

A trial in Latvia looked at how behavioral science can increase tax compliance within the shadow economy.

Tax compliance remains a challenge in Latvia, a country where revenues are substantially subverted by the large shadow economy. It is estimated that Latvia's shadow economy makes up close to a quarter of the country's GDP, well above the average of 14 percent among other OECD countries. Part of this shadow economy includes individuals who are partially or fully self-employed and had been delaying or failing to submit their returns in the past few years.

The Ministry of Finance of the Republic of Latvia collaborated with the World Bank on a holistic review of the country's tax system, an input to the design of a new, improved tax strategy. The State Revenue Service (SRS), Latvia's tax authority, worked with the Mind, Behavior, and Development (eMBeD) Unit at the World Bank to pilot a field experiment to increase tax compliance. The experiment involved sending preemptive, behaviorally-informed email messages to taxpayers with a share of income from self-employment who had previously demonstrated non-compliance with the submission of Annual Income Declaration (AID) forms.

The Project

All eligible residents of Latvia are required to submit an Annual Income Declaration (AID) between March 1st and June 1st. eMBeD and SRS deployed a randomized controlled trial with the goal of learning how behaviorally informed messaging could improve

compliance with this process. The goal was to reach them at a salient moment in the tax declaration process – ideally influencing them to submit their AID on time.

The intervention targeted individuals who, while formally part of the tax system, are partially or fully self-employed and differ from the average taxpayer in at least two ways: 1) they failed to submit their AID by the deadline in one or more of the 2013-2015 tax years and 2) their ultimate submission was substantially late. In advance of the 2017 deadline, a total of 4,324 taxpayers identified by the SRS randomly received one of three treatment emails or received no message as part of a control group. Consequently, 1,081 individuals received each message or were randomly placed in the control group.

The **first message** was a simple reminder. The message included three short, easy-to-read sentences to remind individuals of the tax timeline. It also included a link to the online submission system and contact information (i.e. a phone number) in case of questions. Signing off with the name of the Chief Tax Inspector made the message more personal, as the names of the recipients could not be included for technical reasons.

The **second message** used an omission/commission approach. In addition to the text from the simple reminder, this email stated that previously missed deadlines were considered unintentional and inadvertent (i.e. an honest omission). However, future failures would be considered a deliberate act of non-compliance (i.e. commission). Framing non-compliant behavior as deliberate reduces ambiguity about inaction, increases moral obligations towards action, and likely increases perceived deterrence.

The **third message** relied on social norms. Paired with the simple reminder text, this email highlighted the descriptive norm that an increasing number of taxpayers file their AID by the deadline each year. This drew on the insight that people tend to follow others, in part due to normative inferences about what others believe is the right thing to do. While social norms messaging often includes a specific descriptive statistic on compliance, language on the increasing trend was included as the specific statistics were unavailable.



The Results

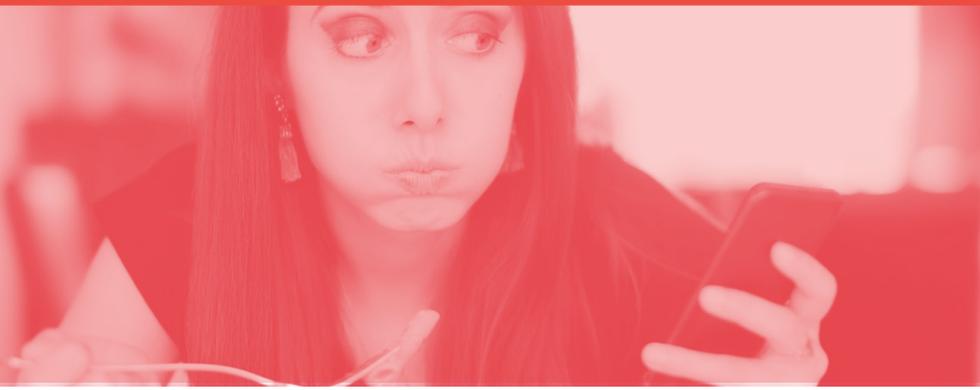
All three email messages increased compliance with the AID submission process. Submission in every treatment group (Simple Reminder, Omission/Commission and Social Norm) was higher than the control group.

The omission/commission reminder was most effective in increasing taxpayer compliance with the AID submission deadline and process. Messages telling taxpayers that future failures would be considered deliberate resulted in submission rates that were 9.4% (4.1 percentage point difference) higher than control – a statistically significant improvement.

Email messages also succeeded in increasing the timeliness of income declarations. Individuals in the treatment groups submitted their AIDs sooner, and before deadline. On average, those who received the social norm message submitted almost three days sooner than those in the control group. This highlights the importance of communicating earlier with taxpayers to prevent a habit of delaying submissions when feasible.

Other factors lead to differences in tax compliance.

- Individuals who were female and had higher revenue in the 2015 tax year were more likely to submit their returns by the deadline. The gender differences are interesting to note – while the omission/commission message increased compliance for both men and women (with a bigger increase for men), the reminder message only increased compliance for men, and social norms message only for women.
- Those who delayed submission only in 2015, compared to those who had submission delays in years prior to that, were also more likely to submit by the deadline. This highlights the importance of communicating sooner with non-compliant taxpayers to prevent a habit of delaying submissions when feasible.



Policy Implications

As in previous eMBeD research, this intervention in Latvia demonstrates that context matters when integrating behavioral science into messaging for taxpayer compliance.

In Latvia, as in Poland, the most successful message included a harder tone that made salient the role of one's deliberate and active choice in non-compliance. Both a simple reminder and a social norm message also increased timely submission yet not significantly so.

In Latvia, as in prior work in Poland, this intervention demonstrates that context matters when integrating behavioral science into messaging for taxpayer compliance

Key to this intervention is its targeting of individuals who are partially or fully self-employed and have been delaying or failing to submit their returns in the past few years. The findings suggest that

simple, behaviorally informed tax communication can be used to improve tax compliance even among this group. Being able to increase tax revenues has potential to positively impact the government of Latvia's ability to provide services to citizens, and this experiment presents

a meaningful strategy for governments in similar settings seeking opportunities to do the same.

About eMBeD

The Mind, Behavior, and Development Unit (eMBeD), the World Bank's behavioral science team in the Poverty and Equity Global Practice, works closely with project teams, governments, and other partners to diagnose, design, and evaluate behaviorally informed interventions. By collaborating with a worldwide network of scientists and practitioners, the eMBeD team provides answers to important economic and social questions, and contributes to the global effort to eliminate poverty and enhance equity.

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