Tax Evasion and Charitable Giving—An Experimental Approach*

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March 6, 2015

Abstract

The paper introduces tax evasion through subsidies due to false declarations of charitable donations. The study distinguishes between a rebate and match subsidy in an experimental setting. Under the rebate subsidy the individual gets the subsidy, while under the match subsidy the charity organization gets the subsidy. First, I develop a theoretical model of charitable giving and tax evasion. Second, I test in an experiment whether subjects report higher donations than the actual donations they made, and thus evade taxes. The results show that the level of overreporting is higher under the rebate subsidy than under the match subsidy. An increase in the subsidy rate leads to less overreporting of donations. A higher probability of an audit under the rebate subsidy has no significant effect on overreporting, whereas a higher probability under the match has a strong negative effect. The results of the paper provide new insights for policymakers to implement effective subsidy schemes.

Key Words: Charitable Giving; Match Subsidy; Rebate Subsidy; Tax Evasion

JEL classification: H26, D64, C91

*I am very grateful to Wieland Müller for his patience and plenty of helpful discussions. Moreover, I would like to thank Philip Grossman, Robert Kunst, John List, and Jean-Robert Tyran for useful comments. I would like to thank seminar participants at the Micro seminar of the University of Vienna, the BET seminar at Monash University, and conference participants at the ASFEE meeting in Lyon, SABE/IAREP/ICABEEP Conference in Atlanta, Nordic Conference on Behavioral and Experimental Economics in Stockholm, and the ESA Asia-Pacific Conference in Auckland. I am also very thankful to Eryk Krysowski for helping in the laboratory.

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1 Introduction

This study introduces an experiment that investigates tax evasion through subsidies due to false declarations of charitable donations. Taxpayers in many developed countries can deduct donations to charities from their income tax and reduce their tax liabilities by reporting higher cash or gift donations (e.g. clothes, cars) to charities than actually made, and thus evade income taxes. The study compares evasion under a rebate and match subsidy, which are the two subsidy types for charitable giving commonly in place in OECD countries. Under a rebate subsidy the taxpayer gets a tax credit at the marginal income tax rate. Under a match subsidy the charity organization gets a subsidy for the donation of the taxpayer. A match subsidy is a commitment by the government (e.g. UK, Canada) or by cooperations to match donations of others at a certain rate. This paper asks whether a rebate subsidy to donors leads to higher degrees of overreporting of donations than a match subsidy to charities. If a rebate subsidy leads to more overreporting than a match subsidy, the match subsidy could lead to the government’s desired level of donations under lower cost. That is, the focus of the paper is not whether the rebate or match subsidy induces more donations, but whether the rebate or match subsidy induces more tax evasion.

Research on charity is of particular importance since the share of charity to GDP in many OECD countries is sizable. According to Giving USA (2013), an annual report on charitable giving in the USA, in the year 2012 charity accounted for more than $315 billion, which was more than 2% of GDP. In 2010, 75% of US taxpayers listed charitable donations on their tax return, where the average deduction was more than $3,800. In the USA the taxpayer is frequently responsible for determining the market value of the gift donation, where there are often no fixed formulas or methods for determining the value (see IRS 2013). Ackerman and Auten (2011) show that a tightening of the rules for vehicle donations in the US tax reform 2004 resulted in a 66% drop in the number of donated vehicles. The most obvious way to evade taxes through charitable giving is simply to indicate a cash donation at the income tax return. Fack and Landais (2013) use the French tax enforcement reform of 1983 as a natural experiment to provide evidence for tax evasion related to charitable giving. Prior to 1983, French taxpayers were only asked to keep a receipt of each charitable contribution they declared on their tax returns. Since 1983, French taxpayers must enclose receipts with their tax returns when claiming the charitable deductions. The total reported contributions decreased by more than 75% in 1983 after the reform, whereas they estimate that the share of overreported donations before the reform was between 40% and 60%. If taxpayers want to claim donations from their income tax returns in Austria, the taxpayers are only required to produce
a receipt of the donation upon request of the tax authority, while taxpayers in the USA have to provide an acknowledgment of the donation from the charity organization if the individual contribution is larger than $250 (IRS 2013). In short, it may not be particularly difficult to make up charitable donations in order to evade taxes.

This paper provides a theory of tax evasion in the context of charitable giving. The theory distinguishes between the rebate and match subsidy and offers testable hypotheses for my experiment. I predict that the decision to overreport depends strongly on the probability of tax evasion being detected and on the level of the subsidy. Furthermore, I expect that an increase in the probability of detection and the level of the subsidy has a larger effect on evasion under the match than under the rebate, since the motive to evade under the rebate may differ from the motive to evade under the match. Even though both the match and rebate subsidy are based on donation reports of individuals, the charity receives the subsidy under the match, while the individual receives the subsidy under the rebate.\textsuperscript{1} That is, individuals who face a rebate subsidy may evade for selfish reasons to benefit themselves, while individuals who face a match subsidy may evade for altruistic reasons to benefit the charity. Some individuals may only be willing to evade for the charity if it is unlikely that they have to pay a fine for evading. Thus, I am interested in the individuals’ responsiveness to a change in the probability of detection and the level of subsidy.

To find out whether the rebate or match subsidy induces more tax evasion, the study makes use of a laboratory experiment for the following reasons. To my knowledge, there is no tax reform that can be used as a natural experiment to directly explore this question, since governments seem to stick to the once chosen type of subsidy.\textsuperscript{2} To observe a natural experiment, a government would have to replace a rebate with a theoretically equivalent match scheme for exogenous reasons, or vice versa. Eckel and Grossman (2008) argue that the lab provides excellent control (e.g. no processing costs or delay with tax refunds that could lead to differences in the match and rebate subsidies) at the cost of some natural context. Furthermore, the marginal tax rate and thus the subsidy is a function of income and other policy instruments (Huck and Rasul 2011). Policymakers may expect a decrease in donations and thus introduce or increase a subsidy for donations. This endogeneity makes it difficult to properly identify the effects of a change of the subsidy on overreporting and donations in empirical work. There might

\textsuperscript{1}For instance, both the match and the rebate are claimed through the Gift Aid programme in the UK.  
\textsuperscript{2}In the UK, for example, the match subsidy is offered to all taxpayers, while the rebate subsidy is only provided for high-income taxpayers. Since there has been no exogenous variation in the subsidy type, this does not suffice to identify the respective amounts of tax evasion accurately either.
also be a selection bias with respect to audited taxpayers and even if audits are random, the overall level of evasion is difficult to infer because the distribution of tax evaders is potentially skewed (Fack and Landais 2013). In general, there has been no controlled experiment that investigates tax evasion related to charitable giving. Alm et al. (2010) emphasize that a lab experiment allows us to observe the exact amount of misreporting, while in empirical investigations based on field data it is hard “to measure accurately – something that by its very nature people want to conceal” (Alm et al. 2010, p. 548). Finally, the lab provides the opportunity to create a very comprehensive data set such that I can control for individual and policy parameters that may have an impact on charitable donations.

In my experiment I find that the level of overreporting of donations is higher under the rebate than under the match subsidy. This finding suggests that the optimal subsidy under the rebate is lower than under the match, everything else equal (e.g. Saez 2004, and Fack and Landais 2012 discuss an optimal subsidy of giving). Moreover, the probability of an audit does not have a significant influence on evasion under the rebate, while the probability is an important predictor of evasion under the match. For instance, a ten percentage point increase of the probability of an audit under the match reduces overreporting by almost ten percent. I estimate a positive price elasticity of overreported donations, which means that overreporting decreases with the subsidy rate. The elasticity is 0.66 under the match and 0.19 under the rebate in my preferred specification. If the findings are confirmed in further studies, by knowing the elasticities of overreported donations and the shares of reported donations to actual donations, policymakers may consider adapting the level of the subsidy in place or switching to match subsidy schemes.

Related Literature My experiment combines two streams of literature that have attracted a lot of attention in public economics. First, there is a rich literature on charitable giving. Notable empirical contributions that try to estimate the price elasticity of charitable giving, which reflects the change of donations due to an increase in the subsidy rate, have been made by Taussig (1967), Feldstein and Taylor (1976), and Clotfelter (1985). In order to overcome the endogeneity concerns of empirical works, Eckel and Grossman (2003, 2006, 2008), Davis et al. (2005), Karlan and List (2007), Huck and Rasul (2011), Scharf and Smith (2015), and others use field and lab experiments to estimate the price elasticity of giving under match and rebate subsidies. These experiments show that increases in the match subsidy are a more effective tool to increase donations than theoretically equivalent increases in the rebate subsidies.

3For a summary of donation elasticities in the literature see Huck and Rasul (2011).
with the same net cost of giving. That is, both field and lab experiments indicate the price elasticity of
donations is higher under the match than under an equivalent rebate.

Second, there is a long history of studies on income tax evasion, which was triggered by the seminal
use data from US tax audits to estimate tax evasion through charitable donations. Both studies conclude
that overreporting of charitable donation is quantitatively important. Slemrod (1989) finds that the
elasticity of overreported donations is low and that overreporting of donations is less price responsive
than actual donations. Fack and Landais (2013), which is the only paper besides Slemrod (1989) that
aims to measure the elasticity of overreported donations, exploit variation in reporting behavior due to
a tax reform in France. Fack and Landais find the elasticity of overreported donations to be large before
the tax reform (between $−1.35$ and $−2.32$) and to be small after the tax reform (between $−0.19$ and
$−0.57$). Cojoc and Stoian (2014) find in their experiment that subjects cheat more on self-reported tasks
in the first stage if they know that they have the opportunity to donate to a charity in a second stage.
Douoguih et al. (2014) argue that charity donations can be used as a costly signal that a high-income
taxpayer truthfully reported her income situation such that she will not be examined by an auditor.
Unlike in my study, Cojoc and Stoian (2014) and Douoguih et al. (2014) do not consider that donations
themselves can be used to evade taxes.

