

Information about Fewer Audits Reduces Support for Economic Relief Programs

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Abstract

Using a probability-based sample of the Norwegian population, we test whether an informational treatment about fewer audits by the Norwegian Tax Administration during the peak of the COVID-19 crisis affects support for an economic relief program designed to save jobs and prevent bankruptcies. The information treatment significantly reduces support for the economic relief program. The underlying mechanisms are lower trust in the tax administration and more pessimism about its ability to detect misuse of the program. (*JEL* D83, H25, H26)

Keywords: Policy Preferences, Economic Relief Programs, Information, Audit Activities.

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1 Introduction

The COVID-19 pandemic has resulted in a global economic crisis. Governments around the world have responded to the crisis with extraordinary economic relief programs. For instance, the US passed a historic USD 2 trillion economic relief package in late March 2020. At the same time, tax administrations have responded to the pandemic by suspending or reducing their audit activities, especially for on-site audits (OECD, 2020). This response is in line with recommendations from the OECD, which suggests a temporary change in auditing policies to ease the burden on taxpayers and reduce disease transmission risks in the case of on-site audits.

While a temporary reduction in audit activities during an economic and public health crisis involves obvious risks related to increased fraud, a second concern is that such a reduction might negatively affect trust in the tax administration. Governments in democratic countries need public support to roll out economic relief programs. If voters are concerned about fraud and misuse of public funds, reducing audit activities when economic relief programs are most needed might unintentionally undermine public support for the programs. In this paper, we examine how information about fewer audits affects trust in the tax administration and support for economic relief programs through an online survey experiment conducted in Norway during the peak of the COVID-19 crisis.

We ran our experiment with a large, probability-based sample of the Norwegian population. We first give our respondents some background information about Norway's most important COVID-19 relief package, the Business Compensation Scheme, which was administered by the Norwegian Tax Administration. After Norway implemented strong infection control measures in March 2020, the Norwegian Tax Administration reduced its audit activity by conducting fewer physical audits. We provide this information to a random subsample of our respondents to test how information about reduced audit activities affects support for economic relief programs. We also measure post-treatment beliefs about the detection probability for firms trying to abuse the program and trust in the tax administration.

The main results of the paper are that information about fewer audits reduces trust in the tax administration and weakens support for economic relief programs. More specifically, treated respondents are 9.6 percentage points less likely than control group respondents to express trust in the tax administration's handling of the Business Compensation Scheme. This effect corresponds to a 14 percent reduction in trust compared to the control group mean of 67.6 percent. We also find that treated respondents believe that the tax administration is 4.6 percentage points less likely to catch firms trying to abuse the Business Compensation Scheme compared to control group respondents. This effect corresponds to a ten percent decrease from the control group mean of 45 percent. As a result of lower trust in the tax administration and more pessimism about its ability to detect fraud, treated respondents reduce their support for the Business Compensation Scheme by 5.6 percentage points compared to control group respondents. This corresponds to a seven percent reduction compared to the baseline support of 80 percent among control group respondents. These findings highlight the importance of maintaining normal audit levels during an economic crisis to preserve public trust in the system and maintain support for economic relief packages.

Our findings contribute to the literature on how taxpayers respond to information about audit activities (Blumenthal et al., 2001; Bott et al., 2019; Doerrenberg and Schmitz, 2015; Kleven et al., 2011; De Neve et al., 2019; Perez-Truglia and Troiano, 2018). This literature has shown that information about audits can affect tax compliance. We contribute to this literature by showing that information about audits also affects trust in the tax administration and policy preferences.¹ More generally, we contribute to the political economy literature using information provision experiments to study beliefs and public policy preferences (Alesina et al., 2018; Cruces et al., 2013; Fehr et al., 2019; Grigorieff et al., 2020; Haaland and Roth, 2019; Karadja et al., 2017; Kuziemko et al., 2015; Lergetporer et al., 2018; Roth et al., 2019).² This literature has mostly found muted impacts of information on public policy preferences. One reason for this could be that voters are not

¹This finding also relates to a theoretical literature on how tax evasion affects policy preferences (Borck, 2009; Roine, 2006; Traxler, 2009).

²For a recent review of information provision experiments in economics, see Haaland et al. (2020).

open to persuasion on ideologically charged topics such as redistribution or affirmative action (Haaland and Roth, 2019; Kuziemko et al., 2015). We contribute to this literature by showing that policy preferences are elastic to information on a topic characterized by low political polarization.³ This paper proceeds as follows. Section 2 describes the sample and experimental design. Section 3 describes the results. Section 4 concludes.

2 Sample and experimental design

2.1 Sample

We recruited respondents using Norstat, Norway’s largest market research company. Norstat administers a large online probability-based panel of the Norwegian population where all 81,000 panelists are actively recruited to join the panel, mostly via telephone. All participants need to verify their phone number and answer a questionnaire on demographics before they are allowed to join the panel. The panel is constructed to be representative of the Norwegian population. Norstat maintains several procedures to secure high-quality survey responses. First, there are clear restrictions on how often panelists can take part in surveys. Each panelist typically completes one to two surveys per month. Second, panelists who consistently speed through surveys are excluded from the panel. Third, Norstat has a system for identifying duplicate accounts, making it very unlikely that someone completes the survey twice.

The survey was fielded by Norstat between May 7 and May 20. Out of 4,840 respondents invited into the survey, 1,482 respondents started the survey. 29 respondents were screened out due to full quotas, 1 person was screened out for other reasons, and 52 respondents dropped out of the survey (of which 34 respondents were assigned a treatment). There was no differential attrition by treatment assignment. The final sample consisted of 1400 respondents, which corresponds to our pre-specified sample size. Norstat provides survey weights that makes our sample representative of the Norwegian

³For instance, in March 2020, the US Senate approved a historic \$2 trillion COVID-19 stimulus bill in a unanimous 96–0 vote.

household population on gender, age, region. As shown in Table A.1, our unweighted sample is already quite representative of the general Norwegian on these dimensions. Our sample is less representative on education as our respondents are more likely than the general population to have a college degree.

