



Einladung zum Gastvortrag aus der Vortragsreihe:
„Arbeits-, Organisations- und Wirtschaftspsychologie“

von

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„Compliance behavior: effects of trust and control“

Based on some recent research papers different aspects of the balance between trust and control in motivating compliance are discussed. In line with the idea that enforcement can kill the intrinsic motivation to comply, there is evidence that too much auditing may backfire. This is not only in line with psychological explanations: theoretical modelling shows that trust can be good even when people are economically motivated but is likely to be exploited when people are short-term oriented. In line with this, evidence from a field experiment shows that a more supportive attitude by the regulator is only reciprocated by long term oriented regulated agents.

Dienstag, 27.11.2018; 9:45
Hörsaal A, NIG 6. Stock
Universitätsstraße 7, 1010 Wien

Univ. Prof. Dr. Erich Kirchler

COMPLIANCE BEHAVIOR: EFFECTS OF TRUST AND CONTROL

GASTVORTRAG
UNIVERSITÄT WIEN
FAKULTÄT FÜR PSYCHOLOGIE

JACCO WIELHOUWER

COMPLIANCE BEHAVIOR

What is compliance?

Take a simple definition: acting in line with the rule (or as I prefer: acting in line with the principles of the rules)

Trust and control

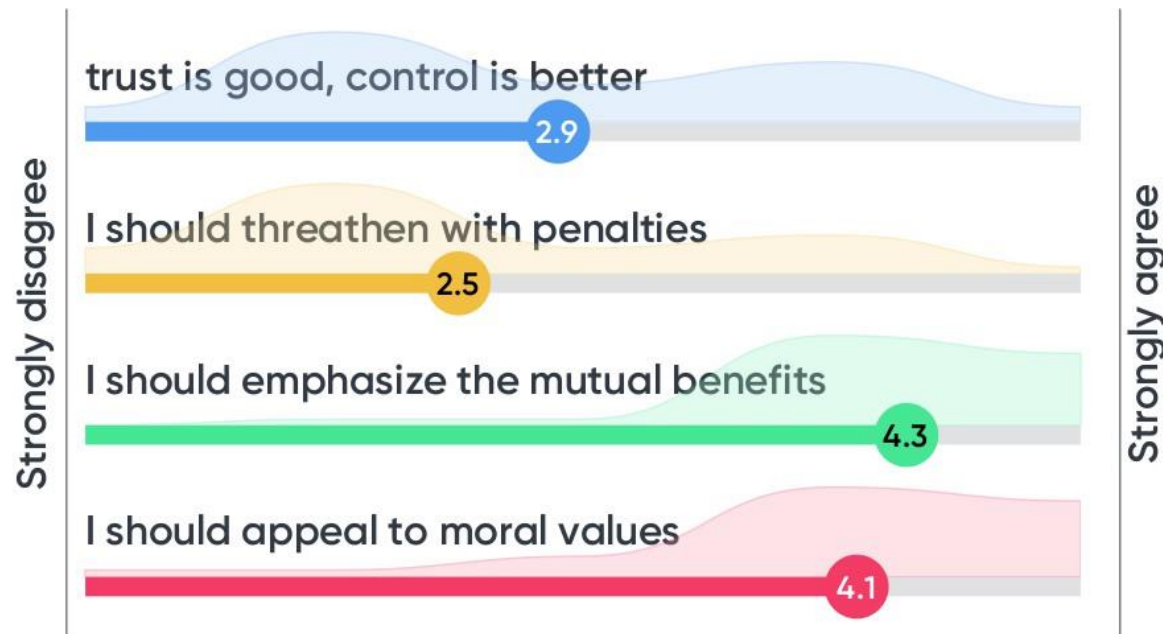
starting point: Go to www.menti.com; log in using code ...

Very pleased to talk about the balance between trust and control based on recent research

YOUR ANSWERS ON MENTI.COM

Please indicate to what extent you agree with the following statements. In order to motivate compliance:

Mentimeter



30

CONTENTS

1. Compliance landscape: a short overview

- a. Neo-classical economic theory
- b. Tax compliance puzzle
- c. Influencing parties and types of compliance

2. Can auditing backfire?

MENDOZA, J., J.L. WIELHOUWER, E. KIRCHLER (2017). The backfiring effect of auditing on tax compliance, *Journal of Economic Psychology*, 62, 284-294.

