

The German Shadow Economy: Parted in a United Germany?

by

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This paper analyzes differences between shadow economic activities in the western and eastern part of Germany. Due to new empirical results easterners' engagement in shadow economic activities seems to be lower than the engagement of their western neighbors. How can we explain this seemingly parted shadow economy in an otherwise united Germany? We show that current explanations of shadow economies are far from sufficient in explaining different shadow economic activities in Germany. Hence, additional arguments are presented recurring to an institutional perspective.

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1. Introduction

So far, empirical evidence indicates that shadow economies are an important economic factor in industrialized nations (see Schneider, 1997, and Schneider and Enste 2000a, 2000b). With shadow economic activities reaching around 15 % of GDP, Germany is situated in the middle field of OECD-states. Thus, the German economy is neither burdened with such a high share of shadow economic activities like, for instance, Italy nor does the German shadow economy have the relatively small size of, for example, Switzerland's shadow economy. Still, Germany is a special case: The unification of very different political, economical, and social systems has clearly left its mark on the economic environment of united Germany. Even now, more than ten years after unification, people in East Germany face a different economic environment than people in the West. Hence, the question arises whether these differences in the official economy are reflected in the shadow economy, too. And indeed, due to new empirical results easterners' engagement in shadow economic activities seems to be lower than the engagement of their western neighbors. Do we face a parted shadow economy within united Germany?

In the present paper, we will use these new empirical findings to test current explanations of shadow economies. Generally, shadow economies are seen to present the dark side of modern welfare states: It is argued that especially tremendous tax and social security burdens motivate private actors to opt for the "irregular" alternative, that is for "black labor" (in the sense of *Schwarzarbeit*). Unfortunately, exactly these stressed causes cannot be used in order to explain different activities within the same institutional frame, as it is the case with united Germany. Therefore, we will present additional arguments recurring to an institutional perspective.

The paper is structured as follows: After presenting the empirical findings of shadow economic activities in Germany in section 3 current explanation of shadow economies are tested with respect to the differences in the size of the shadow economy between East and West Germany. As these current explanations proof to be unsatisfactory we will present new arguments in section 4 taking an institutional perspective. Section 5 summarizes our line of reasoning.¹

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2. Shadow Economic Activities in Germany

Whereas the activities in the official economy have legal ends and are conducted by legal means, shadow economic activities comprise of (a) transactions with legal ends but performed by violating laws and regulations (e.g. fiscal rules, rules concerning social security payments, labor market regulations) and (b) criminal activities. Having illegal ends, criminal activities such as drug dealings cannot be conducted in any way other than illegally (see Bromley, 1994, p. 133, referring to de Sotos, 1989, concept of informality).

In order to avoid sanctions being imposed on such illegal behavior people try to hide their shadow economic activities. In consequence, most of these activities are not captured by the officially estimated GDP. Below, we will leave criminal activities aside and rather concentrate on sales of legal services and goods, which are not reported to the tax authorities, for which no social security payments are made, and which usually go alongside with the disregard of other market regulations (for instance licence requirements). In addition, we will refer to do-it-yourself work as shadow economic activities, too. Despite its legal character, do-it-yourself work presents another alternative or substitute for legal market-activities and should, therefore, be incorporated into the analysis.

At first sight, empirical results indicate that German shadow economic activities are structured quite in the same way as shadow economies of other OECD-states are. Before we proceed in giving an overview of what these main characteristics of shadow economies are, a short note concerning the quality of the measurement results is needed: For obvious reasons gaining knowledge on shadow economic activities, for instance their extent, what kind of activities they are, who they perform etc., is not an easy task to achieve. The illegal nature of shadow economic activities presents a severe hindrance for any measurement. Generally, current measurement approaches can be divided into two subcategories: macroeconomic and microeconomic approaches. Using national account statistics the size, that is the extent of the shadow economy, can be estimated via macroeconomic approaches. Microeconomic measurement approaches are based on direct statistical approaches, that is on information given through interviews. Both approaches are able to highlight different aspects of the shadow economy. But they are far away from being perfect. To the contrary, each approach is flawed with severe measurement problems. Still, compared to the alternative of pure guesswork working with these measurement results, as imperfect as they may be, seems to be a defensible choice.

2.1. Macroeconomic Characteristics

As already indicated in the introduction, the shadow economy has been growing in most OECD-states since the early 70s and has reached a size of bigger than 10% of official GDP for most countries. In table 1 the results of the size of the shadow economy of 21 OECD-countries are presented using mostly the Currency Demand Method². From this table one can clearly see that the Southern European countries (Greece, Spain, Portugal and Italy) have by far the largest shadow economy, reaching the size of almost 30% (Greece 28.5%, Italy 27.0%). This group is followed by the Scandinavian countries which in the year 2001/2002 have a shadow economy of an average of almost 20% (Sweden 19.1%, Denmark 17.9%, Finland 18.0%). Germany is situated in the middle-field with a shadow economy of about 16.3%. At the lower end are Switzerland and the United States with the shadow economy of 9.4% (Switzerland) and 8.7% (United States).

² The currency demand method assumes that shadow economy activities are paid in cash. Hence, a currency demand function is econometrically estimated over time, including the usual independent variables (interest-rate and income-variable, etc.) and adding independent variables for the various causes, why people work in the shadow economy, like the tax burden, regulation, etc. Isolating the amount of currency used for the causes why people work in the shadow economy, assuming that the velocity of money is the same as in the official economy, value-added values of the shadow economy can be calculated. The currency demand approach is described and criticized in much more detail in Schneider and Enste (2000b). In this survey all other possible methods to estimate the shadow economy are presented and the advantages and disadvantages are shown.

Table 1*Size of the Shadow Economy of OECD Countries 1989 - 2002*

OECD-Countries	The Size of the Shadow Economy (in % of official GDP) using the Currency Demand Approach					
	Average 1989/90	Average 1991/92	Average 1994/95	Average 1997/98	Average 1999/2000	Average 2001/2002 ¹⁾
1. Australia	10.1	13.0	13.5	14.0	14.1	14.1
2. Austria	6.9	7.1	8.6	9.0	9.6	10.6
3. Belgium	19.3	20.8	21.5	22.5	22.3	22.0
4. Canada	12.8	13.5	14.8	16.2	16.1	15.8
5. Denmark	10.8	15.0	17.8	18.3	18.2	17.8
6. Finland	13.4	16.1	18.2	18.9	18.2	18.0
7. France	9.0	13.8	14.5	14.9	15.1	15.0
8. Germany	11.8	12.5	13.5	14.9	16.0	16.3
9. Greece	22.6	24.9	28.6	29.0	28.8	28.5
10. Ireland	11.0	14.2	15.4	16.2	16.0	15.7
11. Italy	22.8	24.0	26.0	27.3	27.1	27.0
12. Japan	8.8	9.5	10.6	11.1	11.0	11.1
13. New Zealand²⁾	9.2	9.0	11.3	11.9	12.0	12.6
14. Norway	14.8	16.7	18.2	19.6	19.2	19.0
15. Portugal	15.9	17.2	22.1	23.1	22.8	22.5
16. Spain³⁾	16.1	17.3	22.4	23.1	22.8	22.5
17. Sweden	15.8	17.0	19.5	19.9	19.2	19.1
18. Switzerland	6.7	6.9	7.8	8.1	8.3	9.4
19. The Netherlands	11.9	12.7	13.7	13.5	13.2	13.0
20. United Kingdom	9.6	11.2	12.5	13.0	12.8	12.5
21. USA	6.7	8.2	8.8	8.9	8.8	8.7
Average of 21 OECD-Countries	13.2	14.3	15.7	16.7	16.8	16.7

Source: Own calculations.

