

Undeclared work

A dark side of social trust?

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Undeclared work: a dark side of social trust?

ABSTRACT

A Eurobarometer survey from 2007 reports that most undeclared work in the EU 27 takes place in the three most high-trusting and non-corrupt countries – Denmark, Sweden, and the Netherlands. This is somewhat surprising since social trust is normally associated with economic outcomes that are beneficial to society. The aim of this paper is to test whether undeclared work is a dark side of social trust. Since the Eurobarometer data may contain inaccurate self-reports on undeclared work and social trust may affect the willingness to provide truthful answers, we use more appropriate data in our test. Specifically, we use data from one single country (Danish Values Studies 1999/2008) and undeclared work morale as an indicator of actual undeclared work - where undeclared work morale is the degree to which a person thinks undeclared work is wrong. We find a significant negative relationship between social trust and undeclared work morale after adjusting for a number of important controls. Thus, the evidence is in line with the bivariate picture of the Eurobarometer survey and suggests a dark side of social trust. We provide some initial explanations.

Key Words: Undeclared work - Social trust - Danish survey.

JEL Codes: H2, Z1.

1. Introduction

The concept of social trust has been a focus area of economic research for some time now. Most research has shown that social trust is associated with economic outcomes that are beneficial to society. For example, cross-country research indicate that social trust promotes economic growth and reduces corruption; see the seminal papers by Knack and Keefer (1997) and La Porta et al. (1997).¹ In fact, there seems to be no end to the blessings of social trust and only little attention has been given to possible dark sides of social trust.

A Eurobarometer survey of 2007 reports that most undeclared work in the EU takes place in the three most high-trusting and non-corrupt countries – Denmark, Sweden and the Netherlands (Eurobarometer, 2007). This in turn suggests that social trust could be negatively associated with undeclared work. Although desirable from the point of view of the individual, undeclared work is clearly not beneficial to society because it reduces tax revenues received by the government and thus weakens its possibilities of financing welfare services such as education, health care and social security.

In Denmark, for example, the size of undeclared work has been estimated to be around 2.8 percent of GDP in 2009, corresponding to around 6.2 billion Euros (Hvidtfeldt et al., 2010, p. 61). In other Western European countries, such as Norway, Sweden, Germany, and Great Britain, undeclared work is estimated to lie around the same level (Hvidtfeldt et al., 2010, p. 197ff). Apart from the tax revenue loss suffered by the government, there may be other problems with undeclared work. Hence,

¹ Knack and Keefer (1997) find that a one-standard deviation in social trust increases economic growth by 0.56 of a standard deviation. La Porta et al. (1997) find that a one-standard deviation increase in social trust increases judicial efficiency by 0.7 of a standard deviation and reduces government corruption by 0.3 of a standard deviation

undeclared work may weaken the general willingness to pay taxes among those who do not engage in undeclared work activities. Moreover, undeclared work may blur official statistics which may lead to misinformed economic policies based on incorrect unemployment numbers.

So far, no study has paid specific attention to the relationship between social trust and undeclared work. However, a few studies have examined the association between social trust and *tax evasion*. Hammer et al. (2009) find that people with high social trust are less likely to believe that their fellow citizens are tax evaders. This is noteworthy because other studies suggest that individual tax evasion and individual tax morale are significantly related to the perceived tax evasion of others. Thus, a survey-based study by Scholz and Lubell (1998) finds that self-reported tax evasion is positively related to the perceived tax evasion of other people. Moreover, Torgler and Schneider (2005) find that individual tax morale, the degree to which people consider cheating on taxes to be wrong, is negatively related to the perceived tax evasion of others.² Finally, Frey and Torgler (2007) directly investigate the association between social trust and individual tax morale using data from the European Values Studies (1999/2000). They measure tax morale by the degree to which respondents think the following can be justified: “Cheating on tax payments if you get the chance” (measured on a 10-point scale). Social trust is measured in two ways. The first is based on the question: “Could you tell me how much you trust [own country, e.g. British] people in general?” (measured on a 5-point scale). The second is based on the question: “Generally speaking, would you say that most people can be trusted or that you cannot be too careful in dealing with people?”. After controlling for a number of factors, Frey

² Note the distinction between tax evasion and tax morale. Tax evasion relates to actual behaviour, i.e. whether tax evasion has taken place or not. Tax morale relates to attitudes. Tax morale measures the degree to which a person thinks tax evasion is wrong.

and Torgler (2007) find that the first social trust variable is significantly related to tax morale with a positive sign, whereas they find the second trust variable to be insignificantly related to tax morale with a negative sign.