3. Can you trust calculative agents?

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DO YOU BUY A PARKING TICKET

PLAYER 1: CAR DRIVER

- Parking ticket (k) € 5
- Probability inspection Less than 10%?
- Fine (b) € 50

PLAYER 2: MUNICIPALITY

- Cost inspection (c) € 2,50

| | | |
|--|-----|-------------------|
| • Player 1: How often to buy a ticket? | 95% | $1 - \frac{c}{b}$ |
| • Player 2: How often to inspect? | 10% | $\frac{k}{b}$ |

So... higher fines?
costlier inspections?
gain from non-compliance?

APPLIED TO E.G. TAXES

Do you fraud when filing your tax return?

Why / why not?

Empirically observed behavior shows much higher compliance rates than game theoretic models predict

(referred to as the tax compliance puzzle)

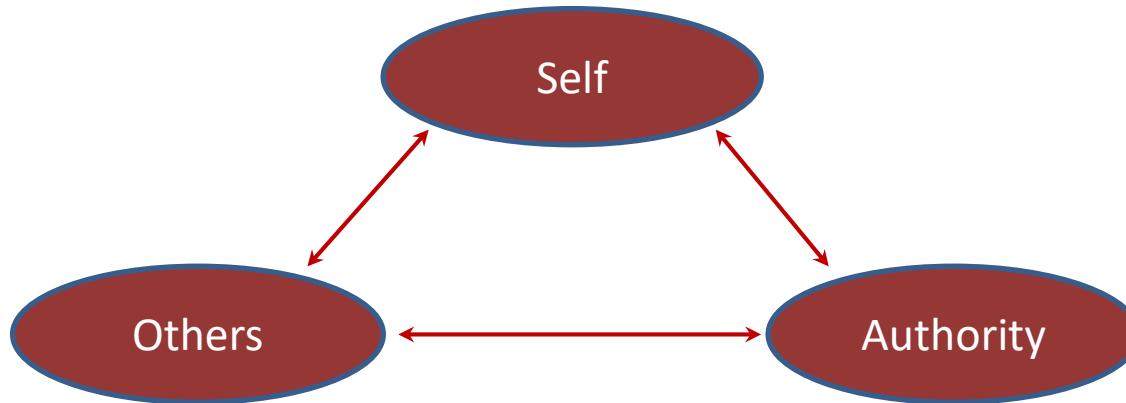
Key question: What and who explains compliance behavior?

Nobel lecture Gary Becker: “An important step in extending the traditional theory of individual rational choice to analyze social issues beyond those usually considered by economists is to incorporate into the theory a much richer class of attitudes, preferences, and calculations.”

Gary S. Becker, "Nobel Lecture: The Economic Way of Looking at Behavior," *Journal of Political Economy* 101, no. 3 (Jun., 1993): 385-409

SUMMARY OF CURRENT STATE: THE TRIANGLE OF INFLUENCERS AND TYPES OF COMPLIANCE

* Compliance affected by



* 'Types of compliance'



CURRENT STATE

- All actors and interactions can affect *both enforced and voluntary* compliance
- The way they affect these can be context specific, i.e., dependent on e.g. current situation etc.
- Examples:
 - Self: voluntary because of honesty; may depend on current financial position
 - Others: whom do you talk to; what is socially accepted behavior among your peers; norms and behavior from leaders. Your situation may make you connected to specific contacts; becoming a branch-organization member may affect your network
 - Authority: how you or others are treated affects your willingness to comply; do you find the power legitimate, the rules fair; your situation and your network may affect your perceptions.