¹⁾ Preliminary values; own calculations.²⁾ The values were calculated using the MIMIC-approach and the currency demand approach. Source: Giles (1999).³⁾ The values are from Mauleon (1998) up to 1994/95; afterwards own calculations.

In table 2 the development of the shadow economy for the three German-speaking countries (Germany, Austria, Switzerland) over time is presented.

Table 2

Development and Size of the Shadow Economies in Germany, Austria and Switzerland 1975 – 2002

Year	Size of the Shadow Economy (in % of GDP) using the Currency Demand Approach ¹⁾					
	Germany		Austria		Switzerland	
	in %	bill. €	in %	bill. €	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	147.0	5.47	7.2	6.20	22
1995	13.90	241.1 ²⁾	7.32	12.4	6.89	25
1996	14.50	257.6 ²⁾	8.32	14.6	7.51	27
1997	15.00	274.7 ²⁾	8.93	16.0	8.04	29
1998	14.80	280.7 ²⁾	9.09	16.9	7.98	30
1999	15.51	301.8 ²⁾	9.56	18.2	8.34	32
2000	16.03	322.3 ²⁾	10.07	19.8	8.87	35
(2001)³⁾	16.00	329.8 ²⁾	10.52	21.1	9.28	37.5
(2002)³⁾	16.49	350.4 ²⁾	10.69	21.8	9.48	38.7

Source: Own calculations.

- 1) Explanations: The size of the shadow economy can only roughly be compared between the three countries, as the currency demand equation is specified differently between the three countries and the causes are not the same in all three countries.
- 2) From 1995 values for the United Germany.
- 3) Forecast.

If we consider first Germany, we see that in the year 1975 the German shadow economy had values of 5.75% (of official GDP) which rose to 16.49% of official GDP in the year 2002. In Austria in the year 1975 the shadow economy was 2.04% and increased to 10.69% in the year 2002. A similar movement took place in Switzerland where the shadow economy in the year 1975 was 3.2% and rose to 9.48% in the year 2002. In all three German-speaking countries we observe a strong increase of the shadow economy, but by far the strongest in Germany, where in the year 2002 we have a shadow economy of 322.3 billion €

2.2. Microeconomic Characteristics

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 underline the (probably growing) relevance of shadow economic activities within economic systems, too (de Grazia, 1983; Schneider and Enste, 2000b). In a survey conducted by telephone interviews in March 1998 in Germany by IFAK with a representative sample of the responses of 1.000 persons 22 % admitted that they indeed had been working in the shadow economy³. Though microeconomic measurement approaches give information with respect to the overall size of shadow economic activities it is especially their detailed information on the different activities and on the people involved which are of interest in the present context. Shadow economic activities seem to form a natural part of market activities in Germany: Again in the IFAK-survey only 31.2 % 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. Instead, more than 60 % assumed that at least a quarter of their friends and acquaintances (23.1 %) up to almost all (13.2 %) had once or several times accepted the offer of black labor.

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

In congruence with other empirical results on shadow economies (see e.g. Dallago, 1990) shadow economic activities in Germany seem to be mostly concentrated in the areas of house

³ The survey was undertaken in the name of B.A.C. Burda, Munich. We would like to thank Burda Press for their very co-operative behavior. 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 especially true if this figure is compared with the non-response rate of other surveys e.g. in Canada (48 percent; see Lemieux et al., 1994), in the Netherlands (between 50 and 60 percent), and in Denmark (see Mogensen et al., 1995, pp. 7-9). For a detailed discussion on quality matters see the Appendix.

construction, renovation, car repairs, and servicing (see table 7 in the Appendix). Most of these services presuppose a certain income level. Correspondingly, the demand of black labor has its roots rather in the middle class than in low income groups (see also Gretschnann, 1984, p. 115).

A strong advantage of microeconomic measurement approaches over macroeconomic approaches is their ability to highlight possible motives of supply and demand of black labor. Especially high taxes are supposed to influence shadow economic activities decisively. The corresponding results of the IFAK-survey underline this assumption: Nearly two quarters of the respondents pointed to the tax burden in Germany as one of the main reasons for activities in the shadow economy. In consequence, the respondents stressed the possibility of saving money as an important reason for purchasing goods and services in the shadow rather than in the light. Throughout Germany about 90 % of the respondents thought this to be true. Thus, the price difference is the driving force behind the demand for unreported services. Interestingly, more than 60 % of the respondents argued in the same survey that without the possibility of buying goods and services in the shadow economy people had to abstain from them. Hence, the competition between the official and the shadow economy is not as intense as interest groups would like the public to think (see Schneider and Enste, 2000b).

2.3. East-west Differences in the German Shadow Economy

In addition to the empirical results presented so far, the already mentioned IFAK-survey holds some interesting information on shadow economic activities in East and West Germany, too: The representative sample includes the responses of 797 persons in West Germany and 170 in East Germany aged 14 years and over. Only 12.9 % of the respondents living in the Eastern part of Germany admitted that they had been working in the shadow economy in contrast to 24.5 % in West Germany⁴.

⁴ Generally, in the statistical analysis a confidence level to the degree of safety of 95 percent is used.

Table 3*Supply of Shadow Economic Activities*

“Honestly, have you ever done *Schwarzarbeit*?”

	Western Germans	Eastern Germans
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 between West and East Germany with respect to the extent of black labor 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 demanded services in the shadow economy (at least once) the respondents answered in the following way (see table 4).

Table 4*Demand of Black Labor in the Circle of Acquaintances and Friends (in Percent)*

“How many of your friends or acquaintances do you think have made use of *Schwarzarbeit* at least once?”

	Western Germans	Eastern Germans
Almost none of them	25.5 %	56.5 %
About 1/4 of them	23.2 %	21.8 %
About half of them	18.9 %	11.8 %
About ¾ of them	10.2 %	2.4 %
All or almost all	15.7 %	2.9 %
I do not know	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 % of the respondents in East Germany were sure that their acquaintances and friends refrained from purchasing goods and services in the shadow economy compared to only 25 % in the West. A similar contrast between the actions of people in East and West Germany can be noted concerning a high involvement in shadow economic activities. Whereas 26 % of the respondents in West Germany assessed that most (about three quarters) up to nearly all of their acquaintances and friends had at least once accepted buying goods and services in the shadow economy, only 5 % in the East answered in the same way. Again, comparing the answers of East and West Germans with respect to their differences, we get a statistical significance on 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 (see table 5).