2.2 Experimental design

We first ask pre-treatment questions about gender, age, region, and education. Thereafter, we provide all respondents with background information about a government relief program, the Business Compensation Scheme. Half of our respondents are then exposed to an information treatment that the tax administration is doing fewer audits during the coronavirus crisis. Finally, we measure support for the Business Compensation Scheme and elicit post-treatment beliefs about trust in the tax administration, beliefs about fraud attempts, and beliefs about the detection probability.

Section B of the Online Appendix provides an English translation of the survey instruments while Section C provides screenshots of the original survey in Norwegian.⁴ On May 18, we submitted a pre-analysis plan to the AsPredicted registry. While the survey was already in the field when we submitted the pre-analysis plan, the data collection was fully administered by Norstat and we did not obtain access to the data before the collection ended on May 20. The pre-analysis plan is included in Section D of the Online Appendix and is also available on the following link: <http://aspredicted.org/blind.php?x=qa65g2>.

2.2.1 Introductory text about the Business Compensation Scheme

The Business Compensation Scheme was the Norwegian government's leading initiative to mitigate the negative effects of the COVID-19 crisis on the economy. It was initiated in April 2020 and allowed private enterprises that experienced a revenue fall of at least 30

⁴The survey instruments were translated into English by professional translators working in the language section of the Norwegian Tax Administration.

percent to apply for government subsidies to cover up to 90 percent of their fixed costs. The stated aim of the scheme was to prevent unnecessary bankruptcies and safeguard Norwegian jobs during the coronavirus crisis.⁵ The scheme was approved by the Norwegian parliament for the three-month period March–April 2020. It was estimated to cost the government 20 billion NOK (or approximately 2 billion USD) per month. In late May, the Business Compensation Scheme was extended for another three-month period, but with less generous subsidies, and then discontinued in August 2020.

The Business Compensation Scheme was the most important initiative of the Norwegian government to mitigate the negative economic impact of the coronavirus crisis, and it was heavily debated in May 2020 when the survey was fielded. However, it is unclear how much the average citizen knew about the scheme. We therefore presented the following text (translated from Norwegian) to respondents in both the treatment and control group to make them familiar with the context:

Recently, the Norwegian Government launched the Business Compensation Scheme, often referred to as the cash benefit scheme for businesses. The Business Compensation Scheme was established to provide financial aid to enterprises that have been severely impacted financially by the coronavirus crisis. The aid is provided through subsidies that cover up to 90 percent of the enterprises' fixed costs, for example their rent.

The purpose of the Business Compensation Scheme is to avoid unnecessary bankruptcies and redundancies during the coronavirus crisis. **An estimate shows that the scheme will cost the state around NOK 20 billion per month.**

It has been pointed out by the media that the Business Compensation Scheme may be abused by enterprises reporting too high fixed costs to the tax authorities.

The Norwegian Tax Administration has been charged with administration of the Business Compensation Scheme on the state's behalf. **The Norwegian Tax Administration is also responsible for ensuring that the scheme is not**

⁵More information about the Business Compensation Scheme is available on the Tax Administration's website: <https://www.skatteetaten.no/kompensasjonsordning/>.

misused.

2.2.2 Information treatment: Reduced control activity by the tax administration

Immediately following the short introductory text about the Business Compensation Scheme, we inform respondents in the treatment group that the tax administration had reduced its control activity during the coronavirus crisis. This fact received public attention in late April 2020 when Norway's largest business newspaper ran a critical story about fewer on-site audits performed by the Norwegian Tax Administration during the COVID-19 crisis.⁶ We provide this information to our respondents with the following text (translated from Norwegian):

The media has also revealed that the Norwegian Tax Administration has carried out fewer on-site audits **during the coronavirus crisis because the Tax Administration's employees were working from home and because of infection control measures.**

The information treatment was naturally embedded in the introductory text about the Business Compensation Scheme shown to all respondents (see Section C.2 and Section C.3 of the Online Appendix for screenshots of the introductory text as presented to respondents in the control and the treatment group, respectively).

The purpose of the information treatment was to give treated respondents a signal about lower control activity by the tax administration during the coronavirus crisis. A common concern about information experiments is that the information provision might induce experimenter demand effects—a bias that occurs if respondents adjust their behavior to align with perceived researcher expectations.⁷ To mitigate concerns about demand effects, we naturally integrated the information treatment in the introductory text about the Business Compensation Scheme and framed the information treatment as additional finding revealed by the media. Importantly, respondents in both the treatment and control

⁶“Færre kontroller av svindel og dagpengejuks,” *Dagens Næringsliv*, April 19, 2020.

⁷Recent work suggests that experimenter demand effects are unlikely to be a concern in survey experiments, even for strongly framed treatments (de Quidt et al., 2018; Mummolo and Peterson, 2019).

group were primed on the fact that there was scope to abuse the Business Compensation Scheme.

2.2.3 Measuring support for the Business Compensation Scheme

To assess how the information treatment affects policy preferences, we ask respondents the following question: “Are you in favor of or opposed to the Business Compensation Scheme?” Respondents report their answer on a five-point scale from (1) “Strongly opposed to the Business Compensation Scheme” to (5) “Strongly in favor of the Business Compensation Scheme.”

2.2.4 Mechanism questions

After the main question about support for the Business Compensation Scheme, we ask respondents three additional questions to assess mechanisms and check whether the treatment successfully changed beliefs and trust in the tax administration.

Trust in the tax administration We first assess whether the treatment affects trust in the tax administration with the following question: “How low or how high is your trust in the Norwegian Tax Administration to manage the Business Compensation Scheme in an effective and sensible way?” Respondents report their answer on a five-point scale from (1) “Very low trust” to (5) “Very high trust.”