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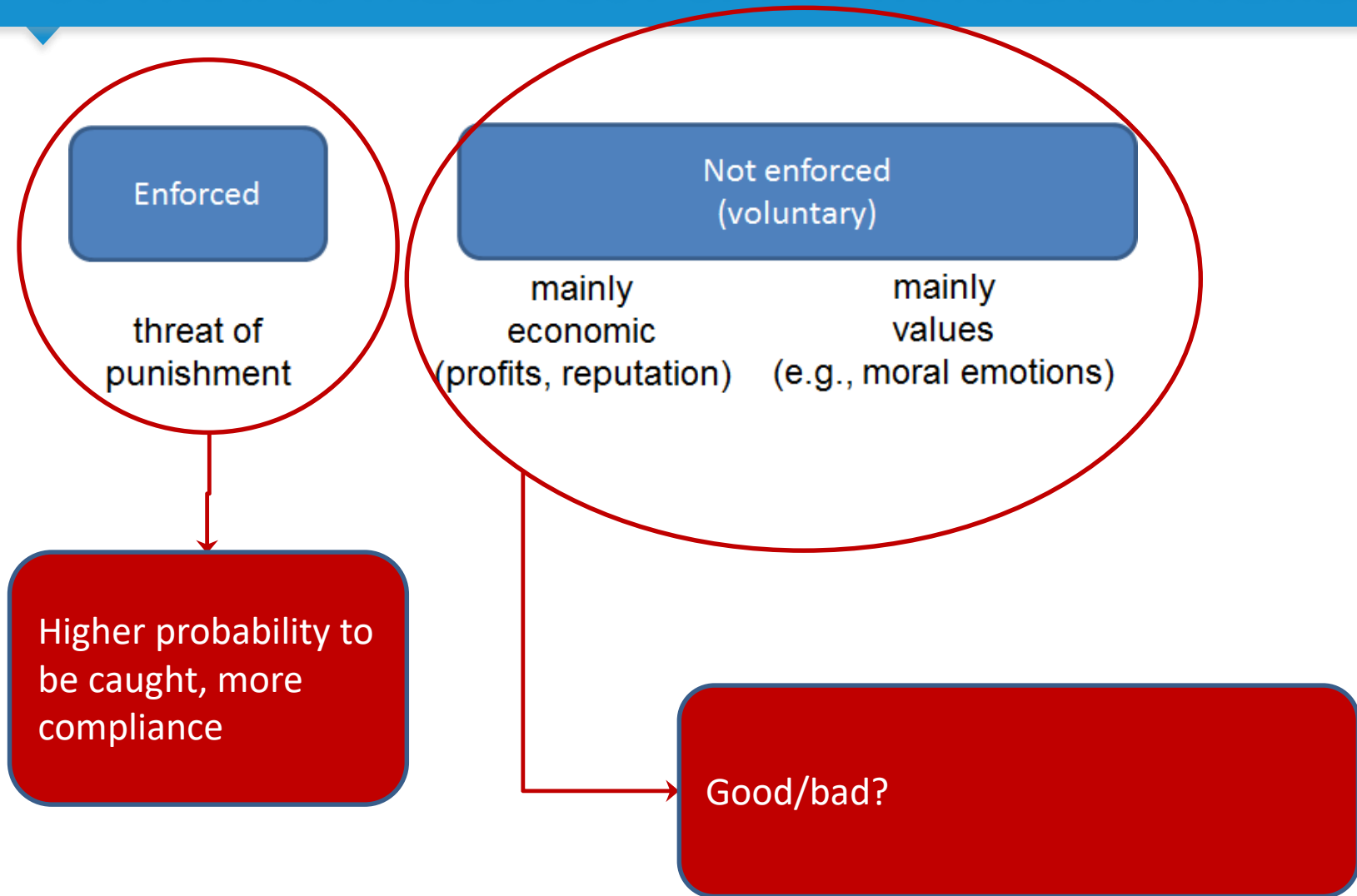
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SO WHAT IS THE EFFECT OF AUDITING/ENFORCEMENT



AUDITING AND VOLUNTARY COMPLIANCE

Distrust -

- Strong enforcement may signal distrust
- increases the social and psychological distance between authority and taxpayers, and makes relationship reflect “cops vs. robbers”
- Taxpayers may reciprocate this attitude

Justice / fairness +

- Fair to honest taxpayers

Unfairness -

- Focus on control; procedurally unfair

Social norm +/-

- Strong enforcement may signal it is unacceptable, but also that non-compliant behavior is pervasive (the social norm)

These possible positive effects only up to a certain level

DOES AUDITING BACKFIRE?

Expectation: enforcement to some extent positive but too high may crowd out intrinsic motivations to comply.

Important to see whether more auditing may have *adverse* effects

- How to regulate?
- How to stimulate compliance?
- Key question: *can auditing crowd out intrinsic motivations to comply??!*
 - Not only relevant whether firms/people comply but also why...

Mendoza et al. (2017): country level analysis; 50 countries; time frame of 11 years.

Investigate non-linear effect: quadratic function

HYPOTHESES AND VARIABLE MEASUREMENT

Hypothesis: some auditing is good [enforced + justice]; too much auditing may backfire [large negative effect on volunt. compl.]

