than in the official economy - a clear indication that the work effort, i.e. the incentive to work effectively, is stronger in the shadow economy. In general, these very preliminary results clearly demonstrate that the shadow-economy labor force has reached a remarkable size in the developed OECD countries too, even when the calculations might still have many errors, but the picture shows again that shadow-economy labor market has reached a sizeable figure.

### *Further Results for the German-Speaking Countries<sup>9</sup>*

Table 5 presents the evolution of the shadow economy in Austria, Germany and Switzerland over time.

With regard to Germany, one can see that in the year 1975 the German shadow economy had a size of 5.75 percent of the official GDP, which rose to 16.49 percent in year 2002. In Austria in 1975 the shadow economy was 2.04 percent and increased to 10.69 percent in year 2002. A similar change took place in Switzerland where the shadow economy in 1975 was 3.2 percent and rose to 9.48 percent in 2002. In all three German-speaking countries, one can observe a strong growth of the shadow economy, but by far the strongest was in Germany, where it amounted to 350,4 billion EUR in 2002.

<sup>8</sup> This is an astonishing result, which has to be further checked, because in the official per capita GDP figures the whole economy is included with mostly productive sectors (like electronics, steel, machinery, etc.) and the shadow-economy figures traditionally reflect mostly activities in the service sector as well as in construction. Hence, one could also expect exactly the opposite result as the productivity in the service sector is usually much lower than in the other sectors mentioned above. Sources of error may be either underestimation of the shadow-economy labor force or overestimation of the shadow economy in terms of value added.

<sup>9</sup> This part closely follows Mummert and Schneider (2002).

TABLE 4: ESTIMATES OF THE SIZE OF THE SHADOW-ECONOMY LABOR FORCE AND OF THE OFFICIAL AND SHADOW-ECONOMY PRODUCTIVITY IN SOME OECD COUNTRIES, 1974-1998

Countries	Year	Official GDP per capita in US-\$*	Shadow Economy GDP in US-\$ per capita	Size of the Shadow Economy (in % of official GDP) Currency** Demand Approach**	Shadow- Economy Labor Force in 1000 people***	Shadow- Economy Participants in % of official Labor Force****	Sources of Shadow Economy Labour Force
Austria	1990-91	20,636	25,382	5.47	300-380	9.6	Schneider (1998) and own calculations
	1997-98	25,874	29,630	8.93	500-750	16.0	
Denmark	1980	13,233	18,658	8.6	250	8.3	Mogenssen, et. al. (1995) and own calculations
	1986	18,496	26,356	9.8	390	13.0	
	1991	25,946	36,558	11.2	410	14.3	
	1994	34,441	48,562	17.6	420	15.4	
France	1975-82	12,539	17,542	6.9	800-1500	3.0-6.0	De Grazia (1983) and own calculations
	1997-98	24,363	34,379	14.9	1400-3200	6.0-12.0	
Germany	1974-82	11,940	17,911	10.6	3000-4000	8.0-12.0	De Grazia (1983), F. Schneider (1998b) and own calculations
	1997-98	26,080	39,634	14.7	7000-9000	19.0-23.0	De Grazia (1983), F. Schneider (1998b) and own calculations
Italy	1979	8,040	11,736	16.7	4000-7000	20.0-35.0	Gaetani and d'Aragona (1979) and own calculations
	1997-98	20,361	29,425	27.3	6600-11400	30.0-48.0	
Spain	1979-80	5,640	7,868	19.0	1250-3500	9.6-26.5	Ruesga (1984) and own calculations
	1997-98	13,791	19,927	23.1	1500-4200	11.5-32.3	
Sweden	1978	15,107	21,981	13.0	750	13.0-14.0	De Grazia (1983) and own calculations
	1997-98	25,685	37,331	19.8	1150	19.8	
European Union	1978	9,930	14,458	14.5	15 000	-	De Grazia (1983) and own calculations
	1997-98	22,179	32,226	19.6	30 000	-	
OECD (Europe)	1978	9,376	14,162	15.0	26 000	-	De Grazia (1983) and own calculations
	1997-98	22,880	33,176	20.2	48 000	-	

\* Source: OECD, Paris, various years

\*\* Source: Own calculations.

\*\*\* Estimated full-time jobs, including unregistered workers and illegal immigrants, and second jobs.

\*\*\*\* Percentage of the population aged 20-69, survey method.

TABLE 5: SIZE AND EVOLUTION OF THE SHADOW ECONOMY IN GERMANY, AUSTRIA AND SWITZERLAND IN 1975-2002\*

Year	Size of the Shadow Economy (% of official GDP) Using the Currency Demand Approach					
	Germany		Austria		Switzerland	
	in %	bill. EUR	in %	bill. EUR	in %	bill. CHF
1975	5.75	29.6	2.04	0.9	3.20	12
1980	10.80	80.2	2.69	2.0	4.90	14
1985	11.20	102.3	3.92	3.9	4.60	17
1990	12.20	147.9	5.47	7.2	6.20	22
1995	13.90	241.1**	7.32	12.4	6.89	25
1996	14.50	257.6**	8.32	14.6	7.51	27
1997	15.00	274.7**	8.93	16.0	8.04	29
1998	14.80	280.7**	9.09	16.9	7.98	30
1999	15.51	301.8**	9.56	18.2	8.34	32
2000	16.03	322.3**	10.07	19.8	8.87	35
(2001)***	16.00	329.8**	10.52	21.1	9.28	37.5
(2002)***	16.49	350.4**	10.69	21.8	9.48	38.7

\* Explanations: The size of the shadow economy can only roughly be compared among the three countries, as the currency demand equation is specified differently for the three countries and the independent "cause" variables (taxation regulation, for instance) are not the same in the three countries.

\*\* From 1995 values for the United Germany.

\*\*\* Forecast, as official values are not available.

Source: Own calculations.

The figures presented above allow for the assumption of constantly rising shadow economic activities in Germany. Measurement results taken via microeconomic approaches point in the same direction; several estimates of the size of the shadow economic labor force in Europe also underline the (probably growing) relevance of shadow-economic activities within economic systems (De Grazia, 1983, Schneider and Enste, 2000b). In a survey conducted through telephone interviews by IFAK in March 1998 in Germany with a representative sample of 1.000, persons 22 percent of the respondents admitted that they indeed had been working in the shadow economy.<sup>10</sup> Though microeconomic measurement approaches give information with respect to the overall size of shadow-economic activities, it is the detailed information on the different activities and on the people involved in particular that are of interest in the present context. Shadow-economic activities seem to form a natural part of market activities in Germany: in the IFAK-survey only 31.2 percent of the respondents thought that nearly none of their friends or acquaintances had at least once been buying goods or services in the shadow economy. At the same time, more than 60 percent assumed that from at least a quarter of their friends and acquaintances (23.1 percent) up to almost all (13.2 percent) had once or several times accepted an offer of black labor.

But who are the people offering black labor and what kind of labor is this? Most surveys point to the average supplier of black labor as holding a regular job in the official economy and thus being only part-time involved in shadow economic activities (Dallago, 1990; Lemieux, Fortin and Fréchet, 1994 and Mogensen et al., 1995). Around 60 percent of the suppliers of black labor in the IFAK survey worked in the official economy too. Still, it is generally assumed that, although most of the black labor is offered by people holding an official job, unemployed people students and social welfare recipients are to a greater extent involved in shadow-economic activities than regular job holders (see e.g., Lemieux, Fortin & Fréchet, 1994).

In congruence with other empirical results on shadow economies (e.g. Dallago, 1990) shadow-economic activities in Germany seem to be mostly concentrated in the areas of house construction, renovation, car repairs and servicing. Most of these services presuppose a certain income level. Correspondingly, the demand of black labor has its roots in the middle class rather than in low-income groups (see also Gretschmann, 1984, p. 115).

In addition to the empirical results presented so far, the already mentioned IFAK survey holds some interesting information on the shadow-economic activities in East and West Germany too. The representative sample includes the responses from 797 people in West Germany and 170 in East Germany, all aged 14 years and over. Only 12.9 percent of

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<sup>10</sup> The survey was undertaken in the name of B.A.C. Burda, Munich. I would like to thank Burda Press for their kind cooperation. Some of the empirical results of the IFAK study can be found in *Focus*, 1998. With only 26.3 percent of the households refusing to be interviewed, the response rate is rather good. This is really good in comparison with the non-response rate of other surveys - e.g., 48 percent in Canada (see Lemieux, Fortin and Fréchet, 1994), between 50 and 60 percent in the Netherlands and Denmark (see Mogensen et al., 1995, pp. 7-9). For a detailed discussion on quality matters, see Mummert and Schneider (2002).

the respondents living in the Eastern part of Germany admitted that they had been working in the shadow economy in contrast to 24.5 percent in West Germany (see table 6).

TABLE 6: SUPPLY OF SHADOW-ECONOMIC ACTIVITIES  
"Honestly, have you ever done Schwarzarbeit?"

	<i>Western Germans</i>	<i>Eastern Germans</i>
Yes	24.5 %	12.9 %
No	73.5 %	85.3 %
No response	2.0 %	1.8 %

*East-West differences statistically significant: 2-Tailed P 0.0023; Z -3.0515.*

Source: IFAK, 1998, own calculations.

This significant difference with respect to the extent of black labour between West Germany and East Germany holds for the amount of purchases of goods and services in the shadow economy as well: being asked to assess how many people in their circle of acquaintances and friends have used at least once services in the shadow economy the respondents answered in the following ways (table 7):

TABLE 7: DEMAND FOR BLACK LABOUR IN THE CIRCLE OF ACQUAINTANCES AND FRIENDS  
(PERCENTAGE)  
"How many of your friends or acquaintances do you think have made use of Schwarzarbeit at least once?"

	<i>Western Germans</i>	<i>Eastern Germans</i>
<i>Almost none of them</i>	25.5 %	56.5 %
<i>About 1/4 of them</i>	23.2 %	21.8 %
<i>About half of them</i>	18.9 %	11.8 %
<i>About 3/4 of them</i>	10.2 %	2.4 %
<i>All or almost all</i>	15.7 %	2.9 %
<i>I do not know</i>	6.5 %;	4.7 %

*East-West differences statistically significant: 2-Tailed P 0.0001; Z -7.2749.*

Source: IFAK, 1998, own calculations.

More than 50 percent of the respondents in East Germany were sure that their acquaintances and friends had not purchased goods and services in the shadow economy compared to only 25 percent in the West. A similar contrast between the actions of people in East Germany and West Germany can be noted with regard to the involvement in shadow-economic activities. While 26 percent of the respondents in West Germany believed that from about three quarters up to nearly all of their acquaintances and friends had at least once bought goods and services in the shadow economy, only 5 percent in the East answered the same way. Again, looking at the



differences in the answers of East and West Germans, we see a statistical significance at the 0.01 level.

Interestingly, there also seems to be a lesser willingness of suppliers in the Eastern official economy to offer unreported services to their clients (table 8).

TABLE 8: UNSOLICITED OFFER OF BLACK LABOUR (PERCENTAGE)  
 "Has anyone ever made you an unsolicited offer to provide you with a gray market service rather than a legal one?"

	<i>Western Germans</i>	<i>Eastern Germans</i>
Yes, once	9.5 %	12.4 %
Yes, repeatedly	32.7 %	12.4 %
No, never	56.0 %	74.7 %
No response	1.8 %	0.6 %

*East-West differences statistically significant: 2-Tailed P 0.0015; Z -3.1655..*

Source: IFAK, 1998, own calculations.

Especially with respect to the answer "Yes, repeatedly" there is a difference between the Western and the Eastern part of Germany because in the East only 12.4 percent have this experience as compared to 32.7 percent in the West.

In table 9 the shadow economy of the German states ("Länder") is presented<sup>11</sup>. This has been done to provide further empirical evidence that the shadow economy in the former GDR (or "Neue Bundesländer") is lower than in West Germany (or in the "Alten Bundesländer"). Table 8 confirms that on average the East German "Bundesländer" have a smaller shadow economy as compared to the overall shadow economy in Germany and to the shadow economies of most West German lands. For example, for the year 1999 the shadow economy of East Berlin is 1.6 percent below the average level of the shadow economy, the one of Sachsen – 1.1 percent lower and the one of Thüringen – 1.5 percent lower. In general, these results show that the shadow economy in Germany is growing and that there are some differences between East and West Germany; they also show that the shadow economy in the East German "Länder" is smaller.

## **Main Causes for the Increase of the Shadow Economy**

### *Increase of the Tax and Social Security Contribution Burden*

In almost all studies,<sup>12</sup> it has been found out that the increase of the tax and social-security-contributions burden is one of the main causes for the increase of the shadow economy.

<sup>11</sup> The estimation method is explained in detail in Schneider (2001).

<sup>12</sup> See Thomas (1992), Lippert and Walker (1997), Schneider (1994a, 1994b, 1997, 1998, 2000), Johnson, Kaufmann, and Zoido-Lobaton (1998a, 1998b), Tanzi (1999) and Giles (1999a) to quote just a few recent ones.

German "Länder"	Size of the shadow economy in million EUR and in % of official GDP		Difference as compared to the size of the shadow economy in Germany as a whole (% of GDP) for 1999
	1995	1999	
Baden-Württemberg	31.064	37.777	- 2.15
Bayern	12,55	13,38	- 1.03
Berlin West	39.034	47.904	+ 6.20
Berlin Ost	13,47	14,5	- 1.61
Brandenburg	10.280	12.290	- 1.41
Bremen	17,99	21,73	+ 0.95
Hamburg	1.934	2.693	- 2.45
Hessen	10,1	13,92	- 1.33
Mecklenburg-Vorpommern	4.532	5.659	- 0.04
Niedersachsen	2.707	3.474	+ 2.83
Nordrhein-Westfalen	13,24	14,12	+ 1.03
Rheinland-Pfalz	2.707	3.474	+ 0.93
Sachsen	13,99	16,48	- 1.06
Sachsen-Anhalt	6.970	9.097	- 0.07
Schleswig-Holstein	10,45	13,08	+ 2.28
Thüringen	19.298	24.898	- 1.50
All countries together	11,74	14,2	0,0
	3.460	4.343	
	15,28	15,49	
	25,145	31,555	
	16,65	18,36	
	56,647	71,747	
	14,67	16,56	
	11,271	14,230	
	14,86	16,46	
	3,241	4,111	
	14,9	17,28	
	8,239	10,279	
	14,19	14,47	
	5,020	6,216	
	14,99	15,46	
	8,619	11,087	
	15,98	17,81	
	4,425	5,375	
	14,74	14,03	
	241,887	302,736	
	13,97	15,53	

Source: Schneider (2001).

Since taxes affect labor-leisure choices and also stimulate labor supply in the shadow economy, or the untaxed sector of the economy, the distortion of this choice is a major concern for 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. As this difference depends broadly on the social security system and the overall tax burden, these are key features of the existence and the increase of the shadow economy. But even major tax reforms with tax rate reduction will not lead to a substantial decrease of the shadow economy. They will only be able to stabilize the size of the shadow economy and avoid a further increase. Social networks and personal relationships, the high profit from irregular activities and associated investments in real and human capital prevent people from transferring to the official economy. For Canada, for instance, Spiro (1993) expected similar reactions of people facing an increase in indirect taxes (VAT, GST). After the introduction of the GST in 1991 in the midst of a recession, individuals suffering from economic hardship because of the recession turned to the shadow economy, which led to a substantial loss in tax revenue. "Unfortunately, once this habit is developed, it is unlikely that it will be abandoned merely because economic growth resumes." (Spiro 1993, p. 255). They may not return to the formal sector, even in the long run. This fact makes it even more difficult for politicians to carry out major reforms because they may not gain a lot from them.<sup>13</sup>

In neoclassical models the most important factor is the marginal tax rate. The higher the marginal tax rate, the greater the substitution effect and the larger the distortion of the labor-leisure decision. Especially when taking into account that an individual can also receive income in the shadow economy, the substitution effect is definitely larger than the income effect<sup>14</sup> and hence, this individual works less in the official sector. The overall efficiency of the economy is, therefore (*ceteris paribus*) lower and the distortion leads to a welfare loss (according to the official GNP and taxation.) Nevertheless, welfare might also be seen as increasing, if the welfare of those, who are working in the shadow economy, were taken into account too (Thomas, 1992, pp. 134-137).

Empirical results of the influence of the tax burden on the shadow economy is provided in the studies of Schneider (1994b, 2000) and Johnson, Kaufmann and Zoido-Lobaton (1998a, 1998b). All of these studies found strong evidence of the general influence of taxation on the shadow economy. This strong influence of indirect and direct taxation on the shadow economy will be further demonstrated by discussing empirical results in the case of Austria and the Scandinavian countries. For Austria the driving force for shadow-economic activities is the direct tax burden, including social

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<sup>13</sup> See Schneider (1994b, 1998b) for a similar result of the effects of a major tax reform in Austria on the shadow economy. Schneider shows that a major reduction in the direct tax burden did not lead to a major reduction in the shadow economy. Legal tax avoidance was abolished and other factors, like regulations, were not changed, hence, for a considerable part of the taxpayers the actual tax and regulation burden remained unchanged.

<sup>14</sup> If leisure is assumed to be a normal good.

security payments - it has the strongest impact, followed by the intensity of regulation and complexity of the tax system. A similar result has been achieved by Schneider (1986) for the Scandinavian countries (Denmark, Norway and Sweden). In all three countries various tax variables, such as average direct tax rate, average total tax rate (indirect and direct tax rates), and marginal tax rates have the expected positive sign (on currency demand) and are highly statistically significant. Similar results are reached by Kirchgaessner (1983, 1984) for Germany and by Kloveland (1984) for Norway and Sweden.

Several other recent studies provide further evidence of the influence of income tax rates on the shadow economy: Cebula (1997), using Feige's data for the shadow economy, found evidence of the impact of government income tax rates, IRS audit probabilities and IRS penalty policies on the relative size of the shadow economy in the United States. Cebula concludes that a restraint of any further increase of the top marginal income tax rate may, at least, not lead to a further increase of the shadow economy, while increased IRS audits and penalties might reduce the size of the shadow economy. His findings indicate that there is generally a strong influence of state activities on the size of the shadow economy - for example, if the marginal federal personal income tax rate increases by one percentage point, *ceteris paribus*, the shadow economy rises by 1.4 percentage points. In another investigation, Hill and Kabir (1996) found empirical evidence that marginal tax rates are more relevant than average tax rates and that substitution of direct taxes by indirect taxes seems unlikely to improve tax compliance. Further evidence of the effect of taxation on the shadow economy is presented by Johnson, Kaufmann, and Zoido-Lobaton (1998b), who come to the conclusion that it is not higher tax rates *per se* that increase the size of the shadow economy, but the ineffective and discretionary application of the tax system and the regulations by governments. Their finding that there is a *negative* correlation<sup>15</sup> between the size of the unofficial economy and the *top* (marginal) tax rates might be unexpected. But since other factors like tax deductibility, tax reliefs, tax exemptions, the choice between different tax systems and various other options for legal tax avoidance were not taken into account, it is not all that surprising.<sup>16</sup> At the same time, Johnson, Kaufmann and Zoido-Lobaton (1998b) find a *positive* correlation between the size of the shadow economy and the corporate tax burden. They come to the overall conclusion that there is a large difference between the impact of direct taxes that of the corporate tax burden. Institutional aspects, like the efficiency of the administration, the extent of control rights held by politicians and bureaucrats and the amount of bribery and especially corruption, therefore, play a major role in this "bargaining game" between the government and taxpayers.

<sup>15</sup> The higher the top marginal tax rate, the lower the size of the shadow economy.

<sup>16</sup> Friedman, Johnson, Kaufmann and Zoido-Lobaton (1999) found a similar result in a cross country analysis that higher tax rates are associated with less official activity as percent of GDP. They argue that entrepreneurs go underground not to avoid official taxes but to reduce the burden of bureaucracy and corruption. Nevertheless, looking at their empirical (regression) results the finding that higher tax rates are correlated with a lower share of the unofficial economy is not very robust and in most cases, using different tax rates, they do not find a statistically significant result.

Table 10 provides an illustration of the different sizes of the shadow economies of some of the 21 OECD countries by comparing the overall tax and social security contributions with the size of the shadow economy of the different countries for 1996.<sup>17</sup>

With the exception of Spain (shadow economy 22.9 percent, tax and social security burden 67.2 percent), Greece, Italy, Belgium and Sweden, which had the largest shadow economies in 1996, also had the highest tax and social security burden respectively 72.3, 72.9, 76.0 and 78.6 percent, whereas countries like Switzerland and U.S., which have the lowest overall tax and social security burden (39.7 and 41.4 percent), had the lowest shadow economies too with 7.5 and 8.8 percent. Of course, there are exceptions, like the United Kingdom and Austria, with quite high overall taxes and social security burden (54.9 and 70.4 percent) and a quite low shadow-economic activities (13.1 and 8.3 percent), but the overall picture seems to fit - the higher the overall social security and tax burden, the larger the shadow economy, *ceteris paribus*. The strong positive relationship between rising tax and social security contributions burden and a larger shadow economy is also demonstrated in figures 3.1 and 3.2.