The rest of this paper is organized as follows. I discuss the theory and derive testable predictions
in Section 2. I present the experimental design in Section 3. The experimental results are presented in
Section 4. Section 5 concludes.

2 Theory

In this section, I present a theory of tax evasion related to charitable giving in order to obtain testable
predictions for the experiment described in Section 3. The model is close to standard models of charitable
giving (e.g. DellaVigna et al. 2012, Onderstal et al. 2013) and to models of tax evasion (e.g. Allingham
and Sandmo 1972, Kleven et al. 2011).

In case of a rebate subsidy, the decision problem of the individual becomes the following. Individual
$i$ gets utility $\alpha_i$ from private consumption and $\beta_i$ from the charitable good. The differentiable, strictly
increasing, and concave function $\alpha_i = \alpha_i(I_i, g_i, g_e^i, s_r, \theta)$ depends on income $I_i$, the non-negative individ-

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4Detailed summaries of the literature on income tax evasion can be found in Andreoni et al. (1998), Slemrod
(2007), and Alm (2012).
ual’s true donations to the charity \( g_i \) and overreported donations \( g_i^e \), the subsidy rate \( s_r \) \((0 \leq s_r \leq 1)\), and the non-negative fine rate \( \theta \). For example, \( I_i - g_i \) is equal to consumption if donations are not subsidized. If the individual receives a rebate subsidy for the donation, the subsidy is equal to the donated amount \( g_i \) times the rebate subsidy rate \( s_r \). An increase in the subsidy rate increases the money available for consumption. If evasion is undetected, the individual also receives a subsidy for the overreported amount \( g_i^e \). If evasion is detected, the individual has to pay back the evaded amount \( s_r g_i^e \) and further, has to pay a fine that is in proportion to the subsidy and the overreported donations \( s_r g_i^e \theta \). The differentiable, strictly increasing, and concave function \( \beta_i = \beta_i (g_i, G_{-i}) \) reflects utility from the charitable good and depends on the individual’s donation \( g_i \) and the donations of the other individuals \( G_{-i} \). The total amount of the charitable good is given by the sum of the donations of the individual and the other individuals.\(^5\) That is, the utility of the individual increases if somebody else donates to the charity. The individual gets utility \( E_r \) if evasion is not detected and utility \( D_r \) if evasion is detected:

\[
E_{i,r} = \alpha_i (I_i - g_i (1 - s_r) + s_r g_i^e) + a \beta_i (g_i, G_{-i}),
\]

\[
D_{i,r} = \alpha_i (I_i - g_i (1 - s_r) - s_r g_i^e \theta) + a \beta_i (g_i, G_{-i}),
\]

\( D_{i,r} \) and \( E_{i,r} \) are separable in private consumption and the charitable good. Like in DellaVigna et al. (2012), the utility of donating to the charity \( \beta_i \) permits both pure and impure altruism (warm glow). A purely altruistic individual is concerned about the total amount of the charitable good \( g_i + G_{-i} \). The parameter \( a \) is non-negative and shows the level of altruism. If the donations of the individual are driven by a warm-glow motive, the function \( \beta_i \) may not depend on the donations of the other individuals \( G_{-i} \) and the parameter \( a \) reflects the level of the warm glow. Since evasion is detected with probability \( p \) and undetected with probability \( (1 - p) \), the expected utility of individual \( i \) is:

\[
\max_{g_i, g_i^e} U_{i,r} = u_i (D_{i,r}) p + u_i (E_{i,r}) (1 - p)
\]

subject to the reporting and non-negativity constraints:

\[
g_i + g_i^e \leq I \text{ and } g_i, g_i^e, \lambda \geq 0,
\]

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\(^5\)The charity has public good characteristics. Even in the case that the beneficiaries of the charitable good are individuals who receive a *private* good, charitable contributions are contributions to a *public* good if the contributions are motivated by altruism (see references in Breman 2012).
where the function $u_i$ is differentiable, strictly increasing, and concave. The conditions in inequality (2) say that the individual cannot report a donation higher than her income, and that the donation cannot be negative. The former constraint is not very restrictive. Total donations, for example, are restricted to be smaller than 50% of adjusted gross income in the USA (see Feldman and Slemrod 2007).

If the individual faces a match subsidy, the individual reports his or her donation to the charity organization and the charity receives a matched payment from the government or from a company. The function $\beta_i = \beta_i (g_i, g^e, s_m, G-i)$ reflects utility from the charitable good, and also depends on the overreported amount $g^e$ and the match subsidy rate $s_m$. If the charity receives a match subsidy for the donation, the subsidy is equal to the donated amount $g_i$ times the match subsidy rate $s_m$ ($s_m \geq 0$). If the individual is overreporting in favor of the charity, the charity receives the subsidy rate $s_m$ times the overreported donation $g^e$. If evasion is detected, the individual has to pay back the evaded amount and further, has to pay a fine that is in proportion to the subsidy and the overreported donations $s_m g^e_i \theta$.

Under the match subsidy, the individual gets utility $E_m$ if evasion is not detected and utility $D_m$ if evasion is detected:

$$E_m = \alpha_i (I_i - g_i) + a \beta_i (g_i (1 + s_m) + s_m g^e_i, G-i),$$
$$D_m = \alpha_i (I_i - g_i - s_m g^e_i \theta) + a \beta_i (g_i (1 + s_m), G-i)$$

Under the match subsidy, the expected utility of individual $i$ becomes the following:

$$\max_{g_i, g^e_i} U_{i,m} = u_i (D_{i,m})p + u_i (E_{i,m}) (1-p)$$

subject to the reporting and non-negativity constraints:

$$g_i + g^e_i \leq I \text{ and } g_i, g^e_i, \lambda \geq 0. \quad (4)$$

I characterize the optimal levels of giving $g^*$ and overreporting $g^{e*}$ as functions of the parameters $a, p, \theta$, and $s_r$ under the rebate and $s_m$ under the match in Appendix A.1 and A.2, respectively. In the following, I will state five propositions that lead to five testable predictions:

**Proposition 1.** The likelihood of an individual to evade under the match is smaller than under an equivalent rebate.

*Proof. See Appendix A.3.*
The intuition for Proposition 1 is as follows. Under the rebate subsidy, individuals who prefer charitable giving over private consumption will donate, while individuals who prefer private consumption over charitable giving will either overreport, donate, or keep their income, depending on the parameters \(a, p, \theta,\) and \(s_r.\) Under the match subsidy, individuals who prefer charitable giving over private consumption will also donate, while individuals who prefer private consumption over charitable giving will either overreport, donate, or keep their income. The marginal benefit of overreporting for individuals is relatively lower under the match than under the rebate, because of the following reason. Those individuals who decide to overreport prefer private consumption over charitable giving. While overreporting under the match does not increase private consumption (but the total amount of the charitable good), it increases private consumption under the rebate. As a consequence, more individuals keep their money under the match than under the rebate. Individuals who prefer charitable giving over private consumption under the match have a higher utility of overreporting than individuals who prefer charitable giving over private consumption under the rebate. However, individuals under the match who prefer charitable giving over private consumption donate rather than take a risk and overreport in favor of the charity, since the individual cannot report a donation higher than the income.

**Proposition 2.** The likelihood of an individual to evade is weakly decreasing in the probability of detection \(p\) under the rebate and match.

*Proof.* See Appendix A.4.

Individuals are less likely to evade if the probability of detection increases under both the rebate and match subsidy, because the marginal utility of evading decreases as the probability of detection increases. As a consequence of the increase in the probability of detection, individuals either substitute to donations or decide to keep their income.\(^6\)

**Proposition 3.** If there is evasion under the match and rebate, an increase in the probability of detection \(p\) leads to a larger reduction of evasion under the match than under the rebate.

*Proof.* See Appendix A.5.

An increase of the probability of detection reduces the marginal utility of overreporting under the match and rebate. Since only individuals who prefer private consumption over charitable giving decide to\(^6\)

\(^6\)If the marginal utility of overreporting is already negative, an increase of the probability does not have an additional effect on evasion, since the individuals either donate or keep their income.
overreport, the marginal utility of overreporting for those individuals who overreport is relatively lower under the match than under the rebate. Thus, it is more likely for an individual to stop overreporting under the match than under the rebate if the probability of detection increases.

**Proposition 4.** The likelihood of an individual to evade is weakly decreasing in the rebate subsidy rate $s_r$ and in the match subsidy rate $s_m$.

*Proof.* See Appendix A.6.

An increase in the subsidy rate increases the marginal benefit of donations and the marginal benefit of overreporting. However, the increase in the marginal benefit of overreporting is relatively weaker than the increase of the marginal benefit of donations, since the utility gain of overreporting depends on the probability of detection. In addition, the fine the individual has to pay if overreporting is detected depends on the subsidy rate. As a result, an increase in the subsidy rate makes donations relatively more attractive than overreporting.\(^7\)

**Proposition 5.** If there is evasion under the match and rebate, an increase of the subsidy rate $s_m$ leads to a larger reduction of evasion under the match than an equivalent increase of the subsidy rate $s_r$ under the rebate.

*Proof.* See Appendix A.7.

