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How to Incentivize Tax Compliance when Households Demand Services? What Works (Better) and General Limitations*

KEY MESSAGES

- Several countries use household tax credits to incentivize tax compliance in the provision of household services
- Tax credits increase households' willingness to pay for an invoice; however, the effectiveness depends on their design
- A tax credit that makes the financial benefit salient to consumers is most (cost-)effective
- Governments should consider that tax credits are related to high windfall effects

During the recent crises, governments around the world have spent large amounts of public funds to limit the impact of economic downturns on citizens and corporations. The resulting pressure on public funds is highlighting the crucial need to improve tax compliance. For instance, in the European Union, Member States lost an estimated 134 billion EUR in Value-Added Tax (VAT) in 2019, partly because of VAT fraud and evasion (European Commission 2021). Previous research shows that taxes are less likely to be evaded if governments can observe transactions (e.g., Kleven et al. 2011; Pomeranz 2015; Naritomi 2019). Thus, withholding taxes and verifiable documents are central instruments for successful tax collection. However, although the VAT provides an incentive for firms to request an invoice in business-to-business transactions, the same does not exist in business-to-consumer transactions. Consumers usually do not benefit financially from asking for an invoice. Yet, they may receive a price discount if they agree to proceed without a paper trail (e.g., European Commission 2014). The incentives to evade collaboratively are particularly high when sellers and consumers interact directly, such as in the provision of services to households.

To increase tax compliance in the provision of services to households, several countries have introduced policies to encourage consumers to demand legally provided services. Since the lower price is an important determinant of the decision to demand undeclared goods or services, the goal of these policies is to reduce the price premium for declaration. These policies include tax credits that offer favorable tax treatments to consumers of services, social vouchers which recipients can buy at low prices to pay for household services, and government lotteries for consumers who collect invoices. However, systematic evidence on the effect of such policies on households' willingness to demand declared work is rare.

In our paper (Burgstaller, Doerr and Necker 2023), we study the effect of monetary incentives on consumers' willingness to choose legally provided services using an experimental survey. We focus on tax credits, as granted in several European countries (OECD 2021). Tax credits take different forms, which may influence their effectiveness. In several countries, e.g., Germany, Italy, Belgium, and France, tax credits can be claimed via the annual tax return, which requires consumers to pay the full price upfront. It has been acknowledged that this implementation may lead to a low take-up rate among households with lower incomes, who cannot afford to pay the higher price of declared services upon consumption.

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In addition, the procedure to obtain the tax credit may be too burdensome for some households. Therefore, Sweden has shifted to a system in which tax credits are granted at source, i.e., as an immediate price reduction at the time of purchase. In this system, the seller handles the administration with the tax authority directly. In our study, we compare the effectiveness of these two types of credits. Even the tax credit granted at source may be related to obstacles for households, e.g., if they lack the mathematical skills to calculate their benefit. In Sweden, some websites display the price including the tax credit (e.g., https://www.hemfrid.se/en). We examine how the effectiveness of tax credits changes when consumers do not have to calculate the final price themselves, but the financial benefit is made salient to them.

Another feature varying across countries is the rate of the refund. For instance, while in Germany consumers receive 20 percent of the labor cost as a refund, this rate is 50 percent in France or Sweden (OECD 2021). We study the effect of increasing the financial attractiveness.

Our study is based on two surveys, in which in total 1,974 German homeowners participated. In these surveys, households are given the scenario that they want to hire someone to provide a service in their household, e.g., painting walls. Therefore, our results apply, in particular, to simple, small-scale jobs. Participants are asked multiple times to choose between two offers that vary the price, whether or not the service is with invoice, and other features. Each participant makes decisions under one of six policy scenarios, i.e., tax credits. They are either in a setting without a tax credit, with a tax credit that can be claimed via the tax return with a refund rate of 20 or 30 percent, a setting with a tax credit granted at source with a refund rate of 20 or 30 percent, or with a tax credit granted at source with a rate of 20 percent and where the final price, i.e., financial benefit, is displayed to participants.