Non-Compliance: measure by *TAX EVASION*

- IMD's business executive perceptions to what extent tax evasion is common practice in a country

Auditing (and Auditing²)

- # verification actions / taxpayer population [OECD data]

Controls

- a.o. trust in government, GDP, income tax rates

RESULTS

Table 2

Countries included in the analysis.

| | | | |
|----------------|-----------|-------------|-----------------|
| Argentina | Estonia | Japan | Russia |
| Australia | Finland | Korea | Singapore |
| Austria | France | Latvia | Slovak Republic |
| Belgium | Germany | Lithuania | Slovenia |
| Brazil | Greece | Luxembourg | South Africa |
| Bulgaria | Hong Kong | Malaysia | Spain |
| Canada | Hungary | Mexico | Sweden |
| Chile | Iceland | Netherlands | Switzerland |
| China | India | New Zealand | Thailand |
| Colombia | Indonesia | Norway | United Kingdom |
| Croatia | Ireland | Poland | United States |
| Czech Republic | Israel | Portugal | |
| Denmark | Italy | Romania | |

Note:

- Variables mean-centered; not interpret levels as such.
- U-shape test
- Split samples (low auditing negative, high auditing positive relation with evasion)

Table 3

Results of Models 1–4.

| | (1) baseline model |
|------------------------------------|-----------------------|
| <i>Auditing level</i> | 0.059 (0.048) |
| <i>Auditing level</i> ² | 0.053*** (0.019) |
| <i>Trust in government</i> | −0.471*** (0.078) |
| <i>Interest rate</i> | −0.133 (0.111) |
| <i>CIT</i> | −0.023 (0.030) |
| <i>PIT</i> | 0.009 (0.021) |
| <i>GDP per capita</i> | −0.863 (1.295) |
| <i>Penalty</i> | |
| <i>Constant</i> | 10.332** (5.049) |
| <i>N</i> | 381 |
| Number of countries | 50 |
| <i>R</i> ² (within) | 0.484 |
| <i>F</i> | 32.06*** |
| U-shape test | 2.30** |