If one calculates the correlation coefficient between the tax and social security contribution burden and the size of the shadow economy, the coefficient has a value of 0.61, which is clearly statistically significant.

### *Intensity of Regulations*

The increase of the intensity of regulations, often measured by the numbers of laws and regulations, like license requirements, is another important factor, which reduces the freedom of choice for individuals engaged in the official economy.<sup>18</sup> In this context one can think of labor-market regulations, trade barriers and labor restrictions for foreigners. Johnson, Kaufmann, and Zoido-Lobaton (1998b) find an overall significant empirical evidence of the influence of (labor) regulations on the shadow economy, the impact is clearly described and theoretically derived in other studies, e.g. for Germany (Deregulation Commission 1990-91). Regulations lead to a substantial increase of labor costs in the official economy. But since most of these costs can be shifted to the employees, they provide another incentive to work in the shadow economy, where they can be avoided. Empirical evidence supporting the model of Johnson, Kaufmann, and Shleifer (1997), which predicts, *inter alia*, that countries with more general regulation of their economies tend to have a higher share of the unofficial economy in total GDP, is found in their empirical analysis. A one-point increase of the regulation index

<sup>17</sup> In almost all studies the rise of the tax and social security contributions burden is one of the most important causes for the increase of the shadow economy. See, for example, Frey and Pommerehne (1984), Lipert and Walker (1997), Schneider (1994a, 1994b, 1997, 2000), Thomas (1992, 1999), Tanzi (1999), Giles (1999a), and Schneider and Enste (2000).

<sup>18</sup> For a socio-psychological theoretical foundation of this phenomenon, see Brehm (1966, 1972), and for a (first) application to the shadow economy - Pelzmann (1988).

TABLE 10: THE SIZE OF THE SHADOW ECONOMY AND THE BURDEN OF TAXES AND SOCIAL SECURITY CONTRIBUTIONS IN OECD COUNTRIES IN 1996

Country	Size of the shadow economy (% of GDP)	Value added tax rate (%)*	Average direct tax rate (%)**	Social security contributions by employees (%)	Social security contributions by employers (%)	Total social security contributions (% sum of (4)+(5))	Total social security contributions + direct tax burden: sum (4)+(5)+(3) (in %)	Total tax and social security burden: sum (2)+(3)+(4)+(5)
	1996 (1)	1996 (2)	1996 (3)	1996 (4)	1996 (5)	1996 (6)	1996 (7)	1996 (8)
Greece	28.5	18.0	11.0	15.8	27.5	43.3	54.3	72.3
Italy	27.0	19.0	12.0	9.9	32.0	41.9	53.9	72.9
Spain	22.9	16.0	13.0	6.6	31.6	38.2	51.2	67.2
Belgium	21.9	21.0	19.0	10.0	26.0	36.0	55.0	76.0
Sweden	19.2	25.0	20.0	4.0	29.6	33.6	53.6	78.6
Norway	18.9	23.0	19.0	7.0	12.8	19.8	38.8	61.8
Denmark	18.3	25.0	36.0	9.0	0.0	9.0	45.0	70.0
Ireland	15.9	21.0	20.0	7.2	12.3	19.5	39.5	60.5
Canada	14.6	7.0	21.0	7.0	8.0	15.0	36.0	43.0
Germany	14.5	15.0	18.0	16.1	16.1	32.2	50.2	65.2
France	14.3	20.6	6.0	13.0	31.0	44.0	50.0	70.6
Netherlands	14.0	17.5	10.0	31.0	8.8	39.8	49.8	67.3
U.K.	13.1	17.5	16.0	10.7	10.2	21.4	37.4	54.9
USA	8.8	3.0	17.0	7.6	13.8	21.4	38.4	41.4
Austria	8.3	20.0	8.0	18.2	24.2	42.4	50.4	70.4
Switzerland	7.5	6.5	10.0	11.6	11.6	23.2	33.2	39.7

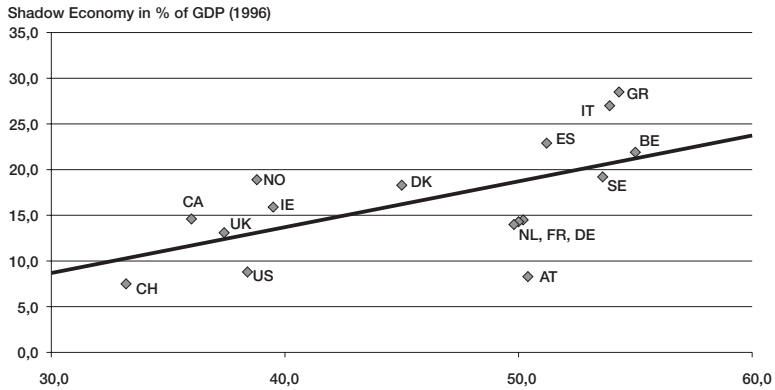
\* Rates of year 1996; USA: Average sales tax

\*\* Average direct tax rate is calculated as the sum of all income taxes (+ payroll and manpower taxes) paid on wages and salaries (including income of self-employed) divided by gross labor costs of an average income earner in the respective country.

\*\*\* The rate is calculated on the basis of the annual gross earnings of an average income earner in the respective country.

Source: Own calculations and OECD Working Paper 176, 1997.

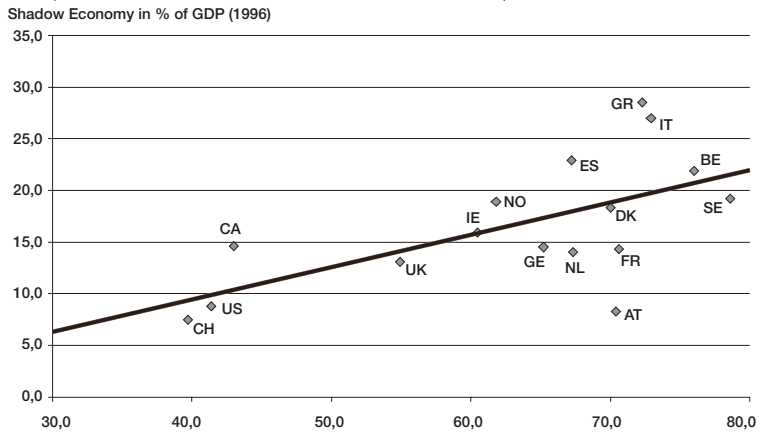
FIGURE 3.1: SIZE OF THE SHADOW ECONOMY VERSUS TOTAL SOCIAL SECURITY CONTRIBUTIONS + DIRECT TAX BURDEN\*, YEAR 1996  
(Correlation Coefficient with AT=0,61, without AT=0,72)



TOTAL SOCIAL SECURITY CONTRIBUTIONS + DIRECT TAX BURDEN IN %

\* Sum of all income taxes paid on wages and salaries (income of self-employed) divided by gross labor costs of an average income earner

FIGURE 3.2: SIZE OF THE SHADOW ECONOMY VERSUS TOTAL TAX\* AND SOCIAL SECURITY BURDEN, YEAR 1996  
(Correlation Coefficient with AT=0,62, without AT=0,74)



TOTAL TAX\* AND SOCIAL SECURITY BURDEN IN %

\*Value added tax rate and average direct tax rate in %

(ranging from 1 to 5, with 5 = the most regulation in a country), *ceteris paribus*, is associated with an 8.1 percentage point increase in the share of the shadow economy when controlled for GDP per capita (Johnson et. al., 1998b, p. 18). They conclude that it is the enforcement of regulation, which is the key factor for the burden levied on firms and individuals, and not the overall extent of regulation - mostly not enforced - which drives firms into the shadow economy. Friedman, Johnson, Kaufmann and Zoido-Lobaton (1999) reach a similar conclusion. In their study every available measure of regulation is significantly correlated with the share of the unofficial economy and the sign of the relationship is unambiguous: more regulation is correlated with a larger shadow economy. A one point increase in an index of regulation (ranging from 1-5) is associated with a 10 percent increase in the shadow economy for 76 developing, transition and developed countries.

These findings demonstrate that governments should put more emphasis on improving enforcement of laws and regulations, rather than increasing their number. Some governments, however, prefer this policy option (more regulations and laws), when trying to reduce the shadow economy, mostly because it leads to an increase in the power of the bureaucrats and a higher rate of employment in the public sector.

### **Some Methods to Estimate the Size of the Shadow Economy<sup>19</sup>**

As has already been mentioned in section 2, undertaking attempts to measure the size of a shadow economy is a difficult and challenging task. This section presents a short overview of the current knowledge of some procedures for estimating the shadow economy. Three different types of methods are most widely used for measuring the size and evolution of the shadow economy - they are briefly discussed in the following three subsections.

#### *Direct Approaches*

These are micro approaches, which employ either well designed surveys and samples based on voluntary replies or tax auditing and other compliance methods. Sample surveys designed for estimation of the shadow economy are widely used in a number of countries<sup>20</sup> to measure the shadow economy. The main disadvantage of this method is that it presents the flaws of all surveys: the average precision and results depend greatly on the respondents' willingness to cooperate. It is difficult to assess the rise of the

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<sup>19</sup> This section closely follows Schneider and Enste (2000), who give a more detailed critical analysis of all methods used to estimate the shadow economy.

<sup>20</sup> The direct method of voluntary sample surveys has been extensively used for Norway by Isachsen, Klovland and Strom (1982), and Isachsen and Strom (1985). For Denmark this method is used by Mogensen et al., (1995) in which they report "estimates" of the shadow economy of 2.7 percent of GDP for 1989, 4.2 percent of GDP for 1991, 3.0 percent of GDP for 1993 and 3.1 percent of GDP for 1994.



undeclared work from a direct questionnaire. Most people interviewed hesitate to confess a fraudulent behavior and the responses are rarely reliable, so that it is difficult from this type of answers to calculate a real estimate – in monetary terms – of the extent of the undeclared work. The main advantage of this method lies in the detailed information about the structure of the shadow economy, but the results from this kind of surveys are very sensitive to the way the questionnaire is formulated<sup>21</sup>.

Estimates of the shadow economy can also be based on the discrepancy between income declared for tax purposes and that measured by selective checks. Fiscal auditing programs have been particularly effective in this regard. Designed to measure the amount of undeclared taxable income, they have been used to calculate the shadow economy in several countries.<sup>22</sup> A number of difficulties beset this approach. First, using tax compliance data is equivalent to using a (possibly biased) sample of the population. Nevertheless, since in general a selection of taxpayers for tax audit is not random, but based on the properties of submitted (tax) returns, which indicate a certain likelihood of (tax) fraud, such a sample is not a random one. This factor is likely to bias compliance-based estimates of the black economy. Second, estimates based on tax audits reflect the portion of black economy income that the authorities succeeded in discovering and this is likely to be only a fraction of the hidden income.

A further disadvantage of the two direct methods (surveys and tax auditing) is that they lead only to point estimates in time. Moreover, it is unlikely that they capture all “shadow” activities, so they can be seen as providing lower bound estimates. They are unable, at least at present, to provide estimates of the evolution and the growth of the shadow economy over a longer period of time. As already argued, they have, however, at least one considerable advantage - they can provide detailed information about shadow-economy activities and the structure and composition of those who work in the shadow economy.

### *Indirect Approaches*

These approaches, also called “indicator” approaches, are mostly macroeconomic ones and use various economic and other indicators, which contain information about the evolution of shadow economy over time. Currently, there are five indicators, which leave some traces of the evolution of the shadow economy.<sup>23</sup>

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<sup>21</sup> The advantages and disadvantages of this method are extensively dealt with by Mogensen et al. (1995) in their excellent and very carefully done investigation.

<sup>22</sup> On the United States see, for instance, IRS (1979, 1983), Simon and Witte (1982), Witte (1987), Clotefelter (1983) and Feige (1986). For a more detailed discussion, see Dallago (1990) and Thomas (1992).

<sup>23</sup> Out of these five indicator approaches only two are discussed here; hence, the discrepancy between national expenditure and income method, the discrepancy between official and actual labor force, and the transactions approach are not presented; see Schneider and Enste (2000) for details.

### *The Currency Demand Approach*

The currency demand approach was first used by Cagan (1958), who calculated a correlation of the currency demand and the tax pressure (as one cause of the shadow economy) for the United States over the period 1919 to 1955. 20 years later, Gutmann (1977) used the same approach, but did not apply any statistical procedures; instead he “only” looked at the ratio between currency and demand deposits over the years 1937 to 1976.

Cagan’s approach was further developed by Tanzi (1980, 1983), who econometrically estimated a currency demand function for the United States for the period 1929 to 1980 in order to estimate the size of the shadow economy. His approach assumes that shadow (or hidden) transactions are undertaken in the form of cash payments, so as to leave no observable trace for the authorities. An increase in the size of the shadow economy will, therefore, increase the demand for currency. To isolate this resulting “excess” demand for currency, an equation for currency demand is econometrically estimated over time. All possible conventional factors, such as the evolution of income, payment habits, interest rates, and so on, are controlled for. Additionally, variables, such as the direct and indirect tax burden, government regulation and the complexity of the tax system, which are assumed to be the major factors causing people to work in the shadow economy, are included in the estimation equation.<sup>24</sup>

The “excess” increase in currency, which is the amount unexplained by the conventional or normal factors mentioned above, is then attributed to the rising tax burden and the other reasons leading people to work in the shadow economy. Figures for the size and evolution of the shadow economy can be calculated by firstly comparing the difference between the development of currency when the direct and indirect tax burden (and government regulations) are held at their lowest value, and the development of currency with the current (much higher) burden of taxation and government regulations. Assuming the same income velocity for currency used in the shadow economy as for legal M1 in the official economy, the size of the shadow economy can then be computed and compared to the official GDP.

- (i) The currency demand approach is one of the most commonly used approaches. It has been applied to many OECD countries (Schneider, 1997, 1998a; Johnson, Kaufmann and Zoido-Lobaton, 1998a; and Williams and Windebank, 1995) but has, nevertheless, been criticized on various grounds (Thomas, 1992, 1999; Feige, 1986 and Pozo, 1996). The most commonly raised objections to this method are:

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<sup>24</sup> The estimation of such a currency demand equation has been criticized by Thomas (1999), but part of this criticism has been considered by the work of Giles (1999a, 1999b) and Bhattacharyya (1999), who both use the latest econometric techniques.

- (ii) Not all transactions in the shadow economy are paid in cash. Isachsen and Strom (1985) used the survey method to find out that in Norway, in 1980, roughly 80 percent of all transactions in the hidden sector were paid in cash. The size of the total shadow economy (including barter) may thus be even larger than previously estimated.
- (iii) Most studies consider only one particular factor – the tax burden as the cause of the shadow economy. But others (such as the impact of regulation, taxpayers' attitudes toward the state, "tax morality" and so on) are not considered, because reliable data for most countries is not available. If, as it seems likely, these other factors also have an impact on the extent of the hidden economy, it might again be higher than reported in most studies.<sup>25</sup>
- (iv) A further weakness of this approach, at least when applied to the United States, is discussed by Garcia (1978), Park (1979), and Feige (1996), who point out that increases in currency demand deposits are due largely to a slowdown in demand deposits rather than to an increase in currency caused by activities in the shadow economy.
- (v) Blades (1982) and Feige (1986, 1996) criticize Tanzi's studies on the grounds that the US dollar is used as an international currency. Tanzi should have considered (and controlled for) the US dollars, which are used as an international currency and held in cash abroad.<sup>26</sup> Moreover, Frey and Pommerehne (1984) and Thomas (1986, 1992, 1999) claim that Tanzi's parameter estimates are not very stable.<sup>27</sup>
- (vi) In most studies another weak point of this procedure is the assumption of the same velocity of money in both types of economies. As Hill and Kabir (1996) for Canada and Klovland (1984) for the Scandinavian countries argue, there is already a considerable uncertainty about the velocity of money in the official economy; the velocity of money in the hidden sector is even more difficult to estimate. Without knowledge about the velocity of currency in the shadow economy one has to accept the assumption of an "equal" money velocity in both sectors.

<sup>25</sup> One (weak) justification for the use of only the tax variable is that this variable has had by far the strongest impact on the size of the shadow economy in the studies known to the authors. The only exception is the study by Frey and Weck-Hannemann (1984), in which the variable "tax immorality" has a quantitatively larger and statistically stronger influence than the direct tax share in the model approach. In the study of Pommerehne and Schneider (1985) for the U.S., besides various tax measures, data for regulation and tax immorality, minimum wage rates are available and the tax variable has a dominating influence and contributes roughly 60-70 percent to the size of the shadow economy. See also Zilberfarb (1986).

<sup>26</sup> In another study by Tanzi (1982, esp. pp. 110-113) he explicitly deals with this criticism. A very careful investigation of the amount of US dollars used abroad and the US currency used in the shadow economy and to "classical" crime activities has been undertaken by Rogoff (1998), who concludes that large denomination bills are a major driving force for the growth of the shadow economy and classical crime activities due to reduced transactions costs.

<sup>27</sup> Nevertheless, in studies on European countries, Kirchgassner (1983, 1984) and Schneider (1986) reach the conclusion that the estimation results for Germany, Denmark, Norway and Sweden are quite robust when using the currency demand method. Hill and Kabir (1996) find that the rise of the shadow economy in Canada varies with respect to the tax variable used; they conclude that "when the theoretically best tax rates are selected and a range of plausible velocity values is used, this method estimates underground economic growth between 1964 and 1995 at between 3 and 11 percent of GDP." (Hill and Kabir, 1996, p. 1553).

Finally, the assumption of no shadow economy in a base year is open to criticism. Relaxing this assumption would again imply an upward adjustment of the figures attained in the bulk of the studies already undertaken.

### *The Physical Input (Electricity) Method*

#### *(1) The Kaufmann - Kaliberda method*<sup>28</sup>

To measure overall (official and unofficial) economic activity in an economy Kaufmann and Kaliberda (1996) assume that electric-power consumption is regarded as the single best physical indicator of the overall economic activity. Overall (official and unofficial) economic activity and electricity consumption have been empirically observed throughout the world to move in lockstep with an electricity-GDP elasticity usually close to one. By having a proxy measurement for the overall economy and subtracting it from estimates of official GDP, Kaufmann and Kaliberda derive an estimate of unofficial GDP. In other words, Kaufmann and Kaliberda suggest that the growth of total electricity consumption is an indicator for the growth of official and unofficial GDP. According to this approach the difference between the gross rate of registered (official) GDP and the cross rate of total electricity consumption can be attributed to the growth of the shadow economy. This method is very simple and appealing, however, it can also be criticized on a number of grounds:

- (i) Not all shadow economy activities require a considerable amount of electricity (e.g. personal services); other energy sources can also be used (gas, oil, coal, etc.), so that only a part of the shadow economy can be captured this way.
- (ii) Over time, there has been considerable technical progress. Both production and use of electricity are more efficient than in the past, which has implications for both official and unofficial use.
- (iii) There may be considerable differences or changes in the elasticity of electricity-GDP across countries and over time.<sup>29</sup>

#### *(2) The Lackò method*

Lackò (1996, 1998 and 1999) assumes that a certain part of the shadow economy is associated with the household consumption of electricity. It comprises, among others, the so-called household production, do-it-yourself activities and other non-registered production and services. Lackò assumes that in countries, in which the section of the shadow economy associated with the household electricity consumption is high, the rest

<sup>28</sup> This method was used earlier by Lizzeri (1979), Del Boca and Forte (1982), and then much later by Portes (1996), Kaufmann and Kaliberda (1996), and Johnson, Kaufmann and Shleifer (1997). For a critique see Lackò (1996, 1997a, 1997b and 1998).

<sup>29</sup> Johnson, Kaufmann and Shleifer (1997) make an attempt to adjust for changes in the elasticity of electricity/GDP.

of the hidden economy, i.e. the part Lackò cannot measure, will also be high. Lackò (1996, pp.19 ff.) assumes that in each country a part of the household consumption of electricity is used in the shadow economy.

