

# Tax compliance costs:

The effect of authority behavior and taxpayer services

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## Questions of research

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### **Impact of authority behavior and taxpayer services**

1. Is there empirical evidence on the relationship of authority behavior and compliance costs?
2. How strong are the corresponding effects?
3. Which are the key cost drivers?

## German data

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- ▶ Business survey raised by order of the German Ministry of Economics and Labor in 2003
- ▶ 1,220 cases  $\Rightarrow$  732 with information on compliance costs (taxes, social insurances, environmental legislation, etc.)
- ▶ Ratings on administrative quality for the tax and social insurance administration (5-point Likert scales)
  - ▶ Qualification
  - ▶ Service orientation
  - ▶ Processing time

## Belgian data

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- ▶ Business survey raised by order of the Council of Ministers in 2000, 2002, 2004 and 2006
- ▶ 1,590 observations (1,261 "one-shot")
  - ⇒ 1,115 with information on tax compliance costs
- ▶ Ratings on administrative quality (5-point Likert scales)
  - ▶ Access to authorities
  - ▶ Information obtained by authorities
  - ▶ Delays in requests and motivation of decisions

## Belgian data: rating variables

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1. It is simple to find the right agency (AGENCY)
2. It is simple to contact the competent agency (CONTACT)
3. The administration gives precise answers (ANSWER)
4. Administrative decisions are clearly motivated (MOTIVATION)
5. The administration gives an answer within a reasonable delay (DELAY)
6. The answers do not depend on the requested person (CONTRADICTION)
7. The obtained information is appropriate the businesses' needs (INFORMATION)

## Estimation approach

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- ▶ Ratings as proxy for authority behavior
- ▶ Logarithmic OLS estimator with robust standard errors
- ▶ Dummy variables for positive (1,2) and negative ratings (4,5)  
⇒ One variable per equation
- ▶ Analysis for outliers: 60 outliers in Belgian data, 39 (22) in German data
- ▶ Simplified basic model and extended model (including all rating variables)
- ▶ Cross checks for Belgian data excluding second-shot and third-shot observations

# Endogeneity problem

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- ▶ Potential endogeneity of rating behavior and compliance costs
- ▶ Diversification of correlations between rating variables
- ▶ Usage of alternative ratings for cross checks
  - ▶ German data: Only 8 % of the variance of the "perceived" compliance burden are explained by rating behavior.
  - ▶ Belgian data: Divergence of legislative and administrative ratings

## Extended model for German data

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Variable	Positive Rating	Negative Rating
QUALIFICATION TAX	0.061 (0.095)	0.242* (0.128)
SERVICE TAX	-0.360*** (0.129)	0.026 (0.094)
PROCESSING TAX	0.190 (0.123)	0.025 (0.091)
SIZE	0.339*** (0.031)	0.344*** (0.032)
$R^2$	0.3106	0.3686
Observations	526	526
QUALIFICATION SIA	0.135 (0.140)	-0.263 (0.176)
SERVICE SIA	-0.353** (0.157)	0.227 (0.152)
PROCESSING SIA	0.190 (0.146)	0.093 (0.141)
SIZE	0.375*** (0.051)	0.366*** (0.051)
$R^2$	0.3776	0.3765
Observations	472	472



## Basic model for Belgian data

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Variable	Positive Rating	Negative Rating
AGENCY	-0.049 (0.062)	0.070 (0.062)
PERSONNEL	-0.024 (0.063)	0.073 (0.063)
ANSWER	-0.129** (0.063)	0.175*** (0.063)
MOTIVATION	-0.094 (0.064)	0.145** (0.063)
DELAY	-0.175*** (0.062)	0.225*** (0.064)
CONTRADICTION	-0.013 (0.068)	0.085 (0.064)
INFORMATION	-0.220*** (0.063)	0.315*** (0.065)

## Extended model for Belgian data

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Variable	Positive Rating		Negative Rating	
AGENCY	0.030	(0.077)	-0.062	(0.076)
PERSONNEL	0.103	(0.078)	-0.086	(0.078)
ANSWER	0.016	(0.077)	-0.032	(0.079)
MOTIVATION	0.018	(0.077)	-0.023	(0.078)
DELAY	-0.121	(0.074)	0.144*	(0.074)
CONTRADICTION	0.066	(0.074)	-0.060	(0.073)
INFORMATION	-0.160*	(0.085)	0.229***	(0.086)
SIZE	0.281***	(0.019)	0.279***	(0.019)
$R^2$	0.6630		0.6674	
Observations	937		937	

# Conclusion

- ▶ Significant impact of authority behavior
- ▶ Higher importance of service orientation compared to qualification and processing time
- ▶ Importance of timely and accurate answers to taxpayers questions
- ▶ Relatively weak effects for access to authorities and motivation of administrative decisions
- ▶ Impact especially on small businesses (except SIA costs)  
⇒ Target group to enhance taxpayer services?