In sum, previous studies on *tax evasion* tend to suggest a positive impact of social trust, i.e. the more social trust, the less tax evasion. However, this may not necessarily apply for undeclared work. As most tax evasion may be done through unilateral cheating on taxes, i.e. an individual cheats in secrecy without involving others, previous studies may primarily have captured this form of tax evasion. Undeclared work is a special form of tax evasion and may therefore relate to social trust in different ways than other forms. Undeclared work involves cooperation of at least two parties, one selling and the other buying labour services based on a prior verbal agreement of not reporting the paid remuneration to the tax authorities. If person A and person B decide that person A will deliver work for person B against later payment, person A will have to trust person B to keep his or her word regarding the payment. Such trust will prevail among family members and long-term friends. Social trust, i.e. trusting people in general, may be important if A and B do not know each other very well and have not had a chance to evaluate each other's trustworthiness. Such people could be acquaintances, neighbours, colleagues, or even strangers. Based on these considerations, one could hypothesise that social trust reinforces undeclared work. Meanwhile, a counteracting effect would exist if social trust is negatively related to the perceived undeclared work of others and individual undeclared work is affected by such perceptions. However, if the former "practical" reasons dominate, we would still get a positive association between social trust and undeclared work, i.e. the more social trust, the more undeclared work.

Is undeclared work a dark side of social trust? This is the main question of this paper, and the paper will provide an empirical test. To this end, we consider country-level data from the Eurobarometer survey and individual-level data from the Danish Values Studies (DSV) 1999/2008. We use the DSV data for testing, as it avoids most methodological pitfalls inherent in the Eurobarometer survey. The paper is organised as follows. Section 2 presents the evidence from the Eurobarometer survey and offers arguments for using Danish data and undeclared work morale for testing. Section 3 presents the data and the method. Section 4 shows the results and section 5 concludes.

2. Empirical approach

2.1 The Eurobarometer survey

As mentioned, the Eurobarometer survey (2007) reports high levels of undeclared work in the most high-trusting non-corrupt countries of the EU, see Table 1. Denmark, Sweden and the Netherlands have much higher levels of social trust than the other countries, and corruption here is much lower than in the rest of EU. Therefore, it may surprise that exactly these three countries are reported to have more undeclared work than most other EU countries. On average, respondents from these three countries report nearly twice as much undeclared work as respondents from all the other 24 EU member states taken together, including the most corrupt countries in Eastern Europe (Romania, Bulgaria and Poland). In fact, undeclared work increases with social trust across the 27 EU member states. Using the figures in Table 1, we find a positive and statistically significant correlation coefficient between social trust and undeclared work of 0.492 ($p=0.009$).

>>Insert Table 1 about here<<

The Eurobarometer survey relies on self-reports and the central question is whether the figures for undeclared work are valid. For a number of reasons, the data should be treated with caution. First, the concept of undeclared work is likely to be perceived in different ways throughout the countries investigated in the Eurobarometer survey. Second, the meaning of the concept may be unclear or close to incomprehensible to some respondents in some countries. Support of this is found in the response statistics given in the Eurobarometer survey. Consider for example the question: “Have you in the last twelve months acquired any services of which you had a good reason to assume that they embodied undeclared work, i.e. that the income was not completely reported to the tax and social security institutions?”. The share that answered “I do not know” was 19 percent among Romanians, 15 percent among Italians, and 1 percent among Danes and Dutchmen, to take the two extreme ends (Eurobarometer, 2007, Appendix table QB8).