Table 5

Unsolicited Offer of Black Labor (in Percent)

“Has anyone ever made you an unsolicited offer to provide you with a gray market service rather than a legal one?”

	Western Germans	Eastern Germans
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 East Germany only 12.4 % made this experience compared to 32.7 % in the West.

In table 6 the shadow economy of the German countries (*Laender*) is presented⁵. This has been done to provide further empirical evidence that the shadow economy in the former GDR (or *Neue Bundeslaender*) was lower than in West Germany (or in the *Alte Bundeslaender*) respectively. Table 6 confirms, that on average the East German *Bundeslaender* have a lower shadow economy compared to the overall shadow economy in Germany and to the shadow economies of most West German countries. For example, for the year 1999 the shadow economy of East-Berlin is -1.6% below the average shadow economy, the one of Sachsen of -1.1% and the one of Thueringen -1.5%. In general these results show that the shadow economy in Germany is growing, that there are some differences between East and West Germany, with the result that the shadow economy in the East German countries is lower.

⁵ The shadow economy figures for the *Bundeslaender* (states) are derived from the macro figure of Germany but weighted for each *Bundesland* with the amount of unemployment and early retired people. The argument is that the potential (supply) for shadow economy work is greater, ceteris paribus, the more people are unemployed and/or early retired, if the demand of the middle and upper middle income class is given, which is not the case for the former *DDR-Laender*. Of course, these figures have to be interpreted with great care, as shadow economy workers can easily cross the state boarder, and different demand effects due to the different income levels between the states were not taken into consideration. Hence, these figures are rough indicators, especially with respect to the differences between the states.

Table 6*The Size of the Shadow Economy of the German Laender of the Years 1995 and 1999*

German „Laender“	Size of the Shadow Economy in mio. € and <i>in % of official GDP</i>		Difference from the size of total Germany (in % of GDP) of the year 1999
	1995	1999	
Baden-Wuerttemberg	31 583.01 <i>12.55</i>	38 408.76 <i>13.38</i>	- 2.15
Bayern	39 686.48 <i>13.47</i>	48 705.15 <i>14.5</i>	- 1.03
Berlin West	10 452.34 <i>17.99</i>	12 495.97 <i>21.73</i>	+ 6.20
Berlin Ost	1 966.43 <i>10.1</i>	2 737.97 <i>13.92</i>	- 1.61
Brandenburg	4 607.76 <i>13.24</i>	5 754.08 <i>14.12</i>	- 1.41
Bremen	2 752.28 <i>13.99</i>	3 532.52 <i>16.48</i>	+ 0.95
Hamburg	7 086.51 <i>10.45</i>	9 248.76 <i>13.08</i>	- 2.45
Hessen	19 620.83 <i>11.74</i>	25 314.06 <i>14.2</i>	- 1.33
Mecklenburg-Vorpommern	3 518.20 <i>15.28</i>	4 415.52 <i>15.49</i>	- 0.04
Niedersachsen	25 565.11 <i>16.65</i>	32 082.54 <i>18.36</i>	+ 2.83
Nordrhein-Westfalen	57 594.47 <i>14.67</i>	72 946.52 <i>16.56</i>	+ 1.03
Rheinland-Pfalz	11 459.07 <i>14.86</i>	14 467.52 <i>16.46</i>	+ 0.93
Saarland	3 295.28 <i>14.9</i>	4 179.81 <i>17.28</i>	+ 1.75
Sachsen	8 377.01 <i>14.19</i>	10 451.32 <i>14.47</i>	- 1.06
Sachsen-Anhalt	5 104.23 <i>14.99</i>	6 320.08 <i>15.46</i>	- 0.07
Schleswig-Holstein	8 763.03 <i>15.98</i>	11 271.94 <i>17.81</i>	+ 2.28
Thueringen	4 499.37 <i>14.74</i>	5 465.20 <i>14.03</i>	- 1.50
All states together	245 931.39 <i>13.97</i>	307 797.71 <i>15.53</i>	0.0

Source: Own calculations.

As already argued, these empirical results must be taken with caution: Measurement problems generally undermine the quality of the empirical results. Important problems of microeconomic approaches are among others the dependency on how the questionnaire is formulated and on the respondent's willingness to co-operate as well as the usually small size

of the sample⁶. With respect to the empirical results of the IFAK-survey a more detailed discussion of some of these problems can be found in the Appendix.

3. Testing Current Explanations of Shadow Economies

Regarding these differences in the size of the shadow economy between East and West Germany the question arises how to explain them. Why are people in East Germany not so much inclined to buy or sell goods and services in the shadow economy compared to their counterparts in West Germany?

3.1. Current Theoretical Explanations of Shadow Economic Activities

Let us first have a look on arguments being commonly used in order to explain the existence as well as the growing size of shadow economies: The common view in the literature is that the shadow economy is a “manifestation of some kind of crisis” (Weiss, 1987, p. 217), that is of the malfunctioning of an economic system⁷. Excessive taxes, increases in social security contribution burdens and regulations are generally held responsible for the existence as well as for the growing size of the shadow economy in industrial nations (see Schneider and Enste, 2000a; 2000b). Though most authors come to this conclusion via macroeconomic approaches, microeconomic approaches also hint in that direction. With the "economic theory of black labor supply" (de Gijssel, 1984) based on the "income-leisure-approach" (Becker, 1965), the individual allocation of time between a regular job in the official economy, black labor in the shadow economy, and leisure time is analyzed⁸. Total wage costs, numerous regulations in the official labor market and the unemployment rate are seen to have a decisive impact on shadow economic activities (see Schneider 2001a; 2001b). The bigger the difference between the total cost of labor in the official economy and the after-tax earnings (from work), the greater is the incentive to avoid this difference and to participate in the shadow economy. Working-hour restrictions, for example, increase the potential hours that can be worked in the shadow economy. Especially in case of forced reductions in working hours people are more inclined to take the opportunity to work part-time in the untaxed and unregulated economy, as argued by de Gijssel (1984) and Riebel (1983; 1984). Unemployed are assumed to have an even

⁶ A detailed discussion on the advantages and disadvantages of direct approaches is given by Mogensen (1995) in a very carefully done investigation.

⁷ See for example Cassel (1986, p. 74).

⁸ See Shishko and Rostker (1976) and for an overview Trockel (1987, pp. 120ff). See also the empirical and theoretical work of Schwarze (1990).

higher incentive to work in the shadow economy due to their reduced income, plenty of leisure time, and clear disincentives to report their part-time work to the authorities because of an implicit marginal tax rate of nearly 100 percent⁹.