RESULT: AUDITING ABOVE A CERTAIN LEVEL BACKFIRES

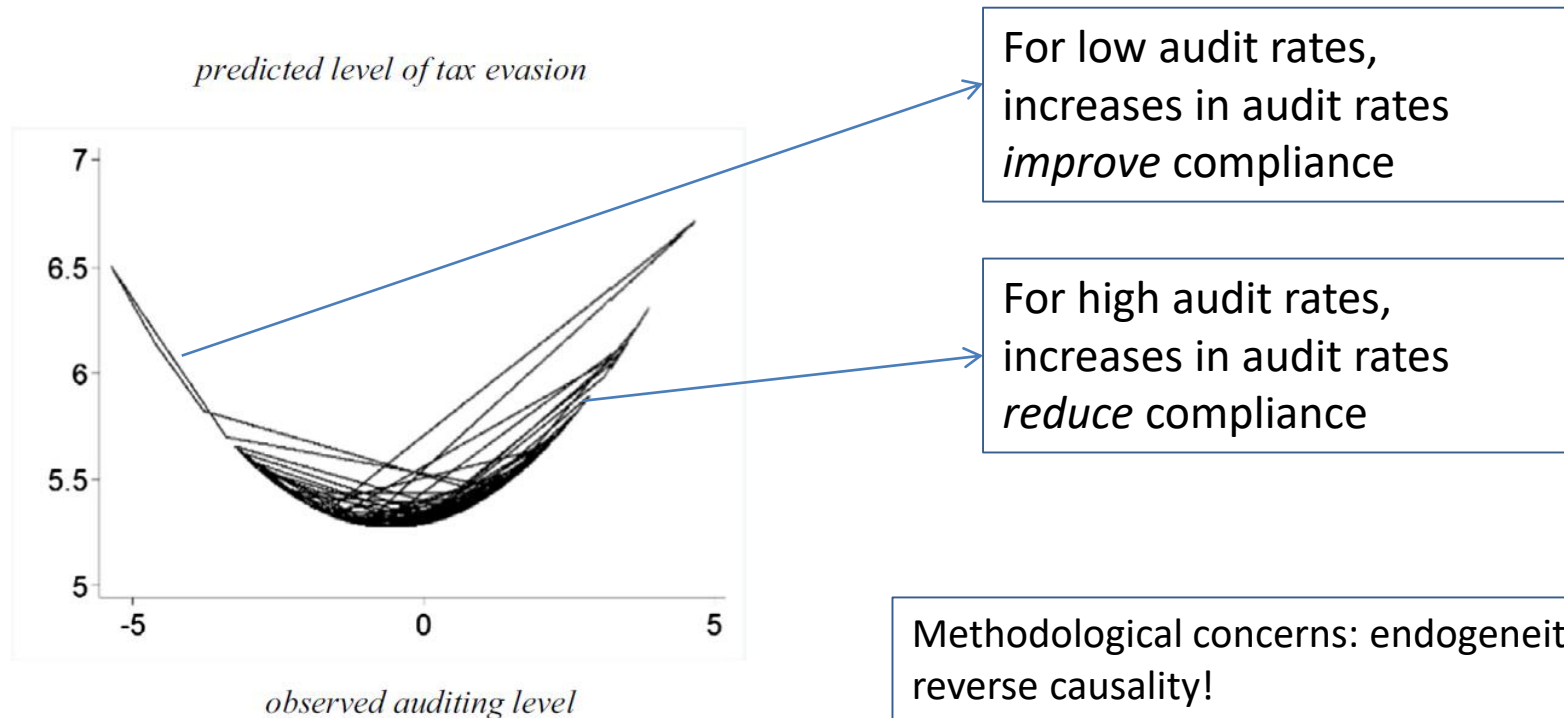


Fig. 1. Association predicted by Model 1. Auditing level is mean-centered.

Methodological concerns: endogeneity and reverse causality!
Are audit rates high because evasion is high? Not likely:

- Audit rates measured before evasion
- Additional analyses: previous evasion does not explain future audit levels

SAFEGUARD INTRINSIC MOTIVATION

So how to enhance intrinsic motivation?

| <u>Negative effects</u> | <u>So</u> |
|-------------------------|----------------------|
| Distrust | Signal trust |
| Unfairness (control) | Cooperative attitude |

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TRUST

Behavioral benefits

reciprocate behavior

trust breeds trust

But even for calculative agents trust may be beneficial

Apply a trust based strategy in the neo-classical economic model

THE GAME

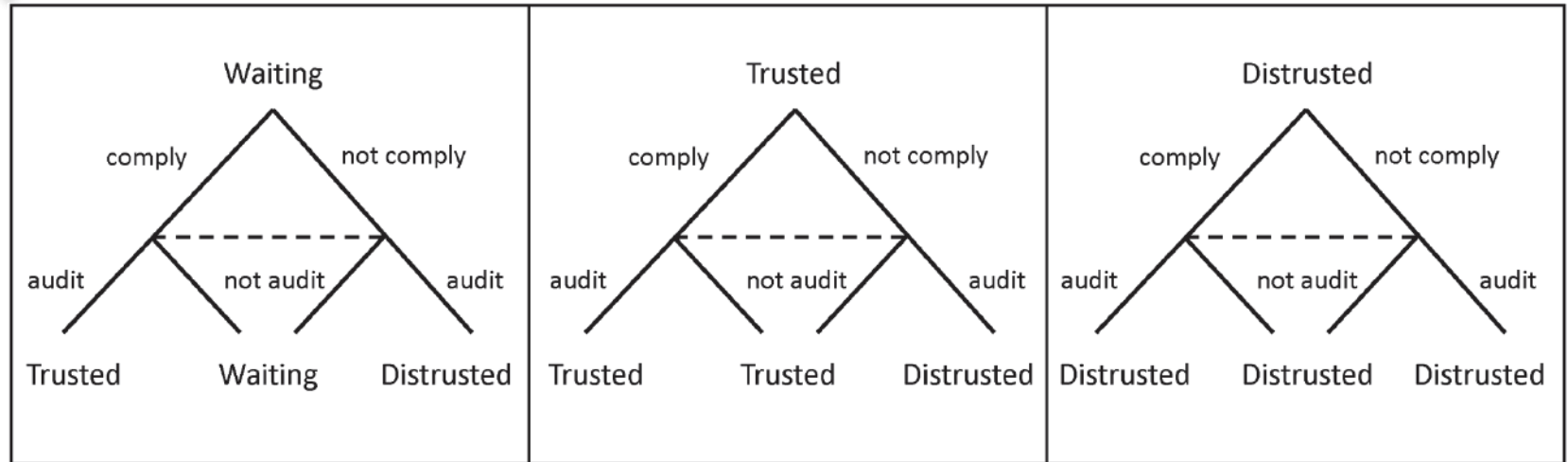


Fig 1. The agent's possible states.