An increase of the subsidy rate increases the marginal benefit of donations and the marginal benefit of overreporting. Since only individuals who prefer private consumption over charitable giving decide to overreport, the marginal utility of overreporting for those individuals who overreport is relatively lower under the match than under the rebate. Thus, it is more likely for an individual to stop overreporting under the match than under the rebate if the subsidy rate increases.

The five propositions above lead to the following five testable predictions:

**Prediction 1.** There is less evasion under the match than under the rebate.

If Prediction 1 is true and the differences in evasion under the rebate and match are severe, governments which make use of a rebate subsidy may consider a switch from a rebate to a match subsidy scheme, because a match subsidy may lead to the same amount of donations under lower cost. Since I am also

\(^7\)If the marginal utility of overreporting is already negative, an increase of the subsidy rate does not have an additional effect on overreporting, since the individuals either donate or keep their income.
interested in whether it makes sense for governments to spend a lot of money on programs to increase
the probability of detection under the rebate and match subsidy, respectively, I test:

**Prediction 2.** *An increase in the probability of detection reduces evasion under the match and rebate.*

**Prediction 3.** *An increase in the probability of detection leads to a larger reduction of evasion under the
match than under the rebate.*

Finally, I am interested in the implications of an increase of the match and rebate subsidy rate, respec-
tively, with respect to evasion. That is, I would like to know whether it is useful for governments to make
use of high rebate and match subsidies, respectively, and thus, I test:

**Prediction 4.** *An increase of the subsidy rate reduces evasion under the match and rebate.*

**Prediction 5.** *An increase of the subsidy rate leads to a larger reduction of evasion under the match
than under the rebate.*

### 3 Experimental Design

**Design Overview**  Each session of the experiment consisted of four independent parts. In the first
two parts of the experiment, the subjects could donate money to a well-known charity organization
they chose at the beginning of the experiment from a list of ten charities with a brief description of
the services each provides. As the donations were subject to either a match or rebate subsidy, the
experiment had two treatments. In the first part of the experiment, called the allocation part, I elicited
the subjects’ willingness to donate to charities. In the allocation part, the subjects did not have the
option to overreport the donation. In the second part, called the reporting part, I elicited the subjects’
willfulness to overreport donations to charities. In the reporting part, the subjects could first donate
money to their previously chosen charity and were then required to self-report their donation. The
subjects had an incentive to overreport their donations as this would have increased their subsidy.

Since the donations of the subjects were either subject to a rebate or a match subsidy, I made use of
a between-subject design. However, the level of the subsidy and the probability of an audit varied within
the subject. In the rebate treatment, the subject received a subsidy for the donation \( s_r \) of either 20\%,
50\%, or 75\%. In the match treatment, the charity received a subsidy \( s_m \) of either 25\%, 100\%, or 300\%,
since the match subsidy and the rebate subsidy imply the same net cost of giving if \( s_m = s_r / (1 - s_r) \).
For instance, if the rebate subsidy was 50\%, and the subject donated €10 to the charity, the donation
effectively only cost €5: the €10 donation minus the €5 rebate. Equivalently, if the match subsidy was 100%, and the subject donated €5, the charity organization received €10: the donation of €5 plus the €5 match. As the price of giving one euro to charity was either €0.80, €0.50, or €0.25, my experimental design is more salient than Eckel and Grossman (2003), where the price was either €0.80, €0.75, or €0.50.

The order of the allocation and the reporting part varied across sessions. Moreover, either the first or the second part of the experiment was paid in order to avoid income effects that may influence the decision to donate in the respective second part of the experiment. The two parts were completely unrelated otherwise. At the end of the experiment, the subjects drew a chip to determine whether the first or second part of the experiment was relevant for the payoff of the subject and the charity. In general, I did not inform the subjects about their payments in the respective parts of the experiment until the end of the experiment.

I also elicited risk-preferences and social preferences in the third and fourth part of the experiment, respectively, where the preference elicitation was incentivized. Risk preferences were elicited by making use of the lottery by Holt and Laury (2002). I elicited social preferences by using the Social Value Orientation Slider by Murphy et al. (2011). At the end of the experiment, the subjects answered a questionnaire, where I asked demographic and motivational questions very similar to Tan and Yim (2014) and Eckel and Grossman (2003) (e.g. age, income, gender). Moreover, the subjects performed the Machiavelli personality test developed by Christie and Geis (1970), which tries to detect cynical and manipulative behavior, and emotional detachment of individuals. The subjects had to show their level of agreement to statements like “One should take action only when sure it is morally right” at the Machiavelli test. The subjects received €3 for finishing the questionnaire. The responses of the preference elicitation tasks and the questionnaire were used as control variables in the regressions analysis in Section 4. The experiment was programmed and conducted in zTree (Urs Fischbacher 2007). Since it was a one-shot experiment, the subjects had to show their clear understanding of the instructions of each part of the experiment. In order to avoid anchoring, the subjects had to answer control questions with randomly generated numbers on the computer.8 I checked, for example, whether the subjects were able to determine their payments. A brief overview of the experimental design is given in Table 1. The instructions of the rebate treatment, questionnaire, and Machiavelli test can be found in Appendix C.

8The subjects were informed that the numbers were randomly generated.
Table 1: Summary of treatments

<table>
<thead>
<tr>
<th>Task</th>
<th>Rebate treatment</th>
<th>Match treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allocation part</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price of giving</td>
<td>€0.80, €0.50, or €0.25</td>
<td>€0.80, €0.50, or €0.25</td>
</tr>
<tr>
<td><strong>Reporting part</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price of giving</td>
<td>€0.80, €0.50, or €0.25</td>
<td>€0.80, €0.50, or €0.25</td>
</tr>
<tr>
<td>Probability of detection</td>
<td>4%, 50%</td>
<td>4%, 50%</td>
</tr>
<tr>
<td>Number of subjects</td>
<td>47</td>
<td>42</td>
</tr>
</tbody>
</table>

Notes: In the allocation part I test the willingness to donate to charities in the absence of the possibility to overreport the donation. Each subject made three decisions in the allocation part, since the price of giving one euro to the charity was either €0.80, €0.50, or €0.25. In the reporting part I test the willingness to overreport donations to charities. Each subject made first three decisions to donate and then six decisions to report the donation in the reporting part, since the price of giving one euro to the charity was either €0.80, €0.50, or €0.25, and since the probability that the experimenter checked the report was either 4% or 50%.

**Allocation Part** In the allocation part I try to replicate the experiment by Eckel and Grossman (2003) and find out the willingness to donate to charities in the absence of the possibility to overreport the donation. Eckel and Grossman (2003, 2006) and others show that subjects perceive theoretically equivalent match and rebate subsidies differently. In particular, subjects are more likely to increase their donations due to an increase in the match subsidy than due to an increase in the rebate subsidy. In the allocation part, the subjects allocate an endowment of €30 between themselves and a self-chosen charity and divide their endowment similar to a dictator game as in Eckel and Grossman (2003). Since each subject faced three subsidies rates in a random order, each subject made three decisions in the allocation part. I framed the subsidy neutrally, because I think that using neutral framing potentially decreases the differences in the rebate and match price elasticities. That is, instead of using the phrases by Eckel and Grossman (2003, 2006) “the experimenter will refund to you” and “the experimenter will match it”, I wrote “the experimenter will give to you” and “the experimenter will give to the charity”. If this part of the experiment was relevant for the payment, the subjects drew a chip to determine which of the three

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9 I increased the endowment I of the first two parts of the experiment from €20 in the first and second session to €30 in later sessions, since the experiment took a bit longer as initially expected. I control for the level of endowment in all my regressions.
problems of the allocation part was taken to determine the payoff of the subject and the charity.

**Reporting Part**  In this part of the experiment I elicit the subjects’ willingness to overreport donations to charities under the match and rebate subsidy, respectively. First, the subjects made three decisions to allocate an endowment of €30 between themselves and a self-chosen charity exactly like in the previously described allocation part. Second, the subjects reported the three allocations made. More precisely, each subject made first three decisions to donate and then six decisions to report the donation in the reporting part as the price of giving one euro to the charity was either €0.80, €0.50, or €0.25, and the probability that the reported donation was audited was either 4% or 50% (see Table 1). Each subject faced the different prices of giving and the different probabilities in a random order. At the end of the experiment, the subjects drew a chip numbered from 1 to 100 which determined whether their report about the allocation was audited or not. For instance, the report was audited if the drawn chip number was lower than or equal to 4 if the probability of detection was 4%. If the report was not audited, the subsidy was based on the reported donation. If the report was audited, the subsidy was based on the actual amount the subject decided to donate to the charity. If the report was audited and the subjects overreported the actual donation, the subject had to pay a 30% penalty of the evaded amount, which is the subsidy rate times the overreported donation. As it is common in the tax evasion literature, the experiment uses neutral wording (compare for example Alm et al. 1992). For example, instead of using the terms ‘audit’ and ‘report’, I used the terms ‘check’ and ‘inform’. The subjects are informed that the experiment is funded by the Vienna Center for Experimental Economics (VCEE), which is a public institution of the University of Vienna. If this part of the experiment was relevant for the payment, the subjects drew a chip to determine which of the six problems of the reporting part was taken to determine the payoff of the subject and the charity.

**Elicitation of Risk and Social Preferences**  In order to control for different risk-preferences of the subjects, I elicited the risk preferences by following the instructions of Holt and Laury (2002). The

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10In order to decrease the complexity of the experiment, the probability of an audit is exogenously given. In practice, taxing authorities may make use of both randomized audits (e.g. Taxpayer Compliance Measurement Program of the IRS in the USA) and audits due to deviations from the reports of others (see for instance, the discussion in Andreoni et al. 1998).