Another factor receiving more and more attention in the shadow economy literature are moral considerations, e.g. civic attitudes, tax morals etc. (see Pommerehne and Weck-Hannemann, 1992; Schneider and Enste, 2000a). Psychological factors already play an important role within the tax compliance literature¹⁰. To the puzzlement of many authors, individuals are far more compliant than traditional theories of tax compliance¹¹ might predict (Alm, 1996, p. 103; Andreoni et al., 1998). The reason for this behavior is given as the following: Because people are somehow emotionally bound to society and think they get enough in return for their tax payments (consumption of public goods, attention by politicians etc.), they feel obliged to pay their taxes even if the chances of getting away with tax evasion are fairly good¹². Hence, with respect to shadow economic activities, it is argued that people who lack the mentioned attitudes are more willing to work in the shadow economy or to purchase goods and services compared to loyal citizens. Though most authors agree on the decisive impact of these psychological factors on individual compliance decisions, there is still no agreement reached upon how best to include these effects in a theoretical or empirical analysis (see Allingham and Sandmo, 1972, p. 852). Unfortunately, the empirical evidence does not at all offer a clear picture on this matter (Berger and Schneider, 1998).

3.2. Unsatisfactory Explanations

On the grounds of the very shortly sketched set of theoretical explanations above, the assumed difference in the extent of shadow economic activities in Germany could only be attributed to either moral considerations or “traditional” economic factors (income, available time,

⁹ See for example Lemieux et al. (1994) who use micro data from a survey conducted in Quebec City (Canada) in order to gain more information on the labor supply decision in the shadow economy. According to this study, welfare recipients presented with 32.4 percent the most active group in the shadow economy followed by people being in school or unemployed (28 percent) (pp. 234-235).

¹⁰ A very comprehensive overview is given by Andreoni et al. (1998).

¹¹ Based on the model of Allingham and Sandmo (1972).

¹² With respect to law obedience in general see Levi (1988) and Tyler (1990), regarding tax compliance see Cowell (1990); Alm et al. (1992); and Kucher and Götte (1998).

unemployment, information about the legal system) as tax burdens, social security payments and regulations are the same in both parts of Germany.

Though explanations resting on moral considerations seem to gain constantly rising popularity under researchers, explaining the differences in shadow economic activities on moral causes does not lead to any useful conclusion in this case. It is possible to derive explanations for both, a larger as well as a smaller size of shadow economic activities in East Germany. On the one hand, one could argue that a perceived “imperialism” of the capitalistic system of West Germany might have provoked counteractions by the people in the East, so that they do not feel so much obliged to abide by the rules, especially if these rules are unfavourable to them. This argument would lead c.p. to a larger share of irregular activities in the eastern part of Germany. On the other hand, the argument may also seem plausible that living in a totalitarian state for 40 years has led to a profound trust in authority. In addition, the “Leninist legacies perspective” suggests that easterners' experiences under communism may have led them to disapprove of shadow economic activities as they involve the creation of an unequal labor market. In consequence, these morale considerations would cement the empirical findings of a smaller share of shadow economic activities in East Germany.

On the surface, the measurement results of the IFAK-survey offer more evidence for the latter hypothesis: The investigation of easterners' attitudes toward shadow economic activities reveal a striking, and highly significant, difference with respect to the issue of whether shadow economic activities should be severely punished or not (see table 8 in the Appendix). While fewer than 50 % of the respondents in the Western part of Germany favored severely punishing suppliers of shadow economic services, almost 70 % of the respondents in East Germany supported such penalties. A reason for this attitude might be found in the preference for equality, which seems to be higher in the Eastern part of Germany than in the Western part. From an egalitarian point of view it would be fairly inconsistent to accept the different working conditions being in place in the official and in the shadow economy. But why should these differences in attitudes lead to differences in shadow economic activities? The general line of reasoning here is that the easterners' attitudes toward shadow economic activities probably point to the existence of social norms or “informal institutions” like, for example, “You shall not sell or buy products or services in the shadow economy”. Institutions are commonly shared rules that are endowed with an enforcement mechanism¹³. While formal

¹³ This enforcement mechanism is commonly used as a distinction criterion for different kinds of institutions (see i.a. Buchanan, 1975; Ellickson, 1991; Knight, 1992; and Vanberg, 1994).

institutions are enforced through the state, informal institutions rest on private enforcement mechanisms, e.g. arbitrary courts. The higher willingness in East Germany to see actors of the shadow economy being punished might indicate that a private enforcement mechanism is in force which backs up a social norm against shadow economic activities.

This argumentation can be questioned in two ways: First of all, disliking shadow economic activities, which is indicated by the measurement results of the IFAK-survey, does not automatically also imply the willingness to punish friends or acquaintances offering or buying goods or services in the shadow economy if it comes to it. A reason for this missing automatism is that for private sanctioning mechanisms to be effective, all members of the respective social group should, in the extreme, be prepared to shun members who have misbehaved. As is well-known, this necessity leads to the so-called “Second-Order-Collective-Action-Dilemma” (see Heckathorn, 1989; Udéhn, 1993): Because the sanctioning in itself is costly for each member, a sanctioning mechanism will only function if the respective members have somehow overcome the problem of collective action. Hence, the true impact of the mentioned lesser tolerance of easterners regarding shadow economic activities cannot be assessed by just taking the expressed motives of the respondents alone. Instead, further information concerning the question whether the respondents had already punished friends or acquaintances is needed in order to make the argument strong enough.

Secondly, preferring equality does not automatically mean refraining from any activity in the shadow economy, even if this activity cements unequal working conditions. As argued by Cowell (1990, p. 38), “[t]here is a fundamental clash between a person’s interests when he is ‘wearing his private hat’ and his interests when he is ‘wearing his public hat’”. Regarding shadow economic activities in general, people “wear their public hat” and consequently demonstrate a critical perspective on shadow economic activities. Of course, everybody is perfectly aware of the negative impact of shadow economic activities on the societal level, for instance, regarding the tax basis. Being questioned about the consequences of shadow economic activities the majority in East as well as in West Germany agreed that the tax basis is worsened through black labor with corresponding negative results for state action (see table 9 in the Appendix). In the IFAK-survey this also demonstrated that *constitutional interest* of the (East) Germans naturally alters if we change the perspective from “choice of rules” to “choice within rules” and look for the *action interest* of the Germans (see Vanberg and Buchanan, 1988). From an individual’s point of view refraining from shadow economic activities just because they would probably harm the society is rather irrational: Compared with the total effect of shadow economic activities, the harm done by the individuals’ shadow

economic activity can be perfectly well neglected. Whereas in this case the social loss is low, the private gain (buying goods or services in equal quality for a much better price than in the official economy) is far higher. Hence, despite all the mentioned moral considerations it is still rational to be present in the shadow economy. It is commonly known that under communism, despite the officially expressed considerations for equality, an extensive shadow economy existed¹⁴. Why should this demonstrated difference between constitutional and action interest suddenly have changed with the unification? The higher willingness in East Germany to see shadow economic activities punished might as well be the outcome of a “public reflex” cultivated over decades in a socialist system where differing private opinions had no right to exist. In effect, slightly more than 50 % in East as well as in West Germany agreed to the opinion that “as long as it is only done from time to time, service provision in the shadow economy is OK” with no statistical significant differences whatsoever (see table 10 in the Appendix).

