

Online Appendix

Collaborative tax evasion in the provision of services to consumers - A field experiment

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A. Sector description

The skilled crafts and trade sector is one of the most diverse economic sectors in Germany. In 2016, it consisted of over 550,000 firms that generated revenues of 551 billion with over 5 million workers (see Table A.1). Painting and flooring services belong to the finishing trade which is the largest industry within the skilled crafts and trade sector (227,219 firms represent a share of 41%). Firms that belong to the finishing trade are responsible to finish the construction and perform the secondary contract work. The finishing trades generated revenues of over 148 billion Euro with more than 1.4 million workers in 2016.

TABLE A.1—SUMMARY STATISTICS ON THE SECTOR

	Num. of firms	Num. of workers	Workers per firm	Revenue in 1000 Euro	Revenue per worker
Skilled crafts and trades	554,349	5,142,464	9	551,469,184	107,238
among them:					
Finishing trade	227,219	1,437,632	6	148,095,013	103,013
Painting (A10)	34,406	205,015	6	15,476,442	75,489
Parquet flooring (B112)	4,490	14,829	3	1,340,297	90,384
General flooring (B103)	3,395	16,475	5	1,796,478	109,043
Decorator (B127)	14,755	48,569	3	3,653,157	75,216
Sum of painting and flooring	57,046	284,888	4	22,266,374	350,132

Note: A10 etc. is the official code of the group.

Source: Federal Statistical Office, Handwerkszählung 2016.

In 2016, 57,046 firms were registered to perform painting and floor installation services. This is a share of 25% of all firms in the finishing trade and a share of 10% of all firms operating the skilled crafts and trade sector. Over 280,000 persons worked in painting and flooring services, the generated revenue amounts to more than 22 billion Euro. The share of the total skilled crafts and trade sector on the gross value added amounts to 7.7% (Zentralverband des Deutschen Handwerks, 2018). Using the fraction of the finishing trade and painting and flooring services on the skilled crafts and trade sector (based on revenues), we estimate the finishing trades proportion of the gross value added to be 2% and the proportion of painting and flooring services to be 0.3% of the value added.

The skilled crafts and trade sector consists of mainly small and medium-sized firms, as shown in Table A.2. The share of firms with less than 5 workers amounts to almost 60%. This is also true in the finishing trades and in the subgroups of painting and flooring services. Here the share of very small and small firms is even larger and amounts to 70%.

TABLE A.2—DISTRIBUTION OF FIRMS BY SIZE

	Skilled crafts and trade		Finishing trade		Painting and flooring	
	Number	in %	Number	in %	Number	in %
< 5 workers	329,842	59.5	150,635	66.3	39,878	69.9
5-9 workers	116,196	21.0	42,800	18.8	10,487	18.4
10-19 workers	63,476	11.5	22,135	9.7	4,720	8.3
20-49 workers	32,081	5.8	9,106	4.0	1,679	2.9
> 50 workers	12,754	2.3	2,543	1.1	282	0.5
	554,349		227,219		57,046	

Source: Federal Statistical Office, Handwerkszählung 2016.

B. Details of the experiment

1. Wording of advertisements (translated from German)

Advertisement painting

Looking for someone to paint two rooms, in total 40 (80) sqm. There are no slopes and the walls are 2.5m high. Ceilings do not have to be painted. The rooms will be empty. Wallpapering is unnecessary. The walls are currently white with woodchip wallpaper. White paint (brand x) and covering material will be provided. It is not possible to view the site before. Please send me your price proposal (excl. material). Thank you!

Advertisement parquet flooring

Looking for someone to install parquet floor in two rooms, in total 40 (20) sqm. The room is rectangular. The parquet floor should be installed using the floating method. I will provide the flooring parquet (brand x) as well as skirting boards. It is not possible to view the site before. Please send me your proposed price (excl. material). Thank you!

2. *Wording of treatments (translated from German)*

Treatment TB₀: Baseline, no discount Thanks for your offer of X Euro. The job should be done within the next four weeks. The price of X Euro would be okay for me. If you agree, please get back to me and let me know when you could do the job. I have received several offers and will decide in the next few days. Thank you!

Treatment TI₀: Invoice, no discount

Thanks for your offer of X Euro. The job should be done within the next four weeks. The price of X Euro would be okay for me. I need an invoice, I would like to deduct the costs from taxes. If you agree, please get back to me and let me know when you could do the job. I have received several offers and will decide in the next few days. Thank you!

Treatment TB₁₀: Baseline, 10% discount

Thanks for your offer of X Euro. The job should be done within the next four weeks. The price of $(1 - 0.1) \cdot X$ Euro would be okay for me. If you agree, please get back to me and let me know when you could do the job. I have received several offers and will decide in the next few days. Thank you!