Beliefs about fraud attempts We next assess whether the treatment affects beliefs about fraud attempts with the following question: “What percentage of the enterprises applying for a subsidy do you think will try to abuse the scheme by reporting too high fixed costs to the Tax Administration?” Respondents report their answer by moving a slider between 0 and 100 percent with intervals of ten percentage points (Section C.4 of the Online Appendix provides a screenshot of the slider).

Beliefs about the detection probability We finally assess whether the treatment affects beliefs about the detection probability with the following question: “What percentage of the enterprises that are trying to abuse the scheme do you think will be detected by the Tax Administration’s checks and audits?” Respondents again report their answer by moving a slider between 0 and 100 percent with intervals of ten percentage points.

3 Results

3.1 Descriptive evidence on beliefs and policy preferences

We first focus on control group respondents to provide descriptive evidence on the association between support for the Business Compensation Scheme and beliefs about fraud attempts and the detection probability. As shown in Figure A.1a, control group respondents are very supportive of the Business Compensation Scheme: 80 percent are either in favor or strongly in favor of the scheme and only four percent are either opposed or strongly opposed to the scheme. Furthermore, beliefs about fraud attempts (Figure A.1c) and beliefs about the detection probability (Figure A.1d) are both quite heterogeneous.

Figure 1 shows that beliefs about the detection probability and about fraud attempts are both very predictive of support for the Business Compensation Scheme. For instance, respondents who support or strongly support the Business Compensation Scheme think the detection probability for abuse of the Business Compensation Scheme is 12.5 percentage points higher than respondents who do not support the scheme. Similarly, respondents who support or strongly support the Business Compensation Scheme think that fraud attempts are 15.9 percentage points less likely than respondents who do not support the scheme. These correlations are robust to including demographic and political party controls in a regression framework (as shown in Table A.2 of the Online Appendix).⁸ But, naturally, due to concerns about omitted variable bias and reverse causality, these correlations are only suggestive and cannot be given a causal interpretation.

⁸Figure A.2 of the Online Appendix shows similarly strong correlations between support for the Business Compensation Scheme and trust in the tax administration.

3.2 Treatment effects

To examine treatment effects, we estimate the following OLS equation:

$$y_i = \alpha_0 + \alpha_1 T_i + \alpha_2 \mathbf{x}_i + \varepsilon_i$$

where y_i is the outcome of interest; T_i is an indicator for whether subject i received the information treatment; \mathbf{x}_i is a vector of controls; and ε_i is an individual-specific error term. We use robust standard errors for all specifications (HC₁; MacKinnon and White, 1985).

Table 1 presents the main regression results on our post-treatment outcomes. To assess support for the Business Compensation Scheme, we create an indicator variable that takes the value one for respondents who are either in favor or strongly in favor of the scheme, and zero otherwise. We also create an indicator value one for respondents who report “very high trust” or “somewhat high trust” in the Norwegian Tax Administration.⁹ We do not transform responses to the post-treatment beliefs questions that were elicited on a 0–100 percent scale as responses to these questions already have an intuitive interpretation.

Beliefs about the detection probability Column 1 of Table 1 shows that the treatment significantly affects beliefs about the detection probability. Specifically, treated respondents think that the tax administration is 4.6 percentage points less likely to catch firms that abuses the Business Compensation Scheme ($p < 0.01$). The treatment effect corresponds to a ten percent decrease from the control group mean of 45 percent. This result is robust to inclusion of demographic and political controls (column 2) as well as population weights (column 3). These results demonstrate that treated respondents updated their beliefs from the information provided and concluded that fewer on-site audits would make it easier for firms to abuse the Business Compensation Scheme without being detected by the tax administration.

⁹Table A.3 presents an alternative specification where we instead z-score these two variables.

Beliefs about fraud attempts Since the propensity for fraud could depend on the detection probability, treated respondents might infer that firms should be more likely to abuse the Business Compensation Scheme when it is known that the tax administration conducts fewer audits. Columns 4–6 of Table 1 show that this is not the case: treated respondents are no more likely than control group respondents to think that firms will abuse the Business Compensation Scheme. Thus, our respondent’s beliefs are not in line with the standard Allingham and Sandmo (1972) model of tax evasion in which firms would respond to fewer audits with more fraud attempts.

Trust in the tax administration Columns 7–10 of Table 1 show that the treatment significantly reduced trust in the tax administration. As shown in column 7, treated respondents are 9.6 percentage points less likely than non-treated respondents to trust the tax administration to manage the Business Compensation Scheme in an ‘effective and sensible way’ ($p < 0.01$). This effect corresponds to a 14 percent reduction in trust compared to the control group mean of 67.6 percent, or 18.5 percent of a standard deviation if we use a z-scored outcome measure (as reported in Table A.3). The result is robust to the inclusion of controls and survey weights (columns 2–3). While previous studies often see control activities and trust as separate means to achieve high tax compliance (Kirchler et al., 2008), this result demonstrates that trust is directly affected by control activities.

Support for the Business Compensation Scheme Columns 10–12 of Table 1 show that the treatment significantly affects support for the Business Compensation Scheme. Specifically, treated respondents are 5.6 percentage points less likely to support the Business Compensation Scheme ($p < 0.05$). This corresponds to a 7 percent reduction in support compared to the control group mean of 80 percent, or 9.7 percent of a standard deviation if we use a z-scored outcome measure (as reported in Table A.3).¹⁰ This result is robust to the inclusion of controls and survey weights (columns 11–12).

¹⁰As shown in Figure A.1a, the treatment mainly affects attitudes by making some people who “favor” the scheme become “neutral.” This translates into a 0.069 change on the five-point scale ranging from (1) “strongly oppose” to (5) “strongly favor.” This effect size thus masks an important shift in attitudes from a political economy perspective, making the binary outcome our preferred specification.