To sum up, taking moral considerations as a cause for shadow economic activities is not a very good choice: The mechanism on how the transmission between attitude and action functions is too complex and, due to a small and unreliable empirical basis, still too unknown in order to argue with moral causes on save grounds.

Now, how far will “traditional” explanations of the shadow economy take us in the case of differing shadow economic activities in Germany? Due to the *theory of black labor supply* the much higher unemployment rate in East Germany allows *ceteris paribus* to expect more shadow economic activities in the East than in the West. This with respect to the mentioned empirical results striking argument may be altered by referring to *informational problems*: Firstly, easterners might lack the knowledge about the advantages of shadow economic activities. Secondly, due to only limited experiences gained in the “new” system they might overestimate the probability of being sanctioned if their shadow economic activities should come the attention of the authorities. But the results of the IFAK-survey do not stress severe informational asymmetries between East and West Germans. As pointed out above, people in both parts of Germany know very well about the saving effect of shadow economic activities. Also, a majority in both parts of Germany do not expect the services in the shadow economy to be of poor quality. In fact, people in the East were significantly more likely than their Western counterpart to believe that black labor is of good quality (see table 11 in the Appendix). Concerning the fear of being detected and consequently sanctioned, the majority

¹⁴ See among others Cassel (1986), Welfens (1988), Cichy (1989), and Manz (1990).

of easterners as well as westerners actually attributed the existence of shadow economic activities to a *lack* of state sanctions against black labor (see table 12 in the Appendix). Therefore, taking the theory of black labor supply leaves us with a very unsatisfactory conclusion, as it predicts just the opposite of what is indicated by empirical results: a higher rate of shadow economic activities in East Germany than in West Germany instead of a lower one.

A possible countervailing effect could be seen in different *income situations* between easterners and westerners. They might explain the empirical results of a lower activity level in the shadow economy of East Germany. In principle, the well documented lesser income level of East Germans might affect their motivation to transact in the shadow economy negatively: As already pointed out, most services or goods exchanged in the shadow economy presuppose a certain level of income (for instance car servicing, care for children during working hours, gardening etc.). The problem of assessing the true impact of a smaller income basis in the East is, that the term “middle class” which is usually occupied for the people typically exchanging goods or services in the shadow economy, is not so easy to determine. Despite a lower income level, which is also shown by the results of the IFAK-survey, having a car or caring for ones own house and garden are as common in East Germany as they are in West Germany. Moreover, easterners compared to westerners have a lot of house construction and renovation work to catch up on. The opening up of one do-it-yourself market after another in East Germany is the best sign that it is probably not so much a question of cause or money which might prevent easterners from shadow economic activities.

Altogether, moral considerations, questions of time allocation, informational problems and the income situation are not able to sufficiently explain the assumed differences between shadow economic activities in East and West Germany. On the grounds of current theoretical explanations, more instead of less activities in the Eastern shadow economy would be plausible.

4. Gaining New Insights

In order to solve this puzzle, we propose to concentrate more on institutional aspects. A change in perspectives has the advantage of gaining new insights into shadow economic activities and, in the present context, to at least partially explain the puzzle of probably less shadow economic activities in East Germany than in West Germany. Still, the “institutional approach” presented in the following should be seen more as a supplement of the current theoretical argumentation than as a separate new theory.

4.1 Taking an Institutional Perspective

Of course, the impact of institutions on the decision to exchange in the shadow economy lies at the heart of an “institutional approach”. Since current theoretical explanations incorporate the impact of laws and regulations as well, the comparative advantage of an “institutional approach” might be questioned. Yet, contrary to the common analytical perspective in which it is implicitly assumed that exchanging goods or services in the official economy is the usual way of transacting, we do not take the decision to exchange in the official economy for granted. Instead, we systematically search for reasons why individuals should enter the official economy at all. Hence, we turn the analysis from upside down.

Exchanging goods or services in the official market implies adhering to rules laid out by the state. This can be interpreted as individuals accepting a kind of “offer” by the state to use formal institutions for exchange purposes. Obviously, economic actors will accept this offer only under the condition that they derive a net benefit out of using formal institutions. Hence, individuals comply to formal institutions and thus exchange in the official economy if the net benefit is higher than the net benefit which the alternative, a transaction in the shadow economy, would present (i.e. the opportunity costs). Put slightly different, individuals will only use the bundle of formal institutions if the difference between the net-benefit of transacting in the official economy compared to the net-benefit of exchanging goods or services in the shadow economy is positive (following Posner, 1996, p. 141). This difference is called “Rule-Compliance-Rule-Non-Compliance-Differential”¹⁵.

Obviously, shadow economic activities indicate that this “Rule-Compliance-Rule-Non-Compliance-Differential” is negative for many exchanges. In other words, the offer by the state to use formal institutions is turned down in many cases. In the following, we will analyze under what conditions such a negative reaction can be expected. It means to assess the net-benefit of the two alternatives: regular versus irregular market activities.

Each alternative implies not only benefits but also certain costs: *Informational costs* reduce the possible benefit of using formal institutions. Obviously, in order to comply with rules individuals need to know their content, area of validity as well as the details of their application. Thus, the more complex a formal institution is, the higher are the respective

¹⁵ Because Posner (1996, p. 141) analyzes the stability of a group and not in particular the individual decision to comply with different social norms of the respective group, he calls this differential a “cooperation-defection-differential”.

informational costs¹⁶. By contrast, individuals who engage themselves in the shadow economy risk to become sanctioned for their rule-violating action if their activities come to the attention of the authorities. Hence, the benefit of not using formal institutions is principally reduced by *sanctioning costs*, which are dependent on the subjectively assessed likelihood of being discovered. Still, severe problems of the state to gain the relevant information about non-compliance of fiscal and market regulations principally allow for a, to a large extent, safe exchange in the shadow economy as long as the contract parties refrain from exchanging on a large scale and take certain precautions.

Because the different formal institutions guiding market transactions refer to different aspects of the respective activities, their implications for the individual cost-benefit analysis are also quite different. Here we will concentrate on only two important types of formal institutions influencing exchanges in the official economy: fiscal rules and the so-called “market rules“. For a more extensive discussion see Mummert (2000).