Lackò's approach (1998, p.133) can be described by the following two equations:

$$\ln E_i = \alpha_1 \ln C_i + \alpha_2 \ln PR_i + \alpha_3 G_i + \alpha_4 Q_i + \alpha_5 H_i + u_i \quad (1)$$

$$\text{with } \alpha_1 > 0, \alpha_2 < 0, \alpha_3 > 0, \alpha_4 < 0, \alpha_5 > 0$$

$$H_i = \beta_1 T_i + \beta_2 (S_i - T_i) + \beta_3 D_i \quad (2)$$

$$\text{with } \beta_1 > 0, \beta_2 < 0, \beta_3 > 0$$

where

*i*: the number assigned to the country.

*E<sub>i</sub>*: per capita household electricity consumption in country *i* in Mtoe,

*C<sub>i</sub>*: per capita real consumption of households without the consumption of electricity in country *i* in US dollars (at purchasing power parity),

*PR<sub>i</sub>*: the real price of consumption of 1 kWh of residential electricity in US dollars (at purchasing power parity),

*G<sub>i</sub>*: the relative frequency of months with the need of heating in houses in country *i*,

*Q<sub>i</sub>*: the ratio of energy sources other than electricity energy to all energy sources in household energy consumption,

*H<sub>i</sub>*: the per capita output of the hidden economy,

*T<sub>i</sub>*: the ratio of the sum of paid personal income, corporate profit and taxes on goods and services to GDP,

*S<sub>i</sub>*: the ratio of public social welfare expenditures to GDP, and

*D<sub>i</sub>*: the sum of number of dependants over 14 years and of inactive earners, both per 100 active earners.

In a cross-country study she econometrically estimates equation (1) substituting  $H_i$  by equation (2). The econometric estimation results can then be used to establish an ordering of the countries with respect to electricity use in their shadow economies. For the calculation of the actual size (value added) of the shadow economy, Lackò should know how much GDP is produced by one unit of electricity in the shadow economy of each country. Since such data is not available she takes the result of one of the known shadow-economy estimations, carried out for a market economy for the early 1990s through another approach, and applies this proportion to the other countries. Lackò uses the shadow economy of the United States as such a base - the shadow economy value of 10.5 percent of GDP taken from Morris(1993); then she calculates the size of the shadow economy for other countries. Lackò's method is also open to the following criticism:

- (i) Not all shadow-economy activities require a considerable amount of electricity; in addition, other energy sources can be used;
- (ii) Shadow-economic activities do not take place only in the household sector;
- (iii) It is doubtful whether the ratio of social welfare expenditures can be used as an explanatory factor for the shadow economy, especially in transition and developing countries.

There are disagreements on indentifying the most reliable base value of the shadow economy for the calculation of the size of the shadow economy in all other countries, especially in transition and developing countries.

### *The model approach*<sup>30</sup>

All methods, designed to estimate the size and development of the shadow economy and described so far, consider just one indicator, which “must” capture all effects of the shadow economy. It is obvious, however, that its effects show up simultaneously in the production, labor and money markets. An even more important critique is that the causes, which determine the size of the hidden economy, are taken into account only in some of the monetary approach studies, which usually consider one cause - the burden of taxation. The model approach explicitly considers multiple causes leading to the existence and growth as well as the multiple effects of the shadow economy over time. The empirical method used here is quite different from those discussed so far. It is based on the statistical theory of unobserved variables, which takes into account multiple causes and multiple indicators of the phenomenon to be measured. For the estimation a factor-analytic approach is used to measure the hidden economy as an unobserved variable over time. The unknown coefficients are estimated in a set of structural equations, within which the “unobserved” variable cannot be measured directly. The DYMIMIC (dynamic multiple-indicators multiple-causes) model consists in general of two parts - the measurement model links the unobserved variables to observed indicators. The structural equations model specifies causal relationships among the unobserved variables. In this case, there is one unobserved variable - the size of the shadow economy. It is assumed to be influenced by a set of indicators for the shadow economy’s size, thus capturing the structural dependence of the shadow economy on variables that may be useful in predicting its movement and size in the future. The interaction over time between the causes  $Z_{it}$  ( $i = 1, 2, \dots, k$ ), the size of the shadow economy  $X_t$ , and the indicators  $Y_{jt}$  ( $j = 1, 2, \dots, p$ ) is shown in figure 4.

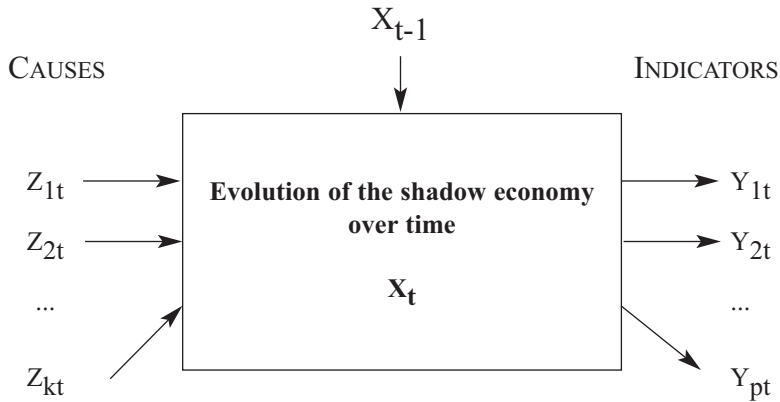
There is a large body of literature (Thomas, 1992; Schneider, 1994a, 1997; Pozo, 1996; Johnson, Kaufmann and Zoido-Lobaton, 1998a, 1998b; and Giles, 1999a, 1999b) on the possible causes and indicators of the shadow economy, in which the following three types of causes are distinguished:

#### **Causes**

- (i) The burden of direct and indirect taxation, both actual and perceived: a rising burden of taxation provides a strong incentive to work in the shadow economy.
- (ii) The burden of regulation as proxy for all other state activities: it is assumed that increases in the burden of regulation give a strong incentive to enter the shadow economy.

<sup>30</sup> This part is a summarized version of a longer study by Aigner, Schneider, and Ghosh (1988, p. 303), applying this approach for the United States over time. The pioneers of this approach are Weck (1983) and Frey and Weck-Hannemann (1984), who applied this approach to cross-section data from the 24 OECD countries for a number of years. Before turning to this approach, they developed the concept of “soft modeling” (Frey, Weck, and Pommerehne, 1982; Frey and Weck, 1983a and 1983b) – an approach, which has been used to provide a ranking of the relative size of the shadow economy in different countries.

FIGURE 4: EVOLUTION OF THE SHADOW ECONOMY OVER TIME.



- (iii) The “tax morality” (citizens’ attitudes toward the state), which describes the readiness of individuals (at least partly) to leave their official occupations and enter the shadow economy: it is assumed that a declining tax morality tends to increase the size of the shadow economy.<sup>31</sup>

### Indicators

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

- (i) Changes in monetary indicators: if activities in the shadow economy rise, additional monetary transactions are required.
- (ii) Changes in the labor market: increasing participation of workers in the hidden sector results in a decrease in participation in the official economy. Similarly, increased activities in the hidden sector may be expected to be reflected in shorter working hours in the official economy.
- (iii) Changes in the product market: an increase in the shadow economy means that inputs, especially labor, move out, at least partly, of the official economy; this displacement might have a depressing effect on the official growth rate of the economy.

<sup>31</sup> When applying this approach to European countries, Frey and Weck-Hannemann (1984) had the difficulty in obtaining reliable data for the cause series, except for the ones of direct and indirect tax burden. Hence, their study was criticized by Helberger and Knepel (1988), who argue that the results were unstable with respect to changing variables in the model and over the years.

The latest use of the model approach has been undertaken by Giles (1999a, 1999b) and by Giles, Linsey and Gupsa (1999). They basically estimate a comprehensive (dynamic) DYMIMIC (multiple indicators and multiple causes) model to get a time series index of the hidden/measured output of New Zealand or Canada; then they estimate a separate “cash-demand model” to obtain a benchmark for converting this index into percentage units. Unlike earlier empirical studies of the hidden economy, they pay proper attention to the non-stationary and possible cointegration of time series data in both models. Again this DYMIMIC model treats hidden output as a latent variable and uses several (measurable) causal and indicator variables. The former include measures of the average and marginal tax rates, inflation, real income and the degree of regulation in the economy. The latter include changes in the (male) labor force participation rate and in the cash/money supply ratio. In their cash-demand equation they allow for different velocities of currency circulation in the hidden and recorded economies. Their cash-demand equation is not used as an input to determine the variation in the hidden economy over time – it is used only to obtain a long-run average value of hidden/measured output, so that the index for this ratio predicted by the DYMIMIC model can be used to calculate a level and the percentage units of the shadow economy. Giles’ latest combination of the currency demand and DYMIMIC approach clearly shows that some progress in the estimation technique of the shadow economy has been achieved and a number of weaknesses of the model have been overcome.

## Summary and Conclusions

Although significant progress has been made, there are many obstacles to overcome in the process of measuring the size of the shadow economy (either in value added and/or in the labor force units) and analyzing its consequences on the official economy. This paper shows that, though it is difficult to estimate the size of the shadow economy, it is not impossible. It has been demonstrated that with various methods, e.g. the currency demand and the model approach, some insights can be provided into the size and evolution of the shadow economy (labor force) of 22 transition and 21 OECD countries. The general impression is that for all countries studied the shadow economy (labor force) has reached a remarkably large size. In 2000-2001 the shadow economy in terms of value added (labor force) was 38 percent (30.2 percent) on average in these transition countries and 16.7 percent (15.3 percent) of the official GDP in the OECD countries.

To summarize, it is worth getting back to the question what we really know. There is much evidence that the size of the shadow economies for the 22 transition and the 21 OECD countries has been growing over the decade of the 1990s. A similar conclusion can be made on the “shadow labor market“, which is attracting a growing attention, due to the high unemployment in European OECD countries. Furthermore, the results of this study show that an increasing burden of taxation and social security payments,



combined with rising state regulatory activities, represent the major driving force for the growth of the shadow economy. And a final conclusion: shadow economies are complex phenomena, largely observed even in the industrialized and the developed economies. People engage in shadow economic activities for a variety of reasons, the most important include government policies, most notably taxation and regulation. With these two insights, goes a third, no less important one: a government trying to decrease shadow economic activities has to first and foremost analyze the complex and frequently contradictory relationships among the consequences of its own policy decisions.

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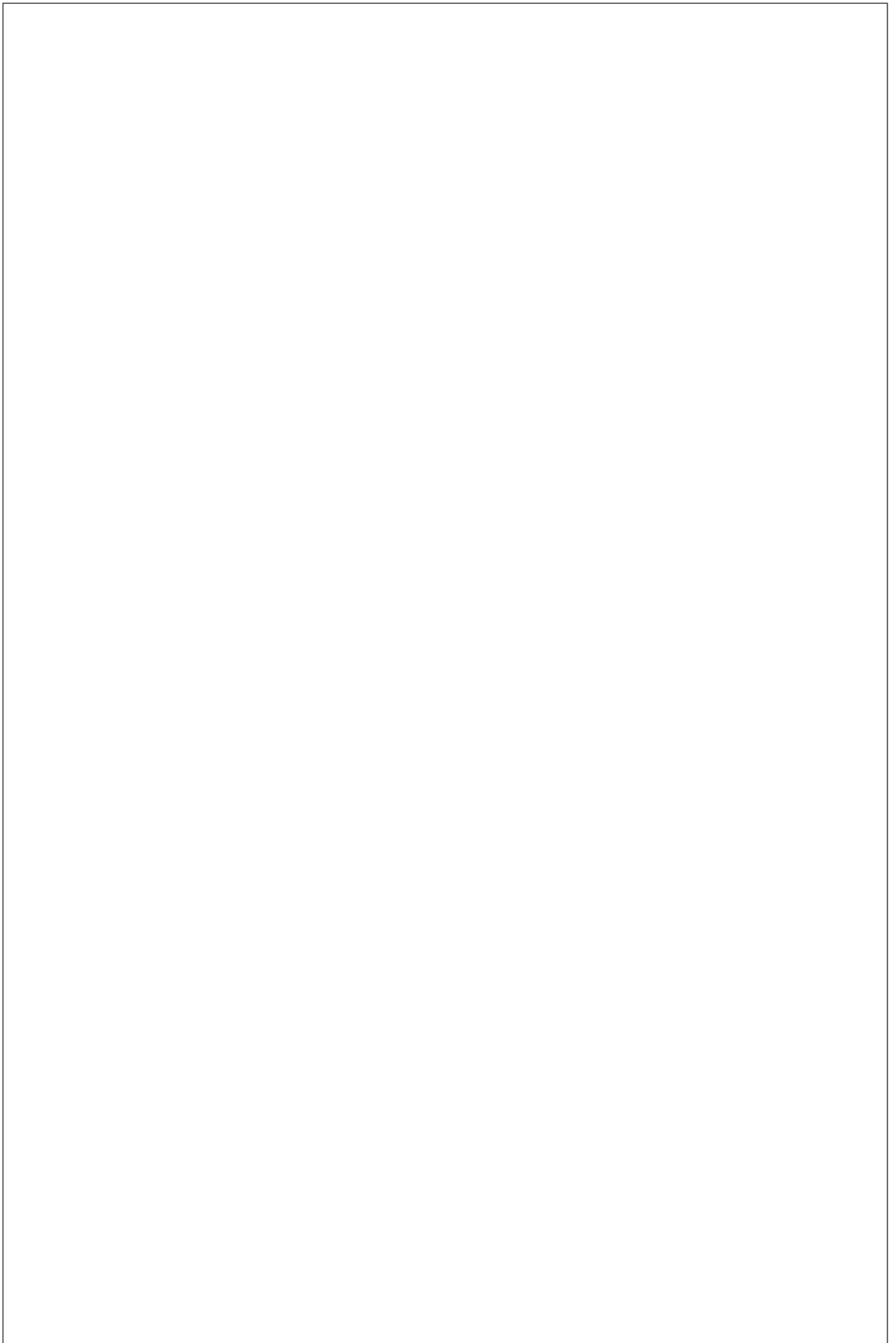
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## CHAPTER 3

# Going Informal: Benefits and Costs

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## Introduction

All informal activity has one common feature: the entrepreneurs who operate in the informal economy perceive the benefits of doing so to outweigh the costs of going formal. Recent studies have identified a number of reasons why some business activity may take place in the shadows. The most important determinants are the prevalence of burdensome and costly government regulations (Johnson, Kaufmann, and Shleifer, 1997; Johnson, Kaufmann, McMillan, and Woodruff, 2000) and the level and administrative complexity of taxation (Enste and Schneider, 2000).

Informality comes at a cost: the inability to use government and some private sector services available to firms that fully comply with regulations. In countries where such services, for example, credit services by state-owned or private banks, infrastructure services, organization of trade fairs, training of employees and managers, etc, entrepreneurs may well choose to be formal, even if regulations are many and taxes are high. This explains why Belgium does not have a large informal sector, even though the tax burden on corporations is among the highest in the world. In contrast, entrepreneurs in countries where the quality of public services to businesses is poor have a much easier choice. In the absence of discernible benefits of going formal, they prefer to save their time and money and stay informal.

Many transition economies have experienced surging share of business activity in the informal sector.<sup>1</sup> Some of this activity is illegal (criminal), for example, arms trafficking. Such activity will not become formal, regardless of improvements in the business climate. Other activities, like mom-and-pop retail trade or small production units operate merely for the subsistence of their owners and do not generate enough revenue to make their inclusion in the tax base meaningful. However, there exists a considerable

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<sup>1</sup> See Anderson (1998) for a summary of the evidence.

share of business activity that is semi-formal, e.g. the company is registered but most employees are not, and can become formal with appropriate policy changes. In this paper we cover only informal activity that takes place in urban areas. Informality in rural areas is not addressed, since it has a number of additional determinants, including the lack of labor mobility. Also, many rural activities do not use electricity, which is one of the main ways to measure informal output.

Table 1 presents the best available evidence on the size of the informal sector in transition economies. Informality is least prevalent in the Czech Republic and Slovakia, at less than 20 percent in terms of both GDP and employment shares. Azerbaijan and Georgia have the highest shares, with more than half of production and employment operating in the informal sector. Some fairly advanced reformers like Estonia and Lithuania still have more than a third of their economy being informal.

TABLE 1: SIZE OF THE INFORMAL ECONOMY IN TRANSITION  
Share of GDP (in 2001) and Employment (in 1999)

<i>Country</i>	<i>Share of GDP</i>	<i>Share of Employment</i>
<i>Armenia</i>	<i>45.3</i>	<i>40.3</i>
<i>Azerbaijan</i>	<i>60.1</i>	<i>50.7</i>
<i>Belarus</i>	<i>47.1</i>	<i>40.9</i>
<i>Bulgaria</i>	<i>36.4</i>	<i>30.4</i>
<i>Croatia</i>	<i>32.4</i>	<i>27.4</i>
<i>Czech Republic</i>	<i>18.4</i>	<i>12.6</i>
<i>Estonia</i>	<i>39.1</i>	<i>33.4</i>
<i>Georgia</i>	<i>66.1</i>	<i>53.2</i>
<i>Hungary</i>	<i>24.4</i>	<i>20.9</i>
<i>Kazakhstan</i>	<i>42.2</i>	<i>33.6</i>
<i>Kyrgyzstan</i>	<i>39.4</i>	<i>29.4</i>
<i>Latvia</i>	<i>39.6</i>	<i>29.6</i>
<i>Lithuania</i>	<i>29.4</i>	<i>20.3</i>
<i>Macedonia</i>	<i>45.1</i>	<i>35.1</i>
<i>Moldavia</i>	<i>44.1</i>	<i>35.1</i>
<i>Poland</i>	<i>27.4</i>	<i>20.9</i>
<i>Romania</i>	<i>33.4</i>	<i>24.3</i>
<i>Russia</i>	<i>45.1</i>	<i>40.9</i>
<i>Serbia</i>	<i>34.5</i>	<i>34.6</i>
<i>Slovakia</i>	<i>18.3</i>	<i>16.3</i>
<i>Slovenia</i>	<i>26.7</i>	<i>21.6</i>
<i>Ukraine</i>	<i>51.2</i>	<i>41.2</i>
<i>Uzbekistan</i>	<i>33.4</i>	<i>33.2</i>

Working age population between the ages of 16 and 65.

Source: Report on Hidden Economy by Ekonomski Institut (1997).

Source: Schneider (2002).

This paper discusses the policy changes that are necessary for companies to go formal. We prioritize these changes using a cost-benefit analysis of informality. Entrepreneurs make choices based on their perceptions of what services they are foregoing by being informal and what they gain by avoiding various regulations and taxes. This trade-off can be influenced by increasing the benefits and reducing the costs of formal business activity. Both the government and firms stand to gain from moving to a new equilibrium of low level of informality.

## **Types of Informality**

Informal businesses usually fall into three broad categories: underground enterprises, subsistence enterprises and unofficial enterprises. Underground enterprises comprise largely criminal activity and are out of the scope and focus of this paper. Subsistence enterprises result from ‘coping strategies’ adopted by families to compensate for low wages or external shocks (unemployment, etc.). Unofficial enterprises generally result from the desire to escape or avoid the administrative and/or financial burden of regulation (license and permit regimes, taxes, labor regulations, etc.).

Firms around the world lie on a spectrum of business activity, ranging from informal to formal. One crucial difference about informal sector enterprises in ECA compared to other parts of the world is the size of the businesses. In most parts of the world, certainly in OECD countries, informal sector enterprises are almost always small in terms of assets and employees, which allows them to remain relatively invisible to authorities. In the ECA region, however, unofficial enterprises can be medium or even large enterprises with sophisticated activities. This happens because an enterprise is able to keep activities “blended” i.e. part formal and part informal or unofficial (Kaufman and Kaliberda, 1996). A typology of the informal sector is presented in Table 2.

Businesses in the subsistence end of the informal sector spectrum hold little potential for “graduating” to the next levels. Business failure rates are high because of high localized competition and lack of information or access to other markets. Moreover, many of these enterprises are short-lived until the household finds other sources of income that enables it to recover or surpass its living standards.

Unofficial enterprises in the small and medium end of the informal sector whose owners and employees are highly educated and have sophisticated skills hold the greatest potential to ‘break through’ to the formal sector. This sub-sector is where there is a great deal of mixed activity, enterprises that may be formally registered, but some of their activities or employees are not officially reported. Improvements to the business and regulatory environment will provide incentives for these potentially dynamic enterprises to go formal.