TAX CREDITS INCREASE THE DEMAND FOR LEGALLY PROVIDED SERVICES

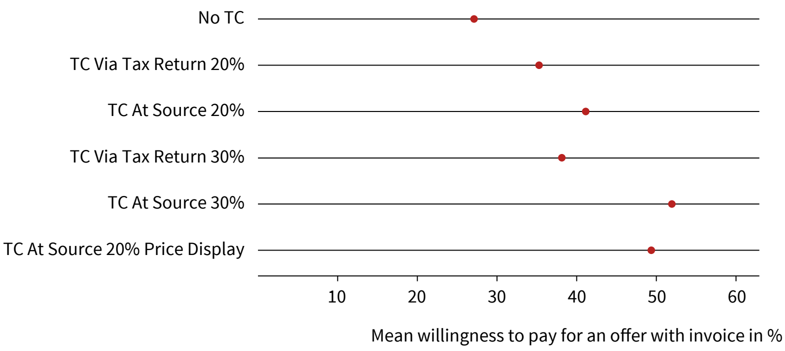
Our study shows that the most important determinant of respondents' decisions is whether an offer includes an invoice. When there is no tax credit, consumers are willing to pay a 27 percent higher price for the provision of the service if the offer is with invoice, as shown in Figure 1. Households are also willing to pay a higher price for an offer when the seller is recommended by acquaintances (versus no recommendation) and when the seller is available as desired (versus later). However, these characteristics are less important than receiving an invoice.

All types of household tax credits increase the willingness to pay for offers with invoice. A tax credit via tax return with a refund rate of 20 percent increases the willingness to pay for an invoice by eight percentage points (ppts). That implies that under this tax credit, households are willing to pay a 35 percent higher price for an offer including an invoice. A tax credit granted at source with a refund rate of 20 percent increases the willingness to pay by 14 ppts. Hence, households are willing to pay a premium of 41 percent when the offer includes an invoice. While the effectiveness of the two different tax credits is not significantly different when the refund rate is 20 percent, we find a significant difference when the refund rate is 30 percent. Households are willing to pay a premium of 38 percent for an offer including an invoice when the tax credit can be claimed via the tax return and a premium of 52 percent when the tax credit is granted at source. Increasing the refund rate of the tax credits from 20 to 30 percent increases the effectiveness of the subsidy when it is granted at source but not when it can be claimed via the tax return. The results suggest that there is an interaction between the rate of the tax credit and its administrative implementation.

Displaying the final price of an offer with invoice leads to a similar increase in the willingness to pay as increasing the rate of the tax credit from 20 to 30 percent. Consumers are willing to pay a 49 percent higher price when there is a tax credit at source of 20 percent and the final price is displayed. This implies that governments can achieve the same effect when they provide a ten ppts lower tax refund and ensure that households understand the financial benefit.

We investigate the probability that the respondent chooses an offer including an invoice across the prime premia that consumers have to pay to receive an invoice. Unsurprisingly, the probability to choose an offer with invoice decreases when the premium increases. Remarkably, some households prefer offers without invoice even when their price is higher. This suggests that for some consumers, attributes such as the recommendation or availability of the seller are more decisive. We find that the effect of the tax credit is lower when the price premium increases. This is plausible since the share of the premium that is compensated by the tax credit decreases with the price difference. Hence, the likelihood that households

Figure 1
Premium Households are Willing to Pay for an Invoice under Different Tax Credits



Source: Authors' calculations.

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demand declared work depends on the premium suppliers request for an offer with invoice.

HOUSEHOLDS' WILLINGNESS TO PAY FOR AN INVOICE IS LESS THAN THE FINANCIAL VALUE OF THE TAX CREDITS

We compare the observed increase in the willingness to pay induced by the tax credits to the increase expected if individuals fully factored in the financial benefit of the tax credit. A tax credit reduces the price of an offer with invoice by 20 percent or 30 percent. This implies that for households using the tax credit of 20 or 30 percent, respectively, the price of an offer with invoice can be 25 or 43 percent higher to be even with the price of an offer without invoice. We find that with regard to the tax credit claimed via the tax return, the willingness to pay increases by only 26 percent (20 percent refund rate) and 20 percent (30 percent refund rate) of what we would expect if individuals would fully factor in the financial benefit. This fraction is 45 percent (20 percent rate) and 46 percent (30 percent rate) when the tax credit is claimed at source. When we additionally display the final price including the tax credit, we find that the willingness to pay is 71 percent of what we would expect when individuals would make their decision by purely focusing on the financial benefit of the tax credit.