3.3 Discussion

Our main result is that treated respondents are 5.6 percentage points less likely than non-treated respondents to support the Business Compensation Scheme. Is this a small or large effect size? If we assume an exclusion restriction in which the information treatment only affects policy preferences through changes in beliefs about the detection probability, we could conclude that the elasticity between beliefs and preferences is close to one given a “first stage” on beliefs of 4.6 percentage points. However, the exclusion restriction is unlikely to be strictly satisfied in our setting. For instance, we also see 9.6 percentage points decrease in trust toward the tax administration. This could have an independent effect on support for the Business Compensation Scheme, violating the exclusion restriction. The main point is that compared to how strongly the treatment affected beliefs about the detection probability and trust in the tax administration, the effect size on support for the Business Compensation Scheme is sizable. In line with the descriptive evidence from Section 3.1, concerns about the tax administration’s detection capacity seem important for understanding public support for economic relief programs.

The effect size of 5.6 percentage points is also rather large compared to many previous information experiments studying policy preferences, especially when taking into account that our information treatment was short and neutrally framed. For instance, in the context of policy preferences on redistribution, information experiments studying the role of mobility perceptions or beliefs about income inequality have found almost no impact of information on policy preferences despite sizable treatment effect on underlying beliefs (Alesina et al., 2018; Kuziemko et al., 2015). One explanation for why our information treatment had a sizable impact on policy views could be that support for economic relief programs is less driven by ideology than support for redistribution. In fact, we observe no differences in support for the Business Compensation Scheme between left-wing and right-wing voters, which indeed suggests that ideology is not very important in explaining support for economic relief programs.

4 Concluding remarks

This paper presents evidence that information about fewer audits to detect abuse of a large-scale economic relief program reduces public support for the program. The results are consistent with treated respondents expecting a lower detection probability for firms trying to abuse the program and displaying less trust in the tax administration.

During an economic crisis, governments often want to reduce audit activities to ease the administrative burden on businesses. In fact, during the COVID-19 pandemic, many tax administrations were publicly announcing that they were reducing audit activities to ease the administrative burden on businesses.¹¹ Furthermore, during the peak of the pandemic, tax administrations around the world were also encouraged to reduce physical audits for public health reasons. However, as our results indicate, an unintended consequence of reduced audit activities is lower trust in the tax administration. An important lesson for policy makers is thus to be aware that fewer audits, while possibly justified on economic and public health grounds, can negatively affect public trust in the system.

Furthermore, during an economic crisis, governments also want to pass economic relief packages to save jobs and prevent unnecessary bankruptcies. Our results demonstrate the importance of maintaining normal audit levels during a crisis to secure public support for economic relief programs. This finding is especially relevant for countries in which the media is likely to report about reduced control activities, as was the case in Norway during the peak of the COVID-19 pandemic when the media featured critical stories about fewer on-site audits performed by the Norwegian Tax Administration. An important question for future research is whether policy makers can adopt a more balanced communication strategy to preserve trust in the system despite conducting fewer on-site audits, e.g. by promising to intensify audit activities post-crisis or compensate for fewer on-site audits with less burdensome digital controls.

¹¹ See e.g. IRS's "People First" program, www.irs.gov/newsroom/irs-unveils-new-people-first-initiative-covid-19-effort-temporarily-adjusts-suspends-key-compliance-program (accessed December 2, 2020).

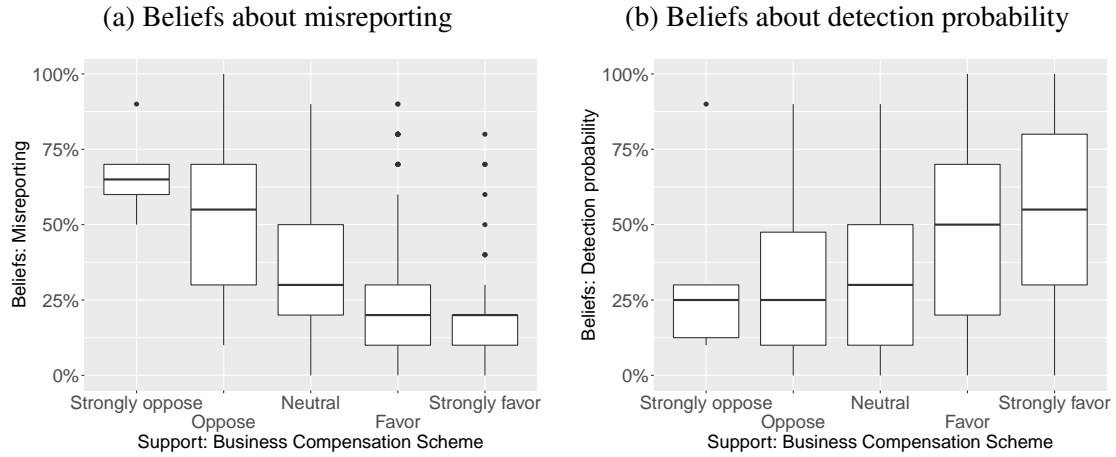
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Figures and tables

Figure 1: The association between beliefs and support for the Business Compensation Scheme



Note: This figure uses data from control group respondents. The horizontal axis features responses to the question “Are you in favor of or opposed to the Business Compensation Scheme?”. The vertical axis of panel a) features responses to the question “What percentage of the enterprises applying for a subsidy do you think will try to abuse the scheme by reporting too high fixed costs to the Tax Administration?”. The vertical axis of panel b) features responses to the question “What percentage of the enterprises that are trying to abuse the scheme do you think will be detected by the Tax Administration’s checks and audits?”. The horizontal black lines indicate median values while the boxes display the interquartile ranges (i.e., the upper and lower part of the boxes corresponds to the 25th and 75th percentile, respectively). The upper and lower whiskers include all values up to 1.5 times the inter-quartile range. Finally, values outside the whiskers are outliers represented by individual dots.