Finally, and perhaps most importantly, there may be cross-country differences in how truthful survey questions were answered. All interviews in the Eurobarometer survey were conducted face-to-face in people’s homes and in the appropriate national language and data was promised to be treated with confidentiality. People were asked about their attitudes towards undeclared work and, importantly, they were asked about whether they themselves had been engaged in undeclared work in the 12 months prior to the interview. In this context, the first thing to note is that self-reports on undeclared work may not be all that valid. Thus, people in general will have a natural reluctance towards revealing their own engagement in something that constitutes

an illegal activity. However, when considering the relationship between social trust and self-reported undeclared work at the country-level, the important question is whether people from different countries will report their undeclared work *equally* truthfully (or untruthfully). The willingness to answer truthfully clearly depends on whether people think that the promise of confidentiality will be kept. It is therefore probable that people in high-trusting countries will answer relatively truthfully, simply because they will trust that they will remain anonymous. In contrast, people in low-trusting countries may be expected to underreport their undeclared work activities, because they will have less confidence in the promise of confidentiality. Consequently, the high scores of undeclared work reported in high-trusting countries may very well have been influenced or even caused by this bias. For example, it seems odd that a country like Romania scores relatively low on undeclared work in the survey since Romania is normally reported to have a large shadow economy (see e.g. Schneider, 2006).

2.2 The Danish Values Studies

Because of measurement bias in the Eurobarometer survey, we only use data from a single country (Denmark) to test the relationship between social trust and undeclared work. In Denmark, undeclared work (in Danish “sort arbejde”, literally meaning ‘black work’) is a much debated and well-known concept. In other words, there is a shared understanding of what is meant by undeclared work. As mentioned above, we cannot expect that people across the European Union have such a shared understanding. In Denmark, undeclared work is commonly understood to be an arrangement where one party sells (otherwise licit) labour to another party with an agreement of not reporting the payment to the tax authorities. For the two parties, the economic incentive for such

an arrangement lies in sharing the saved tax payments. Undeclared work is rather widespread in Denmark. A survey carried out among 2200 randomly chosen Danes in 2010 showed that 52 percent had bought undeclared work within the latest year and that another 28 percent had been willing to buy undeclared work if they had had an opportunity to do so (Rockwool Foundation, 2010).

We use data from the Danish Values Studies 1999/2008. In this survey, people were not asked whether they had been engaged in undeclared work or not. People were only asked to state to their general attitude towards undeclared work. Thus, we use self-reports of undeclared work morale (attitudes) and not self-reports of undeclared work (actual behaviour) in our analysis. Using data on actual behaviour would have been preferable - provided that respondents answer truthfully. However, as mentioned above, reporting one's undeclared work may depend on whether the respondent believes that the promise of confidentiality will be kept and in turn, this may be influenced by the level of his or her social trust. And therefore, again, any positive association found between social trust and self-reported undeclared work would risk being a reflection on this. Seen in this light, using undeclared work morale has a number of advantages. Thus, we expect that respondents will report their attitudes towards undeclared work much more truthfully than they would their actual engagement in undeclared work.³ Moreover, the question on tax morale also captures those who are willing to engage in undeclared work activities but who have not had an opportunity to do so. This would not have been the case if actual behaviour was used.

Evidently, actual behaviour is what the researcher should be interested in, and undeclared work morale is only interesting if it affects (or correlates with) actual

³ At the same time, we assume that the willingness of the respondents to answer truthfully concerning their attitudes towards undeclared work was not influenced by their actual (unrevealed) engagement in undeclared work.

behaviour. Previous studies on tax morale – implicitly or explicitly – assume that “tax morale affects tax compliance” (Halla, 2010, p. 2). In line with previous research on tax morale, we therefore assume that undeclared work morale correlates with actual behaviour concerning undeclared work. Moreover, recent research corroborates our assumption, as strong correlations between tax morale and tax evasion have been shown to exist both at the individual level and at the aggregate level. Thus, based on survey data, Torgler and Schaffner (2007) find a significant negative relationship between self-reported tax morale and self-reported tax evasion, i.e. the more respondents think cheating on taxes is wrong, the less they report to have cheated on taxes. As self-reports on tax evasion may not be accurate, Torgler, Schaffner and McIntyre (2007) use an experimental design to test this relationship and they find the same result. Finally, aggregate-level studies have found that the tax morale of the citizens of a country is negatively related to the estimated size of the country’s black economy, i.e. the higher the undeclared work morale, the less the estimated size of the black economy. Using various instrumental variables, these studies find that the causal link goes from tax morale to tax compliance (Torgler, Schaffner and McIntyre, 2007; Torgler and Schneider, 2009; Halla, 2010). Thus, the literature on tax evasion offers strong evidence to suggest that attitudes translate into behaviour.