TABLE 2: TYPOLOGY OF INFORMAL SECTOR ENTERPRISES

	<i>Informal sector</i>		<i>Formal</i>
	<i>Subsistence enterprises</i>	<i>Unofficial enterprises</i>	<i>Official enterprises</i>
<i>Degree of Informality</i>	100%	High Proportion of sales workers not registered	Some proportion of sales undeclared and workers unregistered.
<i>Type of activity</i>	Single street traders, cottage/micro enterprises, subsistence farmers	Small manufacturers, service providers, distributors, contractors	Small and medium manufacturers, service providers, software firms
<i>Technology</i>	Labor intensive	Mostly labor intensive	Knowledge and capital intensive
<i>Owner profile</i>	Poor, low education, low level of skills	Poor and non-poor, well educated, high level of skills	Non-poor, highly educated, sophisticated level of skills
<i>Markets</i>	Low barriers to entry, highly competitive, high product homogeneity	Low barriers to entry, highly competitive, some product differentiation	Significant barriers to entry, established market/product niche
<i>Finance needs</i>	Working capital	Working capital, some investment capital, supplier credit	Investment capital and working capital, letters of credit, supplier credit
<i>Other needs</i>	Personal insurance, social protection	Personal and perhaps business insurance	Personal and business insurance, business development services
	Least dynamic Completely informal		Highly dynamic Partially formal

## The Benefits and Costs of Informality for Entrepreneurs

### *Benefits*

The main benefit from staying informal is the avoidance of (some) taxes and burdensome government regulations. Regulations impose both a direct cost in terms of

fees or bribes to officials, and indirect costs measured in the entrepreneur's time spent on fulfilling various requirements and submitting documents. These costs differ enormously across countries. One example of regulations is business registration. In previous work (Djankov et al., 2002), we record the procedures related to obtaining all the necessary permits and licenses, and completing all the required inscriptions, verifications and notifications for the company to be legally in operation. When there are multiple ways to begin operating legally, we choose the fastest set of procedures available to the entrepreneur. In some countries, entrepreneurs may not bother to follow official procedures or bypass them by paying bribes or hiring the services of "facilitators". An entrepreneur in Georgia can start up a company after going through 13 procedures in 69 business days and paying \$375 in fees. Alternatively, he may hire a legal advisory firm that completes the start-up process for \$610 in 3 business days. In the analysis, we use the first set of numbers. We do so because we are primarily interested in understanding the structure of official regulation.

Regulations of start-up companies vary across regions within a country, across industries, and across firm sizes. For concreteness, we focus on a "standardized" firm, which has the following characteristics: it performs general industrial or commercial activities, it operates in the largest city (by population), it is exempt from industry-specific requirements (including environmental ones), it does not participate in foreign trade and does not trade in goods that are subject to excise taxes (e.g., liquor, tobacco, gas), it is a domestically-owned limited liability company, its capital is subscribed in cash (not in-kind contributions) and is the higher of (i) 10 times GNP per capita in 2001 or (ii) the minimum capital requirement for the particular type of business entity, it rents (i.e. does not own) land and business premises, it has between 5 and 50 employees one month after the commencement of operations all of whom are nationals, it has turnover of up to 10 times its start-up capital, and it does not qualify for investment incentives. Although different legal forms are used in different countries to set up the simplest firm, to make comparisons we need to look at the same form.

Our data almost surely underestimate the cost and complexity of entry. Start-up procedures in the provinces are often slower than in the capital. Industry-specific requirements add procedures. Foreign ownership frequently involves additional verifications and procedures. Contributions in kind often require assessment of value, a complex procedure that depends on the quality of property registries. Finally, purchasing land can be quite difficult and even impossible in some of the countries of the sample (for example, in Croatia).

We use three measures of entry regulation: the number of procedures that firms must go through, the official time required to complete the process and its official cost. We keep track of all the procedures required by law to start a business. A separate activity in the start-up process is a "procedure" only if it requires the entrepreneur to interact with outside entities: state and local government offices, lawyers, auditors, company seal manufacturers, notaries, etc. For example, all limited liability companies

need to hold an inaugural meeting of shareholders to formally adopt the Company Articles and Bylaws. Since this activity involves only the entrepreneurs, we do not count it as a procedure. Similarly, most companies hire a lawyer to draft their Articles of Association. However, we do not count that as a procedure unless the law requires that a lawyer be involved. In the same vein, we ignore procedures that the entrepreneur can avoid altogether (e.g. reserving exclusive rights over a proposed company name until registration is completed) or that can be performed after business commences. Finally, when obtaining a document requires several separate procedures involving different officials, we count each as a procedure. For example, a Bulgarian entrepreneur receives her registration certificate from the Company Registry in Sofia, and then has to pay the associated fee at an officially designated bank. Even though both activities are related to “obtaining the registration certificate,” they count as two separate procedures in the data.

To measure time, we collect information on the sequence in which procedures are to be completed and rely on official figures as to how many business days it takes to complete each procedure. We ignore the time spent to gather information, and assume that all procedures are known from the very beginning. We also assume that procedures are taken simultaneously whenever possible, for maximum efficiency. Since entrepreneurs may have trouble visiting several different institutions within the same day (especially if they come from out-of-town), we set the minimum time required to visit an institution to be one day.

We estimate the cost of entry regulation based on all identifiable official expenses: fees, costs of procedures and forms, photocopies, fiscal stamps, legal and notary charges, etc. All cost figures are official and do not include bribes, which can be significant. Setup fees often vary with the level of start-up capital. As indicated, we report the costs associated with starting to operate legally a firm with capital equivalent to the larger of (i) ten times per capita GNP in 2001 or (ii) the minimum capital requirement stipulated in the law.

Our basic cost estimates ignore the opportunity cost of the entrepreneur’s time and the foregone profits associated with bureaucratic delay. To address this concern, we calculate a “full cost” measure, which adds up the official expenses and an estimate of the value of the entrepreneur’s time, valuing his time at the country’s per capita income per working day.

The business registration procedures are divided by their function: screening (a residual category, which generally aims to keep out “unattractive” projects or entrepreneurs), health and safety, labor, taxes, and environment. The basic procedure in starting up a business, present everywhere, is registering with the Companies’ Registry. This can take more than one procedure; sometimes there is a “preliminary license” and a “final” license. Combined with that procedure, or as a separate procedure, is the check for uniqueness of the proposed company name. Add-on procedures comprise the requirements to notarize the Company Deeds, to open a bank account and deposit the

start-up capital, and to publish a notification of the company's establishment in an official or business paper. Additional screening procedures that include obtaining different certificates and filing with agencies other than the Registry may add up to 97 days in delays, as is the case in Madagascar. Another set of basic screening requirements, present in almost every country in the data set, covers certain mandatory municipal procedures, registrations with statistical offices and with Chambers of Commerce and Industry (or respective ministries). In the Dominican Republic, these procedures take 7 procedures and 14 days. There is large cross-country variation in terms of the number, time, and cost of screening procedures as the Company Registry performs many of these tasks automatically in the most efficient countries but the entrepreneur does much of the leg work in the less efficient ones. Additional procedures appear in four areas: tax-related procedures, labor regulations, health and safety regulations, and environmental regulations.

The data show enormous variation in entry regulation across countries. The total number of procedures ranges from 2 in Australia to 20 in Belarus and the Dominican Republic and averages 10.32 for the whole sample. Very few entry regulations cover tax and labor issues. Procedures involving environmental issues and safety and health matters are even more rare. Instead, much of what governments do to regulate entry falls into the category of screening procedures. The worldwide average number of such procedures facing a new entrant is 6.26.

Business registration is only one of the various regulations that companies need to comply with. Enterprise surveys indicate that it is seldom the most problematic one for businesses. Acquiring business licenses in specific industries, obtaining permissions to export, registering property as collateral are among the more burdensome processes that an entrepreneur needs to go through. In most countries around the world, the costs of these processes are so high that business can only operate informally.

Who gains from having high barriers to entry and operations imposed by various regulations? Economic theories of regulation differ in their predictions as to who gets the benefits. The public interest theory predicts that stricter regulation is associated with higher measured consumer welfare. In contrast, the public choice theory sees regulation as a tool to create rents for bureaucrats and/or incumbent firms. Stricter regulation should then be associated with higher corruption and less competition. We have addressed this question empirically in previous research and find that the countries with less limited, less democratic, and more interventionist governments regulate more heavily, even controlling for the level of economic development. This evidence is difficult to reconcile with public interest theories of regulation but supports the public choice approach that emphasizes rent extraction by politicians (McChesney, 1987; Shleifer and Vishny, 1993). Entry and operations of businesses are regulated more heavily by less democratic governments, and such regulation does not yield visible social benefits. The principal beneficiaries appear to be the politicians and bureaucrats themselves.

TABLE 3: NUMBER OF PROCEDURES, TIME AND COST FOR REGISTERING A NEW BUSINESS  
(Time is presented in business days; cost as a share of GNP per person)

<i>Country</i>	<i>Procedures</i>	<i>Time</i>	<i>Cost</i>
<i>Albania</i>	11	55	64
<i>Armenia</i>	11	55	12
<i>Azerbaijan</i>	15	79	19
<i>Belarus</i>	20	105	16
<i>Bosnia</i>	12	54	54
<i>Bulgaria</i>	10	24	8
<i>Croatia</i>	13	39	17
<i>Czech Republic</i>	10	62	5
<i>Georgia</i>	12	48	39
<i>Hungary</i>	7	65	64
<i>Kazakhstan</i>	12	42	38
<i>Kyrgyz Republic</i>	9	22	14
<i>Latvia</i>	7	23	34
<i>Lithuania</i>	11	47	5
<i>Moldova</i>	11	31	32
<i>Poland</i>	11	58	23
<i>Romania</i>	11	133	30
<i>Russia</i>	18	48	6
<i>Serbia&amp;Montenegro</i>	16	62	21
<i>Slovakia</i>	11	89	13
<i>Slovenia</i>	8	54	12
<i>Ukraine</i>	13	30	23
<i>Uzbekistan</i>	7	29	34

Source: World Bank (forthcoming).

### *Costs*

Informality comes at a cost. First and foremost, informal enterprises need to stay small lest they become the target of government inspectors. Such firms are much more vulnerable to harassment by bureaucrats and are willing to pay higher bribes so that inspectors can look away. Surveys done by the World Bank estimate that informal firms in transition economies pay around 20 percent of their revenues to government officials in the form of bribes. Put differently, there is an implicit tax of 20 percent of revenues for being informal.

As stated earlier, this tax is still smaller than the taxes the entrepreneur would have to pay if they went formal. In addition to corporate income taxes, legitimate businesses also pay social security taxes, VAT or turnover taxes, public service taxes, insurance for



employees, etc. Hence, many entrepreneurs put up with harassment and continue informal operations.

While the cost of informality in terms of implicit taxes is high, the main problem comes from the uncertainty in the prospects of the enterprise. Informal enterprises are highly vulnerable, and can be closed at the whim of bureaucrats once they have been “located.” While a small business can in principle move and avoid excessive harassment, in practice people lack the resources to relocate. Also, often informal businesses depend on being known by word-of-mouth advertising. A move to new premises would disrupt the demand for their product.

In normal circumstance, a business would be able to file a complaint against a zealous inspector. Not so if the business is informal. The services of the courts or the police are only at the disposal of legally operating companies. In countries where the courts and the police are inefficient and corrupt anyway, there is really no recourse for entrepreneurs of any kind, formal or not. However, in countries with reasonably functioning law and justice systems, entrepreneurs have a lot to lose by operating informally. The obvious channels for enforcing contracts and defending their property rights against competitors and government bureaucrats are not available to them. This suggests that one of the most powerful ways, perhaps the most powerful, to reduce informality is to improve the functioning of law and justice.

Another consideration of being informal, and the one most relevant for employees in such enterprises, is the absence of a safety net. Employees are not covered by the insurance and pension systems that the government and/or formal enterprises offer. If the firm fails, so do the prospects of its employees. Household surveys indicate that employees are willing to forego a 40 percent cut in wages in order to move to formal enterprises. This should not be surprising: in the average developing country social security benefits account for over half of official salaries.

The costs of informality also include the inability to tap formal credit channels and more generally the various types of SME assistance programs available to the private sector. Much of the literature on the development of small firms puts the lack of access to financing as the main problem for new enterprises. More recent work, e.g., Johnson, McMillan, and Woodruff (2002), disputes these results and ascertains that the enforcement of property rights, i.e., the institutions discussed in the previous paragraph, are most important. Whether it be the number one or two factor, access to financing is key for the growth of businesses.

Many governments have recognized this need and have provided, with mixed results at best, vehicles for financing new and small firms. In all cases, a requirement is for the firm to be registered and to show certified financial statements for a given number of years. This precludes access by informal firms.

Instead, as shown in a number of empirical studies, informal sector businesses rely largely on informal sources (personal savings, family or friends, moneylenders, pawn shops and remittances from family members abroad) to obtain financial resources. While

the existence and ease of access to these sources provide a good reason to stay informal, the costs of borrowing from some of these sources can be high enough to raise operating costs significantly and threaten a business' financial viability. For example, moneylenders interest rates in many transition countries range from 5-10 percent a month. Finance from friends and family is unreliable, untimely and can bear significant non-financial costs.

Informal sector entrepreneurs often need to build their own (as well as their employees') human capital as their businesses grow. 'Breakthrough' businesses that are poised to grow from small to medium and beyond are in need of services that can help upgrade the owners' skills. These services include assistance with business planning, information about markets and resources, marketing strategies, and financial management. Yet these types of business development services are either prohibitively expensive or unavailable to informal sector businesses.

### **The Benefits and Costs of Informality for Governments**

Governments often lament the increase in informal sector activity since it reduces the tax base. While true, this concern is exaggerated. Many of the businesses that operate informally, e.g. the mom-and-pop operations described earlier, would not be able to run officially since the additional costs outweigh profits. If forced into the formal economy, many firms will fold. Only through the introduction of a simpler tax regimes and less regulations will the tax base increase.

The real economic cost to governments is in the numerous programs that they implement to deal with poverty – from subsidized health care, to subsidized or free housing, large unemployment benefits, free training, etc. These programs target the very same strata of society that often operate in the informal economy and, for reasons already mentioned, are not adequately protected. Recent research, e.g. Glaeser and Gyourko (2002), suggests that governments may do well to shift their focus from subsidizing particular programs, such as basic housing, to creating an environment where businesses can grow and prosper.

The social cost can be large as well – people in the informal economy are the first to be hit by worsening economic conditions and also have little to lose from staging protests and demanding support by the government. History is replete with cases of governments that have failed to appreciate the dynamics of poverty. Many studies identify the poor as working in the informal economy. Perhaps the greatest contribution in this area is that of Hernando de Soto and his work on informality in Peru. The basic argument is that formal businesses depend on secure property rights which in turn stem from well-functioning institutions that define and enforce contracts. Entrepreneurs need the government to maintain such institutions, and would support any government that does so.

## How to Go Formal?

Several changes need to take place in transition economies to improve the environment for operating a formal business. Here, we focus on four of them, although the reader can think of a number of additional areas where reform is necessary. The four areas we cover constitute, in our view, relatively painless reforms that would not meet strong political resistance and can be seen as win-win changes for government and business alike.

Reducing the number of business licenses, permits, approvals. There are many good reasons why governments regulate business activity. Those relate to ensuring the health and safety of employees and consumers; clean environment; standardization of products; fair disclosure, etc. At the same time, many countries have a multitude of regulations that are archaic and do not serve a useful purpose anymore. Also, government agencies or institutions often manage to impose regulations that benefit them at the expense of businesses and the rest of the government: by collecting fees to supplement their budgets or by creating additional responsibilities for their staff and thereby maintaining or increasing employment. Reviews and updates of existing regulations and a procedure for streamlining the regulatory burden are highly desirable, but extraordinarily difficult. The most dramatic regulatory reviews took place in leading transition countries (Czech Republic, Hungary, and Poland) undergoing fundamental transformation from central planning to market systems, and simultaneously integrating the 80,000 pages of the European *aquis communautaire* as part of EU accession. In Hungary, for example, 799 of the 983 existing laws were adopted after 1990. Substantial reviews of existing laws and other regulations have also been carried out in OECD countries, most notably Korea, Mexico, and Australia. Korea succeeded in eliminating 50 percent of its regulations in less than a year, while Mexico revised over 90 percent of its national legislation in about six years. Of these countries, though, only Australia designed and launched a national review of regulations without facing a substantial economic crisis.

Examples of successful multi-year generalized reviews can be found in Hungary, Australia, and Korea.<sup>2</sup> For lack of space, only the Hungarian experience is summarized here. The Hungarian government-wide regulatory review of 1995-1998 was coordinated by a central unit, the Government Commissioner, assisted by a small secretariat and advised by a Deregulation Council. The review was based on a three-year planned schedule of ministerial submissions and included subordinated regulations as well as laws. The revision was divided into two stages. The first 18 months concentrated on laws and regulations existing before 30 June 1990; the next 18 months focused on the review of regulations enacted after that date. An important element of the program was the preparation by the Ministry of Justice of a precise inventory of

<sup>2</sup> The section is based almost entirely on work by Scott Jacobs at the OECD.

existing laws and regulations. Based on this inventory, the Government Commissioner and the horizontal ministries presented a detailed schedule covering the whole three-year government's period. A submission process was designed which in theory included a RIA checklist. A special justification memorandum was requested for maintaining regulations enacted before 23 October 1989. The Government Commissioner could recommend that the government reject such regulations or could ask for further analysis. Last, the Ministry of Justice was charged with preparing a specific "deregulation instrument" to be issued by the government or presented to the Parliament listing unnecessary regulations abrogated.

In parallel to this item-by-item approach, the Hungarian government took a comprehensive approach to a few key policy areas vital to the proper functioning of democratic and market-oriented systems. For example, the civil code was reviewed in its entirety under the "deregulation of merit" process. Due to the size, complexity and impact of such codes or "codex", the revision was organized through working groups that worked for two or three years. The reviews consisted not only of amending and replacing whole sections but also of re-organizing texts which in some cases, like the Civil Code of 1959, had been reformed more than twenty times since 1990.

According to the government, the 1995-1998 review was more successful than earlier attempts. Clear timetables and program objectives, leading up to omnibus "deregulation measures," concentrated ministries' efforts and provided greater visibility and accountability to achievements. Mechanisms were used to boost the outreach of the program and implicate a wider public in the national effort. The Deregulation Council and the Government Commissioner commissioned from academics and researchers a series of studies on deregulation. To encourage public involvement in the program, they launched massive public campaigns to "turn deregulation into a national event", through hearings and consultation meetings at national and regional level. They arranged a national contest in the newspapers where nearly 400 proposals were presented. Prizes of up to 100,000 Forints rewarded useful ideas. "Deregulation days" were launched, with the participation of regulators, professional organisations, and citizens, where the best presentations and proposals were published in the "Deregulatory Forum" column of the "*Magyar Közigazgatás*" newspaper.

Another successful variant has been targeted reviews, which focus on particular sectors (*i.e.* building codes) or kinds of regulations (permits and licences, see following section on reducing formalities). In Italy, for example, independent reviews by the Antitrust Authority of general aspects of regulatory reform, such as reports about the use of licences and "concessions" restricting market access, have been useful in identifying where reform is needed, although persuading the ministries to actually reform is another matter entirely.

Failures abound. In Greece, for example, a recent regulatory review was conducted by the Ministry of the National Economy. This program, begun in 1999, systematically reviewed all regulations made over the last five years within the ministry. The assessment

involved the establishment of a regulatory reform group, composed of senior officers from divisions within the ministry, who prepared the first inventory of regulations including legislation, presidential and ministerial decisions. The review concluded that all legislation, presidential decrees, and ministerial decisions within the Ministry were effective and necessary. This included the 54 ministerial orders that govern the financial sector (these make up more than half the ministerial orders for the Ministry) and the 23 ministerial orders that governed capital markets. The only negative conclusion was that more could have been done to ensure the success of the one-stop-shop investment promotion agency. The review lacked an independent and rigorous assessment of the impact of regulations, the key information needed to test regulatory quality, and instead began with qualitative statements about what the laws require. Without independent input, self-assessment rarely yields critical conclusions, which supports the argument that regulatory reform should be coordinated by a central agency or at arms-length of the ministries being reviewed. A review of business licenses is currently ongoing in Bulgaria. This process, like the one in Greece, also lacks transparency and does not sufficiently involve the business community in the discussions. Not surprisingly, of the 512 licensing regimes discussed prior to April 8, 2002 only 63 were slated for removal and 81 were revised.

Streamlining the administrative process. Once the business licensing regime is reviewed and updated, some thought needs to be put into the administrative process that accompanies the obtaining of such licenses. In most developing countries around the world, and certainly in the majority of transition economies, the process that an entrepreneur needs to go through to get a license borders on harassment. This is the case in a country like Belarus, where an entrepreneur must simultaneously receive a license, a permit, and a letter of accreditation to open up a shoe repair shop (these are alongside the 20 regular steps for opening up any type of business). In several transition economies, the company registry is kept at the Ministry or Department of Statistics, while the Trade Registry is kept at the local courts. Essentially, the same procedure is repeated twice, with a loss of significant time. In Bulgaria, the overall procedure for registering a new firm takes about a month, of which three weeks are taken by waiting for the court clerk to process the Trade Registry number. Such procedures are duplicative and should be streamlined.