Table 1: Main post-treatment outcomes

	Beliefs: Detection probability			Beliefs: Misreporting			Trust: Tax Administration			Support: Business Comp. Scheme		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Treatment	-0.046*** (0.016)	-0.044*** (0.016)	-0.044*** (0.016)	0.014 (0.010)	0.011 (0.010)	0.013 (0.011)	-0.096*** (0.026)	-0.089*** (0.025)	-0.087*** (0.026)	-0.056** (0.022)	-0.048** (0.022)	-0.047** (0.022)
N	1341	1341	1341	1336	1336	1336	1400	1400	1400	1400	1400	1400
Controls	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Weights	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Control mean	0.45	0.45	0.45	0.27	0.27	0.27	0.68	0.68	0.68	0.80	0.80	0.80

Note: The table shows OLS regression results on our main post-treatment outcomes. In columns 1–3, the dependent variable is beliefs about the percentage of enterprises that will abuse the Business Compensation Scheme by reporting too high fixed costs (responses range from 0 to 1 in 0.1 increments). The dependent variable in columns 4–6 is beliefs about the percentage the percentage of firms trying to abuse the Business Compensation Scheme conditional on applying for a subsidy (responses range from 0 to 1 in 0.1 increments). The dependent variable in columns 7–9 is an indicator variable taking the value 1 for respondents who express “Very high trust” or “somewhat high trust” in the Norwegian Tax Administration’s handling of the Business Compensation Scheme and 0 for the remaining three response options (“Very low trust,” “Somewhat low trust,” and “Neither low nor high trust”). The dependent variable in columns 10–12 is an indicator variable taking the value 1 for respondents who are “In favor” or “Strongly in favor” of the Business Compensation Scheme and 0 for the remaining three response options (“Strongly opposed,” “Opposed,” and “Neither in favor nor opposed”). “Treatment” takes the value one for respondents who received information about fewer audits. Regressions with controls include the following variables: gender, age (in years), education (dummy for having a college degree), income (dummy for having income above NOK 500,000), employment (dummy for being full-time employed), work sector (dummy for working in the public sector), and political party preferences (a dummy for supporting one of the main left-wing parties, R, SV, or Ap, and a dummy for supporting one of the main right-wing parties, H or Frp). Regressions with probability weights make the sample fully representative of the adult Norwegian population on gender, age, and geography. “Control mean” displays the (unweighted) mean of the dependent variable for control group respondents.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

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Summary of the Online Appendix

Table A.1 provides summary statistics, comparing the general Norwegian population with our (unweighted) Norstat sample on some key demographics. Table A.2 provides descriptive evidence on the association between support for the Business Compensation Scheme and beliefs about fraud attempts and the detection probability. Table A.3 shows treatment effects on policy preferences and trust in the tax administration using z-scored outcome measures. Figure A.1 shows the distribution of responses to our main outcome questions by treatment status. Figure A.2 shows correlations between the support for the Business Compensation Scheme and trust in the tax administration. Section B provides instructions translated into English. Section C provides screenshots of the original survey in Norwegian. Section D provides a copy of the pre-analysis plan.

A Appendix tables and figures

Table A.1: Summary statistics: General population versus Norstat sample

	General population	Norstat
Male	0.502	0.489
Age (in years)	47.236	46.562
Income	567480	510185.185
College degree	0.346	0.601
Observations		1400

Note: This table compares summary statistics of the general adult population in Norway (recovered from <https://www.ssb.no/statbank/>) and our unweighted Norstat sample (column 2). To calculate average income in our survey, we transformed the income brackets into a continuous variable using the midpoint of the answer choice given by the respondents. “College” is a dummy for having a college degree.

Table A.2: The association between support for the Business Compensation Scheme and beliefs about detection probability and fraud attempts

	Detection probability		Misreporting	
	(1)	(2)	(3)	(4)
Support: Economic relief	0.125*** (0.025)	0.110*** (0.026)	-0.159*** (0.021)	-0.148*** (0.022)
N	668	668	670	670
Demographic and political controls	No	Yes	No	Yes
Mean	0.35	0.35	0.40	0.40

Note: The table shows OLS regression results using control group respondent only. In columns 1–2, the dependent variable is beliefs about the detection probability for abuse of the Business Compensation Scheme. In columns 3–4, the dependent variable is beliefs about the percentage of firms trying to misuse the Business Compensation Scheme. “Support: Economic relief” is an indicator taking the value one for respondents who support for the Business Compensation Scheme. Controls are listed in Table 1.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Table A.3: Treatment effects with z-scored outcomes

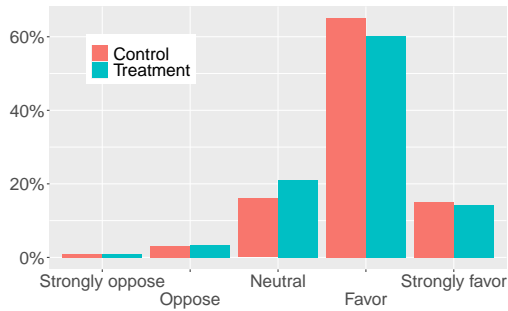
	Trust: Tax Administration			Support: Business Comp. Scheme		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.185*** (0.054)	-0.171*** (0.054)	-0.164*** (0.056)	-0.097* (0.055)	-0.077 (0.053)	-0.070 (0.057)
N	1400	1400	1400	1400	1400	1400
Controls	No	Yes	Yes	No	Yes	Yes
Weights	No	No	Yes	No	No	Yes

Note: The table shows OLS regression results on trust in the Norwegian Tax Administration (columns 1–3) and support for the Business Compensation Scheme (columns 4–6). Both dependent variables were elicited using five-point Likert scales and have then been z-scored using the mean and standard deviation of control group respondents. “Treatment” takes the value one for respondents who received information about fewer audits. Controls are listed in Table 1. Regressions in columns 3 and 6 include probability weights for gender, age, and geography.