Treatment TI₁₀: Invoice, 10% discount

Thanks for your offer of X Euro. The job should be done within the next four weeks. The price of $(1 - 0.1) \cdot X$ Euro would be okay for me. I need an invoice, I would like to deduct the costs from taxes. If you agree, please get back to me and let me know when you could do the job. I have received several offers and will decide in the next few days. Thank you!

Treatment TB₂₀: Baseline, 20% discount

Thanks for your offer of X Euro. The job should be done within the next four weeks. The price of $(1 - 0.2) \cdot X$ Euro would be okay for me. If you agree, please get back to me and let me know when you could do the job. I have received several offers and will decide in the next few days. Thank you!

Treatment TI₂₀: Invoice, 20% discount

Thanks for your offer of X Euro. The job should be done within the next four weeks. The price of $(1 - 0.2) \cdot X$ Euro would be okay for me. I need an invoice, I would like to deduct the costs from taxes. If you agree, please get back to me and let me know when you could do the job. I have received several offers and will decide in the next few days. Thank you!

Treatment TQ: Inquiry

Thanks for your offer. Does it include an invoice? How much would it cost if I pay in cash?

Additional interactions in TQ in case questions not clearly answered:

- 1) In case of ambiguous price(s): “So X includes an invoice? How much would it cost if I pay in cash?” or “So X is the cash price? How much would it cost including an invoice?”
- 2) When the seller reports that the price includes an invoice but no cash price was given in the first answer: “And how much would it cost if I pay in cash?”
- 3) When the seller reports that the price is cash and no invoice price was given in the first answer: “And how much would it cost including an invoice?”

Rejection

Thanks again for your offer. Unfortunately, I have to tell you that we haven't chosen you.

3. Representative examples of answers in treatment TQ (translated from German)

Every interaction began with our treatment text (“Thanks for your offer. Does it include an invoice? How much would it cost if I pay cash?”) and ended with our rejection.

- Proposes only invoice price (initial invoice, no additional interaction):
Seller: Yes, only with invoice, 380 Euro including VAT. Thanks a lot.
- Proposes only cash price (initial cash, no additional interaction):
Seller: No, no invoice included, and I cannot issue one. This is private after work or during the weekend.
- Proposes cash and invoice price (initial cash, no additional interaction):
Seller: Hello, the offer is net, if it should be with invoice than plus VAT, as you like. Kind regards
- Proposes cash and invoice price (initial invoice, no additional interaction):
Seller: If you pay cash without invoice I can reduce the price to 150 Euro. Do I need to bring anything else besides basic equipment?
- Proposes cash and invoice price but stresses that cash price also involves invoice (initial invoice, no additional interaction):
Seller: Dear Mr. Lorenz, Of course you will receive an invoice. VAT, call-out fees, and material excluding paint are included in the price. Cash payment 260 Euro (with invoice). Kind regards

- Proposes only cash price (initial cash, with additional interaction):
 Seller: It is without. Kind regards
 Consumer: And how much would it cost including an invoice?
 Seller: I can only an issue from October onwards, since I will only be self-employed from there on. Kind regards
- Proposes cash and invoice price (initial cash, with additional interaction):
 Seller: Dear Mr. Walter, my offer was without VAT. Kind regards
 Consumer: And how much would it cost including an invoice?
 Seller: +19%, i.e., ca. 60 Euro
- Proposes cash and invoice price (initial invoice, with additional interaction):
 Seller: This would be 500 Euro
 Consumer: So including an invoice 560 Euro and cash 500 Euro?
 Seller: Yes!
- Proposes cash and invoice price but stresses that cash price also involves invoice (initial invoice, with additional interaction)
 Consumer: That means 230 with invoice and 207 when I pay cash?
 Seller: Good morning, of course you will receive an invoice when you pay cash.
- Proposes cash and invoice price but stresses that cash price also involves invoice (initial invoice, with additional interaction)
 Seller: Hello Mr. Barth, Of course you will receive an invoice. Cash payment is okay for me but please consider that you will probably lose the tax advantage through paying cash. Kind regards
 Consumer: And how much would it cost if I pay cash?
 Seller: Hello Mr. Barth, it doesnt matter if you pay cash or transfer the money, it will remain the same price. I cannot offer an immediate payment discount at such a low price. Kind regards

4. Tables and figures explaining details of experiment

TABLE B.1—FEATURES OF MARKETS AND EXAMPLES OF COUNTRIES

Market features	Market type	
	Restrictive (R)	Non-Restrictive (NR)
Type of good/services traded		
- Personal/household services	x	
- Almost any		x
Access restrictions on sellers' side		
- Only registered businesses	x	
- No access restrictions		x
Background check of sellers' identity		
- Yes	x	
- No		x
Consumer rating possible		
- Yes	x	
- No		x
User fees		
- Only for sellers	x	
- None		x
Examples of countries	DEU	DEU
	CHE	CHE
	AUT	AUT
	ITA	ITA
	FRA	FRA
	GBR	GBR
	USA	USA
	CAN	CAN
	NDL	

Note: Countries are indicated by their three digit code in ISO 3166. In several countries, markets exist that are similar to those listed in the table except for a variation in one of the market features.