In sum, we use Danish individual-level data and undeclared work morale as an indicator of actual undeclared work to investigate the relationship between social trust and undeclared work. This method seems to be appropriate, as it avoids most of the methodological pitfalls inherent in the Eurobarometer survey.

3. Data and methods

In the DVS 1999/2008, respondents were asked the question: “To what extent do you approve of the following activities? Undeclared work” (measured on a 10-point scale, where 1 is “I don’t approve at all” and 10 is “I highly approve”). We reversed the coding to create a variable measuring *undeclared work morale*.⁴ Accordingly, having a strong undeclared work morale means that the respondent thinks that undeclared work is wrong. Relatively few chose the first 5 categories, see Table 2. Therefore, to allow for sensitivity analyses, we also created a more evenly distributed variable on a 4-point scale, where value 1 constitutes the first 5 points (21.5 percent), value 2 constitutes points 6 and 7 (31.9 percent), value 3 constitutes points 8 and 9 (24.1 percent), and value 4 constitutes point 10 (22.5 percent). There were no other questions in the DSV concerning undeclared work.

>>Insert Table 2 about here<<

Respondents were asked the standard question regarding *social trust*: “Generally speaking, would you say that most people can be trusted or that you cannot be too careful in dealing with people?”. Accordingly, respondents had to choose between “most people can be trusted” and “you cannot be too careful in dealing with people”.

We estimate the relationship between social trust and undeclared work morale, while adjusting for control variables. We use an ordered logit model, because *undeclared work morale* is ordinally scaled, (see e.g. Wooldridge, 2002, Chapter 15).

⁴ Thus measured on a 10-point scale, where 1 is “I highly approve” and 10 is “I don’t approve at all”.

3.1 Control variables

We include several control variables in the analyses. Previous studies, such as Scholz and Lubell (1998) and Torgler (2003a,b), have shown that trust in the parliament or government, the public system and the legal system have an impact on individual tax morale. The reasons for this are, simply put: Tax morale will increase i) the more taxpayers trust their government to spend taxes wisely, ii) the more they trust the public system to administer public money effectively, and iii) the more they trust that the legal system to deal effectively with tax offenders. We have thus extracted these variables from the DVS: *trust in the parliament*, *trust in the public system* and *trust in the legal system*.⁵ Moreover, individual preference for paying taxes may vary depending on the individual opinions about the desired size of the public sector. Therefore, we include a variable measuring the political *left-right dimension*, based on the question: “In politics, people talk about “the left” and “the right”. Where would you place yourself on a scale from 1 to 10 where 1 means left and 10 means right?”. Assuming that right-wingers are less willing to pay taxes than left-wingers, we expect a negative sign for this coefficient.

In the early tax evasion model of Allingham and Sandmo (1972), taxpayers are assumed to rationally consider the possible economic gains against the probability of being caught, the expected penalty, and the degree of risk aversion. The DVS does not include items that directly measure these factors. We assume that Danes have more or less the same expectations regarding the penalty. The perceived probability of being caught for undeclared work, however, may be lower in peripheral areas. People may assume that tax audits are less frequent in such areas (because they are more costly per controlled unit). We therefore include two measures of urbanization.

⁵ Based on the question “To what extent do you trust the following institutions?”: i) the parliament, ii) the public system, and iii) the legal system. We have reversed the original 4-point scale coding into: 1=not at all, 2=not very much, 3=quite a lot, 4=a great deal.

The first measure, *city size*, is based on the question: “What is the number of inhabitants in the place/the town where you live?” (Recoded into a variable on a 3-point scale: 1=less than 5,000 inhabitants, 2=between 5,000 and 500,000 inhabitants, 3=more than 500,000 inhabitants). The second measure, *periphery-centre*, is based on the registered county location of the respondent, which we coded into a periphery-centre variable on a 3-point scale: 1=peripheral region, 2=middle region, 3=centre region. The centre region category consists of a number of bordering counties that include the capital city of Copenhagen.