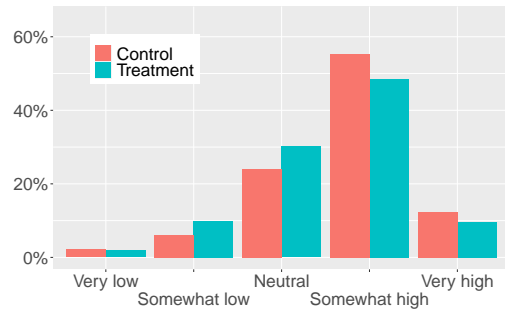
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses.

Figure A.1: Distribution of responses

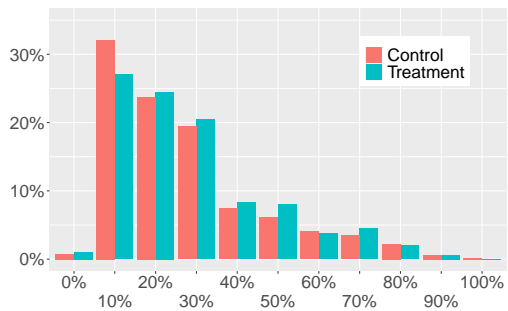
(a) Support: Business Compensation Scheme



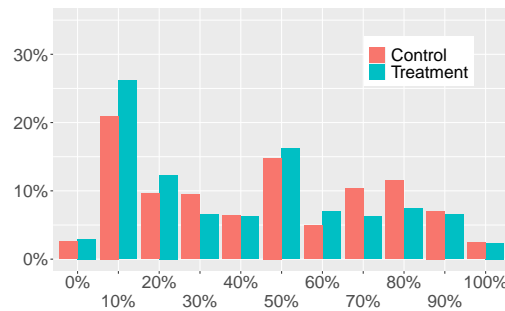
(b) Trust in the tax administration



(c) Beliefs about misreporting

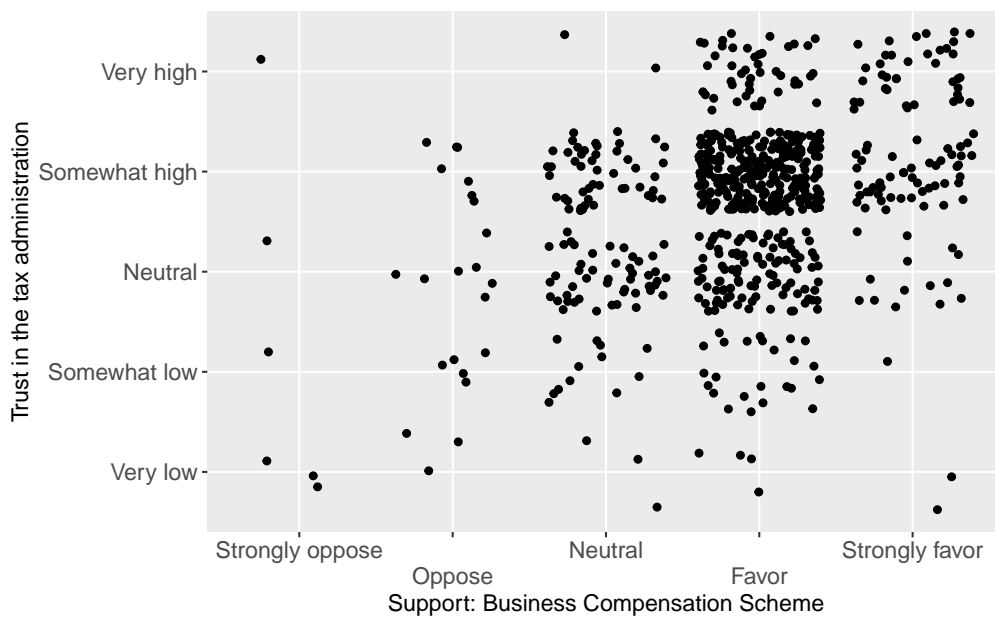


(d) Beliefs about the detection probability



Note: The figure shows the distribution of responses to the main outcome questions, by treatment status.

Figure A.2: The association between trust in the tax administration and support for the Business Compensation Scheme



Note: This figure uses data from control group respondents. The horizontal axis features responses to the question “Are you in favor of or opposed to the Business Compensation Scheme?” and the vertical axis features responses to the question “How low or how high is your trust in the Norwegian Tax Administration to manage the Business Compensation Scheme in an effective and sensible way?”

B English translation of experimental instructions

B.1 Pre-treatment background questions

- Are you ... [Male; Female]
- How old are you? [Numeric]
- Where do you live? [Numeric; Postcal code]
- What is the highest degree or level of school you have completed? [Primary and lower secondary school; Upper secondary school; University/college up to and including 3 years (bachelor's degree or similar); University/college up to and including 4 years; University/college over 4 years (master's degree or similar and higher)]

B.2 Introduction

Recently, the Norwegian Government launched the Business Compensation Scheme, often referred to as the cash benefit scheme for businesses. The Business Compensation Scheme was established to provide financial aid to enterprises that have been severely impacted financially by the coronavirus crisis. The aid is provided through subsidies that cover up to 90 percent of the enterprises' fixed costs, for example their rent.

The purpose of the Business Compensation Scheme is to avoid unnecessary bankruptcies and redundancies during the coronavirus crisis. **An estimate shows that the scheme will cost the state around NOK 20 billion per month.**

It has been pointed out by the media that the Business Compensation Scheme may be abused by enterprises reporting too high fixed costs to the tax authorities.

The Norwegian Tax Administration has been charged with administration of the Business Compensation Scheme on the state's behalf. **The Norwegian Tax Administration is also responsible for ensuring that the scheme is not misused.**

*[The following paragraph was only shown to respondents in the treatment group: The media has also revealed that the Norwegian Tax Administration has carried out fewer on-site audits **during the coronavirus crisis because the Tax Administration's employees were working from home and because of infection control measures.**]*

B.3 Outcome questions

B.3.1 Support for the Business Compensation Scheme

Are you in favor of or opposed to the Business Compensation Scheme?