The results suggest that compliance costs exist. However, they vary with the design of the tax credit. In line with our expectations, the more "user-friendly" tax credit granted at source seems to reduce those costs. Displaying the price, i.e., removing behavioral barriers such as poor mathematical skills, further reduces compliance costs. The last result confirms that governments should rather use strategies to help people understand the financial benefit from tax credits than increasing their rate to increase the effectiveness of such measures.

EXPLANATIONS FOR THE LOW TAKE-UP RATE

Our results show that households respond to tax credits by increasing the demand for offers with invoice. Although we would expect that a more "user-friendly" design and a higher refund rate of the tax credit increases its attractiveness, we only find that when two attractive features come together (high rate and when the tax credit is granted at source) the willingness to pay for an offer with invoice increases significantly. A possible explanation is that households are rather indifferent towards the implementation and mainly care whether or not they receive a refund at all. Indeed, about one-fourth reports that the introduction of a tax credit would not affect their behavior. Our survey further reveals why consumers may be hesitant to use the tax credits. Participants most important concern is that the seller may increase the price in return for the tax credit. Other concerns are that the seller has more work or could withdraw the offer when they learn that the household would like to use the tax credit. This suggests that households may refrain from using tax credits because they are concerned about the consequences.

TAX CREDITS ARE SUBJECT TO WINDFALL EFFECTS

Our study shows that even without a tax credit, on average, in 55 percent of decisions households choose an offer with invoice. As shown above, with a tax credit, this fraction increases depending on the design of the tax credit. Even though the tax credit thus increases the probability that households demand an offer with invoice, it also implies that tax credits are associated with windfall effects, defined as the fraction of households that claim the tax credit even though they would have selected an offer with an invoice even without a tax credit. Our survey suggests that between two-thirds (less effective tax credits) and three-fourths (more effective tax credits) of participants would have asked for an invoice in any case. For these households, governments take into account a reduction of governmental revenues without inducing a change of behavior, at least regarding the choice between a legal and an illegal offer.

CONCLUSIONS AND POLICY IMPLICATIONS

Our study yields two main conclusions and policy implications. First, our results show that households have a higher willingness to pay for offers including an invoice when any kind of tax credit exists. Although this suggests that tax credits are effective in reducing the demand for illegally provided services, it has to be considered that the willingness to demand legally provided services is already substantial when no tax credit is in place. Relative to this baseline probability, the increase in tax compliance is modest. That implies considerable windfall effects. Two out of three respondents report that they would claim the tax credit even though they also would have selected an offer with invoice without the subsidy.

Note that our results apply to the provision of small-scale jobs in the household, such as painting walls. We expect that the baseline willingness to demand offers with invoice is even higher for larger jobs, for which having a guarantee or a paper trail is important. This may further question tax credits' effectiveness in inducing a change of behavior, at least regarding the declaration of the work. Due to the substantial windfall effects, governments that still want to use household tax credits should make sure that they design the instrument in a way that is most (cost)-effective.

Second, in this regard we find that households respond to the design of the tax credits, but only when different attractive features such as a high rate and “consumer friendly” implementation come together. Displaying information on the final price that consumers have to pay including the tax credit, i.e., making the financial benefit salient produces a similarly strong effect as an increase of the refund rate by ten percentage points. This suggests that compliance costs, such as the bureaucratic burden to receive the refund, are substantial. The gap between the willingness to pay and the financial value is lower when the tax credit is more “consumer-friendly.” Even though the procedure to obtain a tax credit that can be claimed via the tax return has been kept simple, households seem to associate higher costs with them.

We conclude that if – despite their windfall effects – governments want to use tax credits, they should focus on an implementation which allows households to easily understand the financial benefit rather than trying to improve the attractiveness by increasing the rate of the refund. A possibility to implement this would be to require sellers to also state the final price, i.e., including the tax credit, in the offers they make to households.

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