The administrative process can be significantly improved if the latest internet-based technologies are utilized. Many of the face-to-face interactions between government officials and entrepreneurs would be rendered unnecessary if applications can be processed electronically. Many countries have moved in this direction. The most successful reformers include Australia, New Zealand, Singapore, Norway and Sweden. Many developing countries have introduced electronic processing for at least some interactions between regulators and businesses. Examples include filling in electronic tax forms in Bulgaria and Slovenia. Much remains to be done.

The availability of internet technology also allows the government to provide detailed information on all the necessary requirements to formalize different types of business activity. This can be a huge impetus to reducing discretionary behavior on the

part of bureaucrats and to giving entrepreneurs, and more generally consumers of public services, a stronger position as they demand timely and high-quality services. Various firm-level surveys in transition and developing countries show that knowing the precise requirements and also having the government officials know you know how the administrative process is supposed to work speeds up public service delivery considerably, without reducing quality. In short, information cuts slack in the bureaucracy, as well as reduces the possibility to extract bribes.

Adopting uniform taxes. High levels of taxes and burdensome tax administration have been mentioned earlier as important determinants of the decision to stay in the informal economy. A number of countries have experimented with reforms in their tax laws and the organization of tax collection. The prevailing experience suggests that a move towards a unified corporate tax rate, set at a reasonable level, does away with much of the costs involved in filing separate tax declarations with separate agencies or separate parts of the Tax Office. Interestingly, and this is shown across transition economies as well, a unified corporate tax, even if set below the prevailing average corporate tax burden, increases tax collection. This is for two reasons: the tax base is increased, as firms at the margin of the unofficial economy see their benefits of formality increase; and current tax-payers become more compliant, as it is easier for the tax inspector to spot under-reporting.

Enhancing access to capital. As mentioned earlier, because banks in the region have provided few financial services to even formal SMEs and for most part have generally ignored micro and informal SMEs, microfinance institutions (MFIs) have emerged as a source of financing for these enterprises. MFIs use specific methods that are tailored to meet the needs of these micro and small entrepreneurs such as using non-secured and unconventional collateral, “graduated lending” techniques (very small initial loans that can be increased gradually based on the client’s repayment history), quick response (time between loan application and loan approval is 2-5 days), easy access, and labor-intensive loan screening and collection procedures.

For transition economies, the average outstanding balance for MFIs ranges between US \$600 – \$5,000 indicating that these clients are small businesses. But these small numbers add up. For example, the loan portfolio of Bosnia’s leading microfinance bank MEB BiH is nearly US \$15 million while that of Poland’s Fundusz Micro is about US \$9 million.

A recent survey of the microfinance sector in the ECA region reveals that it is a fast-growing industry. Institutions providing microfinance services are less than 10 years old, with a number of specialized institutions operating for only 3-5 years (Forster and Pytkowska, 2002). Preliminary data suggests that MFI clients are growing by about 30 percent a year. This kind of dramatic growth in clientele with corresponding growth in loan portfolio and savings deposits is evidence that there is strong demand for microfinance products. Moreover, people are willing and able to pay relatively high prices (around 2-3 percent a month) to have access to these services.

Traditionally MFIs serve both the formal and informal sector businesses, thus in a sense serving as a bridge between the two. To allow for the healthy development of this sector, policymakers should focus on three key areas:

- (i) Ease operating constraints on existing MFIs. As mentioned earlier, MFIs use non-traditional methods to provide services to their clients in a commercially sustainable and competent manner. To encourage non-bank financial intermediaries to provide existing microfinance services and experiment with new products, policymakers should address key elements in the legal environment that constrain the operations of MFIs in the region, such as:
  - Allowing for a range of institutions under various legal forms to provide financial services;
  - Clearing up ambiguities related to the legal status of some non-bank financial intermediaries, such as NGO-MFIs;
  - Easing restrictions on activity and ownership of existing MFIs that may or may not require 'heavy' governance and internal reporting structures;
  - Lowering minimum capitalization requirements depending on type of MFI (bank or non-bank financial intermediary) and services it provides (non-deposit taking MFI versus deposit-taking MFI).
- (ii) Examine and change existing banking regulations to encourage small firms' lending. The formal private sector has been starved for capital. Greater access to financial services will provide a powerful incentive for high dynamic informal firms to enter the formal sector. Yet formal financial institutions are often legally restricted by prudential norms, or absence of, enforcement mechanisms to lend to small firms. To encourage banks to provide financing, current regulations governing these institutions may need some changes, such as:
  - Strengthening debt collection laws and enforcement mechanisms;
  - Changing collateral laws to recognize non-traditional collateral or accept personal guarantees;
  - Raising limits on unsecured lending. Typically, these limits are too low to enable banks to undertake non-collateralized lending;
  - Improving property registration so that borrowers can use their land or house as collateral;
  - Revising leasing legislation so that financial institutions can more effectively use this service;
  - Lifting interest rate ceilings. Because the administrative costs of smaller loans and the risk of lending to clients without established credit history are higher, banks must be allowed to charge higher rates of interest to small firms to provide them with services in a commercially sustainable manner;
  - Establishing small claims courts that will enable financial institutions to easily enforce a loan contract by seizing and liquidating assets offered as collateral.

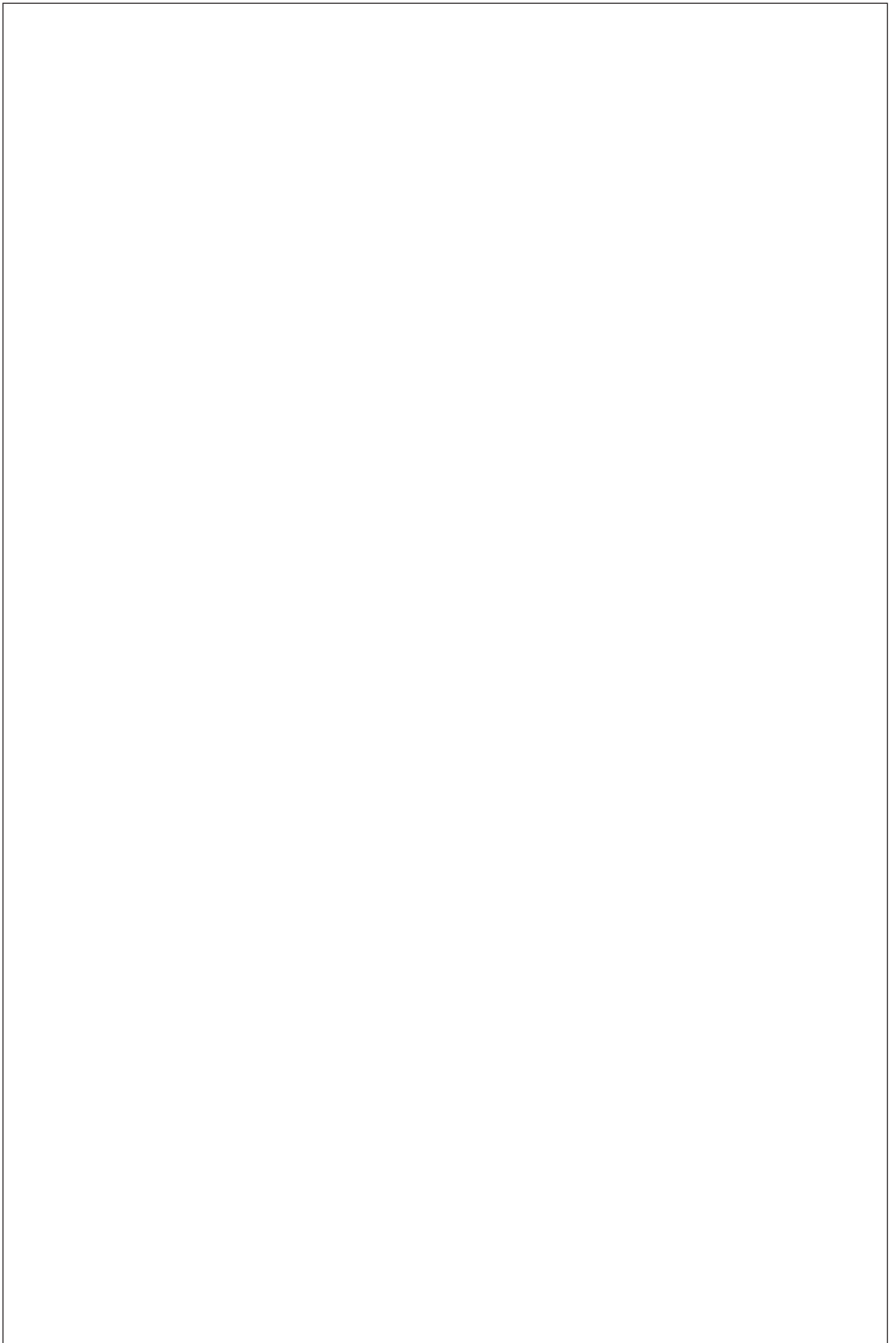
- (iii) Avoid state-sponsored financial intermediation. In transition economies and other parts of the world, government-backed efforts to provide financial and other services to small firms and informal sector enterprises have typically failed. Most of these efforts are distortionary, require huge levels of subsidy, and fail to reach the target audience. Rather than being a provider, the state should play the role of an ‘enabler’ that allows for private sector institutions meet these needs in a commercially sustainable manner.

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## CHAPTER 4

# **Shadow Economy and Institutional Change in Transition Countries**

*Dominik H. Enste*

## **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 (EU Commission, 1998 and EU Parliament, 2000).

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 (Enste, 2001a, pp.158f; 2002)? 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 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.<sup>1</sup>

Research on the shadow economy focuses on three of its major aspects, which will be analyzed in more detail here:<sup>2</sup>

- 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 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.<sup>3</sup>

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

<sup>1</sup> For a comprehensive and more detailed analysis, see Enste (2002).

<sup>2</sup> For more details, see also Weck, Pommerehne and Frey (1984), Gaertner and Wenig (1985), Petry and Wied-Nebbeling (1987), Feige (1989) and Thomas (1992).

<sup>3</sup> 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.

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. As a coherent, integrative and interdisciplinary approach for the analysis of the causes is missing, however, it is necessary to develop a basic systematic model.

Empirical studies have to test the methods for measuring the size and conceptualising the development of the shadow economy; the theoretically derived causes and consequences of shadow-economic activities have to be verified; reverse effects on the official economy as well as the interaction between the two sectors have to be analyzed.<sup>4</sup>

- 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 our suggestions with regard to specific economic policies are based 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 coordination at the EU level to combat illicit work, including stricter controls and harsher sanctions.<sup>5</sup> 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

<sup>4</sup> See Schneider and Enste (2000a and 2000b), Cowell (1990), Thomas (1992), Pozo (1996), Spiro (1997), and Lippert and Walker (1997).

<sup>5</sup> In Europe, illegally employed people take between 10 and 28 million regular employment positions. See EU Kommission (1998).

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 stabilization 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 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).

## 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.<sup>6</sup> To analyze 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 (Bhattacharyya, 1999; Dixon, 1999; Giles, 1999b; Tanzi, 1999; and Thomas, 1999).

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, own translation)

Still, a more elaborate definition is needed for analysing the (il-)legality of economic activities as well as their connection to tax evasion. Pure tax evasion via financial transactions is excluded from this analysis as it does not render added value and is usually not taken into consideration when someone is talking about the shadow economy.<sup>7</sup>

<sup>6</sup> 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 and unrecorded economy. See, amongst others, Thomas (1992, p.125).

<sup>7</sup> Schmoelders, who invented the term in the 1980s, generally includes in the concept of shadow economy tax evasion and the gray to black markets, which are “expression and correction of the official market order” (Schmoelders, 1980, p. 372, own translation). In his opinion, the main categorization criterion is the secrecy of the financial transactions. Hence, the shadow economy comprises the entire turnover, obtained in this economic system with its specific markets, competition rules, customs, marketing strategies and investments.

The difference between “Pure Tax Evasion” and “Underground Economy” is explained clearly in Lippert/Walker (1997). Shadow-economic activities almost always imply the supply of goods and services, produced with resources, such as work, managerial or industrial activities and capital. In opposite to this, pure tax evasion usually results from financial transactions, carried out with the objective to conceal income, e.g. capital income. These aspects are especially important for fiscal policy and public finance and are studied by experts in these areas.

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. 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. Yet, the boundaries between the sectors are not clearly defined and they change with the level of economic development (Asea, 1996; Mirus and Smith, 1997, p. 5; Smith, 1997, p. 13; Petry and Wied-Nebbeling, 1987, p. 14ff; Thomas, 1992, p. 6).

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. Hence, the underground economy can be logically separated into a legal and an illegal sector (Thomas, 1992, pp. 4 and 6). The legal sector then can be defined as the self-sufficient economy while the illegal one as the shadow or hidden economy.

The self-sufficient economy has two parts which can be differentiated according to whether market transactions take place (informal sector, alternative economy) or not (household sector). The latter includes a Do-It-Yourself (DIY) segment. The informal sector is predominant in developing and transition countries, in which small firms produce a large share of the economic added value.<sup>8</sup> The difference between the latter and the irregular sector is that these informal activities are not prosecuted in many countries, even though certain regulations and administrative rules are ignored or they act on the border of illegality. Thomas (1992, p. 4; pp. 87f) introduces “law enforcement” as a boundary criterion. Hence, it is not the existence of laws and regulation which is relevant but supervision and enforcement by the administration. The latter is hardly present in the informal sector whereas in the irregular sector there are intensive and effective control mechanisms. Thus, the activities in the informal sector are often not linked to tax evasion and lie mostly within the scope of legality.

As opposed to this, activities in the shadow economy in particular are linked to gainful employment accompanied by tax evasion or unlawful behaviour. The difference between the “Criminal Sector” and the “Irregular Sector” (Thomas, 1992, pp. 3f) stems from the fact that production/ distribution *and* output of criminal activities are illegal

<sup>8</sup> De Soto (1989) describes this very well through the example of Peru. He also analyzes the difficulties faced by individuals who wish to switch into the official sector.

FIGURE 1: CATEGORISATION OF THE UNDERGROUND ECONOMY

<i>Sectors Criteria</i>	<i>Household sector</i>	<i>Informal sector</i>	<i>Irregular sector</i>	<i>Criminal sector</i>
<i>Production/ Distribution</i>	legal	legal	illegal	illegal
<i>Market transactions</i>	no	yes	yes	yes
<i>Output (goods/services)</i>	legal	legal	legal	illegal
<i>VGR- conventions</i>	<i>Self-sufficient economy (legal)</i>		<i>Shadow economy (illegal)</i>	
<i>Examples</i>	Do-it-yourself, home office work; baby-sitting; exchange of goods	Neighbourhood help;counselling centres; self- help; offence 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; smug- gling; receiving stolen goods

(drugs trafficking, slave trade and prohibited gambling). In addition, occupation in the irregular sector becomes part of the shadow economy only if distribution and production related to it is illegal as the output is legal. Most of these irregular activities can be summarized under the term “Illicit Work”. Irregular actions include producing goods or offering services while receiving at the same time social insurance and not informing the labour office (social security fraud); being self-employed and operating an industrial enterprise without complying with the regulations of the relevant industrial code or practising a handicraft without being registered. Offences against this legislation are prosecuted as irregularities and are punished with a fine of up to 300.000 Euro as of 2002 in Germany.

In contrast to this, in a lot of OECD countries economic activities resulting from favours, neighbourhood assistance and small scale activities are explicitly excluded from prosecution. Still, these are part of the informal sector.

More attention should be paid to the irregular sector, which is characterized by market-type transactions. The production and distribution of these goods and services becomes unlawful either by illegal production or by prohibited trade or if combined with tax evasion. The produced goods or services themselves are not illegal. A paperhanger plastering wallpaper in Germany works illicitly only if he does this on a weekend and receives a cash payment without an invoice. Usually, a wide range of activities is summarized under the term “illicit work”, such as minor handicraft



services after regular working hours and organized illegal employment in combination with tax evasion, bypassing the laws of competition or craftsmanship, and social security fraud, etc. The irregular sector also includes activities carried out legally but still regarded as part of the shadow economy when combined with tax evasion, as the associated income is not registered by the inland-revenue office (e.g. the occasional freelancing, usually subject to income tax, as well as the non-declaration of tips and gifts).

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.<sup>9</sup>

## **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 harmonization 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 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.

<sup>9</sup> The most recent figures of the size and development of the shadow economy in OECD and transition countries should be added here. See Schneider's chapter in this volume for this data.

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.

The lower part of the graph shows the link to the shadow economy.<sup>10</sup> 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 is 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. If there are grounds for optimum lies, it cannot be generalized as the situation 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 maximization by politicians and budget maximization by bureaucrats, resulting in higher tax 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.

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)

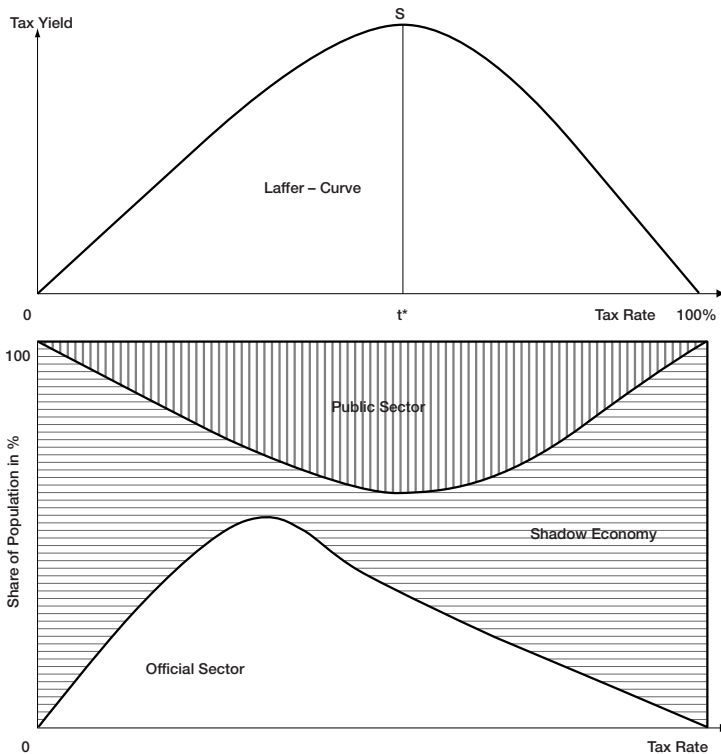
<sup>15</sup> For a simplified figure, which ignores the effects of state activity, see Frey and Weck (1983a), Neck, Schneider and Hofreither (1989), Blankart (1998, pp. 240f) and Windisch (1984).

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 increase 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 this perception is legitimate, it will not result in a rise of shadow-economic activity.

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FIGURE 2: THE CORRELATION BETWEEN TAX YIELD, TAX RATE AND THE DEVELOPMENT OF THE SHADOW ECONOMY



The Income-Leisure Model is suitable for illustration of the basic economic idea that avoiding allocation distortions is always the main objective. Yet, there are some issues which need to be looked at critically, issues which can be explained with the help

of the Welfare Theory of Taxation. Welfare Economics assumes that a government acts as a “benevolent” dictator and wants to maximize aggregate welfare. For this purpose broad tax liabilities, low marginal tax rates, or ideally, even poll taxes are proposed to avoid allocation distortions and to optimize taxation. Through the prism of this theory, the issues of taxation and transfer payments have been thoroughly discussed in Public Finance. In addition to the constraining assumptions, the neglect for the behaviour of the government and other institutions is criticized. The optimistic assessment of the governing body, which does not maximize its own utility but that of society and thus acts entirely differently from what is otherwise assumed in economics does not seem plausible to the supporters of modern Public Finance.<sup>11</sup>

Currently in Public Finance, the assumption of the welfare maximizing government is substituted by that of an egoistic one, whose objective is to maximize its budget to gain more influence over public funds and thus have greater power. In the Leviathan theory on taxation, it is assumed that the government raises more taxes than needed to supply the optimal amount of public goods, i.e. it reaps the full benefits of the taxation potential. The tax-payer has no possibility of reacting except via tax evasion. Therefore, Brennan and Buchanan (1980) refuse to support the idea of optimal taxation, even if allocation distortions could be avoided. A broad tax base with little possibilities of evasion would ultimately augment the taxation power of the government and the tax-payer would be at the mercy of the “Leviathan state” even more. Hence, Brennan and Buchanan find it necessary to develop clear boundaries for taxation, i.e. regulation for taxation and budgeting. Despite the critique of the Leviathan Model, which is related to the pessimistic assessment of the role of the government, the model has contributed to describing the politicians as actors and thus it counterbalances the Welfare Economic Theory.