11This means that the subject will get more money if his or her report is audited and the subjects decides to underreport the donation in comparison to the case where the underreported donation is not audited. This is in line with the Austrian tax regulation according to communication with an employee of the Austrian ministry of finance.

12Taxpayers in the USA have to pay a penalty that is between 20% and 40% if they overreport the value of a property and the evaded amount is more than $5,000 (IRS 2013).
subjects saw a table with a list of ten choices between two lotteries. In each of the ten rows, the subjects had the choice between lottery A, where they could earn either €2.00 or €1.60, and lottery B, where they could earn either €3.85 or €0.10. The subjects indicated the option they prefer by either clicking on lottery A or lottery B with the understanding that if they clicked on lottery A or lottery B in any row, all rows above the selected row were automatically selected as lottery A to count as their choice, and all rows below the selected row were automatically selected as lottery B to count as their choice. At the end of the experiment, each subject drew two chips to determine which of the ten choices is chosen for the payment and to determine the probability that decides whether the subject receives the higher or lower payoff.

I measured social preferences by using the Social Value Orientation slider by Murphy et al. (2011). Each subject made six decisions about allocating money between herself and another subject. The subjects were paired in the following way. A subject, say subject SELF, was randomly matched with another subject, say subject A. Subject A was randomly matched with somebody else, namely subject B. At the same time, subject C, who was neither subject A nor subject B, was matched with subject SELF. The choices of the subjects were completely confidential (for more details see the instructions in Appendix C).

Double Anonymity Since the subjects should not feel observed by the experimenter, I implemented a double anonymous design. This was done as follows. The subjects drew an ID number from a bag when entering the lab. In each session, one subject was chosen to be the monitor. The monitor verified that the instructions of the experiments were followed. An assistant, who was not one of the subjects, helped the monitor and answered the questions of the subjects. Both the monitor and the assistant were located in the room where the experiment was conducted and did not leave this room until the end of the experiment. The experimenter, who was responsible for preparing the payment of the subjects and the charities, was not located in the room where the experiment was conducted. The monitor, the assistant, and the experimenter were not able to relate the decisions and the payoffs to any particular subject for the following reasons. First, the monitor only saw the subjects’ IDs and names (and not the payoffs of the subjects). Second, the assistant neither saw the ID numbers and names of the

---

13I made partial use of the z-Tree code provided by Crosetto et al. (2012).
14Double anonymous procedures are common in the experimental tax evasion literature (see for example, Alm et al. 2010).
15The monitor also saw the confirmations of the aggregated online transfers to the charitable organizations, whereas the monitor did not know the donation of the individual subject. Even in the hypothetical case that nobody had donated any money to the charity, the monitor could have not drawn the conclusion that the subjects
subjects nor the payoffs of the subjects. Third, the experimenter did not face the subjects at all. The subjects were clearly informed about the role of the monitor, the assistant, and the experimenter. The anonymity of the subjects towards all persons in the lab was also insured when the subjects confirmed their payment, because the monitor distributed the earnings in a sealed envelope which was labeled on the front with the ID number. The subjects took the money out of the envelope and received a receipt where they confirmed with their signature on the back of the receipt to have received the amount earned in the experiment indicated on the front side of the receipt. The monitor checked the signature, but the monitor did not see the front side of the receipt. That is, the monitor did not know how much money the subject earned. After the monitor had checked the receipts, the subjects put the signed receipt in new envelopes. Finally, the monitor and the experimenter walked to the nearest mailbox and dropped the envelopes in the mailbox for the receipts to be sent to the accounting department of the University of Vienna in accordance with bookkeeping regulations.16

Main Features In contrast to previous studies that have compared donations under the match and rebate subsidy, I used a more salient and neutral framing of the subsidy. Either the first or the second part of the experiment was paid in order to avoid income effects that may influence the decision to donate or overreport in the second part of the experiment. Also, the order of the allocation part and reporting part varied across sessions in order to control for order effects. In order to find out the determinants of evasion, I created a very comprehensive dataset by eliciting the subjects’ willingness to donate in the absence of the possibility to overreport, by eliciting risk and social preferences, and by including a comprehensive questionnaire. Since it was a one-shot experiment, and in order to avoid anchoring, the subjects had to show their understanding of the instructions of each part of the experiment by answering control questions with randomly generated numbers. Finally, I implemented a double anonymous design, because I did not want the subjects to feel observed by the experimenter and by the monitor.

4 Experimental Results

The experimental results are presented as follows. Section 4.1 shows the sample descriptives. I show the levels of donations and estimate price elasticities of donations under the match and rebate subsidy in Section 4.2. More importantly, Section 4.3 gives an overview of the levels of overreporting under the two decided to donate nothing, since only one decision of either the allocation or reporting part determined the payment of the subject and the respective charity.

16The details of the double anonymous procedure are explained in the instructions of the experiment.
treatments and tests the predictions presented in Section 2.

4.1 Sample Description

In total 100 subjects entered the laboratory, eight out of these were chosen as monitors in the respective sessions, and three subjects left the laboratory before the experiment finished. The average age of a subject was over 26.\textsuperscript{17} Roughly 60\% of the subjects were male. The subjects were on average risk-averse according to Holt and Laury (2002) and individualistic according to the Social Value Orientation slider by Murphy et al. (2011). Almost two thirds of the subjects came from the European Economic Area (EEA) and Switzerland. The sample is described in Table 2. In general, most subjects found that the instructions of the respective parts were clearly formulated and believed that the donated money was sent to the selected charities (see Table 10 in Appendix B).

Table 2: Description of the sample

<table>
<thead>
<tr>
<th>Subject characteristics (n = 89)</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>26.51</td>
<td>5.46</td>
<td>18</td>
<td>57</td>
</tr>
<tr>
<td>Male</td>
<td>0.61</td>
<td>0.49</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Holt and Laury switch</td>
<td>7.83</td>
<td>236</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>SVO angle</td>
<td>18.64</td>
<td>13.36</td>
<td>−7.8</td>
<td>61.4</td>
</tr>
<tr>
<td>Machiavelli score</td>
<td>79.70</td>
<td>13.69</td>
<td>45</td>
<td>115</td>
</tr>
</tbody>
</table>

Nationality

Austria 27\%
Other EEA and Switzerland 38\%
Third countries 35\%

Notes: Holt and Laury switch reflects risk preferences and indicates the switch to the more risky option in the task of Holt and Laury (2002). SVO angle reflects social preferences and indicates the measured angle of the Social Value Orientation slider by Murphy et al. (2011). Murphy et al. classify subjects as altruists if the SVO angle is larger than 57.15\(^{\circ}\), as prosocial if the angle is between 57.15\(^{\circ}\) and 22.45\(^{\circ}\), as individualistic if the angle is between 22.45\(^{\circ}\) and −12.04\(^{\circ}\), and as competitive if the angle is lower than −12.04\(^{\circ}\). Machiavelli indicates the score achieved by the test developed by Christie and Geis (1970). A high score reflects a more cynical and manipulative behavior, and emotional detachment of the subject. Nationality indicates the nationality of the subject. Other EEA are the countries of the European Economic Area other than Austria. Third countries are the countries outside of the EEA and Switzerland.

\textsuperscript{17}The oldest subject was 57 years as the experiment was not only open to students.
4.2 Donations

In this section, I first compare the levels of donations under the two treatments, and then estimate price elasticities of donations. In Table 3, I compare net donations under a rebate and match, where the net donation is the amount the charity receives because of the donation. Under the rebate subsidy, the net donation is equal to the amount the subject decides to donate. Under the match subsidy, the net donation is equal to the amount the subject decides to donate times the subsidy rate. Column (1) of Table 3 shows the three subsidy levels each subject faced in the allocation part. Columns (2) and (3) show the net donations of the subjects under the rebate and match, respectively. In column (2) of the first row of Table 3 we see that if the price of giving one euro to the charity is \( \varepsilon 0.80 \), the net donation of the subjects in the rebate treatment is on average \( \varepsilon 5.64 \), while in column (3) of the first row of Table 3 we see that the net donation of the subjects in the match treatment is on average \( \varepsilon 7.57 \). If the price of giving one euro to the charity is \( \varepsilon 0.25 \), the charities receive \( \varepsilon 8.67 \) under the rebate and \( \varepsilon 30.87 \) under the match.

In line with Eckel and Grossman (2003), I find that more money is going to the charity organizations under the match than under the rebate subsidy under any price of giving, where the difference between the two subsidies is at least weakly significant (see the \( p \)-values of the \( t \) test and the Kolmogorov-Smirnov tests in columns (4) and (5) of Table 3).

The difference between the subsidies is especially high if the price of giving one euro is low. In other words, the higher the level of the subsidy, the larger the difference under the match and rebate.

\[ ^{18} \text{When comparing the mean under the rebate and match in column (4), I use a one tailed } t \text{ test, where I do not assume equal variances under the rebate and match. When comparing the distribution under the rebate and match in column (5) of Table 3, I use a Kolmogorov-Smirnov test, since the Mann-Whitney } U \text{ test has only little power if a lot of observations take the value zero.} \]
Table 3: Net donations to charities

<table>
<thead>
<tr>
<th></th>
<th>(1) Price of giving €1 to charity</th>
<th>(2) Rebate</th>
<th>(3) Match</th>
<th>(4) Equal means p-value</th>
<th>(5) Equal distributions p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>€0.80</td>
<td>5.64</td>
<td>7.57</td>
<td></td>
<td>0.089</td>
<td>0.073</td>
</tr>
<tr>
<td></td>
<td>(0.93)</td>
<td>(1.08)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.50</td>
<td>6.71</td>
<td>14.08</td>
<td></td>
<td>0.000</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>(1.01)</td>
<td>(1.63)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.25</td>
<td>8.67</td>
<td>30.87</td>
<td></td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(3.97)</td>
<td>(1.23)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 47</td>
<td></td>
<td>n = 42</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Standard errors in parentheses. n indicates the number of observations under a given price (e.g. €0.80). I compare net donations under a rebate and match, where the net donation is the amount the charity receives because of the donation. Under the rebate subsidy, the net donation is equal to the amount the subject decides to donate. Under the match subsidy, the net donation is equal to the amount the subject decides to donate times the subsidy rate.