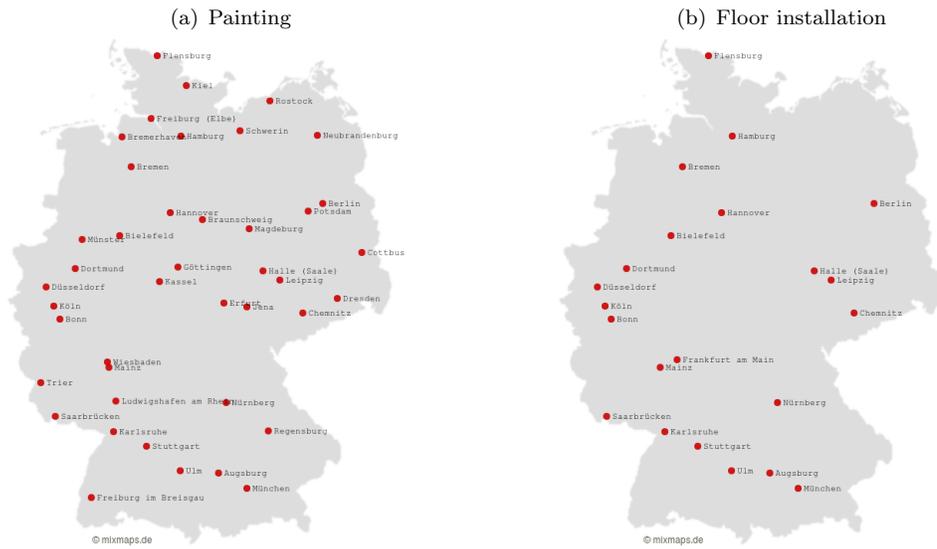


FIGURE B.1. MAP OF CITIES

Note: The advertisement for the painting job was posted in 42 cities and for the flooring job in 22 of these cities. Due to technical issues, we were not able to collect offers for the painting job in Chemnitz in Market NR.

TABLE B.2—REASONS FOR NOT BEING TREATED

Reason	Market R	Market NR
Seller asks for a call or visit prior to sending a price proposal	0.078	0.020
Seller sends offers including the material	0.021	0.006
Seller does not send a (total) price even if we ask them to so	0.007	0.035
Seller asks for details which would imply differences across sellers	0.007	0.013
Seller sends unspecific offers	0.006	0.014
Total	0.119	0.088

Note: Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. Reported fractions are relative to the sample that sent an offer.

C. Details on identification strategy of γ_0

We aim to identify the fraction of offers from sellers who respond to the advertisement with the intention to evade γ_0 . We can derive γ_0 as the conditional probability of observing a seller with intention to evade given that the job is accepted, $P(E|acc)$. Using Bayes' rule, the fraction is equal to the conditional probability shown in equation (1),

$$(1) \quad \gamma_0 = P(E|acc) = \frac{P(acc|E)P(E)}{P(acc)}$$

In TB_0 , we do not mention that we need an invoice. We assume that sellers accept the treatment independent of their intention. The probability that a seller accepts the job given the contract conditions of the baseline treatment is the sum of the probability of acceptance given the seller intends to declare and the probability of acceptance given the seller intends to evade weighted with the probability of being that type of seller,

$$(2) \quad P(acc|TB_0) = P(acc) = P(acc|D)P(D) + P(acc|E)P(E).$$

In the invoice treatment TI_0 , we stress that an invoice (I) is needed to deduct the service costs from the tax bill. The probability that a seller accepts the job given the contract conditions in the invoice treatment can again be written as the sum of the probabilities of accepting the job when the seller intends to declare or to evade and is willing to issue an invoice weighted with the probability of being that type of seller,

$$(3) \quad P(acc|TI_0) = P(acc|I) = P(acc|D, I)P(D, I) + P(acc|E, I)P(E, I).$$

The fraction of offers from sellers with intention to evade can be identified from the difference of acceptance rates in the baseline and invoice treatment based on two assumptions. First, TI_0 should only be accepted by those who intend to declare the transaction:

Assumption 1 (A1)

$$(4) \quad P(acc|E, I) = 0 \quad \text{or} \quad P(not\ acc|E, I) = 1$$

We assume that all sellers who intend to evade will not accept the job in the invoice treatment. This assumption is highly plausible since we explicitly state that we aim to deduct the costs from taxes. We thereby signal that we will only hire them if we actually receive an invoice which we would make available to public authorities. It would be irrational to issue an invoice and to evade because tax authorities may learn about the transaction from the invoice and compare the

information with sellers' records. Under A1, the probability that a seller accepts the job in the invoice treatment reduces to

$$(5) \quad P(acc|TI_0) \stackrel{A1}{=} P(acc|D, I)P(D, I).$$

Second, we assume consistent behavior of sellers across TB_0 and TI_0

Assumption 2 (A2)

$$(6) \quad \text{A2a: } P(acc|D)P(D) = P(acc|D, I)P(D, I).$$

$$(7) \quad \text{A2b: } P(acc|E)P(E) = P(not\ acc|E, I)P(E, I).$$

We assume that sellers have a clear intention when responding to the advertisement which, since we do not modify the prices initially proposed by sellers, is unaffected by the treatment. Assumption A2a implies that those who accept the job and agree to issue an invoice if we explicitly ask for it in TI_0 would also accept and issue an invoice if we do not ask for it (equation 6). A violation of A2a could happen when sellers who initially intend to declare decide to keep the collected taxes when we do not explicitly ask for an invoice in TB_0 . Assumption A2b implies that those who accept with intention to evade in TB_0 would also intend to evade in TI_0 and consequently not accept this treatment (equation 7). A2b could be violated when sellers who respond to the advertisement with intention to evade decide to absorb the tax costs and accept with the intention to declare in TI_0 . However, only formal sellers can change their intention in reaction to the treatment.

If assumptions A1 and A2 hold the fraction of offers from sellers responding to the advertisement with intention to evade γ_0 is identified from the differences of acceptance rates of the two treatments divided by the acceptance rate of the baseline treatment,

$$(8) \quad \gamma_0 = P(E|acc) = \frac{P(acc|TB_0) - P(acc|TI_0)}{P(acc|TB_0)} \stackrel{A1-A2}{=} \frac{P(acc|E) \cdot P(E)}{P(acc)}.$$

If assumptions A1 and/or A2 are violated, our estimate of γ_0 presents a lower bound.

D. Additional results

TABLE D.1—P-VALUES OF KOLMOGOROV-SMIRNOV TESTS

Market R						
	TB ₀	TI ₀	TB ₁₀	TI ₁₀	TB ₂₀	TI ₂₀
TI ₀	0.921					
TB ₁₀	0.974	0.950				
TI ₁₀	0.430	0.404	0.522			
TB ₂₀	0.926	0.723	0.738	0.079		
TI ₂₀	0.348	0.597	0.788	1.000	0.276	
TQ	0.190	0.575	0.565	0.788	0.222	0.973
Market NR						
	TB ₀	TI ₀	TB ₁₀	TI ₁₀	TB ₂₀	TI ₂₀
TI ₀	0.229					
TB ₁₀	0.846	0.375				
TI ₁₀	0.803	0.611	0.854			
TB ₂₀	0.989	0.452	0.885	0.998		
TI ₂₀	0.843	0.450	0.833	0.999	1.000	
TQ	0.845	0.785	0.795	0.803	0.639	0.571

Note: Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. P-values are from a Kolmogorov-Smirnov test of the equality of the distribution of the proposed prices. We perform the test for all treatments against each other. The statistics are based on offers in the final sample.

TABLE D.2—PROBIT REGRESSION RESULTS WHEN WE CONFIRM THE PRICE

	(1)	(2)	(3)	(4)	(5)	(6)
	Market		Market		Market	
	R	NR	R	NR	R	NR
<i>Panel A. Marginal effects from regression</i>						
Invoice treatment TI_0	-0.016 (0.041)	-0.488 (0.005)	0.002 (0.043)	-0.482 (0.007)	-0.026 (0.061)	-0.518 (0.021)
Proposed price			-0.000 (0.046)	0.003 (0.029)	-0.003 (0.042)	0.004 (0.032)
Proposed price $\times TI_0$			0.066 (0.072)	0.074 (0.030)	0.067 (0.073)	0.069 (0.029)
Floor installing					0.013 (0.071)	-0.085 (0.057)
Floor installing $\times TI_0$					0.065 (0.078)	0.132 (0.078)
Quarter fixed effects	yes	yes	yes	yes	yes	yes
<i>Panel B. Fractions calculated from predicted values</i>						
Fraction of evasion offers γ_0	0.018 (0.064)	0.734 (0.204)	0.015 (0.049)	0.735 (0.078)	0.015 (0.017)	0.735 (0.078)
Differences		0.716 (0.215)		0.720 (0.092)		0.720 (0.188)
Market NR - Market R						
N	140	538	140	538	140	538

Note: Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. Panel A reports marginal effects from a probit estimation of job acceptance on the invoice treatment indicator and different sets of control variables. Due to the low number of observations in Market R, it is not possible to jointly control for region and quarter effects. Due to perfect prediction in some cells, in Market R the sample decreases by 45 observations when we control for quarter. The results are unchanged when we drop the quarter variable. The proposed price is standardized to zero mean and unit variance by market and job type. Clustered standard errors on the advertisement level are reported in parentheses. Panel B reports the fraction of offers from sellers who intend to evade predicted from probit estimation and the differences of these fractions between markets. Standard errors of the fractions and the difference between markets are obtained from bootstrapping with 10,000 replications.