In the context of the New Political Theory, numerous approaches are currently being developed, in which it is attempted to explain the behaviour of the governing body more realistically. Blankart (1998, p. 227f.) proposes the implementation of democratic elements to embank budget maximization and the waste of taxes. This is an alternative to the usual suggestion of introducing constitutional regulations as an effective control mechanism of the government. One possibility would be to introduce optional referendums on the total budget or on the public budgeting via taxes and loans. This form of control and protection is necessary in the context in which politicians are regarded as being self-interested economic actors as well as the considerations coming from the New Political Economy and the Leviathan State Model.<sup>12</sup>

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<sup>11</sup> For a brief illustration of the various theoretical approaches, see Blankart (1998, pp. 201-248).

<sup>12</sup> This short review of the evolutionary approach to the implications of the shadow economy, which can serve as a normative foundation for the following analysis and the recommendations for economic policy, is elaborated in detail in Enste (2002).

## 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:<sup>13</sup>

- 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.<sup>14</sup> 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 first discussed by Günter Schmolders (1960, 1975), and other factors like acceptance and perceived fairness of the tax system.<sup>15</sup>

### *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.<sup>16</sup> 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.

<sup>13</sup> When dealing with the various causes in the following sections 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).

<sup>14</sup> 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.

<sup>15</sup> 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).

<sup>16</sup> 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), Zilberfarb (1986), Tanzi (1999), Giles (1999a), and Schneider and Enste (2000b).

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 (see part 6.3). 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 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.<sup>17</sup> As Loayza's work shows only statistical correlations and not exactly causal relationships, he can only partly provide answers to the following questions: Why do people choose to work in the shadow economy? What other factors (besides the income motive) cause an increase of informal activities? Can other theories provide further help in determining relevant factors? Since, according to the methodological individualism, only individuals can choose, it might be helpful to have a closer look at the individual decision to work in the shadow economy.

The strong influence of indirect and direct taxation on the shadow economy can be demonstrated by reviewing the empirical results in the case of Austria and the Scandinavian countries. Regarding Austria, Schneider (1994b) estimates a currency demand function including the following four types of variables as driving forces for the shadow economy:

- the burden of total direct taxation;
- the burden of indirect taxation;
- the complexity of the tax system;
- the intensity of government regulations.

The estimated coefficient of the independent variable, the direct tax burden (including social security payments), has the biggest influence, followed by the intensity of regulation and the complexity of the tax system. A similar result has been observed by Schneider (1986) for Scandinavia (Denmark, Norway and Sweden). In all three countries, different tax variables, namely, average direct tax rate, average total tax rate (indirect and direct tax rate) and marginal tax rates, have the expected positive influence on currency demand and have high statistical significance.<sup>18</sup>

<sup>17</sup> The 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.

<sup>18</sup> Similar results are observed by Kirchaessner (1983, 1984) for Germany and by Klovland (1984) for Norway and Sweden.

Two other recent studies provide strong evidence of the influence of income taxes on the shadow economy. Richard J. Cebula (1997), using Feige data on the shadow economy, found evidence of the impact of government income tax rates, IRS audit probabilities and IRS penalty policies on the relative size of the shadow economy in the United States. Cebula concludes that a restraint of any further increase of the top marginal income tax rate may at least not lead to a further increase of the shadow economy, while increased IRS audits and penalties might reduce the size of the shadow economy. His findings indicate that there is generally a strong influence of state activities on the size of the shadow economy: for example, if the marginal individual federal income tax rate increases by one percentage point, *ceteris paribus*, the shadow economy rises by 1.4 percentage points. In another study, Roderick Hill and Muhammed Kabir (1996) found empirical evidence that marginal tax rates are more relevant than average tax rates and that a substitution of direct taxes by indirect taxes seems unlikely to improve tax compliance with respect to the influence of the tax and social security burden.

More evidence on the effect of taxation on the shadow economy is presented by Simon Johnson, Daniel Kaufmann and Pablo Zoido-Lobaton (1998a, 1998b) who come to the conclusion that it is not higher tax rates *per se* that increase the size of the shadow economy, but the ineffective and the discretionary application of the tax system and the regulations by governments. Their finding that there is a *negative* correlation between the size of the unofficial economy and the *top* (marginal) tax rates, might be unexpected but as other factors, like tax deductibility, tax reliefs, tax exemptions, the choice between different tax systems and various other options for legal tax avoidance were not taken into account, it is not that surprising. Friedman, Johnson, Kaufmann and Zoido-Lobaton (1999) reached a similar conclusion in a cross-country analysis: *higher* tax rates are associated with *lower* unofficial activity as percentage of GDP. They argue that entrepreneurs go underground not to avoid official taxes, but in order to reduce the burden of bureaucracy and corruption. Still, looking at their empirical results (the regression), the finding that higher tax rates are correlated with a lower share of the unofficial economy is not very robust; in most cases when different tax rates are used they do not get to statistically significant results. The overall conclusion of these studies is that there is a large difference between the impact of either the direct tax or the corporate tax burden and the institutional factors, such as the efficiency of the administration, the extent of control rights held by politicians and bureaucrats, the amount of bribery and especially corruption. Johnson, Kaufmann, and Zoido-Lobaton (1998b) believe that these factors play a greater role in the “bargaining game” between the government and the taxpayers than the tax burden itself.

### *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.<sup>19</sup> 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.<sup>20</sup> 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.

Further empirical evidence is provided in the model of Johnson, Kaufmann and Andrei Shleifer (1997) which predicts, *inter alia*, that countries with more general regulation of their economies tend to have a higher share of the unofficial economy in the total GDP. A one-point increase of the regulation index (ranging from 1 to 5 from lowest to highest), *ceteris paribus*, is associated with an 8.1 percentage point increase in the share of the shadow economy, when controlled for GDP per capita (Johnson, Kaufmann, and Zoido-Lobaton (1998b, p. 18). They conclude that it is the enforcement of regulation, which is the key factor for the burden levied on firms and individuals, and not the overall extent of regulation, mostly not enforced, which drives firms into the shadow economy. Friedman, Johnson, Kaufmann and Zoido-Lobaton (1999) reach a similar conclusion. In their study, every available measure of regulation is significantly correlated with the share of the unofficial economy and the direction of the correlation is unambiguous: *more regulation is correlated with a larger shadow economy*. A one point increase in an index of regulation (ranging from 1 to 5) is associated with a 10 percent increase in the shadow economy for 76 developing, transition and developed countries.<sup>21</sup>

These 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 getting re-elected in office than implementing radical reforms of the tax and the social security systems.<sup>22</sup>

<sup>19</sup> 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.

<sup>20</sup> With regard to Germany, see Deregulation Commission (1990/91) and Monopolkommission (1998).

<sup>21</sup> De Soto (1989) analyzes in more detail the costs of regulation in Peru in his famous book.

<sup>22</sup> See, for example, Frey (1989) for an application of the Public Choice Theory to the shadow economy and for a further discussion Enste (2001).



### *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.<sup>23</sup> 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 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.<sup>24</sup>

More detailed explanation of the labor supply in the underground economy is given by Lemieux, Fortin, and Fr chet te (1994) using micro data from a survey conducted in Quebec City (Canada). The results of their study suggest that the hours worked in the shadow economy are quite dependent on changes in the net wage in the regular (official) sector. Their empirical findings clearly indicate that “participation rates and hours worked in the underground sector also tend to be inversely related to the number of hours worked in the regular sector” (Lemieux, Fortin, and Fr chet te, 1994, p. 235). In total, their results emphasize a large negative elasticity of the hours worked in the shadow economy with respect to the wage rate in the regular sector and also a high mobility between the sectors. A further 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 Lehdorff, 1998). Hence,

<sup>23</sup> 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 reconstruction and renovation of houses took place compared to similar other regions.

<sup>24</sup> See Becker (1965) for a theoretical explanation, and Juster and Stafford (1991) for a more detailed analysis of the allocation of time.

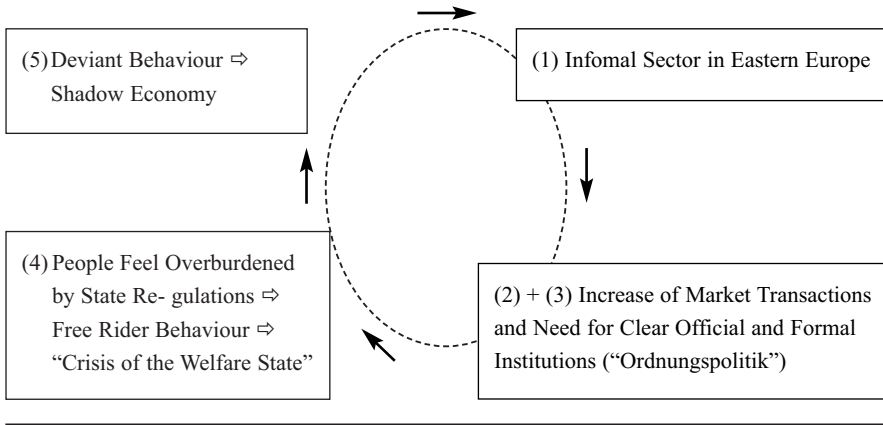
a reasonable economic policy suggestion is a higher flexibility of working hours in accordance with the preferences of the employees as this minimizes the distortion of the individual decision by this kind of labor-market restrictions.

### *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 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" (Johnson, Kaufmann and Zoido-Lobaton, 1998a, p. I).

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



### *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, etc.).
- 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 (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.

## 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.<sup>25</sup>

Several studies attempt to integrate the underground economy into macroeconomic models in order to study their effects on the allocation of resources.<sup>26</sup> Houston (1987) develops a theoretical macro model of the business cycle as well as the tax and monetary policy linkages with the shadow economy. He concludes that, on the one hand, its effect should be taken into account in setting tax and regulatory policies, and on the other hand, the existence of a shadow economy could lead to an overstatement of the inflationary effects of fiscal or monetary stimulus. Adam and Ginsburgh (1985) focus on the implications of the shadow economy on “official” growth in their study of Belgium. They find a positive relationship between the growth of the shadow economy and the official one and under certain assumptions (i.e. very low entry costs into the shadow economy due to a low probability of enforcement) they conclude that an expansionary fiscal policy has a positive stimulus for both the formal and informal activities. A study for the United States by Fichtenbaum (1989) argues that the U. S. productivity slowdown over the period from 1970 to 1989 was vastly overstated, as the underreporting of income due to the more rapid growth of the U. S. shadow economy during this period was not taken into account.

Another hypothesis is that a substantial reduction of the shadow economy leads to a significant increase in tax revenues and, therefore, to a greater quantity and quality of public goods and services, which can ultimately stimulate economic growth. Some authors, for instance, Loayza (1996), found evidence in support of this hypothesis.

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,

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<sup>25</sup> On the importance of institutions and the impact of the shadow economy see, for example, Brennan and Buchanan (1980, 1985).

<sup>26</sup> On Austria this was done by Neck, Hofreither, and Schneider (1989). For further discussion of this aspect, see Quirk (1996) and Giles (1999a).

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.

The empirical evidence in support of these opposite hypotheses is also not very clear. Since many Latin American countries had or still have a tradition of excessive regulations and weak government institutions, Loayza (1996) brings evidence of the implications of his growth model in the early 1990s in these countries. The increase in the size of the shadow economy negatively affects growth: (1) by reducing the availability of public services for everyone in the economy, and (2) by leading to a less efficient use of the existing public services, or not efficient at all. Still, the positive “side effects” of shadow-economy activities should be taken into account too. The findings in Schneider (1998b) show clearly that over 66 percent of the earnings in the shadow economy are practically spent in the official sector immediately. This additional expenditure has positive effects for economic growth and for the (indirect) tax revenues. Dilip K. Bhattacharyya (1993, 1999) found clear evidence for the United Kingdom (1960-1984) that the hidden economy has a positive effect on consumer expenditures of non-durable goods and services, and an even stronger positive effect on consumer expenditures of durable goods and services. The close interaction between official and unofficial economies is also emphasized in Giles (1999a) and in Tanzi (1999).

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

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FIGURE 4: CONSEQUENCES OF THE INCREASING SHADOW ECONOMY

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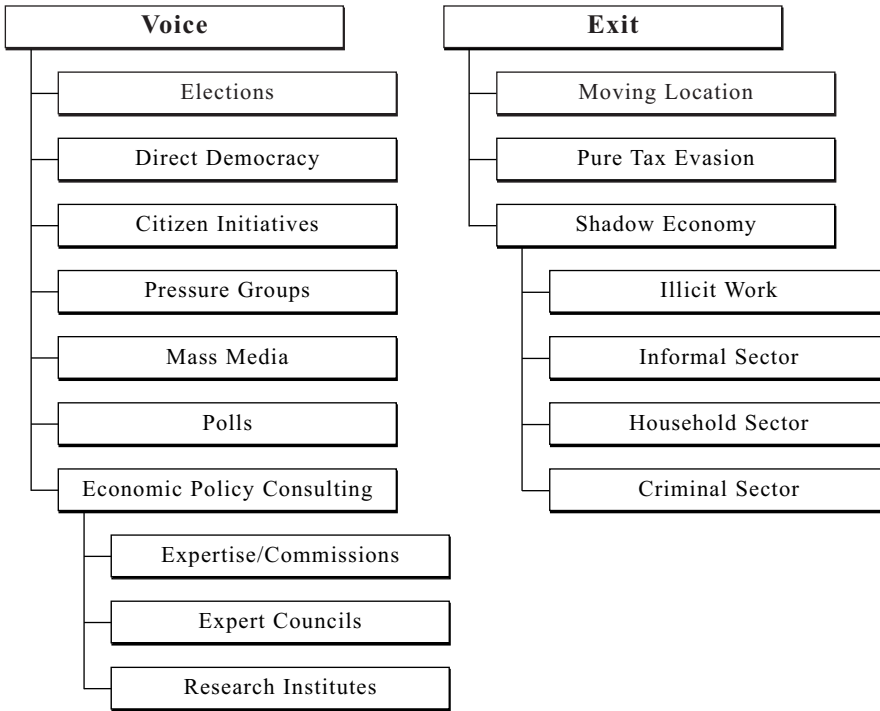
### *Consequences*

- ⇒ Officially Unused Resources are Used for Production
  - ⇒ Additional Supply of Services and Goods
  - ⇒ Increase of Public Deficits and Decrease of Investments in Public Infrastructure
  - ⇒ Undermining of Official Institutions and State Power ⇒ High Risks for the Transformation Process
  - ⇒ Dangerous Development for the Welfare State ⇒ “Dual Economy” in a Longer Perspective
  - ⇒ More Crime and Less Support for Official Institutions
-

## 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: BEHAVIORAL OPTIONS BY HOUSEHOLDS AND FIRMS



In a democracy one has the possibility to voice one’s 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 either use non-democratic communication channels, e.g. referendums or direct elections, or organize 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 (Kirchgässner and Frey, 1994, pp.201f, and Pommerehne and Weck-Hannemann, 1996).

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.<sup>27</sup> Its “Agenda Setting Function” is very well suited to bring certain topics to the public attention and raise public awareness (Enste, 2001, 2002, and Schneider and Enste, 2000a, pp.192-202). One example of such an influence is the discussion about the DM 630 jobs, actively fed by the media.<sup>28</sup> If the mass media publishes surveys, these could possibly influence the public opinion and election results.<sup>29</sup>

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.<sup>30</sup>

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.<sup>31</sup> 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 globalization. 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 malfunction of democracy (Biedenkopf, 1986; Enste, 2002; Rürup, 1983; Schmidt, 1988; and Pommerehne and Kirchgässner, 1994). Thus, the growth of the shadow economy represents a sign of considerable disruptions within the regulatory system in general.

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

<sup>28</sup> See Schneider and Enste (2000a, p.1-2) for a detailed record.

<sup>29</sup> See Noelle-Neumann (1982, 1989a/b) on the Theory of the “Silence Spiral”.

<sup>30</sup> Kirchgässner and Frey (1994) elaborate on the different methods available.

<sup>31</sup> For a simple explanation of the implications of the four basic freedoms within the EU, see Sinn (1995).

### *Decreasing the Attractiveness of the “Exit” Option*

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

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FIGURE 6: ECONOMIC POLICY RECOMMENDATIONS TO REDUCE THE ATTRACTIVENESS OF THE SHADOW ECONOMY

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***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***

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

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. 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;<sup>32</sup> 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 within the public administration. A significant correlation between the two is confirmed by various surveys.<sup>33</sup>

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.

### **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

<sup>32</sup> The introduction of the solidarity contribution in Germany was an example of this. Keeping the set time limit, however, once again poses a considerable problem.

<sup>33</sup> For a more recent overview, see Bardhan (1997), Rose-Ackerman (1999), Mauro (1995) and Tanzi (1998).

spiritualize the opinions of the persons they have to represent and make these their own, even if these differ from the opinion they had initially (Pelzmann, 1985, pp. 56f). 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.<sup>34</sup>

One should act according to the subsidiarity principle on all levels and a further centralization should be impeded.<sup>35</sup> 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 harmonization) 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 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 many problems can be solved.<sup>36</sup>

The increased participation of the public raises the commitment, i.e. the personal contribution and the interest for governmental issues can, as a consequence, 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 of direct democracy elements.<sup>37</sup> In the long run, this leads to a strengthening of social capital and

<sup>34</sup> The relatively small Swiss shadow economy can be accounted for by the extensive “voice” options. See Kirchgässner (1999), and Weck-Hannemann and Pommerehne (1989).

<sup>35</sup> 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 overburdened.

<sup>36</sup> For a theoretical explanation, see Pommerehne and Frey (1992).

<sup>37</sup> See Pommerehne, Hart and Frey (1994) for an explanation of the differences in tax ethics and honesty in direct and representative democracy.

the sense of community, both of which contribute considerably to the successful survival of societies and further supply of public goods.<sup>38</sup>

## Conclusion and Outlook

Failing economic policy was confirmed as the most important cause 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, the potential of these factors will be exploited increasingly which leads us to the conclusion that the causes of the phenomenon need to be addressed systematically.

This conclusion is supported by the analysis of the causes and consequences. Merely increasing the costs of illicit work by intensified controls and setting higher fines would not bring positive effects on the overall welfare. Empirical surveys show that a fundamental tax reform is much more apt to impede migration. Besides the allocation effects, the stabilization 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 with its sclerotic labour markets and strongly regulated industries.

The tax deficit and 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 was 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. In the long run, reforms are inevitable not only due to the globalization but also because of the rising importance of the shadow economy. The agents 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 or search for another system which better fits 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 economizing outside the restrictions are fashioned which could be regarded as a test for the official sector.

<sup>38</sup> On the importance of social capital, see, for instance, Coleman (1990, pp. 300f) and Hirschman (1994).

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 only be met with adoption of the two-pillar strategy.