**Thank you for your interest!**

## Appendix: Median values of German data

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Number of associates	Small	Medium	Big
Costs per associate (€)	2,000	499	169
Costs per turnover (%)	1.83	0.48	0.11
Tax-related (%)	45.00	35.00	30.00
Social insurance-related (%)	30.00	30.00	26.00
Cases	434	196	97

## Appendix: Ratings of German data

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Variable	1	2	3	4	5	Mean
QUALIFICATION TAX	3.81	45.87	35.99	8.88	5.44	2.66
SERVICE TAX	1.57	21.24	29.92	24.75	22.53	3.45
PROCESSING TAX	1.84	18.66	28.68	27.02	23.81	3.52
QUALIFICATION SIA	3.80	46.98	34.60	9.26	5.36	2.65
SERVICE SIA	2.83	33.17	34.05	18.24	11.71	3.03
PROCESSING SIA	2.57	32.38	36.73	18.51	9.80	3.01

# Appendix: Rating correlations of German data 15

Variable	TQUAL	TSERV	TPROC	SQUAL	SSERV	SPROC	PCOST
TQUAL	1.000	0.523	0.369	0.432	0.258	0.223	0.155
TSERV		1.000	0.550	0.282	0.441	0.340	0.240
TPROC			1.000	0.194	0.280	0.351	0.187
SQUAL				1.000	0.625	0.557	0.118
SSERV					1.000	0.659	0.212
SPROC						1.000	0.185
PCOST							1.000

## Appendix: Median values of Belgian data

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Year	Independent	SmallE	MediumE	BigE	Cases
2000	5.83	0.96	0.17	0.04	233
2002	4.77	0.80	0.13	0.04	316
2004	4.64	0.80	0.22	0.09	295
2006	3.04	0.66	0.10	0.03	234
Cases	497	320	85	176	1,078



## Appendix: Ratings of Belgian data

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Variable	1	2	3	4	5	Mean
AGENCY	6.99	37.58	6.14	31.50	17.79	2.79
CONTACT	5.79	34.81	7.09	33.64	18.67	2.86
ANSWER	4.67	40.79	9.34	31.58	13.62	2.82
MOTIVATION	3.96	33.40	12.48	36.58	13.58	2.97
DELAY	6.25	46.13	11.26	23.16	13.21	2.77
CONTRADICTION	3.20	27.17	22.93	32.07	14.63	3.27
INFORMATION	3.84	47.20	12.63	27.73	8.59	2.79

# Appendix: Rating correlations of Belgian data 18

Variable	Q1A	Q2A	Q3A	Q4A	Q5A	Q6A	Q7A
Q1A	1.000	0.692	0.532	0.426	0.446	0.322	0.489
Q2A		1.000	0.556	0.447	0.476	0.301	0.490
Q3A			1.000	0.573	0.546	0.398	0.624
Q4A				1.000	0.546	0.414	0.554
Q5A					1.000	0.451	0.596
Q6A						1.000	0.470
Q7A							1.000

## Appendix: Accuracy of data I

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- ▶ Relatively low Response rates  $\Rightarrow$  Non-response bias?
- ▶ Incentive to document high cost burdens (generate policy pressure)
- ▶ Participation in surveys as administrative burden (lower response of small businesses)
- ▶ Contradictory evidence on non-response bias (Wicks 1965, Allers 1994, Tran-Nam/Glover 2002)
- ▶ Descriptive results are similar to international estimates on compliance costs (OECD 2001, European Communities 2004, Klun/Blažić 2005)

## Appendix: Accuracy of data II

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- ▶ Survey method  $\Rightarrow$  Reliability of answers?
- ▶ Incentive to exaggerate cost burdens (generate policy pressure)
- ▶ Cost perception deficit (Klein-Blenkers 1980, Rametse/Pope 2002)
- ▶ Empirical evidence on overestimation as well as underestimation (Poutzouris et al. 2003, Blažić 2004)
- ▶ Strong correlation of estimated cost burdens and the "perceived" cost burden within the German data