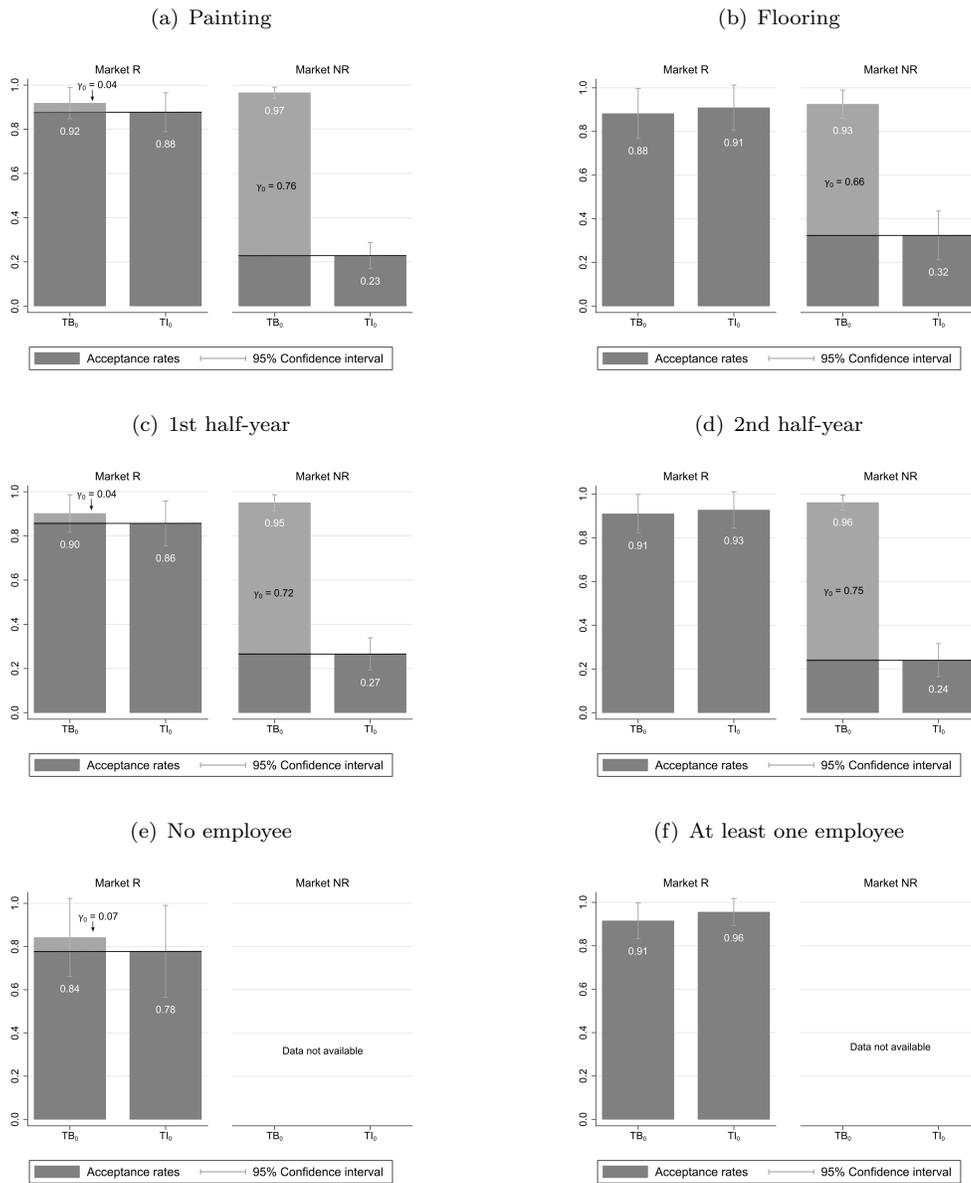


FIGURE D.2. HETEROGENEITY OF RESULTS BY JOB TYPE, HALF-YEAR, AND SELLER TYPE

Note: The bars show the fraction of offers in which sellers accept the conditions in TB_0 , TI_0 (acceptance rate). The fraction of offers from sellers with intention to evade γ_0 is set to zero when the acceptance rate is higher in TI_0 than in TB_0 . Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. In Panel (a) and (b), we split the sample by job type (Painting: Market R: $N = 118$, Market NR: $N = 400$; Flooring: Market R: $N = 67$, Market NR: $N = 138$). In Panel (c) and (d), we split the sample by half-year (1st half-year: Market R: $N = 100$, Market NR: $N = 285$; 2nd half-year Market R: $N = 85$, Market NR: $N = 253$). In Panel (e) and (f), we split the sample by business size, this information is available for a subset of sellers in Market R, see Section II.F (No employee: $N = 37$, at least one employee: $N = 92$). Standard errors are obtained by bootstrapping with 10,000 replications.