To estimate price elasticities of donations I make use of a tobit model:

\[ \ln(donations)_{ij} = \alpha + \beta_1 rebate_i + \beta_2 \ln(price)_j + \beta_3 (\ln(price) \times rebate)_{ij} + X_i^\prime \gamma + u_{it}, \]  

(5)

where i is the index of subjects and j is the index of allocation decisions. The variable rebate takes the value 1 if the subject faces a rebate subsidy and the value 0 if the subject faces a match subsidy. I control for the price of giving €1 to the charity, which is 1 – sr. X is a vector of individual characteristics, including risk preferences, the Machiavelli score, a variable that indicates whether the subjects started with the allocation or the reporting part, age, gender and endowment of the subjects, and dummies for charities. The dependent variable in columns (1) and (2) of Table 4 is the net donation in the allocation part. The dependent variable in column (3) of Table 4 is the actual donation made in the reporting part. In other words, the dependent variable in column (3) is the true donation of the reporting part (i.e. not the reported donation).  

19Since I would like to estimate price elasticities and the logarithm of zero is not defined, I add 10 cents to the dependent variable. I chose 10 cents in order to be comparable to Eckel and Grossman (2003). If I add for instance 50 cents instead of 10 cents to the dependent variable, my results are hardly affected and my main findings are...
Table 4: Net donations, marginal effects of a random effects tobit model

<table>
<thead>
<tr>
<th></th>
<th>(1) Allocation Part</th>
<th>(2) Allocation Part</th>
<th>(3) Reporting Part</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable:</strong> ln(Donation+0.1)</td>
<td>ln(Donation+0.1)</td>
<td>ln(Donation+0.1)</td>
<td></td>
</tr>
<tr>
<td><strong>Rebate</strong></td>
<td>0.070</td>
<td>0.239</td>
<td>0.461</td>
</tr>
<tr>
<td><strong>ln(Price)</strong></td>
<td>−1.375***</td>
<td>−1.393***</td>
<td>−1.466***</td>
</tr>
<tr>
<td><strong>ln(Price) × Rebate</strong></td>
<td>1.030***</td>
<td>1.046***</td>
<td>0.918***</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>−0.694*</td>
<td>−0.454</td>
<td>−0.530</td>
</tr>
<tr>
<td><strong>Machiavelli</strong></td>
<td>−0.0471***</td>
<td>−0.0325*</td>
<td>−0.0169*</td>
</tr>
<tr>
<td><strong>Other controls</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>267</td>
<td>267</td>
<td>267</td>
</tr>
<tr>
<td><strong>Log Likelihood</strong></td>
<td>−384</td>
<td>−379</td>
<td>−409</td>
</tr>
</tbody>
</table>

Notes: Standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. Marginal effects are evaluated at the means. A random effect tobit model is estimated in columns (1) to (3). The dependent variable in columns (1) and (2) is the net donation of the allocation part, which is the amount the charity receives because of the donation. The dependent variable in column (3) is the net donation of the reporting part, which is the actual amount the charity receives because of the donation and not the reported amount. Under the rebate subsidy, the net donations is equal to the amount the subject decides to donate. Under the match subsidy, the net donation is equal to the amount the subject decides to donate times the subsidy rate. In column (1) I control for age, gender, and the initial endowment. In column (2) and (3) I also control for risk preferences and whether the experiment started with the allocation or reporting part. I include a constant, and dummies for charities and sessions in all regressions.

From the second row of Table 4 we see that the match price elasticities of donations range from −1.38 to −1.46, while from adding the second to the third row we get that the rebate price elasticities range from −0.34 to −0.55.20 The price elasticities that I find are in line with the literature (see Huck and Rasul 2011).21 For instance, Eckel and Grossman (2003) find match and rebate price elasticities of still the same.

20If I use a Wilcoxon signed-rank test to compare the net donations in the allocation part and the true net donations in the reporting part, I cannot reject the null hypothesis that the distributions of net donations in the allocation part and reporting part are the same (p value is above the 10% levels under any price of giving).

21Many subjects in the experiment do not adjust their donations if the level of the subsidy increases, which was also found by Scharf and Smith (2015), for instance. If the rebate subsidy rate increases, 37% of the subjects do not adjust their donations. If the match subsidy rate increases, 20% do not adjust their donations.
−1.07 and −0.34, respectively. It is not surprising that the elasticity of donations is getting higher if the subjects also have the possibility to evade. A higher subsidy makes donations relatively more attractive than evasion, and thus there is a substitution from evasion to donations. The neutral wording of the subsidy may not be a very relevant determinant of the rebate and match price elasticity, respectively, because the price elasticities in columns (1) and (2) of Table 4 are very similar to the findings of Eckel and Grossman (2003). That is, not framing the match and rebate subsidy does not decrease the difference between the match and rebate price elasticities.

Men donate smaller amounts, which is also in line with previous findings (e.g. Eckel and Grossman 2003). However, the coefficient loses its weak significance if I include additional control variables to the variables from Eckel and Grossman (2003) (see columns (2) and (3) Table 4). Whether the experiment started with the allocation or reporting part does not have a significant impact on donations (see full Table 11 in Appendix B). Finally, those with low Machiavelli scores donate significantly higher amounts than those with high Machiavelli scores. In other words, subjects who are more cynical and emotionally detached according to the Machiavelli test by Christie and Geis (1970) donate smaller amounts. To summarize, the findings with respect to the true donations are in line with Eckel and Grossman (2003). However, the main focus of this paper is to determine whether charitable giving is used to evade taxes and if so, what are the differences under the rebate and the match subsidy?

4.3 Evasion

In this section, I first compare the levels of overreporting under the two treatments, and then estimate price elasticities of overreported donations. In Table 5 I test whether the level of overreporting under the rebate subsidy is higher than under the match subsidy, since the subsidies create different incentives to evade (see Prediction 1). Panel A of Table 5 considers the decisions where the subjects underreport, overreport, and report the donation correctly, while Panel B only considers the subset of decisions where the subjects overreport. For instance, in column (3) of the first row of Panel A of Table 5 we see that if the price of giving one euro to the charity is €0.80 and the probability of detection is 4%, the subjects in the rebate treatment overreported on average €9.08, while we see in column (4) that the subjects in the match treatment overreported on average €6.84. If the price of giving one euro decreases to €0.25 and the probability of detection increases to 50%, the level of overreporting under the rebate is still €6.87, while the level of overreporting under the match shrinks to €0.76. A comparison of column (3) and (4) of Table 5 shows that the level of overreporting under the rebate is always higher under the
Table 5: Levels of overreporting

<table>
<thead>
<tr>
<th>Price of giving</th>
<th>Probability of detection</th>
<th>Rebate</th>
<th>Match</th>
<th>Equal means p-value</th>
<th>Equal distributions p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>€1 to charity</td>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>€0.80</td>
<td>4%</td>
<td>€9.08</td>
<td>€6.84</td>
<td>0.168</td>
<td>0.696</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.74)</td>
<td>(1.54)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.80</td>
<td>50%</td>
<td>€8.52</td>
<td>€5.10</td>
<td>0.069</td>
<td>0.341</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.78)</td>
<td>(1.45)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.50</td>
<td>4%</td>
<td>€7.67</td>
<td>€2.50</td>
<td>0.002</td>
<td>0.014</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.61)</td>
<td>(0.67)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.50</td>
<td>50%</td>
<td>€7.91</td>
<td>€2.23</td>
<td>0.002</td>
<td>0.046</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.74)</td>
<td>(0.77)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.25</td>
<td>4%</td>
<td>€6.12</td>
<td>€2.49</td>
<td>0.027</td>
<td>0.016</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.58)</td>
<td>(0.96)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.25</td>
<td>50%</td>
<td>€6.87</td>
<td>€0.76</td>
<td>0.000</td>
<td>0.015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.67)</td>
<td>(0.35)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( n = 47 )</td>
<td>( n = 42 )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Panel A: All decisions

