

Applying Behavioral Insights to Tax Compliance: Experimental Evidence from Latvia

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Sector(s): Political Economy & Governance**Location:** Latvia**Sample:** 4,320 individuals**Target group:** Adults**Outcome of interest:** Taxation**Intervention type:** Incentives Information Nudges and reminders**Research Papers:** Applying behavioral insights to tax compliance: Experimental evidence from Latv...**Partner organization(s):** State Revenue Service of Latvia (SRS), World Bank

Governments often face difficulties in increasing tax compliance. As they try to improve tax compliance rates, some governments are increasingly looking toward behavioral nudges: often small, subtle changes to regular communication processes that try to appeal to the automatic, social, and often unconscious ways that people think. In partnership with the Latvian tax authority, researchers tested several types of emails to investigate the effect of behaviorally-informed messages on tax compliance. Messages that aimed to deter bad behavior by highlighting taxpayers' moral obligations towards action increased on-time tax declaration submissions. In contrast, messages meant to induce social pressure did not increase on-time compliance, though they increased overall submission rates (i.e., the submission of on-time as well as late declarations).

Policy issue

Tax collection plays an important contribution to government revenue, which is essential to sustain public investments in social programs and consequently reduce poverty. To collect tax revenues, governments need to ensure that individuals comply with their tax duties, such as filing taxes, reporting income, or paying tax bills. To improve compliance, tax authorities have traditionally relied on legislation, audits, or penalties against noncompliant taxpayers. More recently, however, governments are increasingly looking toward behavioral interventions as potentially quick and cost-effective ways to improve compliance. Such behavioral interventions are often small, subtle changes to regular communication processes that try to appeal to the automatic, social, and often unconscious ways that people think.

While a growing number of studies from both high-income and low- and middle-income countries are exploring the potential of using such psychological insights to increase tax compliance, existing evidence shows mixed results. Can behavioral messages help increase timely tax declarations of previously delinquent taxpayers in a high-income context such as Latvia?

Context of the evaluation

The informal economy in Latvia, which refers to all economic activities not monitored by the government, represents about one-quarter of the country's GDP—well above the OECD average of 14.4 percent. Due to this informal economy, both under-reported wages from formal employment and under-reported revenue from self-employed individuals are common issues. Consequently, the country earns only 23 percent of its revenue from tax collection, which limits the government's ability to function and deliver public services.

All eligible residents of Latvia are required to submit an Annual Income Declaration between the period of March 1st and June 1st of each year. In the context of this study, Latvia's tax authority (or State Revenue Service, SRS) focused exclusively on increasing the compliance of individuals who did not primarily receive regular salaried income (i.e., self-employed individuals) and who had been previously delinquent in their taxes. Within this group, 58 percent of taxpayers had delayed submitting their return the previous year, while the remaining had delayed submitting in prior years.



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Details of the intervention

In 2016, the Ministry of Finance of Latvia began designing a new tax strategy to address the country's low tax compliance rates and increase tax revenues. To help inform the design of the Ministry's strategy, researchers partnered with the SRS and the Mind, Behavior and Development unit of the World Bank to test the impact of sending behaviorally-informed messages to delinquent taxpayers on their compliance with the tax declaration deadline.

Researchers randomly assigned 4,320 taxpayers who, unlike in some previous studies, were self-employed and had either failed to submit their annual income tax or had submitted it past the deadline at least once between 2013 to 2015 to receive one of the

four interventions below:

1. *A simplified reminder*: Participants received a short and easy-to-read email signed by the Chief Tax Inspector reminding them of the tax timeline, with a link to the national online tax payment system.
2. *A simplified reminder + a deterrence message*: Participants received an email containing the reminder and additional information highlighting that any future non-compliant behavior would be seen as a deliberate choice taken by the taxpayer. This framing aimed to increase taxpayers' moral obligations towards action and increase perceived deterrence.
3. *A simplified reminder + social norms message*: Participants received an email containing the reminder plus additional information meant to induce social pressure to increase recipients' compliance. The message highlighted how an increasing number of taxpayers were submitting their tax declaration by the deadline, appealing to people's tendency to follow others.
4. *Comparison*: Participants received no message.

Researchers used administrative data from the SRS to measure the impact of the intervention on individuals' tax submission by the deadline (June 1st) as well as past the deadline (i.e., 46 days later).

Results and policy lessons

Sending the deterrence message to previously delinquent taxpayers improved their timely tax compliance. There was no statistically significant impact of either the simple reminder or the social norms message on timely tax compliance; however, the social norms message was effective in improving post-deadline (tardy) submission rates.

Timely tax compliance: The deterrence email was most effective in improving taxpayers' timely compliance: This message significantly increased on-time submission of tax declarations by 9.4 percent relative to the comparison group (a 4.1 percentage point increase over a compliance rate of 43.6 percent in the comparison group). The simple reminder and the social norms messages did not significantly increase timely submission.

Overall tax compliance: The social norm message had a positive impact on the overall rate of submission, meaning the submission of on-time as well as late declarations (i.e., those submitted up to 46 days after the deadline). It significantly increased the overall declaration rate by 5.7 percent (a 3.6 percentage point increase compared to a 63 rate in the comparison group). Neither the simple reminder nor the deterrence message had a significant impact on increasing overall rate of submission.

These results suggest behavioral messages can be a cost-effective way to improve tax compliance even when targeted towards individuals who are self-employed and have been delaying or failing to submit their returns in the past. Such behaviorally-informed interventions may be a particularly promising approach in contexts where broader tax reforms are difficult to implement.