Quite self-evident, rules which lay down the duty to pay taxes always have a negative impact on the difference between rule-compliance and rule-non-compliance. Hence, with respect to the tremendous tax burden in modern welfare-states any transaction taken to the official market is, from this point of view, highly questionable. Referring to the sanctioning costs which devaluate the net-benefit of exchanging in the shadow economy is of only limited value, too. As outlined above, the governmental enforcement mechanism is for many transactions far too weak in order to compensate the costs incurred by tax and social security payments. The most plausible explanation of why individuals voluntarily accept the tax burden and exchange legally then is that compliance to so-called “market rules” probably overcompensates the mentioned negative impacts. In other words, the benefit of “market rules” may be higher in some cases than the burden laid out by fiscal rules or e.g. informational costs.

Market rules, like for instance rules concerning the right to contract, offer the benefit of at least partially filling in the gap of incomplete contracts and helping to banish opportunism and breach of contract. But the state is not the only one offering solutions to co-operation problems which transactions on markets generally pose. Private solutions to co-operation problems may secure exchange agreements as well. In fact, private solutions to co-operation

¹⁶ A rule is comparatively simple if (1) it can be specified easily (with few words), (2) it is widely accessible to ordinary people without reliance on expert knowledge and (3) there are only few uncertain applications, see Schauer (1997, p. 395).

problems are a very powerful tool in securing transactions in the official economy (see for example Cooter, 1997). But they obviously need not be restricted to this purpose. For individuals it suggests itself equally to use private solutions to co-operation problems in order to back up transactions in the shadow economy. On the grounds of trust, mechanisms of reciprocity or memberships of the same social group (e.g. family relations, neighbourhood, village community), the fear of breach of contract is usually reduced to a negligible size. Hence, as long as the exchange agreement can be secured by private solutions alone, due to the tax burden and the impact of other disadvantageous formal institutions (namely rules concerning social security payments and many market regulations) and in case of comparably small sanctioning costs, the compliance decision will very likely remain negative.

However, though each person is generally able to use private solutions in order to reduce uncertainty, private solutions are not always the perfect match. They can only be of use if exchange agreements are reached within the respective group, but not with outsiders. If a person, for example, wants to have construction work done on his or her home, paying the skilled neighbour, in this case a member of the same social group, would be much safer than paying the services of an outsider, e.g. an unknown person. But the smaller the size of the social network, the lesser is also the likelihood that the „perfect“ contract partner is a member of the same group. Because the back-up of exchange agreements through private solutions is confined to rather small groups, gains from the division of labor and specialisation are more or less impeded. Hence, private solutions to co-operations problems can be seen as presenting only *“island-solutions“*¹⁷. In this respect, governmental solutions to co-operation problems offer an important comparative advantage: The state-guided enforcement mechanism of formal institutions makes them valid for groups as large as the whole society. It is because of effective formal institutions that transactions with total strangers, that is members of other social groups, are relatively safe: Both exchange partners are able to threaten the other with judicial actions in case of breach of a contract. Therefore, formal institutions can be seen as *“bridges“* connecting the various *“islands“*.

Furthermore, it is plausible to assume that for rather simple, simultaneous transactions *“island-solutions“* to co-operation problems are perfectly sufficient while non-simultaneous long-term transactions of complex goods or services often need the *“bridges“* in order to secure gains from the division of labor (see Mummert, 2000). In the latter case we get a

¹⁷ See also Vanberg and Buchanan (1988, pp. 151f.): They speak of *“cooperative clusters“* being *“scattered ‘islands‘ within a Hobbesian world“*.

chance that individuals will voluntarily accept the burden imposed by taxation and other negative impacts of complying with formal institutions in order to be able to realize the subjectively perceived higher benefit out of using the “bridges“, that is the market rules.

Taking the effects of complying with all relevant formal institutions together, the decision to exchange in the official economy can be interpreted as a “trade-off“ calculation: Nobody wants to pay taxes or to bear other negative effects due to rules concerning social security payments and market regulations. But if the benefit derived out of the „bridging function“ of market rules overcompensates these costs, exchanging in the official economy is the better alternative to exchanging in the shadow economy. Thus, accepting the burden of taxation despite a rather low chance of being discovered is not a question of morality but the outcome of a very rational calculation. Individuals see the costs of fiscal and market regulations as a kind of “toll“ for using the “bridges“ which market rules present. Especially with respect to more complex transactions and/or transactions on a large scale, most exchange agreements will be placed in the official economy as long as the quality of the market rules is comparably good and the negative impact of fiscal and market regulations on the differential between rule-compliance and rule-non-compliance not excessive. This differential is further positively influenced by sanctioning costs which are in cases of exchanges on a large scale clearly higher, as these kind of activities are not so easy to hide.

4.2. Explaining East-west Differences in the German Shadow Economy

Looking at the general characteristics of exchanges in the shadow economy sketched above, it is now easy to understand why many of the transactions in the shadow economy in Germany as well as in other industrial nations belong to the category of rather simple exchanges of goods and services. The simplicity of, for example, gardening or renovation work done in household allows the client to assess the quality of the service correctly as well as to complete the exchange agreement step by step, so that contract risks are minimised. Even if the supplier of these services happens to be an outsider of the social network, contracts can still be arranged successfully. However, more complex services like car repairs and servicing usually need private solutions to co-operation problems in order to be realised. Because each household is rooted in several social networks (family, relatives, neighbourhood, circle of acquaintances, village community), this condition for successful contract agreements is likely to be given for many transactions. Of course, it would be unrealistic to assume that each individual has a tax agent or a skilled person in car repairs with all the needed real capital as a member of its social network. At this point the possibility for regular job holders to build up client relationships in the shadow economy should, as well, receive due attention. As the

figures of the extent of unsolicited offer of black labor indicate (see table 5), shadow economic activities in Germany are probably often initiated by regular suppliers trying to tune up their profits by a “mixed calculation” of transactions in light and shadow.

If, due to the simplicity of the transaction or the existence of adequate private solutions, the “bridges” provided by formal market rules are superfluous for certain transactions, the balance between the sanctioning costs and the costs of paying taxes etc. will guide the decision where to place the contract agreement. Given the severe problems of controlling the compliance to regulations and the comparatively high tax and social security payments demanded of the citizens, it is no surprise that the German government is confronted with so many exchanges in the shadow economy: in these cases the “trade-off” calculations show a negative result.

However, the crucial point here is how to explain the probably lower intensity of easterners` shadow economic activities compared to their western neighbours. Because the formal institutional framework is the same for both parts of Germany, an explanation of the assumed East-West differences in shadow economic activities must rest on other factors influencing the compliance decision than on formal institutions alone. Using the “institutional approach” sketched above, we are able to identify two possible reasons for a lesser extent of activities in the shadow economy in East Germany compared to those in the West.