Panel B: Conditional on overreporting

<table>
<thead>
<tr>
<th>Price of giving</th>
<th>Probability of detection</th>
<th>Rebate</th>
<th>Match</th>
<th>Equal means p-value</th>
<th>Equal distributions p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>€0.80</td>
<td>4%</td>
<td>€19.77</td>
<td>€12.84</td>
<td>0.010</td>
<td>0.026</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.97)</td>
<td>(2.07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( n = 22 )</td>
<td>( n = 23 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.80</td>
<td>50%</td>
<td>€18.77</td>
<td>€12.39</td>
<td>0.033</td>
<td>0.022</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.30)</td>
<td>(2.47)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( n = 22 )</td>
<td>( n = 18 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.50</td>
<td>4%</td>
<td>€17.86</td>
<td>€5.73</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.95)</td>
<td>(1.07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( n = 21 )</td>
<td>( n = 19 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.50</td>
<td>50%</td>
<td>€17.03</td>
<td>€6.11</td>
<td>0.000</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.33)</td>
<td>(1.61)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( n = 23 )</td>
<td>( n = 16 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.25</td>
<td>4%</td>
<td>€16.12</td>
<td>€6.22</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.93)</td>
<td>(2.08)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( n = 20 )</td>
<td>( n = 17 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.25</td>
<td>50%</td>
<td>€17.64</td>
<td>€2.98</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.61)</td>
<td>(1.11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>( n = 19 )</td>
<td>( n = 11 )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Standard errors in parentheses. \( n \) indicates the number of observations under a given price (e.g. €0.80) or probability (e.g. 4%). I compare the level of overreporting under a rebate and match, where overreporting is the reported donation minus the actual amount donated. Panel A considers the decisions where the subjects underreport, overreport, and report the donation correctly. Panel B considers only the subset of decisions where the subjects overreport.
rebate than under the match. Column (5) of Panel A of Table 5 shows that the null hypothesis that
the level of overreporting is higher under the match than under the rebate is rejected under any given
price and probability by using one tailed t tests except in the case where the price of giving is €0.80 and
the probability of detection is 4%. If I compare the distribution of overreporting under the match and
the rebate by using Kolmogorov-Smirnov tests, I find significant differences between the subsidies unless
the price of giving is €0.80 (see column (6) of Panel A of Table 5).22 If I only consider the subset of
decisions where the subjects overreport in Panel B of Table 5, I reject the null hypothesis that the level
of overreporting is higher under the match than under the rebate under any combination of the price of
giving and the probability of detection. We see in column (3) of the first row of Panel B of Table 5 that
if the price of giving is €0.80 and probability of detection is 4%, the average level of overreporting was
€19.77 in the rebate treatment, while we see in column (4) that the average level of overreporting was
only €12.84 in the match treatment. Also, the distribution of overreporting under the match and the
rebate subsidy differs significantly if I make use of Mann-Whitney U test (see column (6) of Panel B of
Table 5). The finding of higher levels of overreporting under the rebate than under the match is in line
with Prediction 1.23

In order to estimate price elasticities and to find out more about the determinants of evasion, I run
several regressions. To estimate whether subjects evade (evade_{ij} = 1) or report honestly (evade_{ij} = 0) I
make use of a probit model:

\[
evade_{ij} = \alpha_1 + \beta_1 \text{rebate}_i + \beta_2 \text{prob}_j + \beta_3 (\text{prob} \times \text{rebate})_{ij} + \beta_4 \ln(\text{price})_j + \beta_5 (\ln(\text{price}) \times \text{rebate})_{ij} + X'_{ij} \gamma_1 + u_{it},
\]

where \(j\) is the index of reporting decision, \(X\) is a vector of other control variables, including risk prefer-
ences, social preferences, the Machiavelli score, a variable that indicates the nationality of the subject,
the donations from the allocation part, and other control variables mentioned before. The two-part hur-

---

22Karlan et al. (2011) argue that optimal match may be at or below a price of giving of €0.50, whereas a
lower price of giving than €0.50 may only lead to more donations among certain donors and presentations. In
these situations described to be optimal by Karlan et al. (2011), the distributions of overreporting are significantly
different under the rebate and match.

23If I compare whether the subjects overreported, underreported, or exactly reported the donation by using
Fisher’s exact test, I only find a significant difference in reporting behavior between the rebate and match subsidy
if the probability of detection is 50% and the price of giving is either €0.50 or €0.25 (see Table 12 in Appendix
B). This means that the differences between the match and rebate found in Table 5 are more likely due to the
different levels of overreporting (see Panel B of Table 5) and less likely due to the decision whether to overreport
or not.
dle model introduced by Cragg (1971) is useful if the decision whether to evade \((evade_{ij} = 1)\) or not \((evade_{ij} = 0)\) differs from the decision of how much to overreport (i.e. choice of the level of overreporting given that \(evade_{ij} = 1\)). For example, if an increase in the price of giving has no effect on the decision whether to overreport or not, but a strong effect on the level of overreporting, I am able to identify these different effects with a hurdle model. The first stage of the hurdle model is given by the probit model shown in equation (6). In the second stage of the hurdle model, I condition overreporting on positive amounts of overreporting and I assume that overreporting is log normally distributed (see Wooldridge 2010):

\[
\ln(overreport)_{ij} = \alpha_2 + \delta_1 rebate_i + \delta_2 prob_j + \delta_3 (prob \times rebate)_{ij} + \\
\delta_4 \ln(price_j) + \delta_5 (\ln(price) \times rebate)_{ij} + X_{ij}' \gamma_2 + v_{it} \quad \text{for} \ evade_{ij} = 1. \tag{7}
\]

Since overreporting is limited to €30, I estimate the second stage of the hurdle model shown in equation (7) by making use of a tobit model. Finally, I run a tobit model and make use of both decisions where the subjects decided to overreport and the decisions where the subjects decided not to overreport by estimating equation (7) with the condition \(overreport_{ij} \geq 0\). The results of the tobit estimation in Table 6 allow me to estimate price elasticities and the sensitivity to an increase in the probability of detection. First, the likelihood ratio statistics indicate that the random effects models are preferable to ordinary logit and tobit models, respectively, since I reject the null hypothesis that the subject-specific effects are the same across subjects (shown in columns (1) to (3) at the bottom of Table 6). Second, in line with Prediction 1, the regression analysis confirms the finding of Table 5 that the level of overreporting under the rebate is significantly higher than the level under the match (shown at the bottom of Table 6):

**Result 1.** The level of overreporting under the rebate subsidy is higher than under the match subsidy.

---

\(^{24}\)Since the logarithm is only defined for positive values, I do not allow for underreporting and add 10 cents to the level of overreporting in my regressions. That is, the dependent variable takes the value \(\ln(0.1)\) if a subject is not overreporting.

\(^{25}\)To shorten the tables, I do not report all controls in Table 6. The full estimations of equations (6) and (7) are shown in Table 13 in Appendix B.

\(^{26}\)I make use of a random effects model, since I want to control for variables that do not vary within the individual (e.g. risk preferences), and since there exists no fixed effects tobit model. My main findings are still the same if I use a fixed effect logit model instead of the random effect probit model of Table 6, and if I use linear fixed effects models instead of the random effects tobit models of Table 6. I cannot reject the null hypothesis that the coefficients for the price and probability under the match and rebate of the random effects models of Table 6 and the fixed effects models are different \((p \text{ values of two-sided } t \text{ tests are always larger than } 0.48)\). Similarly, if I perform a Hausman test, I cannot reject the null hypothesis that both the random effect probit estimators of column (1) of Table 6 and the fixed effect logit estimators are consistent. In short, the random effects estimators used in Table 6 and the fixed effects estimators produce very similar results.
Table 6: Overreporting, marginal effects of random effects models

<table>
<thead>
<tr>
<th>Dependent Variable:</th>
<th>(1) PROBIT</th>
<th>(2) HURDLE</th>
<th>(3) TOBIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overreport</td>
<td>Overreport</td>
<td>ln(Overreport+0.1)</td>
<td>ln(Overreport+0.1)</td>
</tr>
<tr>
<td>Rebate</td>
<td>22.00***</td>
<td>−6.59</td>
<td>46.81***</td>
</tr>
<tr>
<td></td>
<td>(6.20)</td>
<td>(9.00)</td>
<td>(10.86)</td>
</tr>
<tr>
<td>Probability</td>
<td>−0.483***</td>
<td>−0.467*</td>
<td>−0.973***</td>
</tr>
<tr>
<td></td>
<td>(0.185)</td>
<td>(0.272)</td>
<td>(0.347)</td>
</tr>
<tr>
<td>Probability × Rebate</td>
<td>0.518**</td>
<td>0.213</td>
<td>1.057**</td>
</tr>
<tr>
<td></td>
<td>(0.249)</td>
<td>(0.383)</td>
<td>(0.470)</td>
</tr>
<tr>
<td>ln(Price)</td>
<td>0.258***</td>
<td>0.869***</td>
<td>0.655***</td>
</tr>
<tr>
<td></td>
<td>(0.0930)</td>
<td>(0.139)</td>
<td>(0.179)</td>
</tr>
<tr>
<td>ln(Price) × Rebate</td>
<td>−0.187</td>
<td>−0.499**</td>
<td>−0.461*</td>
</tr>
<tr>
<td></td>
<td>(0.122)</td>
<td>(0.193)</td>
<td>(0.236)</td>
</tr>
<tr>
<td>Male</td>
<td>0.272</td>
<td>0.154</td>
<td>0.776**</td>
</tr>
<tr>
<td></td>
<td>(0.166)</td>
<td>(0.209)</td>
<td>(0.386)</td>
</tr>
<tr>
<td>Donation Allocation Part</td>
<td>−0.00923</td>
<td>−0.0352***</td>
<td>−0.0333*</td>
</tr>
<tr>
<td></td>
<td>(0.00838)</td>
<td>(0.0117)</td>
<td>(0.0181)</td>
</tr>
<tr>
<td>Rebate versus Match z Test</td>
<td>1.91*</td>
<td>2.44**</td>
<td>2.15**</td>
</tr>
<tr>
<td>Other Controls</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>534</td>
<td>231</td>
<td>534</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>−216</td>
<td>−948</td>
<td>−677</td>
</tr>
<tr>
<td>Likelihood Ratio Test</td>
<td>96.07***</td>
<td>13.91***</td>
<td>167.2***</td>
</tr>
</tbody>
</table>

Notes: Standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. Marginal effects are evaluated at the means. A random effect probit model is estimated in column (1), where the dependent variable is equal to one if the subject overreports the donation, and zero otherwise. A random effect tobit model is estimated as the second stage of a lognormal hurdle model in column (2). A random effect tobit model is estimated in column (3). The dependent variable in columns (2) and (3) is the level of overreporting, where overreporting is the reported donation minus the actual amount donated. All analyses include controls for social and risk preferences, the Machiavelli score, initial endowment, whether the experiment started with the allocation or reporting part, the nationality of the subjects. I include a constant, and dummies for charities and sessions in all regressions. The z test statistic tests the null hypothesis that overreporting is the same under the match and the rebate subsidy. The likelihood ratio statistic tests the null hypothesis that each subject has the same individual effect.
Probability of Detection  An increase in the probability of detection leads to significantly less overreporting under the match subsidy. An increase in the probability of detection by ten percentage points under the match subsidy decreases the likelihood of overreporting by 4.83% (see column (1) of Table 6) and the levels of overreporting in the subset of decisions where the subjects overreport by 4.67% (see column (2) of Table 6), and by 9.73% in the tobit estimation (see column (3) of Table 6). The effect of the probability under the rebate is obtained by adding the coefficient of the interaction term of the probability and the rebate dummy to the coefficient of the probability. In my study, the probability has no significant effect on compliance under the rebate subsidy, but the effect of the probability under the match subsidy is significantly negative:

Result 2. A higher probability of an audit under the rebate subsidy has no significant effect on overreporting, whereas a higher probability under the match has a strong negative effect on overreporting.