TABLE D.3—ROBUSTNESS OF RESULTS WHEN WE CONFIRM THE PRICE

	(1)	(2)	(3)	(4)	(5)	(6)
	Excl. lower/ upper 5%		Excl. duplicates		Other job volumes	
	Market		Market		Market	
	R	NR	R	NR	R	NR
<i>Panel A. Coefficients from linear regressions</i>						
Invoice treatment TI_0	-0.048 (0.127)	-0.945 (0.094)	-0.098 (0.110)	-0.872 (0.093)	-0.084 (0.188)	-0.684 (0.098)
Proposed price	0.032 (0.046)	0.018 (0.017)	0.005 (0.031)	0.013 (0.015)	0.034 (0.039)	0.036 (0.021)
Proposed price $\times TI_0$	-0.028 (0.053)	0.107 (0.041)	0.057 (0.042)	0.080 (0.033)	0.030 (0.072)	0.031 (0.028)
Floor installing	0.023 (0.095)	-0.044 (0.045)	-0.030 (0.086)	-0.030 (0.046)	0.177 (0.107)	0.010 (0.050)
Floor installing $\times TI_0$	0.047 (0.088)	0.196 (0.075)	0.059 (0.085)	0.141 (0.078)	-0.091 (0.182)	-0.004 (0.093)
Region fixed effects	yes	yes	yes	yes	yes	yes
Quarter fixed effects	yes	yes	yes	yes	yes	yes
<i>Panel B. Fractions calculated from predicted values</i>						
Fraction of evasion offers γ_0	-0.016 (0.054)	0.741 (0.029)	0.015 (0.061)	0.728 (0.029)	0.209 (0.080)	0.748 (0.038)
Difference Market NR - Market R		0.757 (0.062)		0.713 (0.068)		0.539 (0.088)
N	161	483	143	522	70	300

Note: Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. Panel A reports results from a linear regression of job acceptance on the invoice treatment indicator and the indicated control variables, as in columns (3) and (4) of Table 2. The proposed price is standardized to zero mean and unit variance by market and job type. Clustered standard errors on the advertisement level are reported in parentheses. Panel B reports the fraction of offers from sellers who intend to evade predicted from regressions and differences of these fractions. In columns (1)-(2), we study the effect of dropping sellers proposing very low or high prices by excluding the upper and lower 5% of price offers per advertisement. In columns (3)-(4), we assess if multiple offers by one seller affect our results by identifying sellers who applied in more than one city. There are 46 sellers who applied at least twice; we only keep their first offer. In columns (5)-(6), we check if the results hold when we post other volumes of the two jobs, namely painting four rooms and laying a floor in one room. The advertisements were posted in four cities only, summary statistics are provided in Table D.4. Standard errors of the fractions and the differences of the fractions are obtained from bootstrapping with 10,000 replications.

TABLE D.4—SUMMARY STATISTICS OF ADDITIONAL JOB ADVERTISEMENTS

	Market R					Market NR				
	N	Proposed price (in Euro)				N	Proposed price (in Euro)			
		Mean	SD	Min	Max		Mean	SD	Min	Max
<i>Panel A. Painting</i>										
Total	46	619	263	260	1,560	220	506	335	80	2,700
TB ₀	20	594	286	300	1,560	111	483	286	100	1,600
TI ₀	26	638	247	260	1,400	109	529	379	80	2,700
p-value	0.587					0.306				
<i>Panel B. Floor installation</i>										
Total	24	361	116	226	675	80	242	106	85	550
TB ₀	11	380	126	250	675	38	258	102	100	500
TI ₀	13	345	110	226	600	42	228	108	85	550
p-value	0.474					0.215				

Note: Based on advertisements of painting of four rooms (80 sqm) and laying a floor in one room (20 sqm). In this extension, we focused on TB₀, TI₀. Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. SD is standard deviation. Min and Max indicate the lowest and highest price per treatment. To test for balance of the proposed prices, we regress the variable on the both treatment dummies and test whether the estimated coefficients of these dummies are all jointly zero. P-values from a F-Test of joint significance are reported in the last row.