The expectation of an higher engagement in the shadow economy of East Germany is mainly based on the “economic theory of black labor supply”. But this supposed close connection between the unemployment rate and shadow economic activities is to be doubted: Among others data of microeconomic surveys in Denmark between 1980 and 1994 in principle defy the general assumption that among the unemployed the frequency of participation is significantly higher than average (Mogensen et al., 1995). The ones who have been most active in Denmark are those who are trained for a skilled trade and students (see also Merz, 1996).

Table 7*Employment Status and Black Labor*

	Germans	Western Germans	Eastern Germans	Black Labor
Regular full-time job	40 %	39 %	40 %	54 %
Regular part-time job	9 %	9 %	6 %	6 %
Unemployed	5 %	4 %	9 %	4 %
Retired	27 %	26 %	32 %	17 %
Trainees	2 %	3 %	1 %	4 %
Pupils, students	8 %	8 %	6 %	9 %
No job, housework	11 %	12 %	5 %	6 %

Source: IFAK (1998).

A similar picture is presented by the data of the IFAK-survey, with pupils or students showing the highest engagement in the shadow economy (28.57 percent) followed by regular job holders (27.44 percent), and only then unemployed with 22.2 percent (see also table 7). That regular jobholding in certain branches rather than unemployment is a more likely gateway to black labor, is also stressed by the findings of Pelzmann (1988) who analyzes the causality between unemployment and shadow economic activities. In her study, only those unemployed were able to earn considerable income in the shadow economy who had already built up a dense network of client relationships during their regular job holding in the past. Thus, having plenty of leisure time and being in need of money do not seem to be the crucial factors upon which decisions to work in the shadow economy are built. Instead, as underlined by the “institutional approach” the size of the “islands” as well as their member structure could be more important.

From this point of view a lack of adequate private solutions to co-operation problems would present an explanation for the lesser extent of shadow economic activities in East Germany. This assumption may be surprising as the intense engagement in the shadow economy of the GDR should have paved the way for shadow economic activities in Germany after unification in 1990. But many of the activities in the socialist shadow economy aimed at overcoming shortages due to the lacking consistency of real and monetary planning and were therefore system specific. The widespread informal and non-monetary barter of goods, for example, simply lost its importance after unification and with it the social connections, too. More important than these changes within the shadow economy itself is the fact that due to the massive break-down and closing of enterprises, many East Germans were disconnected of their former “working collectives”. It is plausible to assume that parallel to the sudden transformation of the formal institutional structure in 1990 a far-reaching rearrangement of

social networks began. This is indicated by the opinion held by most East Germans in 1996 that the solidarity between the citizens in the East worsened with the German unification¹⁸. In times of higher uncertainty about the social environment individuals tend to cling to their core social network, their family, and show more distrust vis-à-vis strangers. In effect, only 23 percent in 1990 indicated the willingness to trust others compared to 37 percent in West Germany (see Noelle-Neumann and Köcher, 1993, p. 61). The next year being asked the same question on trusting others, 55 percent in East Germany still showed a general distrust compared to 42 percent in the West. An empirical study conducted in 1993 tackled questions concerning possible differences between East and West-Germany with respect to social integration (see Schwenk, 1999, pp. 130ff.). The results indicate a lesser social integration in the East, as well. Many more East Germans (50.1%) than West Germans (37.8%) said that they had no friends or only one to two. Regular meetings with friends were also not as common in the East as in the West. Hence, the smaller size of the “islands” in East Germany as well as unfitting member structures of these “islands” probably lowered the benefit of exchanging goods or services in the shadow economy.

The second argument refers to do-it-yourself work, possibly substituting legal as well as irregular market activities: The “institutional perspective” suggests to analyze shadow economic activities by looking for the reasons individuals have to prefer shadow economic activities over other alternatives, of which contracting in the official economy is one, legal do-it-yourself work the other alternative. Due to the tight budget constraint many households in East Germany face and at the same time plenty of leisure time caused by steady unemployment, the decision, for example, to do the renovation work of the home oneself seems logical. Additionally, if many of the households in East Germany refrain from demanding services on the market regular job holders will be cut off from the possibility to extent their client relationships into the shadow economy. This could explain why the extent of unsolicited offers of black labor is lower in the East compared to the West.

5. Conclusions

From an institutional perspective it is quite self-evident to point to the importance of social networks, a factor which is traditionally neglected in economic theory. Smaller social networks as well as inadequate member structures in East Germany may explain what traditional arguments cannot: the probably lesser extent of shadow economic activities in East

¹⁸ See Noelle-Neumann and Köcher (1997, p. 603).

Germany despite a much higher unemployment rate. Another plausible cause derived from an institutional perspective is do-it-yourself activities presenting under the given circumstances an even better alternative to exchanges in the official economy than unreported market activities do. Unfortunately, studies on the connection between do-it-yourself work and black labor are rare. Hence, we do not have enough information to test this second argument. But it would generally be of interest to analyze do-it-yourself activities in more detail. That measurement problems hinder this line of research is but only a weak excuse for the up to now sluggish research efforts. The implicit assumption of market transactions in the official economy being the normal way of life is, in our view, the true cause for do-it-yourself activities existing on the fringes in the scientific research.

With our analysis of the German shadow economy we were able to highlight important aspects of economic activities which were only randomly incorporated into the analysis of shadow economies so far. However, due to an increasing alignment of the economical situation in East Germany to the western part of Germany and the transformation process of social networks slowing down to normality we should expect the differences of shadow economic activities in Germany to diminish. In effect, as stated in the IFAK-survey, more people in the East expect an increase in the size of the shadow economy than in the West. Thus, sooner or later Germany will show a unified shadow economy, too. But the new perspective opened up in this survey will hopefully stimulate future research in this field.

6. Appendix

6.1. Some General Remarks on the Quality of the Empirical Data

As already mentioned, direct approaches are flawed with several problems which undermine the quality of the respective empirical results. Measurement errors are not only dependent on how well the respondent understands the question and the degree to which she or he is willing to answer it truthfully. Moreover, the interview is to be seen as a "social interaction in which the norms and expectations of both participants with regard to what is acceptable and unacceptable behavior in a given situation influence the outcome of the survey" (Mogensen et al., 1995). Thus, these so-called interviewer effects might have influenced the outcome of the IFAK-survey as well. Unfortunately, a survey on the same subject, which could be used in comparison with the IFAK-survey to assess possible interviewer effects, is not available. Hence, concerning the IFAK-survey we can only give some general propositions on the likelihood and direction of interviewer effects.

Analyzing different surveys Mogensen et al. (1995) were able to point to two important factors which contribute to interviewer effects: the training of the interviewers and the sensitivity of the subject being asked. A lesser interviewer effect is likely to occur with thoroughly trained and experienced interviewers. Those are generally more able to obtain the respondent's co-operation using different question techniques while at the same time minimising their own influence on the actual answers. This influence is due to the fact that each interviewer has a personal opinion on how far one could press the respondents and what kind of questions would be socially acceptable to ask. It seems to hold that more experienced interviewers enhance the willingness of the respondents to answer in accordance with the truth.