Apply different audit rates for waiting/trusted/distrusted

Equilibrium strategy audit rates:

- Distrusted = same as without states (so never worse, only a carrot, not a stick)
- Trusted = lower than distrusted
- Waiting = as trusted (grant trust)

Equilibrium compliance not reduced

Forgiveness can even lower the Distrusted's audit rate without lowering compliance!

HOWEVER... NOT THAT SIMPLE

Average effects:

- Lower social costs with same level of average compliance
- what about individual's compliance?

Driven by benefits of being trusted; lower audits, lower costs

Similar to valuing a long term relationship with the supervisor

So:

- Agents who sufficiently value the future will comply more
- Agents who are short-term oriented misuse trust

So tailor made supervision strategies are necessary and can balance between control and trust

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SUPPORTIVE REGULATORY STRATEGIES

Responsive regulation (Braithwaite): interact dependent on motivation/posture of regulated firm/person

A supportive or cooperative attitude:

- Focus on service and information instead of detecting wrongdoing:
 - Promotes open dialogue
 - Facilitates information provision and compliance by firms
- Allows to explain the higher objectives to enhance motivations
- Enhances perceptions of informational and interpersonal fairness
 - Enhance legitimacy of regulator's requests
 - Increase willingness to obey (reciprocate behavior)

BUT...

Can be perceived as 'soft'

Can induce opportunistic behavior because of low reliance on deterrence

Who will reciprocate and who will take advantage of a cooperative strategy?

- Do you value the long term relation with the supervisor?
- Are you willing to invest in this relationship?
- Do you share the (long term) objectives of the supervisor?

So expectation: generally a cooperative attitude is beneficial, but short-term oriented firms take advantage of this attitude

FIELD EXPERIMENT

Regulatees: Financial intermediaries (mainly small firms)
Regulator: Authority for the Financial Markets
Behavior: Self-reporting (often used tool in regulation): **reporting quality**

Manipulation: Letters to invite/demand firms to provide the AFM with information (invitation, username, password)

Treatment: Change communication signaling *high support* of *low support*

| <i>Differences</i> | <i>High support</i> | <i>Low support</i> |
|----------------------|--|---|
| <i>Tone</i> | <i>supportive/understanding</i> | <i>distant formal</i> (<i>interspers. fairness</i>) |
| <i>Purpose</i> | <i>explain goals and relevance of info</i> | <i>no explanation</i> (<i>inform. fairness</i>) |
| <i>Accessibility</i> | <i>signal willingness to help</i> | <i>offer possibilities</i> (<i>interp.+ inform.</i>) <i>not signal willingness</i> |

REPORTING QUALITY + TIME HORIZON

How to measure reporting quality?

- Comprehensiveness [how many questions do they answer]
- Precision [rounding on how many digits on nine quantitative questions]
- Voluntary reporting [(how extensive) do they provide voluntary info]

How to measure time horizon? Based on two questions:

- Do you expect sales to decline/stay the same/increase
- Do you expect #employees to decline/stay the same/increase

Relative value of the future (NPV); willingness to invest for future returns

RESULTS

TABLE 7
Regression Results H2 and H3 (Planned Tests)

| | Expected Sign | Reporting Quality | Comprehen- siveness | Precision | Voluntary Reporting |
|---------------------------------|------------------|----------------------|------------------------|---------------------|------------------------|
| Intercept | | -0.804*** (0.198) | 45.824*** (-0.633) | 0.777*** (0.018) | 0.387 (0.258) |
| High support (HS) | | -0.151** (0.072) | -0.067 (0.230) | -0.009 (0.007) | -0.168* (0.096) |
| Firm size (FS) | | 0.360*** (0.050) | 2.772*** (0.158) | -0.005 (0.004) | 0.078 (0.065) |
| Short-term orientation (STO) | | -0.116 (0.097) | -0.527* (0.310) | 0.000 (0.009) | -0.093 (0.129) |
| Long-term orientation (LTO) | | 0.279*** (0.072) | 1.508*** (0.231) | 0.000 (0.007) | 0.179* (0.095) |
| HS × FS | — | -0.050 (0.060) | -0.171 (0.191) | 0.004 (0.005) | -0.108 (0.079) |
| HS × STO | — | 0.058 (0.136) | 0.087 (0.435) | -0.005 (0.012) | 0.180 (0.181) |
| HS × LTO | + | 0.201** (0.101) | 0.045 (0.323) | 0.013 (0.009) | 0.219 (0.134) |
| N | | 4,577 | 4,577 | 4,577 | 4,577 |
| F/chi-square | | 72.83*** | 415.11*** | 5.85*** | 79.53*** |
| Adjusted-R ² | | 0.201 | 0.591 | 0.017 | 0.013 |