TABLE D.5—BOUNDS ON THE REACTIONS TO ASKING FOR CASH/INVOICE PRICE

	Market R			Market NR		
	point est.	LB	UB	point est.	LB	UB
<i>Panel A. Sellers' responses to our two questions</i>						
(I) Share saying that initial price is for cash payment γ_Q	0.052	0.045	0.179 [0.003; 0.257]	0.726	0.664	0.749 [0.615; 0.795]
thereof: (Ia) also propose invoice price	1.000	-	- -	0.390	0.345	0.459 [0.289; 0.518]
(II) Share saying that initial price includes invoice	0.948	0.821	0.955 [0.741; 1.000]	0.270	0.251	0.336 [0.207; 0.384]
thereof: (IIa) also propose cash price=evasion	0.455	0.391	0.531 [0.290; 0.634]	0.646	0.483	0.736 [0.394; 0.815]
(IIb) also propose immediate payment discount	0.382	0.328	0.469 [0.231; 0.572]	0.308	0.230	0.483 [0.155; 0.572]
<i>Panel B. Total fraction of offers from sellers willing to evade/declare</i>						
Total share willing to propose cash price (I + II*IIa)	0.483	0.365	0.687 [0.267; 0.827]	0.903	0.785	0.996 [0.740; 1.000]
Total share willing to propose invoice price (II + I*Ia)	1.000	0.821	0.955 [0.741; 1.000]	0.557	0.480	0.680 [0.428; 0.744]
N	58	67		237	259	

Note: Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. The point estimate (est.) is reported for the sake of comparability (see also Table 4). LB is the lower bound, UB is the upper bound. To calculate the bounds of the parameters in I and II, we assume that either all non-responders belong to the group under investigation or not. For the calculation of the bounds of the parameters in Ia, IIa, and IIb, we assume that all non-responders have the initial intention under investigation (row I/II) and are either all willing to propose the respective price or not. We are not able to report the bounds in Ia in Market R since this would imply an increase of the sample by 300%. The confidence interval of the bounds from Imbens and Manski (2004) are reported in brackets (obtained from bootstrapping with 10,000 replications). Since the fractions naturally range from 0 to 1, we restrict the values of the confidence interval to this range.

TABLE D.6—REGRESSION RESULTS WHEN WE ASK FOR A DISCOUNT

	Market R	Market NR
	(1)	(2)
<i>Panel A. Coefficients from linear regression</i>		
Invoice treatment TI_0	0.005 (0.042)	-0.737 (0.026)
Baseline Discount 10% TB_{10}	-0.227 (0.063)	-0.204 (0.027)
Discount 10% \times Invoice treatment TI_{10}	-0.061 (0.080)	0.169 (0.042)
Baseline Discount 20% TB_{20}	-0.479 (0.065)	-0.388 (0.034)
Discount 20% \times Invoice treatment TI_{20}	-0.032 (0.094)	0.269 (0.047)
Proposed price	yes	yes
Proposed price \times TI	yes	yes
Flooring	yes	yes
Flooring \times TI	yes	yes
Region effects	yes	yes
Quarter effects	yes	yes
<i>Panel B. Fractions calculated from predicted values</i>		
No discount γ_0	0.013 (0.050)	0.736 (0.029)
10% discount γ_{10}	0.109 (0.103)	0.711 (0.035)
20% discount γ_{20}	0.105 (0.174)	0.766 (0.038)
$\Delta\gamma_{10} - \gamma_0$	0.095 (0.114)	-0.025 (0.044)
$\Delta\gamma_{20} - \gamma_0$	0.091 (0.180)	0.030 (0.047)
$\Delta\gamma_{10} - \gamma_{20}$	0.004 (0.199)	-0.055 (0.051)
N	539	1656

Note: Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. Panel A reports results from linear regression of the acceptance rate on treatment indicators and different sets of control variables. The proposed price is standardized to zero mean and unit variance by market and job type. Clustered standard errors on the advertisement level are reported in parentheses. Panel B reports the fraction of offers from sellers with intention to evade calculated from predicted values of the regression and differences between discount conditions (0%, 10%, 20%). Standard errors of the fractions and absolute changes are obtained from bootstrapping with 10,000 replications.

TABLE D.7—BOUNDS ON THE FRACTIONS OF OFFERS FROM DIFFERENT SELLER TYPES

	Market R			Market NR		
	point est.	LB	UB	point est.	LB	UB
<i>Panel A. Bounds on the fractions of formal and informal sellers</i>						
Offers from formal sellers	1.000	0.866	1.000 [0.796; 1.000]	0.557	0.510	0.595 [0.458; 0.646]
Offers from informal sellers	0.000	0.000	0.134 [0.000; 0.203]	0.443	0.405	0.490 [0.355; 0.542]
N	58	67		237	259	
<i>Panel B. Bounds on formal sellers' willingness to propose a cash price</i>						
Offers from sellers who only declare (no cash price)	0.517	0.448	0.582 [0.347; 0.682]	0.174	0.149	0.292 [0.102; 0.353]
Offers flexible sellers (cash and invoice price)	0.483	0.418	0.552 [0.319; 0.653]	0.826	0.708	0.851 [0.646; 0.900]
N	58	67		132	154	
<i>Panel C. Bounds on initial intentions of formal flexible sellers (cash and invoice price)</i>						
Offers from flexible sellers initially proposing invoice price	0.893	0.676	0.919 [0.546; 0.995]	0.385	0.321	0.489 [0.253; 0.561]
Offers from flexible sellers initially proposing cash price	0.107	0.081	0.324 [0.007; 0.454]	0.615	0.511	0.679 [0.439; 0.747]
N	28	37		109	131	