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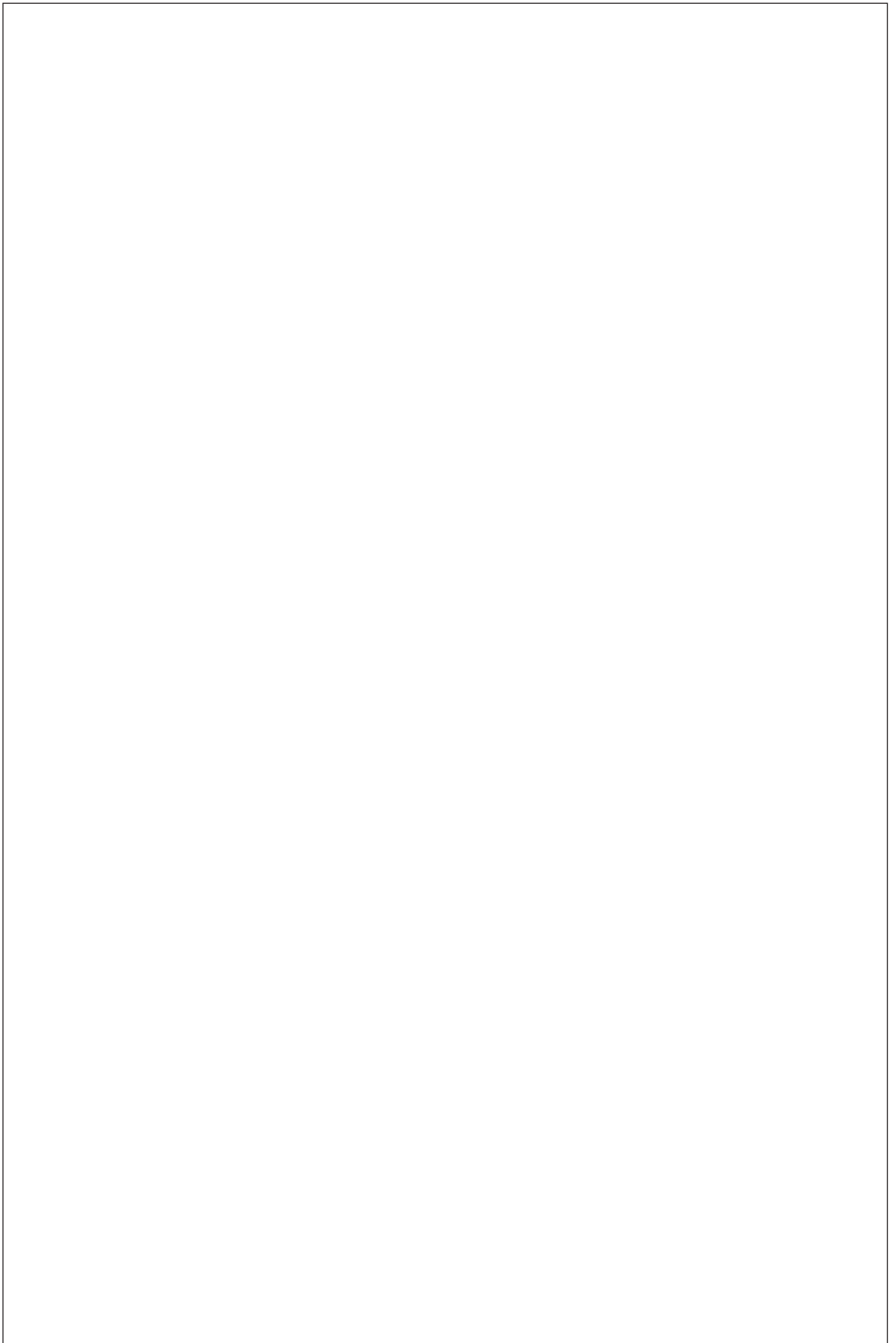
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## CHAPTER 5

# Poverty and Informality in Southeast Europe

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### Introduction

This paper looks at the informal economy from the perspective of the poor. It tries to identify some possible directions for dealing with the problem of informality as part of poverty reduction strategy. The empirical evidence is very patchy and the paper does not try in any way to be exhaustive. The analysis is based on the empirical findings of qualitative and quantitative studies on poverty and social assessments carried out in Southeast Europe by the World Bank over the last six years and focuses on the region of Southeast Europe (SEE), including Albania, Bosnia and Herzegovina, Croatia, the Federal Republic of Yugoslavia (FRY), the Yugoslav Republic of Macedonia (FYR), Bulgaria, and Romania. It argues that the major coping mechanism of the poor in most of these countries is informality, a way of coping with the many dimensions of poverty, beyond the common dimension of income. Using the concept of “informality” and not of “the informal economy” we argue that it is important to make comprehensive recommendations for policies that would reduce poverty with regard to the “informal sector”. The poor have to deal with informality both in the economic sphere and for those concerns related to the access to social services, network of solidarity, security, etc. It is therefore important for policy-makers to look at coping mechanisms and not just economic activity, as an integral aspect of poverty.

The countries of Southeast Europe have experienced three transitions: from a socialist system to a market economy; from state control to democracy, or to democracies in the cases of newly created states, and for the majority of these states from war to peace. Southeast Europe is an extremely diverse region and the trends in economic change have been different. There are various reasons that are central to the divergent outcomes. One factor is the dissimilarities in historical legacies; other factors include the substantial variations in the patterns of corruption and cronyism, the considerable disparities in the development of civil society, political parties, and the reform policies of the governments.

TABLE 1: GROWTH IN REAL GDP IN SELECTED SOUTHEAST EUROPEAN COUNTRIES

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002*
<i>Albania</i>	9.8	-10.0	-28.0	-7.2	9.6	8.3	13.3	9.1	-7.0	8.0	7.3	7.8	7.0	6.0
<i>B-H</i>	na	-23.2	-12.1	-30.0	-40.0	-40.0	20.8	86.0	37.0	10.0	10.0	5.0	5.0	5.0
<i>Bulgaria</i>	0.5	-9.1	-11.7	-7.3	-1.5	1.8	2.1	-10.9	-6.9	3.5	2.4	5.8	4.0	3.5
<i>Croatia</i>	-1.6	-7.1	-21.1	-11.7	-8.0	5.9	6.8	6.0	6.5	2.5	-0.4	3.7	3.8	3.0
<i>FR Yugoslavia</i>	1.3	-7.9	-11.6	-27.9	-30.8	2.5	6.1	7.8	10.1	1.9	-15.7	5.0	5.0	5.0
<i>FYR Macedonia</i>	0.9	-9.9	-7.0	-8.0	-9.1	-1.8	-1.2	1.2	1.4	2.9	2.7	5.1	-4.0	1.0
<i>Romania</i>	-5.8	-5.6	-12.9	-8.8	1.5	3.9	7.1	3.9	-6.1	-5.4	-3.2	1.6	4.0	3.5

Source: EBRD (2001), Transition Report. (\*EBRD forecast.)

Most Southeast European countries experienced a very rapid fall in GDP at the beginning of the 1990's due to the collapse of trading systems and war. Since the process of transition began, large sectors of the population have been marginalized and their living standards fallen abruptly. Although country-specific poverty levels are different, poverty increased everywhere in the early 1990s.

Most Central and East European (CEE) and Southeast European countries have seen a surge in informal activities, despite the fact that informality was already high under socialism, mostly to cope with the imperfections of the economic system. The changes in the legal framework and the superposition of new market-oriented legislation over the old laws inherited from the socialist system, have created a legislative confusion favoring the development of informal activities.

#### EUROPEAN UNION ACCESSION OF SOUTH EAST EUROPEAN COUNTRIES

The move to accession to the European Union is a key political priority in almost all countries of SEE. This motivation stems from political and economic ambitions as well as security concerns. The requirement to become an accession country relates to the progress of liberalization of trade, market, macro-economic policy, and the development and democratization of institutions. There are different trends in the progress in transition of SEE countries. At the Helsinki European Council in December 1999, accession negotiations with Bulgaria and Romania began. Due to various concerns, the EU was unwilling to open up prospects of accession negotiations with Albania, Bosnia-Herzegovina, Croatia, FR Yugoslavia, and FYR Macedonia. Thus as an alternative, the Stabilization and Association Process (SAP) became a way to move forward towards negotiations. In 2001, FYR Macedonia signed a Stabilization and Association Agreement (SAA) and was followed closely by Croatia and Albania. As EU accession prospects improved, structural reforms accelerated and in recent years FDI increased in Bulgaria and Romania while lagging behind in the other SEE countries.

The transition countries have undertaken far-reaching liberalization of their markets as well as reducing the barriers to structural change. Most of them are effectively working on the adoption of the *acquis*. Recently, some of the Central and Eastern European (CEE) countries showed an effort to reduce administrative barriers to start-up firms, through increased attention to the needs of small and medium enterprises. On the other side, the financial system remains an issue in most of the SEE countries. It is very rare to get venture capital and the formal financial system has little patience with new enterprises asking for financing with little or no collateral. Still, informal financial arrangements are flourishing (Åslund and Warner, 2002, p.3). For instance, Bulgarian recovery from the financial crisis of 1996-7 appears to have been financed without a formal functioning banking system. One of the main systemic problem of the transition countries is often seen to be corruption. According to a 1999 EBRD survey, within the CEE the average bribe tax as a share of total enterprise turnover is 3.6 percent (Åslund and Warner, 2002, p.16). The SEE accession countries can look forward to more aid from the EU, larger inflow of FDI and benefit from free trade which will have a positive effect on growth. Conversely, accession is accelerating institutional convergence with EU, which may also bring labor market and fiscal policies that increase unemployment and slow growth.

*Source: EBRD (2001).*

The social and economic dislocation of transition, along with the resulting drop in output, government revenues, and household incomes, accelerated the emergence of informality as a coping mechanism. This is mostly because the formal support system collapsed or was seriously weakened and could not cope with the increasing number of the poor.

TABLE 2: ABSOLUTE POVERTY RATES OF SELECTED TRANSITION ECONOMIES, 1995-1999

	Survey Year	Headcount index	
		2.15/day	4.30/day
Albania	1996	11,5	58,6
Romania	1998	6,8	44,5
Macedonia. FYR	1996	6,7	43,9
Bulgaria	1995	3,1	18,2
Croatia	1998	0,2	4

Source: World Bank (2000b).

This paper will look at informality from three perspectives: informality in the access to social services; informality in the access to employment and revenues; and, informality in the access to favors, security, and justice. It will also consider some of the implications for adoption of policies to reduce poverty.

## Coping with Informality

Looking at the various qualitative assessments undertaken by the World Bank and client countries in the region – assessments which registered the opinion of the people interviewed and in particular the poor – informality could exacerbate poverty, either directly or indirectly, through increasing inequality in the access to services and opportunities, increased vulnerability, and human abuse. It is also clear, however, that informality is an important coping mechanism when formal systems have collapsed or are under immense stress. People recognize that informality is harmful to their standards of living and to the distribution of income in general, but in most cases they have no choice because there are no viable formal alternatives. In some cases, however, there is a perception that through informal means it may be possible to get better deals by playing on connections or just by appealing directly for the understanding of the service provider. Indeed, in countries where formal cost recovery for services has been imposed to try and reduce under-the-table payments, it is not clear that the poor have been made better off. Regardless of this, informal payments are very important as a coping mechanism for the poor. In Bosnia and Herzegovina, for instance, according to the World Bank Diagnostic Surveys an average of 19.6 percent of the respondents who receive health care, education, police and judiciary services, pay bribes (money, gifts or counter service).



Around 7 percent of 600 respondents gave a bribe for education and 26.4 percent for health services (World Bank, 2001b). Obtaining a job is another argument found in some of the interviews to justify the fact that informality is not so bad after all for the poor (whereas if it was formal the job would not have been created in the first place because of the high indirect costs).

In the poorer Southeast European countries informality as a coping mechanism is prevalent due to a number of very straightforward factors. *First, the lack of fiscal capacity of governments, which has many consequences.* For example, social benefits and pensions are too low to survive on; in some cases they are lower than the poverty line. Health and education are insufficiently provided and staff employed in the social services is underpaid, which stimulates informal payments. Enforcement is very difficult, because the law enforcement personnel is generally underpaid.

*Second, the lack of capacity of state institutions, where capability to target benefits is low in part because of the large-scale informal sector but also because the capacity for outreach and support is limited.* Consequently, it is very difficult for the state to target subsidies for the poor and to introduce users fees for the wealthy. Moreover, non-governmental organizations (NGOs) and civil society in the region are also weak and not sufficiently organized to carry out the sort of support and outreach as they successfully do in the European Union countries.

*Third, the lack of formal organizations to support trade and economic activity.* Private sector activities are limited while the poor are numerous. This is both a cause and a consequence of poverty. Regional imbalances have increased dramatically with the transition to a market economy, mostly because the substantial subsidies supporting poor and isolated regions were sharply reduced. In addition, a large number of parastatal industries, which provided livelihood to whole regions in the past, suffered a decline or totally collapsed.

Small businesses, which have been so crucial for growth and employment in many countries, are still constrained in SEE by the lack of availability of formal credit for the poor. This is true for micro- and small enterprises in general because the banking sector is very weak. Micro-finance institutions have recently emerged in the region as a way to support informal sector activities, but the scale of these institutions is not yet adequate to meet the needs. Furthermore, there is an unclear legal and administrative framework for businesses: network connections for obtaining favors from the pre-socialist or war times persist. Their implications can be very negative: mafia, money laundering, and human trafficking are all based on such networks. There is much evidence that these networks, especially when they extend beyond particular communities, actually exclude the poor.

### INFORMALITY AND ROMA MINORITY

Many studies show that the Roma have been more vulnerable to the social impact of the economic transition in the region than other groups. The Roma is by far the group for which informal coping mechanisms are the most widespread. This is partly due to cultural reasons but overwhelmingly because of poverty. The Roma generally have a low level of education and professional skills, and thus find it difficult to compete for jobs. "Due to these reasons, along with discrimination in the labor market, they were the first to be laid off from state-owned enterprises, mines, and agricultural cooperatives during restructuring. Their access to social services in the transition period has been challenged by the new entry barriers, such as the informal and formal payments. Cultural prejudice and discrimination have also had their toll and in many countries these have increased with the social tension related to transition and war. They frequently live in isolated areas, and may lack necessary documentation for schooling, claiming social assistance or health benefits." (Ringold, 2000, p. viii). Moreover, the high prevalence of the Roma in the informal sector employment limits their access to insurance-based benefits, including health care and unemployment insurance.

The Roma minority comprises a considerable part of the population in many Central and East European countries and the former Yugoslavia. "They represent 6 to 10 percent of the population in Hungary, Romania, Slovakia, the former Yugoslav Republic of Macedonia and the Czech Republic. The Roma have long been a marginalized group and they have entered the transition period with lower levels of welfare and access to social services than the non-Roma." (Ringold, 2000, p. 52). These gaps have widened during the transition. "Poverty data confirm that poverty rates for the Roma far exceed those of the overall population. In Hungary, for example, the Roma are about eight times more likely to be in long term poverty than the general population." (World Bank, 2000b, p. 43). Health status is affected by poor living conditions; Roma housing is overcrowded and public services are inadequate. Access to clean water, sanitary facilities, and waste removal is lacking. Infectious diseases associated with poor living conditions are prevalent.

## *Informality in Access to Social Services*

### **Health Systems**

It is now quite clear that throughout Eastern Europe informal payments for health services are becoming critical for gaining access to these services. "While there is hard evidence showing health outcomes for the poor are more negatively affected than the rest of the population, it is clear that access to health is becoming increasingly dependent on whether a household can afford the informal payments to doctors and others practicing in collapsed public institutions and that the poor have the least ability to pay." (World Bank, 2000b, p. 9) Most social assessments show that loss of access to free health care is a growing concern to the poor and contributes to their sense of hopelessness and vulnerability.

Within the region the growing pattern of informal payments to doctors, hospital administrators, nurses, and others related to healthcare delivery (where these payments are unaudited and unreported), has implications for governance, equity and access. Recent research has provided convincing evidence that informal payments and more

generally out-of-pocket payments constitute a substantial portion of the healthcare expenditures in many countries in Europe and Central Asia (ECA). The World Development Report of 1993 on healthcare gave an estimate of 25 percent of the spending in Romania and 20 percent in Hungary came from out-of-pocket payments and gratuities. A survey of urban residents in Bulgaria, conducted in 1994, found that 43 percent of those respondents who had used health services in the previous two years had paid cash for officially free services in state-owned medical facilities. Similarly, a 1992 Bulgarian survey had found that 34 percent of the respondents had used a “connection” to receive medical care.

Another extremely common form of informal payment comes in the form of in-kind gifts to physicians. In Bulgaria the bulk of informal payments constitute gifts, including food. In many cases the value of the gifts is small – for instance, flowers or alcohol. Other types of in-kind payments, however, may include car repair or other services. Such payments, she argues, are often expressions of gratitude – given after successful or complex treatment. They may be given, however, as a form of insurance in order to guarantee security and good will in case of future illness. This is actually a widespread phenomenon in rural areas in the European Union and might not have particularly negative consequences.

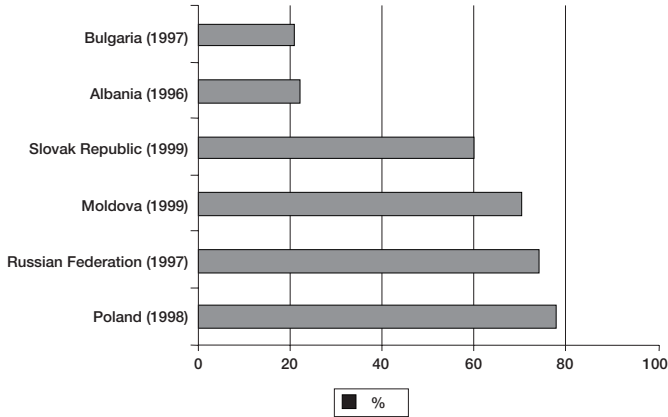
Recent research has identified a number of potentially negative impacts that informal payments have had on health care, including decreased access to healthcare for women and the poor. These informal payments, however, also allow for services that the state cannot fund to continue to exist. The problem once again is not the informal payment but the under-funding of health services. The relationship between informal payments and access is complex. It may not make much difference to the poor whether high health fees are official or unofficial, as obstacles would be equal in both cases. Informal payments, however, make it impossible for the government to modulate health fees in order to facilitate access by the poor.

Health indicators and anecdotal evidence suggest that the increase in out-of-pocket payments has substantially brought down the utilization of healthcare facilities. People tend to utilize these facilities only under exceptional circumstances. The evidence on the effects of co-payments in the US suggests that prices have a stronger effect on the decision to initiate treatment than on the amount of care obtained once treatment has begun. Moreover, many of the studies show that the poor have been forced to pay an increasingly larger percentage of their income on healthcare over the last six years.

On the other hand, the demand for informal payments may simply arise out of the need to survive as in many Southeast European countries the official salaries of medical personnel are below the average of public sector employees, i.e. very close to the poverty line.

The introduction of health insurance systems also has a negative impact on access because of the large informal sector in these countries. As seen in Romania as well as many other countries in the region, the poor in the informal sector do not have formal

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 FIGURE 1: SHARE OF PATIENTS MAKING INFORMAL PAYMENTS IN SELECTED ECA COUNTRIES


Source: World Bank (2000b).

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labor contracts, so no contributions are made by their employer or by themselves to the state pension funds or for healthcare benefits. The result is that these individuals are not eligible for those services and that little money is actually paid for health insurance.

The recent qualitative poverty assessment for Albania has shown that the quality of health and access to healthcare is a serious issue in Albania. Some 41 percent of the people surveyed believe that the health of the households has worsened since 1990 (World Bank, 2001a, pp. 60-68). Principally, for those who are at the bottom of the socioeconomic ladder – those in rural areas without access to key infrastructure, such as water and sewage systems – health and healthcare conditions are worse. The quality of healthcare delivery has declined in cities, villages, and rural areas in general. Many doctors and nurses are leaving the profession due to low incomes. Without enough staff and sufficient funds, health care delivery in many rural areas has practically ceased to exist. As a result, many of the medical staff work informally out of their houses and charge informal fees for their services but most of the poor cannot afford to pay these fees. All of these factors contribute to the declining health of the population (ibid.).

### Education Systems

The role of education is very influential in preventing people from falling into poverty. The link between education and poverty is similar to that between unemployment and poverty as unemployment rates fall with every additional level of education. There are poor people at all educational levels in the SEE. The education sector also suffers due to the under-funding and low wages for teachers, especially in primary education, with

the pre-school level having practically disappeared from whole areas in this region. Informal payments as well as formal fees are now widespread. The poor suffer from the larger level of bribes than the non-poor households. According to various World Bank poverty and social assessments, in most of the SEE countries the amount of per capita education subsidy is roughly the same across income groups.

Informal payments are made to support classroom maintenance, payment for heating or energy, and to purchase basic instruction materials in poorer regions. This is a practice that also exists in the EU. In the SEE countries informal payments are not just supposed to guarantee commitment by parents but rather to allow for basic functioning of the schools. Tension arises between those who can pay and those who cannot pay, thus creating an impression among the poor that they cannot contribute; as a result, a sense of being excluded appears among the latter.

Informal payments to teachers are another very important aspect of informality. In most cases they go for tutorials and evening classes. This phenomenon *per se* is not negative, but it can be if teachers pay much more attention to these evening classes than to their regular classes during the day. A more serious cause of concern are direct payments to teachers, or in some cases bribes, for passing grades or letting students advance from class to class. This penetration of informality into the classroom contributes greatly in limiting the access to quality education for the poor.

According to a recent qualitative poverty assessment for Albania, most people feel that the quality of education has declined over the past ten years. The overall decline in educational quality and education levels has highlighted some very worrying trends, such as emerging illiteracy in some rural and newly formed urban settlements. Teachers' salaries are very low and the social status of educators has declined in the past ten years. This reduces the incentives and hurts the motivation of many teachers, inducing them to look for informal payments and gifts. There is evidence that some people withdraw their children from school when they are at an age to work to cope with poverty. Some families cannot afford the incidental costs of sending their kids to school especially in an environment of reduced educational budgets for households. With the difficult economic conditions of transition, a number of people no longer value education as much as they did before the transition - their top priority is just to survive.