Subjects facing the match subsidy are less willing to bear the higher expected costs of evasion if the probability increases than subjects facing the rebate subsidy. The effect of the probability under the match subsidy is in line with Prediction 2 and findings from the income-tax literature (see Alm 2012). Even though Prediction 2 states a negative effect for both the rebate and match subsidy, Prediction 3 suggests that the response to a change in the probability is larger under the match subsidy. Since the interaction term of the probability and the rebate dummy is positive and significant in the probit and tobit model in columns (1) and (3) of Table 6, I have some evidence for Prediction 3 that the increase in the probability leads to a larger reduction of evasion under the match subsidy than under the rebate subsidy.

Result 3. An increase in the probability of detection leads to a larger reduction of overreporting under the match than under the rebate subsidy.

Price Elasticities  Column (1) of Table 6 shows that the price elasticity of overreported donations under the match is 0.26 for the binary decision to evade or not; column (2) shows that the price elasticity is 0.87 in the second stage of the hurdle model for those decisions where the subjects decide to evade; and column (3) shows that the price elasticity 0.66 in the tobit model. The rebate price elasticity of overreported donations is obtained by adding the coefficient of the price in row 4 of Table 6 to the coefficient of the interaction term of the price and the rebate dummy in row 5. The rebate price elasticity of overreported donations is not significantly different from zero in the probit and tobit model (the elasticities are 0.07, and 0.19, respectively; see columns (1) and (3) of Table 6), but the elasticity is 0.37
and highly significant if I consider only those decisions where the subjects decide to evade (see column (2) of Table 6). This also shows that the subsidy rate is relatively less important for determining whether to evade or not, but has a relatively high impact on the level of overreporting. As stated in Prediction 4, the price elasticity of overreported donations is positive both under the match and rebate (yet not always significant under the rebate). This is in contrast to Fack and Landais (2013) who find a negative elasticity of overreported donations. As Fack and Landais (2013) mention, however, the price elasticities may depend strongly on the level of tax enforcement in place and, what is more, on other taxes and policy instruments. In my controlled experiment, I am expecting a positive elasticity of overreported donations, since an increase in the subsidy rate leads to a substitution from evasion to donation if the subsidy rate increases. The reason is that the subjects have a higher incentive to donate and their donation reports are limited by the level of the endowment (see Section 2). This leads to the following result in line with Prediction 4:

Result 4. An increase in the subsidy rate leads to less overreporting of donations.

The decrease of overreporting due to an increase in the subsidy is larger under the match than under the rebate, which is in line with Prediction 5. The interaction terms of the price and rebate dummy is significant in the second stage of the hurdle model column (2) and weakly significant in the tobit model column (3) of Table 6. Hence, we can state the following result:

Result 5. The increase of the subsidy rate leads to a larger decrease of overreporting under the match subsidy than under the rebate subsidy.

If subjects who face a rebate evade for selfish reasons to benefit themselves, those subjects may not substitute from evasion to donations if the subsidy rate increases. If subjects who face a match evade for altruistic reasons to benefit the charity, those subjects may substitute from evasion to donations if the subsidy rate increases. The higher price elasticities of donations (see column (3) of Table 4) and of overreported donations (see Table 6) under the match than under the rebate show that the subjects are more likely to substitute from evasion to donations under the match than under the rebate if the subsidy rate increases.

4.4 Robustness of Results

Instead of comparing the levels of overreporting under the rebate and match in Table 6, it is also possible to compare the levels of net evasion, which I define as the amount the charity or the individual receives
because of evasion under the rebate and match. This has the drawback that the maximum possible net evasion differs under the match and the rebate because of the budget constraint of the individuals. For instance, if the endowment is €30 and the match is 100%, the subject can overreport €30 and the charity will end up with the overreported amount times the subsidy rate, which is €30. In contrast, the maximum net evasion under the equivalent rebate of 50% is the overreported amount times the subsidy rate, which is €15. What is more, in order to estimate the reaction of evasion due to an increase in the subsidy rate (i.e. price elasticities), I cannot make use of net evasion as the dependent variable, since net evasion is defined as the overreported amount times the subsidy rate. This is why my preferred specification in Table 6 uses the level of overreporting as the dependent variable. The probit model shown in equation (6) predicts whether the subject evades or not. Hence, it is not affected by the choice of net evasion instead of overreporting as the dependent variable. Column (1) of Table 7 shows the results of the second stage hurdle model, while column (2) of Table 7 shows the result of the random effects tobit model. An increase in the probability of detection by ten percentage points under the match subsidy decreases net evasion by 6.3% conditional on evasion, and decreases net evasion by roughly 10% in the unconditional tobit model (see columns (1) and (2) of Table 7). The increase in the probability of detection is still insignificant under the rebate. The coefficient of the probability under the rebate and match, respectively, of Table 7 are not significantly different from the coefficients of Table 6 (p values of two-sided t tests are 0.789 and 0.992, respectively). Overall, the coefficients of Table 7 are very similar to my preferred specification of Table 6.
Table 7: Net evasion, marginal effects of random effects models

<table>
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<tr>
<th>Dependent Variable:</th>
<th>(1) Hurdle</th>
<th>(2) TOBIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ln(Net evasion+0.1)</td>
<td>ln(Net evasion+0.1)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1st Stage</th>
<th>2nd Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebate</td>
<td>-14.86*</td>
<td>37.95***</td>
</tr>
<tr>
<td></td>
<td>(8.16)</td>
<td>(9.02)</td>
</tr>
<tr>
<td>Probability</td>
<td>-0.630*</td>
<td>-1.004***</td>
</tr>
<tr>
<td></td>
<td>(0.340)</td>
<td>(0.331)</td>
</tr>
<tr>
<td>Probability × Rebate</td>
<td>0.371</td>
<td>0.974**</td>
</tr>
<tr>
<td></td>
<td>(0.465)</td>
<td>(0.440)</td>
</tr>
<tr>
<td>Male</td>
<td>0.00689</td>
<td>0.697**</td>
</tr>
<tr>
<td></td>
<td>(0.202)</td>
<td>(0.342)</td>
</tr>
<tr>
<td>Donation Allocation Part</td>
<td>-0.0181</td>
<td>-0.0307**</td>
</tr>
<tr>
<td></td>
<td>(0.0142)</td>
<td>(0.0156)</td>
</tr>
<tr>
<td>Other Controls</td>
<td>Yes</td>
<td>Yes</td>
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<td>Observations</td>
<td>231</td>
<td>534</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>-861</td>
<td>-689</td>
</tr>
<tr>
<td>Likelihood Ratio Test</td>
<td>2.11*</td>
<td>129.39***</td>
</tr>
</tbody>
</table>

Notes: Standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. Marginal effects are evaluated at the means. A random effect tobit model is estimated as the second stage of a lognormal hurdle model in column (1). A random effect tobit model is estimated in column (2). The dependent variable in columns (1) and (2) is the level of net evasion, where net evasion is the overreported amount times the subsidy rate (i.e. how much the individual or the charity gets because of overreporting). Other controls include controls for social and risk preferences, the Machiavelli score, initial endowment, gender, whether the experiment started with the allocation or reporting part, the donation of the allocation part, the nationality of the subjects. I include a constant, and dummies for charities and sessions in all regressions. The likelihood ratio statistic tests the null hypothesis that each subject has the same individual effect.

5 Conclusion

This study investigates tax evasion through overreporting of donations. It is the first experiment that provides estimates of the elasticity of overreported donations, which is important for determining an effective way of subsidizing giving. Moreover, it is the first study that distinguishes between a match and rebate subsidy in the context of tax evasion. I find higher levels of overreporting under the rebate subsidy than under the match subsidy. In addition, increases of the match subsidy rate lead to larger decreases in overreporting than increases of the rebate subsidy rate. I also confirm the finding of previous studies that
the elasticity of true donations under the rebate is lower than the same elasticity under the match. Since increases of a match subsidy rate lead to larger increases in donations and decreases in overreporting than equivalent increases of a rebate subsidy rate, a match subsidy could lead to the policymaker’s desired level of donations under lower cost. Moreover, an increase in the probability of detection does not have a significant impact on evasion under the rebate, but an increase in the probability leads to a sizeable reduction of overreporting under the match subsidy.