- No overall positive effect of support
- Support negative unless long term oriented
- Time horizon strong effect on reporting quality
- Especially on combination of dimensions of quality

MORE DETAIL ON TIME HORIZON

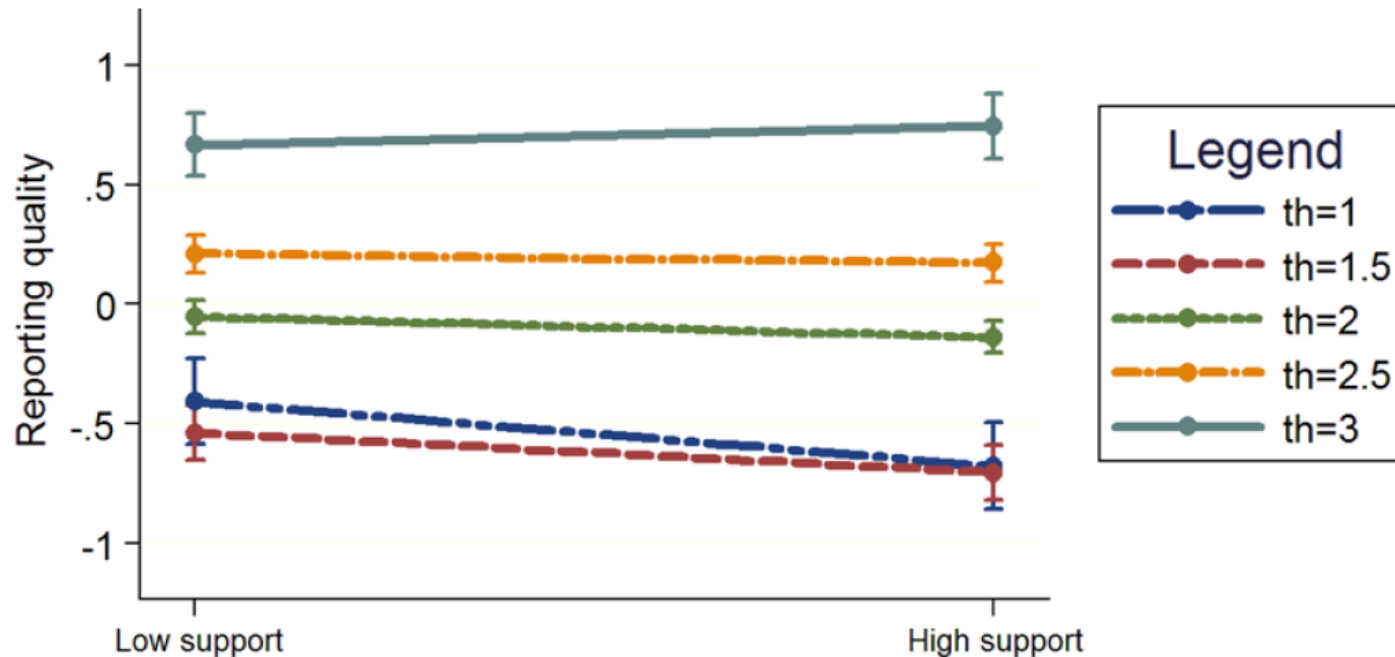


FIG. 4.—Marginal effects of time horizon on reporting quality (95% CIs; planned additional test).

- More detail; confirms results
- When considering extensiveness of voluntary reporting (# words), support has a positive effect for long term oriented firms but negative for short term oriented firms

TAKEAWAYS

- Time horizon very important characteristic in assessing firms' motivations
- Support is not always good
 - Not in general in this setting
 - generally negative perception of regulator
 - generally critical about usefulness of this effort anyway
 - Especially not when short term orientation
- Balance trust + support vs. control + deterrence
 - Context specific
 - Based on individuals' or firms' motivations and time horizon
- Key lesson for regulation: try to learn motivations and adapt strategy!!

BACK TO THE START

Trust and control

starting point: Go to www.menti.com; log in using code ...

Thank you