- Strongly opposed to the Business Compensation Scheme
- Opposed to the Business Compensation Scheme
- Neither in favor nor opposed to the Business Compensation Scheme
- In favor of Business Compensation Scheme
- Strongly in favor of the Business Compensation Scheme

B.3.2 Trust in the Norwegian Tax Administration

How low or how high is your trust in the Norwegian Tax Administration to manage the Business Compensation Scheme in an effective and sensible way?

- Very low trust
- Somewhat low trust
- Neither low nor high trust
- Somewhat high trust
- Very high trust

B.3.3 Beliefs about tax fraud

What percentage of the enterprises applying for a subsidy do you think will try to abuse the scheme by reporting too high fixed costs to the Tax Administration? [Slider from 0 to 100 with intervals of ten percentage points; respondents also had a “I do not wish to answer” option]

B.3.4 Beliefs about the detection probability

What percentage of the enterprises that are trying to abuse the scheme do you think will be detected by the Tax Administration’s checks and audits? [Slider from 0 to 100 with intervals of ten percentage points; respondents also had a “I do not wish to answer” option]

B.4 Post-treatment background questions

- What is your personal gross annual income, i.e. income before tax? [0 to 199,999; 200,000 to 399,999; 400,000 to 599,999; 600,000 to 799,999; 800,000 to 999,000; 1 million or more; I do not know/ I cannot remember; I do not wish to answer]
- How would you describe your situation? If more than one option is correct, choose the one you think fits best. [I am a student; Full-time employee; Part-time employee; I have my own business; I am in military service; Maternity/paternity leave; I am a pensioner; I am looking for work; I am a homemaker; I have been laid off; I am a benefit recipient; Other; I do not wish to answer]
- Which sector do you work in? [Private; Public; Other; *only shown if respondent is in paid employment*]
- If a parliamentary election was held tomorrow, which political party would you vote for? [Ap; H; FrP; Sp; SV; V; KrF; MDG; Rødt; Folkeaksjonen nei til bompenger; Other; I would not vote; I do not wish to answer; I am not sure; I am not entitled to vote; *order randomized for all the political parties*]

B.5 Comments and concluding remarks

B.5.1 Open-ended question for comments and feedback

If you have any comments to this survey, please write your comment in the field below. We would especially like to hear from you if anything was unclear or if there was anything special you reacted to during the survey.

B.5.2 Concluding remarks – sent to all participants after answering all questions

Thank you for taking the time to participate in this survey. Your answers are important. Most of the Tax Administration's audits are performed digitally, but we did have a period of fewer on-site audits as a result of the Covid-19 outbreak. The Tax Administration will increase the number of audits and checks from now on, including for circumstances arising during the Covid-19 lockdown.

C Screenshots of the experiment in Norwegian

C.1 Pre-treatment questions

Hva er din alder?

Er du mann eller kvinne?

Mann

Kvinne

Hva er ditt postnummer?

>

C.2 Main outcome screen: Control group

Regjeringen innførte nylig kompensasjonsordningen, ofte kalt kontantstøtten til næringslivet. Kompensasjonsordningen skal hjelpe bedrifter som er økonomisk hardt rammet av koronakrisen. Dette gjøres ved å dekke inntil 90 prosent av de faste utgiftene til bedriftene, for eksempel husleie.

Målet med kompensasjonsordningen er å unngå unødvendige konkurser og oppsigelser under koronakrisen. **Ordningen er anslått å koste staten cirka 20 milliarder kroner i måneden.**

Det har blitt påpekt i mediene at kompensasjonsordningen kan misbrukes av bedrifter ved å innrapportere for høye faste kostnader til skattemyndighetene.

Skatteetaten forvalter kompensasjonsordningen for staten. **Skatteetaten har også ansvar for kontrollere at ordningen ikke misbrukes.**

Er du for eller imot kompensasjonsordningen?

- Sterkt imot kompensasjonsordningen
- Imot kompensasjonsordningen
- Verken for eller imot kompensasjonsordningen
- For kompensasjonsordningen
- Sterkt for kompensasjonsordningen

>>

C.3 Main outcome screen: Treatment group

Regjeringen innførte nylig kompensasjonsordningen, ofte kalt kontantstøtten til næringslivet. Kompensasjonsordningen skal hjelpe bedrifter som er økonomisk hardt rammet av koronakrisen. Dette gjøres ved å dekke inntil 90 prosent av de faste utgiftene til bedriftene, for eksempel husleie.

Målet med kompensasjonsordningen er å unngå unødvendige konkurser og oppsigelser under koronakrisen. **Ordningen er anslått å koste staten cirka 20 milliarder kroner i måneden.**

Det har blitt påpekt i mediene at kompensasjonsordningen kan misbrukes av bedrifter ved å innrapportere for høye faste kostnader til skattemyndighetene.

Skatteetaten forvalter kompensasjonsordningen for staten. **Skatteetaten har også ansvar for kontrollere at ordningen ikke misbrukes.**

Det har også kommet fram i mediene at Skatteetaten har gjennomført færre fysiske kontroller av bedrifter **gjennom koronakrisen på grunn av hjemmekontor og smittevern hensyn.**

Er du for eller imot kompensasjonsordningen?

- Sterkt imot kompensasjonsordningen
- Imot kompensasjonsordningen
- Verken for eller imot kompensasjonsordningen
- For kompensasjonsordningen
- Sterkt for kompensasjonsordningen

>>

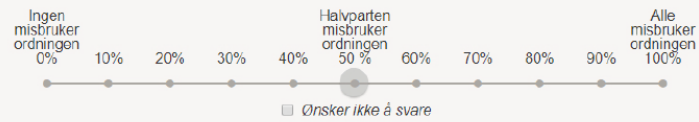
C.4 Post-treatment beliefs and trust in government

Hvor høy eller lav tillit har du til at Skatteetaten forvalter kompensasjonsordningen på en god og fornuftig måte?