Further, we include the inflation-adjusted gross *income* per head of household. We assume that income relates to undeclared work morale in two opposite ways: i) the lower the earnings, the higher the incentive to sell and/or buy undeclared work, and ii) the higher the earnings, the higher the marginal tax bracket and thus the higher the relative economic incentive to buy undeclared work. Other included individual characteristics are: *age*, *female*, having a *long-term higher education* or not, *marital status*, *employment status*, and a dummy for the *collection year 2008*. Descriptive statistics are shown in Table 3.

>>Insert Table 3 about here<<

4. Results

Table 4 shows results from ordered logit estimations. We measure undeclared work morale on a 10-point scale in Model (1) and on a 4-point scale in Model (2).

>>Insert Table 4 about here<<

4.1 Trust variables

We find a significant negative relationship between social trust and undeclared work morale. This relationship is statistically significant at the 5 percent level in Model (1) (two-tailed $p=0.031$) and at the 1 percent level in Model (2) (two-tailed $p=0.009$). In effect, using morale as an indicator of behaviour, these results suggest that social trust reinforces undeclared work. In Model (1), the probability of indicating the highest undeclared morale is 3.9 percent higher among people who think that most people can be trusted than people who do not. In Model (2), this probability is estimated to be 4.9 percent.

As hypothesised, the coefficients to the three institutional trust variables are all positive and significant at the 1 % level. Hence, undeclared work morale is positively related to trust in the parliament, trust in the public system and trust in the legal system. Marginal effects are relative high for these variables. For example, in Model (1), an increase by one unit of trust in the public system raises the share of persons indicating the highest undeclared work morale by 5.7 percent. The finding of expected results for the institutional trust variables, trust in the parliament, the public system and the legal system, strengthens the credibility of the social trust result.

We checked the correlation between the trust variables and they were all positively correlated with one another at a highly significant level ($p<0.0001$).⁶ To get a better understanding of the interconnectedness between the trust variables, we analysed what would happen if each trust variable was entered separately in the regression. The results are shown in Table 5 using undeclared work morale on a 10-point scale as dependent variable.

⁶ For example, the correlation between social trust and the three institutional trust variables ranged from 0.12 to 0.18. The highest correlation was found between trust in the parliament and trust in the public system (0.46).

>>Insert Table 5 about here<<

Table 5 shows that each of the three institutional trust variables is positively and significantly related to undeclared work morale when entered alone. Each coefficient is larger than in the full model where all trust variables are included. This can be explained by the omission of the two other institutional trust variables, as the one included variable will pick up some of the positive effects from the two omitted institutional trust variables. Furthermore, we find that social trust still has a negative sign when entered alone. However, because social trust correlates positively with the institutional trust variables, it picks up some of the positive effects from these omitted variables and the negative coefficient is no longer statistically significant. Consequently, the right way to evaluate the association between social trust and undeclared work morale is to include all trust variables at the same time, thus finding a statistically significant negative association between social trust and undeclared work morale.⁷

4.2. Other variables

The tentative hypothesis that undeclared work morale increases with the degree of urbanisation receives some support. Hence, people in central (metropolitan) parts of Denmark reported significantly higher undeclared work morale (Table 4). Overall, an increase by one unit in the periphery-centre variable increases the share people indicating the highest undeclared work morale by 2.3 percent (Model (1)). Yet no significant relationship between city size and undeclared work morale was found.

⁷ Because of the correlation among independent variables, we checked for potential problems of multicollinearity. Thus, a VIF multicollinearity test was performed using linear regression (on Model 1 in Table 4). The variance inflation factors (VIF) for individual independent variables were found to be well below 5. The VIF for the four trust variables ranged from 1.14 to 1.47. The common rule of thumb is that multicollinearity is present if the VIF of a single variable exceeds 10 (Gujarati, 2004, p. 362).

As expected, undeclared work morale decreases along the political left-right dimension. An increase by one unit towards the right-wing position reduces the share of people indicating the highest undeclared work morale by around 1 percent. This finding suggests that a person's undeclared work morale is influenced by his or her opinion about the desirable size of the public sector. Undeclared work morale does not increase with income. A U-shaped relationship was hypothesised, but this was not found in the data.