Another argument against the quality of the IFAK-data might be the short introduction to the subject of black labor with no concrete definition of the term "Schwarzarbeit" (black labor) whatsoever. Hence, the respondent's answers might have been based on very different opinions on the characteristics of black labor. But thinking of the intense public debate on black labor in Germany within the recent years, which sharpened the picture of shadow economic activities, this possible deficit in the questionnaire has very likely not lowered the quality of the answers. This argument is also backed up by the answers given in the IFAK-survey. The impression gained from the data is that, in principle, the respondents knew very well the central characteristics of shadow economic activities, that is violating laws (especially regarding taxes) while buying or selling legal goods or services.

The sensitivity of the subject is of much greater importance for measurement errors. Because of the overall awareness of the illegal nature of shadow economic activities, this area is one of the most difficult to measure through direct approaches (see Mogensen et al., 1995, pp. 37f.): The respondents risk not only to lose their face in front of the interviewers if they admit activities which violate the law. Moreover, it poses a threat to them. They confess a non-legal behavior to total strangers and risk the possibility of sanctions being imposed if the matter should come to the attention of the tax authorities¹⁹. Thus, especially the answers given to questions concerning the extent of shadow economic activities of the respondents themselves and, to a lesser extent, of their relatives and acquaintances do very likely not reflect the real extent of shadow economic activities. As already stated, it is impossible, though, to translate this measurement error into concrete figures.

Because West Germans asked East Germans about their law-abiding behavior, this might have provoked an additional reluctance of the respondents in East Germany to reveal their true shadow economic activities. As many authors argue, even years after unification the "wall" in the heads of Germans might still exist²⁰. East and West Germans have a different past and still live in a different socio-economic environment. This obvious distinction, so it is argued, leads to different opinions on political and social matters. However, the question much debated among sociologists is what caused this variety of attitudes. Whereas some stress the persistence of different social norms in West and East Germany due to forty-five years of living in different social systems, others see more evidence in the argument that the difference between the actual socio-economic surroundings makes for the difference in attitudes (see among others e.g. Pollack and Pickel, 1998). But even if these differences can be explained by situational factors, the crucial point remains that they have an impact on the social interaction between East and West Germans. For East Germans adjusting to an environment very different from the environment in the German Democratic Republic is not easy, especially if it is accompanied with economic shortages due to unemployment. At the same time they might think of West Germans being much better used to acting in a market economy and wealthier compared to them. This perceived lower socio-economic status vis-à-vis people from West Germany might have caused a specific reaction towards the sensitive questions of shadow economic activities being posed in the IFAK-interview: Admitting the

¹⁹ In the IFAK-survey the interviewers tried to lower the fears of the respondents by assuring anonymity (no names on the interview sheets) and deleting the telephone number right after the interview being taken.

²⁰ See for example the articles in "Aus Politik und Zeitgeschichte", B 40-41/95, 29.09.1995; Roller (1994).

true extent of shadow economic activities in front of West Germans would have cemented their subjectively perceived lower socio-economic status²¹. Thus, the possibility exists that especially the most sensitive questions concerning the extent of black labor are understated. The same might be true for the questions concerning attitudes toward shadow economic activities. Hence, the different answers given in the IFAK-survey by East and West Germans are probably not all based on real differences but partly or even totally on this interviewer effect.

Though we cannot be sure about the real impact of this interviewer effect it is hard to think of the differences between East and West Germany regarding shadow economic activities being solely caused by it: First of all, the introduction to the subject was held in a neutral, not at all condemning manner. The statement that black labor is gaining more and more importance in Germany might even have given the respondents the feeling of being surely not alone if they had indeed been working in the shadow economy (or purchased goods or services). Secondly, the questions in the IFAK-interview were quite detailed (e.g. the kind of goods and services being purchased in the shadow economy) leaving not much room for faked answers. Thirdly, the least sensitive ones (concerning the motives of people supplying or demanding goods and services in the shadow economy) were asked first in order to give the respondents time to adjust to the subject before it comes to more personal matters. And, at last, the difference between shadow economic activities in East and West Germany remains even with questions which tackle the subject from a lesser sensitive point of view (see for instance the question on unsolicited offer of black labor).

²¹ There is empirical evidence of respondents having a tendency to provide socially desirable answers. Mogensen et al. (1995, pp. 36f), for instance, point to white respondents expressing more tolerant attitudes when the interviewer was black than when he or she was white. The explanation in this case would be that the respondents gave answers which they thought to be compatible with the perceived attitudes and opinions of the interviewer.

6.2. Information Given by the IFAK-survey

Table 7

Purchased Goods and Services in the Shadow Economy (in Percent)

	West Germans	East Germans
In-house painting	19 %	11 %
Floor covering (e.g. tiled or parquet floor)	13 %	5 %
Other renovation work	15 %	7 %
Construction work	13 %	5 %
Gardening	8 %	3 %
Car repairs, servicing	19 %	10 %
Cleaner, window cleaning	8 %	2 %
Private tuition	7 %	
Sports and music lessons	3 %	
Tax assistance	8 %	1 %
Hair doing	15 %	3 %
Others	6 %	3 %

Table 8

Preferred Punishment for Shadow Economic Activities

“Gray market service provision should be severely punished“

	Western Germans	Eastern Germans
Agree	46 %	68 %
Disagree	45 %	22 %
I do not know	8 %	10 %

East-west differences statistically significant: 2-Tailed P 0.0001; Z -4.4966.

Table 9

The Social Costs of Shadow Economic Activities

“Gray market service provision causes the state to lose tax revenues which will in turn cause shortfalls elsewhere“

	Western Germans	Eastern Germans
Agree	85 %	91 %
Disagree	13 %	6 %
I do not know	2 %	3 %

East-west differences not statistically significant: 2-Tailed P 0.0590; Z -1.8881.

Table 10*Acceptance of Shadow Economic Activities*

“As long as it is only done from time to time, gray market service provision is OK.”

	Western Germans	Eastern Germans
Agree	59 %	52 %
Disagree	37 %	45 %
I do not know	3 %	3 %

No significant East-west differences: 2-Tailed P 0.0960; Z -1.6645

Table 11*The Quality of Services in the Shadow Economy*

“Services in the shadow economy are often of lower quality [than regular services]”

	Western Germans	Eastern Germans
Agree	34 %	26 %
Disagree	54 %	56 %
I do not know	13 %	19 %

East-west differences statistically significant: 2-Tailed P 0.0181; Z -2.3642.

Table 12*Lack of State Sanctions as a Cause of Black Labor*

“People do *Schwarzarbeit* because no action is taken against it”

	Western Germans	Eastern Germans
Agree	53 %	58 %
Disagree	45 %	38 %
I do not know	2 %	4 %

No significant East-west differences: 2-Tailed P 0.2863, Z 1.0663.

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