- Svært lav tillit
- Ganske lav tillit
- Verken lav eller høy tillit
- Ganske høy tillit
- Svært høy tillit

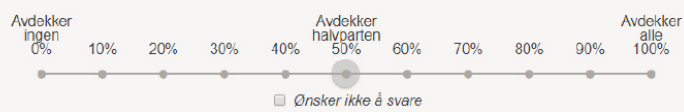
>>

Hvor mange prosent av bedriftene som søker om støtte tror du vil prøve å misbruke ordningen ved å innrapportere for høye kostnader til Skatteetaten?



>>

Hvor mange prosent av bedriftene som prøver å misbruke ordningen tror du Skatteetaten avdekker ved hjelp av sine kontroller?



>>

C.5 Additional demographics and political views

Hva er din høyeste fullførte utdanning?

- Grunnskole
- Videregående
- Universitet-/høyskolenivå t.o.m. 3 år (Bachelor eller tilsvarende)
- Universitet-/høyskolenivå t.o.m. 4 år
- Universitet-/høyskolenivå mer enn 4 år (Mastergrad eller tilsvarende og høyere grad)
- Annet

>>

Hva er din personlige inntekt (før skatt)?

- 0-100.000 NOK
- 100.001-200.000 NOK
- 200.001-300.000 NOK
- 300.001-400.000 NOK
- 400.001-500.000 NOK
- 500.001-600.000 NOK
- 600.001-700.000 NOK
- 700.001-800.000 NOK
- 800.001-900.000 NOK
- 900.001-1000.000 NOK
- 1.000.001-1.100.000 NOK
- 1.100.001-1.300.000 NOK
- 1.300.001-1.500.000 NOK
- 1.500.001 NOK eller mer
- Vil ikke svare
- Vet ikke

>>

Hvordan vil du beskrive din daglige situasjon?

Dersom det er flere alternativ som passer, velger du det som ut fra din egen mening stemmer best.

- Studier
- Heltidsansatt
- Deltidsansatt
- Jobber i eget firma
- Militærtjeneste/sivilteneste
- Fødselspermisjon
- Pensjonert
- Arbeidssøker
- Hjemmeværende
- Permittert
- Trygdet











>>

Hvilken sektor jobber du i?

- Offentlig
- Privat
- Er ikke i arbeid
- Annet

>>

Dersom det var Stortingsvalg i morgen, hvilket parti ville du da stemme på?

-  Frp
-  Senterpartiet Sp
-  Folkeaksjonen nei til mer bompenger (FNB)
-  SV
-  KrF
-  Mdg
-  Høyre
-  Ap
-  Rødt
-  Venstre
- Andre:
- Ville ikke stemme
- Vil ikke si
- Ikke sikker
- Har ikke stemmerett

>>

C.6 Comments and debrief

Hvis du har noen kommentarer til denne undersøkelsen, setter vi pris på om du skriver en liten kommentar i boksen under. Vi setter spesielt pris på å høre fra deg hvis noe var uklart eller hvis det var noe spesielt du reagerte på i løpet av undersøkelsen.

>>

Takk for at du tok deg tid til å svare på spørreundersøkelsen. Dine svar er viktige for oss. De fleste av kontrollene til Skatteetaten er digitale, men vi har hatt en periode med færre fysiske kontroller som følge av Covid-19. Skatteetaten skal øke kontrollvirksomheten fremover, også på forhold som oppstod under Covid-19 nedstengningen.

>>

D Pre-analysis plan

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Support for Economic Relief and Beliefs about Tax Enforcement Capacity (#41206)

Created: 05/18/2020 04:59 AM (PT)

Shared: 05/22/2020 02:38 AM (PT)

This pre-registration is not yet public. This anonymized copy (without author names) was created by the author(s) to use during peer-review. A non-anonymized version (containing author names) will become publicly available only if an author makes it public. Until that happens the contents of this pre-registration are confidential.

1) Have any data been collected for this study already?

It's complicated. We have already collected some data but explain in Question 8 why readers may consider this a valid pre-registration nevertheless.

2) What's the main question being asked or hypothesis being tested in this study?

We test whether beliefs about the tax administration's capacity to detect tax fraud affect public support for an economic relief bill (the "Business Compensation Scheme") for Norwegian enterprises with a significant drop in revenue due to the coronavirus situation.

3) Describe the key dependent variable(s) specifying how they will be measured.

The key dependent variable is support for the Business Compensation Scheme. It is measured on a 5-point scale from 1: "Strongly against the scheme" to 5: "Strongly in favor of the scheme" (translation from Norwegian). We will z-score the variable using the mean and standard deviation from control group respondents. We will also create a dummy that takes the value one for respondents who are either in favor (value 4 on the 5-point scale) or strongly in favor (value 5 on the 5-point scale) of the scheme.

We also assess treatment effects on the following three mechanism questions:

1) Trust in how well the Norwegian Tax Administration handles the Business Compensation Scheme (measured on a 5-point scale from 1: Very low trust to 5: Very high trust)

2) Beliefs about prevalence of fraud attempts among businesses applying to the scheme (measured on an 11-point scale from 0% to 100%)

3) Beliefs about how many fraud attempts the Norwegian Tax Administration is able to detect (measured on an 11-point scale from 0% of cases to 100% of cases)

4) How many and which conditions will participants be assigned to?

Two conditions.

The treatment group is informed that Norwegian Tax Authority has completed fewer physical controls during COVID-19 pandemic.

The control group is not informed about this.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

The main analysis will be a linear regression of support for the Business Compensation Scheme on a treatment indicator taking the value one for respondents in the treatment group and zero otherwise. We include controls for gender, age, education, income, employment status and sector of employment, and political party preferences.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

We will not exclude any respondents.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We have ordered a sample of 1400 respondents from the data collection agency (Norstat).

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

Norstat has already started to collect the data, but we do not get access to the data before the data collection is finished. This pre-registration was submitted before the data collection was finished and thus before we got access to the data.



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