Undeclared work morale increases significantly with age. The relation with age is inversely U-shaped (peaking at age 83 in Model (1) and at age 78 in Model (2)). This finding is in line with the findings of previous studies by Torgler and Schneider (2005), Torgler (2006), and Frey and Torgler (2007) on tax morale.⁸ In both models, women report significantly higher undeclared work morale than men. For example, the marginal effect in Model (1) indicates that the probability of stating "I don't approve at all of undeclared work" is 6.3 percent higher for females than for males. The findings with regards to gender are also in line with the findings of previous studies on tax morale (Torgler and Schneider, 2005; Torgler, 2006; Frey and Torgler, 2007). Furthermore, people with a long-term higher education report significantly higher undeclared work morale than people with lower levels of education. Thus, having a higher long-term education increases the probability of indicating the highest undeclared work morale by 6.2 percent. With regards to marital status, divorced people and co-habiting people indicate significantly lower undeclared work morale than

⁸ These three studies all find a positive relationship between age and tax morale, without checking for quadratic effects. The studies are based on either the World Values Surveys or the European Values Studies, and they use the same questionnaire item to measure tax morale: "Please tell me for each of the following statements whether you think it can always be justified, it can never be justified, or it falls somewhere in between: ...Cheating on tax payments if you get the chance" (followed by a 10-point scale, where 1=never and 10=always) (Torgler and Schneider, 2005, p. 233; Torgler, 2006, p. 87; Frey and Torgler, 2007, p. 141).

singles. Looking at the employment status, only unemployed people have higher undeclared work morale than full-time employed people in both models.

5. Conclusion

In this paper, using Danish data, we found a negative relationship between social trust and undeclared work morale, thus pointing to a dark side of social trust in this country. This finding is unique, considering that negative implications of social trust have received little attention so far. Social trust is normally associated with many positive societal outcomes, as for example higher national economic growth rates and lower corruption levels (Knack and Keefer, 1997; La Porta et al., 1997). Moreover, social trust is one of the most well-known proxies for social capital (Beugelsdijk and van Schaik, 2005), and social capital has been identified as an important resource to solve collective problems (Putnam, 1993).

Previous studies tend to suggest that social trust has a positive impact on individual tax evasion *per se*, and we provided explanations as to why undeclared work may differ from other forms of tax evasion. We did so by referring to the collaborative nature of undeclared work. Thus, people may be more willing to engage in undeclared work with people they do not know well when they think that most people can be trusted than if they do not. Simply put, you have to trust your partner “in crime”, because if the verbal contract is not fulfilled, you cannot go to the courts and plead your case.

The present study is the first to investigate how social trust is related to undeclared work morale. Since results cannot automatically be generalized to other

countries, further research is needed to test the results and to elaborate on the causal connections.

Acknowledgements

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Table 1 Social trust, corruption and undeclared work in EU-27

Country	Social trust, WVS 1999/2000, % ¹	Transparency International Reversed Corruption Perception Index, 2007 ²	Has acquired services and/or goods that could be assumed to embody undeclared work in the last twelve months, Eurobarometer, 2007, % ³
Denmark	67	0.6	27
Sweden	66	0.7	23
Netherlands	60	1.0	27
Finland	58	0.6	11
Spain	39	3.3	6
Germany	38	2.2	6
Ireland	36	2.5	8
Austria	34	1.9	17
Italy	33	4.8	12
Belgium	31	2.9	18
United Kingdom	30	1.6	9
Bulgaria	27	5.9	14
Luxembourg	26	1.6	14
Lithuania	25	5.2	12
Czech Republic	24	4.8	15
Greece	24	5.4	17
Estonia	23	3.5	14
France	22	2.7	10
Hungary	22	4.7	12
Slovenia	22	3.4	17
Malta	21	4.2	17
Poland	19	5.8	8
Latvia	17	5.2	24
Slovakia	16	5.1	15
Romania	10	6.3	11
Portugal	10	3.5	7
Cyprus (social trust: 2006)	10	4.7	2