### **Social Protection**

The interaction between informality and social protection raises two very different issues. First, the poor tend to rely on informal mechanisms in the traditional areas of social protection, including help for the elderly, the extended family, the handicapped and for those in extreme poverty. As it was mentioned above, the high demand for benefits from the state and the low level of public funds available for this purpose in many of the countries under review limit the effectiveness of social protection systems. Consequently, many people among the elderly, from large families, handicapped, or others have been

left with no other means than their own or family support. The second issue is that the high level of informal activities considerably limits the financing available for formal social protection, especially in countries, in which payroll taxes constitutes the largest source of funds for pensions and other forms of support, such as unemployment benefits.

The study on local level institutions in Bosnia and Herzegovina (World Bank, 2002, pp. iii-v) has identified a wide range of informal support mechanisms between neighbors and kin: “the main forms of material assistance are monetary assistance, donation of food and commodities, sharing of collective charges, cooperation in building and repair of houses, and cooperation in maintenance of apartment buildings. Monetary assistance is most frequently related to traumatic events such as fire, illness, accident, or death. Donations of food and commodities are closely linked to the impoverishment of the post-war period.” The study also shows that this type of solidarity varies according to regions and the period during which communities have lived together. This type of support is more widespread in countries, which have undergone major traumatic events, such as war, but it is also common in rural areas in Albania and particularly strong within some ethnic communities like the Roma, for instance.

The Bulgarian poverty assessment raises some serious concern about the state of social protection systems. With the exception of guaranteed employment Bulgaria’s pre-transition social protection system, consisting of pensions, short-term benefits for illness and maternity, family allowances, and in-kind social assistance programs and institutions, still remains intact. Since the beginning of the transition government policies involving early retirement options for laid-off workers and the benefits made available under new programs, have led to an increase of the number of people receiving income support through state social protection programs. Still, cumulative social insurance payroll tax rates today are higher than before. The rates were raised in an effort to cover rising costs and compensate for shrinking contributions – the result, in turn, was higher unemployment, arrears by state-owned enterprises, and non-compliance by the growing private sector (World Bank, 1999b, p. 48). Moreover, almost everywhere in Bulgaria it is a common practice that people use connections, patronage, family and friends networks to deal with everyday problems. Kinship and friends networks are seen more as moral support than functional. Some argue that your career depends on your resources especially on money and connections, rather than on skills and qualifications (World Bank, 1999d, p. 79).

### *Informality in Access to Revenue and Employment*

#### **Informal economy and unemployment**

Unemployment has become a feature of the transition economies of Southeast Europe. Unemployment figures, however, do not account for the many people who work now in

the informal sector. Analyses of informal employment in social assessment and other qualitative studies have emphasized the insecurity, hard work, very long hours, extremely low wage rates and sometimes dangerous working conditions. The unemployed rarely choose to become involved in informality, preferring the security of formal employment. Nevertheless, the lack of formal employment, coupled with an inability to meet household needs in the absence of welfare benefits or because of the inadequacy of the available assistance, encourages people to turn to the informal economy in response. Others, likewise, see the informal employment strategies of the unemployed as a part of a survival strategy, through which some individuals develop alternative ways of working in the face of the existing limited opportunities and the failure of the welfare system. Informality enables the unemployed poor to get some basic income, but what is more important, it may help them maintain a sense of self-confidence.

Enterprise restructuring and the privatization process has led to painful worker layoffs in Romania. Even though the data on the size of the economy is questionable, Romania has a considerably large informal economy which is estimated at 40 percent of GDP by the US Treasury. In the qualitative research done by the World Bank staff, it was estimated that maybe up to 80 percent of the unemployed worked, in fact, in the informal sector. According to the qualitative and quantitative research done in December 2000 most of the informal sector work is in agriculture, construction, trade, and in some service sectors (World Bank, 2000c).

Most individuals work in the informal sector only if they have to, or if they can supplement their informal sector earnings with their unemployment benefits and the social services, such as health care, that are available with these benefits. First of all, for the vast majority, informal sector wages are very low. In Albania average monthly informal sector wages range from ROL 300,000 to ROL 750,000 (\$16.70 to \$41.65) per month for full-time work, which is only about half of the average monthly formal sector wage (World Bank, 2001a, p. 32). The more illegal the work, the higher the wages, as well as the higher risks and fines if caught. Second, informal sector employment is often irregular and uncertain. Employees believe that employers will only hire someone for a maximum of three months or less. In the qualitative research, "many unemployed workers claimed they could only find about five days of work per month" (World Bank, 2001a, p. 98).

A social assessment of poverty in Bulgaria shows that the changing situation of the labor market leads to an acceptance of illegal activities. The actual loss of jobs in the public sector and the collapse of state-guaranteed job security has made it acceptable not only to be involved in simply illegal acts but also in criminal activities for the purpose of survival. These include burglaries, pick pocketing, muggings, theft as well as prostitution and drug dealing. Some people argue that in the case of Varna, where in 1999 80 percent of the active population was unemployed, this was compensated by a very large involvement in the informal economy (World Bank, 1999d, p. 50). For

TABLE 3: UNEMPLOYMENT (ANNUAL AVERAGE, %)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
<i>Albania</i>	24.8	16.1	13.9	9.3	14.9	17.8	18.0	16.8	na
<i>B-H</i>	na	na	na	na	37.0	38.0	40.0	40.1	na
<i>Bulgaria</i>	16.4	12.8	11.1	12.5	13.7	12.2	16.0	17.9	na
<i>Croatia</i>	14.8	14.5	14.5	10.0	9.9	11.4	13.6	16.1	na
<i>FR Yugoslavia</i>	23.1	23.1	24.6	25.8	25.8	25.1	26.5	27.3	na
<i>FYR Macedonia</i>	28.3	31.4	37.7	31.9	36.0	34.5	32.0	32.1	na
<i>Romania</i>	10.4	10.9	9.5	6.6	8.9	10.3	11.8	10.5	na

Source: EBRD (2001).



example, women in this community were all unemployed and engaged in informal and criminal activities because they did not have a choice. Moonlighting is another strategy for private households or businesses – they hire mostly Roma people and off the books.

Formal micro businesses and self-employment, which have been a very fast growing sector in recent years in the European Union, face very large constraints in Southeast Europe. “The underdeveloped market environment as well as the poor legal framework, the petty corruption among the law enforcement authorities and bureaucrats, and the lack of credit does not help the situation of the poor in spite of the recent emergence of micro-finance opportunities for a small percentage of the poor. All this leads to a vicious circle: the informal economy – dodging taxes and social contributions while taking advantage of public goods and services – increases the budget deficit and is an immediate cause for raising taxes and social contributions which are a heavy burden on lawful activities” (World Bank, 1999d, p. 52). In turn, high taxes depress economic activity and income stabilization, which brings us back to square one, making informality a mechanism of survival and coping, especially for the poor.

#### INFORMALITY AND WOMEN IN THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

Recent qualitative assessment in FYR Macedonia suggests that women’s involvement in the informal sector is likely to exceed that of men. Emerging new barriers to women’s participation in the formal economy often create conditions for their involvement in informality. Many end up in the informal sector out of necessity rather than choice. Some of the opportunities available to women in the informal economy include the time flexibility it can offer to allow them to reduce the conflict between work and household life.

Recent trends in the newly developing private sector show that women earn less than men in the private sector, though at similar levels of education, experience, occupation and industry, particularly in rural areas. The gender wage gap is purely explained by discrimination, as women have on average much more industry, occupation and other factors. The lack of contract enforcement in the private sector, increasing informalization of the economy, the higher cost of hiring women (generous maternity benefits, etc.), and other discriminatory behavior towards women workers, are some reasons for the lower wages of women compared to men.

A small number of interviewed women were engaged in skilled work, knitting sweaters, weaving, or in making traditional garments (mostly in the western region) at home. Some women work in the informal sector as seamstresses. Women in urban areas most often work as cleaning ladies in buildings and apartments. In many households from the urban areas, prostitution was mentioned as a way of survival. In rural areas, poor people work as day laborers on other people’s land (cutting, digging, sawing and similar) or mind cattle, mainly during the summer months. The informal work described in household interviews is arduous, seasonal or occasional in nature, requiring a long search period, and is often available only during the summer months. Women selling traditional garments also cited reduced demand for their work as a result of increased competition from workers in Albania. Many women said that it was easier to find work a few years ago. They related that even seasonal work opportunities, for example, the extraction of sugar turnip; picking apples, sour cherries and other fruit in orchards; or work at hotels, are now few.

*Source:* World Bank (1999c).

In a poverty assessment of FYR Macedonia, carried out in the framework of the preparation of the poverty reduction strategy, most interviewed households claimed that it was not possible for them to obtain loans to start a small business, mainly because they could not obtain mortgage at affordable rates. Most of the unemployed have a lot of ideas and interest in what they would do (e.g. open cattle-breeding farms or craft workshops, or market products) if they could get credit on favorable terms. With no access to financing and credit, and unbearable unemployment, most households are led to engage in illegal or semi-legal trade to survive. Others, with a small amount of capital (savings from better times, loans from relatives), engage in smuggling. They buy goods, food, textile products, jewelry, alcohol or cigarettes from duty-free shops in Bulgaria and Turkey and sell them in the markets or on the streets (the so-called suitcase trade).

### Informality in obtaining favors, justice, and security

The World Bank poverty assessments in Southeast Europe include many references to informality as an important way to obtain essential administrative documents, pressure the judicial system, and achieve the cooperation of the law enforcement personnel. Many poor people see the lack of fair access to the legal system and the lack of security as major components of poverty.

The lack of trust in the legal system and the possibility for people to have influence on it in a non-transparent way are major issues. It is very difficult to get precise information in this area but it is obvious that petty corruption of law enforcement officials is widespread in the poorer countries of Southeast Europe. In most of the social assessments lack of trust in the legal system and in law enforcement mechanisms are seen as the main obstacles for the poor to start a business. The development of micro, small and medium-size enterprises in the region is severely constrained in particular by poor and arbitrary enforcement of legal, regulatory and administrative rules. Excessive bureaucratic procedures and practices have a strong disincentive effect on the creation and growth of enterprises.

In Albania the qualitative poverty assessment has shown that the traditional form of justice is administered through the *fis* clan, based on a council of elders and the *canun* system (a traditional legal system), and is now widespread in the poorer Northeastern part of the country. This mechanism tends to provide some form of stability inside clans but is not effective in dealing with problems between clans; it also encourages blood feuds and revenge. In some areas, such as Skhodra and Northern Kukes, families reportedly are confined to their own homes to protect themselves during a feud, not even being able to get access to their land. These are quite extreme cases for Southeast Europe but they indicate how broadly informality has expanded to areas such as justice and security.

In terms of security, the interviews with the poor in Bulgaria, confirmed that in general poor people do not feel secure. It was implied that even if you are assaulted or

beaten up, nobody will intervene and it would be better to stay away from the police, or they will beat you up or laugh at you because they do not want to spoil their records by registering another crime on their territory. Only those who are rich and powerful are not afraid of anybody (World Bank, 1999d, pp. 29-30). Others saw humiliation, absence of rules, domestic violence and depression as major impacts of poverty.

## **Lessons for Policy**

The difficulty of the transition and the post-war reconstruction in most of the Southeast European countries have pushed many social actors, individuals, firms and even public institutions to operate in the informal sector. This has been overwhelmingly the case for the poor. The complete elimination of the informal economy is unrealistic as European Union governments themselves realize. No significant reduction of the informal sector will occur unless there is improvement in the general economic situation and in the policies supporting those who are seeking survival within the informal sector.

For instance, the Romanian government attempted to reduce the size of the informal economy, but the emphasis has been on punishment rather than on prevention through use of incentives - laws and institutions were created to control and fight the black market and tax evasion. These policies have not really been effective and the informal economy continues to expand in this country. The business environment has not improved and the country has not become more attractive for foreign investors.

What is most important is to try to differentiate between the informal economy, which helps the poor to cope, and the informal economy, which has large negative externalities on the economy as a whole and on the welfare and basic rights of the poor. This differentiation is especially important in situations when the state cannot really take its full responsibility for social support and human development because of shortages of funds and weak capacity. In this case trying to reduce informal support and services would bring the risk of further excluding the poor.

### *Improving Access to Social Services*

Incentives for promoting self-help among the poor are needed. Finding mechanisms allowing for flexible "officialization" of the informal coping mechanisms, which can have a positive impact on the poor should be part of the strategies to deal with informality. For example, give responsibility to parent-teacher associations for some part of school maintenance and teaching materials and at the same time create school funds, which include mechanisms to have the poor exempted. Encourage national NGOs to support school maintenance in particularly poor regions. Have community-based targeting systems that allow municipalities to exempt some households for payment for services but in a transparent and informed way. Encourage local associations to set-up food distribution and other programs.

### *Reforming Regulatory and Legal Frameworks*

For these programs to work, it is essential to create a supportive environment for community based organizations, NGOs, and other civil society organizations and, in particular, to reduce to the minimum the administrative requirements for registration, reporting, licensing, etc. The mechanisms, however, need to be very clear, well defined and transparent enough. Very often for this to work the government needs to take action at the national level. Establishing an appropriate legislative framework for associations and the not-for-profit sector is very important. This framework needs to provide for flexibility and ease of registration but they also need to protect the right of the members and avoid abuse. In some countries, things can get quite complicated, especially if these associations are supposed to enter into partnership with central or local governments and use public funds.

On the other hand, law enforcement and prevention activities need to be strengthened in the area of drug and human trafficking as well as larger informal activities benefiting mafias. This is a very urgent issue in Southeast Europe, for which international assistance is definitively required.

### *Employment Creation*

Sustainable poverty reduction for Southeast Europe is also dependant on positive economic growth, based on a vibrant private sector. Such a private sector should not only provide the necessary employment and higher income, but also the tax base for sustained funding of public health care, education, social safety nets, agricultural research and other critical programs, which have a positive impact on the poor. Improvement of the conditions for the poor, who are surviving via informality, will only occur in a favorable business and investment environment. The lack of an effective legal and regulatory framework remains a major impediment to successful private sector development.

In the employment-creation and revenue-generating area micro-credit has an important role to play. Many promising experiences should be better assessed to see the potential for replicability. In Croatia, the Catholic Relief Services (CRS) have very interesting credit and saving schemes. The World Bank is supporting a very successful program of micro-credit in Albania, which promotes credit and saving systems for village associations. The area of micro-credit offers very interesting potential for development and is certainly a way to compete with the informal credit system in a way that benefits the poor. Technical support is important for micro-enterprises. Here again the legislative framework is very important. Croatia has been preparing a law for the last two years to allow non-banking institutions to do some micro-lending and to expand some of the pilot projects, which have been started by NGOs and others. The development of the region's micro-, small- and medium-sized enterprises is severely

constrained by the poor business climate, lack of finance, and inadequate infrastructure. The legal and regulatory environment impacts differently on different enterprises, entrepreneurs and households. It can have a particularly negative effect on micro-enterprises, for which excessively bureaucratic procedures and practices have an important disincentive effect on start-up and growth. Programs to support SMEs and micro-enterprises are often thought of as key interventions to support the poor. Small enterprise, and in particular micro-enterprise development, is certainly an important way to increase employment, create a more regionally balanced development and empower people in general.

In the area of trade legislation needs to be changed in order not to criminalize people for doing small trade for survival. There is quite a rich experience in the EU in this area. Simplification is necessary for the tax and registration systems for small traders. Additionally, legislation should be enacted to reduce the level of taxation and provide clear rules of the game in order to reduce petty corruption from law enforcement officials, which can be a major source of difficulties for the poor.

Furthermore, for small businesses the intractable problem of corruption must be addressed through a mix of internal and external efforts that involve the state, the private sector and civil society. Donors could make substantial investments in civic monitoring efforts and in the creation of business coalitions, which promote good government, transparency in financial transactions, deregulation and simplification of registration, taxation and inspection procedures.

In the poor countries of Southeast Europe, in which potential for large savings is limited and informal activity is widespread, financing social protection and health insurance through payroll taxes does not seem to be appropriate. It can only increase the rigidity of the labor market, be very costly in terms of tax collection and ineffective in mobilizing savings. It also contributes to social exclusion by not covering people employed in the informal sector - this is particularly relevant for health insurance. A major effort in this area is needed by governments and donors to find more effective ways of financing social programs.

### *Improving Public-Private Partnerships*

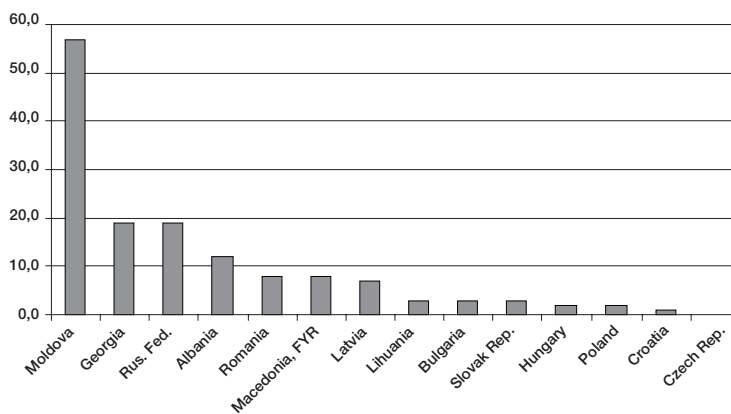
It is important to give a stronger voice to communities in order to fight petty corruption and devise mechanisms which would require local civil servants or municipal employees to be more accountable to the poor. This is an area where quite a lot could be done. In Tirana, for instance, the mayor is setting up a report card system on the delivery of basic services by the municipality. The mechanisms will get feedback from citizens on the quality of services through regular surveys and focus groups. Additionally, a mechanism of participatory monitoring and evaluation for health services is under preparation in Albania, involving users of healthcare services and aiming at providing feedback on the quality of these services.

We have tried to demonstrate that in the poorer EU accession countries, the poor cope mostly through informality. The governments are not capable of providing the adequate safety nets that would allow the poor to survive without informal relationships. It is therefore important to ensure that whatever measures are taken towards the informal sector they do not contribute to worsening the situation of the poor. In this paper we tried to indicate some possible ways for governments to reduce the negative impact of a large informal sector with pro-poor policies. More understanding is needed on these informal relationships to identify adequate policy measures. This is the reason the World Bank is launching a number of studies in the region on local-level institutions and social capital, which will hopefully improve our understanding of some of these issues.

## ANNEX

*Other Related Tables and Figures*

FIGURE 1: PERCENTAGE OF THE POPULATION LIVING IN ABSOLUTE POVERTY IN VARIOUS ECA COUNTRIES



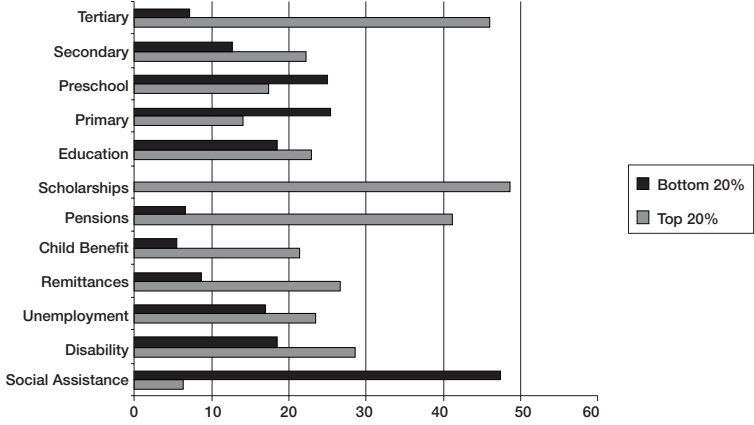
Source: World Bank (2000b).

TABLE 1: INCIDENCE OF PUBLIC EXPENDITURES ON EDUCATION IN SELECTED COUNTRIES

Country	Preschool	Primary	Secondary	Tertiary
<i>Romania (1997)</i>				
Bottom 20%	-	21	26	10
Top 20%	-	10	12	24
<i>Bulgaria (1997)</i>				
Bottom 20%	23	21	16	11
Top 20%	-	-	-	-
<i>FYR Macedonia (1996)</i>				
Bottom 20%	24,9	25,4	12,6	7,1
Top 20%	17,5	14	22,3	46
<i>Albania (1996)</i>				
Bottom 20%	-	27	7,2	7,5
Top 20%	-	11,8	32,3	31,6

Source: World Bank (2000b).

FIGURE 2: FORMER YUGOSLAV REPUBLIC OF MACEDONIA, COMPARATIVE EFFICIENCY OF TARGETING: SHARE OF TOTAL PUBLIC SPENDING RECEIVED BY THE POOR





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