Note: Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. The point estimate (est.) is reported for the sake of comparability (see also Table 5). LB is the lower bound, UB is the upper bound. To calculate the bounds of the parameters, we assume for the lower (upper) bounds that none (all) non-responders belong to the group under investigation. The bounds on the fractions are naturally bounded by zero and one. The confidence interval of the bounds from Imbens and Manski (2004) are reported in brackets (obtained from bootstrapping with 10,000 replications). Since the fractions naturally range from 0 to 1, we restrict the values of the confidence interval to this range.

TABLE D.8—AVERAGE DECLARATION AND EVASION PRICE

	Market R		Market NR	
	\bar{p}_D	\bar{p}_E	\bar{p}_D	\bar{p}_E
<i>Panel A. Prices used in between variation TB_0, TI_0</i>				
Prices used for ε_0 accepting sellers	- (-)	- (-)	346 (19)	275 (16)
N		-		326
<i>Panel B. Prices used in within variation</i>				
Prices used for immediate payment discount	427 (66)	407 (57)	372 (53)	347 (48)
N		21		20
Prices used for ε_Q all flexible sellers	525 (45)	434 (38)	400 (29)	284 (23)
N		28		109
Prices used for ε_Q if initial price included invoice	527 (48)	438 (42)	397 (57)	319 (52)
N		25		42
Prices used for ε_Q if initial price was cash payment	- (-)	- (-)	403 (31)	262 (16)
N		-		67

Note: Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. Prices reported in Euro. In Panel A, \bar{p}_D is the mean price of those who accept the invoice treatment (obtained from regressions in which we control for region and quarter effects). In Market NR, \bar{p}_E is calculated from $\bar{p}_E = \frac{\bar{p}_{TB} - \bar{p}_D \cdot (1 - \gamma_0)}{\gamma_0}$ where the price of those accepting TB_0 is $\bar{p}_{TB} = 294$, $\gamma_0 = 0.736$, and \bar{p}_D as reported in the table. It is not possible to calculate \bar{p}_E in Market R since γ_0 is not significantly different from zero. In Panel B, \bar{p}_D refers to the invoice price, \bar{p}_E to the cash price that flexible sellers (those quoting p_D and p_E) report in treatment TQ (obtained from regressions in which we control for region and quarter effects). In parentheses we report the standard error (obtained from bootstrapping with 10,000 replications).

TABLE D.9—BOUNDS ON THE REDUCTIONS OF THE SALES PRICE

	Market R			Market NR		
	point est.	LB	UB	point est.	LB	UB
<i>Panel A. Bounds on results from between variation TB_0, TI_0</i>						
Price reduction ε_0 accepting sellers				0.205	0.205	0.203
N		–		326	[0.072; 0.352]	338
<i>Panel B. Bounds on results from within variation TQ</i>						
Price reduction for immediate payment	0.046	0.030	0.106	0.067	0.036	0.151
N	21	[0.007; 0.125]	30	20	[0.013; 0.184]	42
Price reduction ε_Q all flexible sellers	0.174	0.130	0.217	0.291	0.253	0.418
N	28	[0.101; 0.242]	37	109	[0.215; 0.463]	131
Price reduction ε_Q if initial price included invoice	0.170	0.123	0.217	0.197	0.142	0.331
N	25	[0.093; 0.244]	34	42	[0.110; 0.379]	64
Price reduction ε_Q if initial price was cash payment				0.349	0.282	0.495
N		–		67	[0.233; 0.536]	89

Note: Market R (for Restrictive terms of use) keeps track of sellers' credentials. Market NR (for Non-Restrictive) allows anyone to sell anonymously. The point estimate (est.) is reported for the sake of comparability (see also Table 6). LB is the lower bound, UB is the upper bound. To obtain the bounds in Panel A, for the lower bound (LB), we assume that all non-responders (N=12) intend to declare; for the upper bound (UB), we assume that they intend to evade. We use the prices that non-responders proposed. To obtain the bounds in Panel B, we assume that all non-responders (N=9 in Market R, N=22 in Market NR) are flexible. For the lower bound, we assign them a zero discount, for the upper bound, we assign them the maximum discount that we observe in the group under investigation. The confidence interval of the bounds from Imbens and Manski (2004) are reported in brackets (obtained from bootstrapping with 10,000 replications).

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