Notes: (1) Percentage of respondents deciding for the option “Most people can be trusted” as opposed to “You can’t be too careful”. (2) The Corruption Perceptions Index (CPI) ranks countries by their perceived levels of corruption as determined by different surveys. CPI uses the range of 10 (lowest possible corruption level) to 0 (highest possible corruption level). In the table, this is reversed so that low CPI values indicate low degrees of corruption. (3) A merger of two questions in the questionnaire: QB8 and QB9 (Eurobarometer, 2007, p. 10). Data were collected in 2007. Sources: World Values Survey, www.worldvaluessurvey.org. Transparency International, www.transparency.org. Eurobarometer, 2007.

Table 2 Undeclared work morale

“To what extent do you approve of undeclared work?”	Number	Percent	Cum. percent
1. I highly approve	74	4.2	4.2
2.	32	1.8	6.0
3.	94	5.3	11.3
4.	91	5.1	16.4
5.	91	5.1	21.6
6.	392	22.1	43.7
7.	174	9.8	53.5
8.	263	14.8	68.3
9.	164	9.3	77.6
10. I don't approve at all	398	22.5	100.0
Total	1773	100.0	

Source: Danish Values Studies, 1999/2008.

Table 3 Descriptive statistics (n=1773)

	Mean	S.D.	Minimum	Maximum
Undeclared work morale (10-point scale) ^a	6.98	2.50	1	10
Undeclared work morale (4-point scale) ^b	2.47	1.06	1	4
Social trust ^c	0.76	0.43	0	1
Trust in the parliament ^d	2.68	0.69	1	4
Trust in the public system ^d	2.67	0.60	1	4
Trust in the legal system ^d	3.06	0.64	1	4
Age	48.07	16.04	18	95
Female	0.46	0.50	0	1
Long-term higher education ^e	0.11	0.31	0	1
Single	0.13	0.33	0	1
Married	0.59	0.49	0	1
Living with partner (but not married)	0.12	0.33	0	1
Divorced	0.09	0.29	0	1
Separated	0.01	0.11	0	1
Widowed	0.05	0.22	0	1
City size ^f	1.83	0.67	1	3
Periphery-centre ^g	1.88	0.82	1	3
Income ^h	3.09	2.17	0.40	40
Full-time employed	0.58	0.49	0	1
Part-time employed	0.05	0.23	0	1
Self-employed	0.05	0.21	0	1
Unemployed	0.02	0.15	0	1
Housewife	0.01	0.08	0	1
Student	0.05	0.21	0	1
Retired	0.23	0.42	0	1
Other	0.01	0.11	0	1
Left-right dimension (political) ⁱ	5.43	1.99	1	10
Collection year 2008 ^j	0.58	0.49	0	1

Notes:

^a Undeclared work morale relates to whether undeclared work is considered wrong or not. It is measured on a scale from 1 to 10 where 1 is “I highly approve of undeclared work” and 10 is “I don’t approve of undeclared work at all”.

^b This is undeclared work morale on a 4-point scale. It was constructed from the undeclared work morale variable on the 10-point scale (recoding: 1=1-5, 2=6/7, 3=8/9, and 4=10).

^c The standard question measuring social trust: 1=most people can be trusted, 0=you cannot be too careful in dealing with people.

^d Trust in the parliament, trust in the public system, and trust in the legal system are measured using the same Likert scale: 1=not at all, 2=not very much, 3=quite a lot, 4=a great deal.

^e Having graduated with a master’s degree from university or other higher educational institution.

^f Based on the question: “What is the number of inhabitants in the place/the town where you live?”. Respondents had seven ranges to choose from. For simplicity, we recoded it and got a 3-point scale: 1=less than 5,000 inhabitants, 2=between 5,000 and 500,000 inhabitants, 3=more than 500,000 inhabitants.

^g The periphery-centre variable divides Denmark into three types of regions (the underlying administrative units stated in brackets by their Danish name): 1=peripheral region (counties of Vestsjælland, Storstrøm, Nordjylland, Viborg, Ringkøbing, Ribe, Sønderjylland, and Bornholm), 2=middle region (counties of Fyn, Århus, and Vejle), and 3=centre region (counties of København, Roskilde, and Frederiksberg, and municipalities of København and Frederiksberg).

^h Inflation-adjusted income per head of household in DKK 100,000.

ⁱ This is the political left-right dimension. It measures how respondents place their political views on a scale from 1 to 10 where 1 means “left” and 10 means “right”.

^j This is a dummy for the collection year 2008 (as opposed to the collection year 1999).

Table 4 Ordered logit model for undeclared work morale

	Model 1			Model 2		
	Coefficient	z-statistic	Marg.	Coefficient	z-statistic	Marg.
(a) Trust						
Social trust	-0.2310**	-2.15	-0.0391	-0.2863***	-2.62	-0.0490
(b) Institutional trust						
Trust in the parliament	0.2457***	3.26	0.0402	0.2426***	3.15	0.0398
Trust in the public system	0.3460***	4.20	0.0565	0.3211***	4.78	0.0527
Trust in the legal system	0.2345***	3.11	0.0383	0.2176***	2.83	0.0357
(c) Demographic factors						
Age	0.0575***	3.08	0.0094	0.0645***	3.38	0.0106
Age ²	-0.0003*	-1.84	-0.0001	-0.0004**	-2.15	-0.0001
Female	0.3807***	4.27	0.0627	0.3446***	3.77	0.0570
Long-term higher education	0.3491**	2.25	0.0616	0.3021**	2.06	0.0530
(d) Marital status						
Married	-0.1802	-1.14	-0.0297	-0.1941	-1.21	-0.0322
Living together	-0.3060*	-1.77	-0.0467	-0.2829	-1.59	-0.0436
Divorced	-0.5178**	-2.50	-0.0744	-0.4966**	-2.35	-0.0720
Separated	-0.2605	-0.62	-0.0394	-0.2109	-0.50	-0.0325
Widowed	-0.3295	-1.25	-0.0492	-0.2341	-0.88	-0.0360
(e) Location						
City size	0.0843	1.21	0.0138	0.0710	0.99	0.0116
Periphery-centre	0.1426**	2.54	0.0233	0.1642***	2.86	0.0270
(f) Income						
Income	0.0145	0.37	0.0024	0.0218	0.54	0.0036
Income ²	-0.0002	-0.11	-0.0000	-0.0006	-0.40	-0.0001
(g) Employment status						
Part-time employed	0.3011	1.63	0.0531	0.3283*	1.73	0.0585
Self-employed	0.1595	0.79	0.0272	0.1948	0.94	0.0336
Unemployed	0.5504*	1.81	0.1036	0.5546*	1.82	0.1049
Housewife	-0.5971	-1.08	-0.0812	-0.5875	-1.00	-0.0805
Student	-0.0301	-0.13	-0.0049	-0.0545	-0.24	-0.0091
Retired	0.0873	0.51	0.0145	0.0852	0.49	0.0142
Other	0.2565	0.67	0.0450	0.2323	0.61	0.0407
(h) Political ideology						
Left-right dimension	-0.0647***	-2.87	-0.0106	-0.0552**	-2.41	-0.0091
(i) Collection year						
2008	-0.0798	-0.88	-0.0131	-0.9053	-0.97	-0.0149
Observations		1773			1773	
Pseudo R ² (McFadden)		0.03			0.04	

Notes: Model 1: Dependent variable: undeclared work morale on a 10-point scale. Model 2: Dependent variable: undeclared work morale on a 4-point scale. Reference groups: male, no long-term education, single, full-time employed, 1999. Marg.: marginal effect (in relation to highest scale of undeclared work morale). Significance levels (two-tailed): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 5 Ordered logit model for undeclared work morale

	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Social trust	-0.0743				-0.2310**
Trust in the parliament		0.4324***			0.2457***
Trust in the public system			0.5154***		0.3460***
Trust in the legal system				0.3927***	0.2345***
Observations	1773	1773	1773	1773	1773
Pseudo R^2 (McFadden)	0.02	0.02	0.02	0.02	0.03

Notes: Dependent variable: undeclared work morale on a 10-point scale. All other variables included. Reference groups: male, no long-term education, single, full-time employed, 1999. Significance levels (two-tailed): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.