To the extent that my experimental results have implications for policy, the message would be that increases in the subsidy rate and probability rate (e.g. by increasing the frequency of audits) are more likely to lead to increases in welfare under the match than under the rebate subsidy. In other words, my controlled experiment suggests that replacing rebate schemes with match schemes may not only have the potential to increase donations, but also to decrease overreporting of donations. Nevertheless, any implications for policymakers can only be drawn cautiously, since the behavior of individuals is also dependent on other policy instruments and institutions.

References


Appendix

A Proofs of the Model of Section 2

A.1 Optimal Levels of Giving and Overreporting under the Rebate

In this section, I characterize the optimal levels of giving \( g^* \) and overreporting \( g^e* \) as functions of the parameters \( a, p, \theta, \text{ and } s_r \) under the rebate. The individual maximizes the expected payoff given in equation (1) by choosing the level of overreported donations and true charitable donations. I make use of the following notation:

\[
D_r \equiv \alpha_i (I - g_i (1 - s_r) - s_r g^e_i \theta) + \alpha^*_i (g_i, G_{-i}) \\
E_r \equiv \alpha_i (I - g_i (1 - s_r) + s_r g^e_i) + \alpha^*_i (g_i, G_{-i}) \equiv \alpha_i (e_r) + \alpha^*_i (e_r, g_i) .
\]

The Kuhn-Tucker conditions become:

\[
\frac{\partial U_i}{\partial g^e_i} = u_i'(D_r) p \alpha'_i (d_r) (-s_r \theta) + u_i'(E_r) (1 - p) \alpha'_i (e_r) s_r - \lambda \leq 0 \tag{8}
\]

\[
\frac{\partial U_i}{\partial g_i} = pu_i'(D_r) (\alpha'_i (d_r) (-1 + s_r) + a \beta'_i (\delta_r, .)) + (1 - p) u_i'(E_r) (\alpha'_i (e_r) (-1 + s_r) + a \beta'_i (\epsilon_r, .)) - \lambda \leq 0 \tag{9}
\]

\[
\frac{\partial U_i}{\partial \lambda} = I - g_i - g^e_i \geq 0
\]

\[
g_i, g^e_i, \lambda \geq 0
\]

\[
g^e_i = 0 \quad \lor \quad u_i'(D_r) p \alpha'_i (d_r) (-s_r \theta) + u_i'(E_r) (1 - p) \alpha'_i (e_r) s_r - \lambda = 0
\]

\[
g_i = 0 \quad \lor \quad pu_i'(D_r) (\alpha'_i (d_r) (s_r - 1) + a \beta'_i (\delta_r, .)) + (1 - p) u_i'(E_r) (\alpha'_i (e_r) (s_r - 1) + a \beta'_i (\epsilon_r, .)) - \lambda = 0
\]

\[
\lambda = 0 \quad \lor \quad I - g_i - g^e_i = 0
\]

where \( \lambda \) is the Lagrange multiplier. Equation (8) reflects the marginal utility of evading one euro. The marginal cost of evading \( \alpha'_i (., s_r \theta) \) depends on the probability of detection times the amount that has to be paid in case of detection. The marginal benefit of evasion depends on the level of the subsidy and
is given by \( \alpha'_i(.) s_r (1 - p) \). I define the three thresholds from the Kuhn-Tucker conditions:

\[
\hat{a}_r(p, \theta, s_r) \equiv \frac{pu'_i(D_r)\alpha'_i(d_r)(1 - s_r - s_r\theta) + (1 - p)u'_i(E_r)\alpha'_i(e_r)}{\beta'_i(\delta_r,s_r)pu'_i(D_r) + \beta'_i(\epsilon_r,.) (1 - p)u'_i(E_r)},
\]

\[
\check{a}_r(p, s_r) \equiv \frac{(1 - s_r)(pu'_i(D_r)\alpha'_i(d) + (1 - p)u'_i(E_r)\alpha'_i(e))}{\beta'_i(\delta_r,.)pu'_i(D_r) + \beta'_i(\epsilon_r,.) (1 - p)u'_i(E_r)},
\]

and

\[
\phi_r(\theta) \equiv \frac{u'_i(E_r)\alpha'_i(e_r)}{u'_i(E_r)\alpha'_i(e_r) + \theta u'_i(D_r)\alpha'_i(d_r)}.
\]

For any \( a \), there is a unique optimal level of donation \( g^* (a, p, \theta, s_r) \) and overreporting \( g^{es} (a, p, \theta, s_r) \). The solution of the maximization problem is shown in Table 8. For instance, row 1 of Table 8 says that at the optimum the individual does not donate any money to the charity \( (g^* = 0) \) but reports a donation of \( I \) (i.e. overreport its donation by \( g^{es} = I \)) if the probability of detection \( p \) is smaller than or equal to the threshold \( \phi_r (\theta) \) and the altruism parameter \( a \) is lower than \( \hat{a}_r(p, \theta, s_r) \).

<table>
<thead>
<tr>
<th>For</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>( p \leq \phi_r (\theta) )</td>
<td>( a &lt; \hat{a}_r(p, \theta, s_r) )</td>
</tr>
<tr>
<td>( p \leq \phi_r (\theta) )</td>
<td>( a = \hat{a}_r(p, \theta, s_r) )</td>
</tr>
<tr>
<td>( p \leq \phi_r (\theta) )</td>
<td>( a &gt; \hat{a}_r(p, \theta, s_r) )</td>
</tr>
<tr>
<td>( p &gt; \phi_r (\theta) )</td>
<td>( a &gt; \check{a}_r(p, s_r) )</td>
</tr>
<tr>
<td>( p &gt; \phi_r (\theta) )</td>
<td>( a &lt; \check{a}_r(p, s_r) )</td>
</tr>
<tr>
<td>( p &gt; \phi_r (\theta) )</td>
<td>( a = \check{a}_r(p, s_r) )</td>
</tr>
<tr>
<td>( p = \phi_r (\theta) )</td>
<td>( a &lt; \check{a}_r(p, s_r) )</td>
</tr>
<tr>
<td>( p = \phi_r (\theta) )</td>
<td>( a = \check{a}_r(p, s_r) )</td>
</tr>
</tbody>
</table>

### A.2 Optimal Levels of Giving and Overreporting under the Match

In this section, I characterize the optimal levels of giving \( g^* \) and overreporting \( g^{es} \) as functions of the parameters \( a, p, \theta, \) and \( s_m \) under the match. The individual maximizes the expected payoff given in equation (3) by choosing the level of overreported donations and true charitable donations. I make use
\[ D_m \equiv \alpha_i (I - g_i - s_m g_i^\epsilon \theta) + a\beta_i (g_i (1 + s_m), G_{-i}) \equiv \alpha_i (d_m) + a\beta_i (\delta_m, G_{-i}) \]

\[ E_m \equiv \alpha_i (I - g_i) + a\beta_i (g_i (1 + s_m) + s_m g_i^\epsilon, G_{-i}) \equiv \alpha_i (e_m) + a\beta_i (\epsilon_m, G_{-i}) \]

The Kuhn-Tucker conditions become:

\[ \frac{\partial U_i}{\partial g_i} = u'_i(D_m) p\alpha'_i(d_m)(-s_m \theta) + u'_i(E_m)(1 - p) a\beta'_i(\epsilon_m, .) s_m - \lambda \leq 0 \] (10)

\[ \frac{\partial U_i}{\partial g_i} = pu'_i(D_m) (a\beta'_i(\delta_m, .) (1 + s_m) - \alpha'_i(d_m)) + (1 - p) u'_i(E_m) (a\beta'_i(\epsilon_m, .) (1 + s_m) - \alpha'_i(e_m)) - \lambda \leq 0 \] (11)

\[ \frac{\partial U_i}{\partial \lambda} = I - g_i - g_i^\epsilon \geq 0 \]

\[ g_i, g_i^\epsilon, \lambda \geq 0 \]

\[ g_i^\epsilon = 0 \lor u'_i(D_m) p\alpha'_i(d_m)(-s_m \theta) + u'_i(E_m)(1 - p) a\beta'_i(\epsilon_m, .) s_m - \lambda = 0 \]

\[ g_i = 0 \lor pu'_i(D_m) (a\beta'_i(\delta_m, .) (1 + s_m) - \alpha'_i(d_m)) + (1 - p) u'_i(E_m) (a\beta'_i(\epsilon_m, .) (1 + s_m) - \alpha'_i(e_m)) - \lambda = 0 \]

\[ \lambda = 0 \lor I - g_i - g_i^\epsilon = 0. \]

Equation (10) reflects the marginal utility of evading one euro. The marginal cost of evading \( \alpha_i s_i p \theta \) depends on the probability of detection times the amount that has to be paid in case of detection. The marginal benefit of evasion depends on the level of the subsidy and is given by \( \alpha_i s_m (1 - p) \). I define the three thresholds from the Kuhn-Tucker conditions:

\[ \hat{a}_m (p, \theta, s_m) \equiv \frac{pu'_i(D_m)\alpha'_i(d_r)(1 - s_m \theta) + (1 - p) u'_i(E_m)\alpha'_i(e_m)}{pu'_i(D_m)\beta'_i(\delta_m, .) (1 + s_m) + (1 - p) u'_i(E_m)\beta'_i(\epsilon_m, .)}, \]

\[ \bar{a}_m (p, s_m) \equiv \frac{pu'_i(D_m)\alpha'_i(d_m) + (1 - p) u'_i(E_m)\alpha'_i(e)}{(1 + s_m) (pu'_i(D_m)\beta'_i(\delta_m, .) + (1 - p) u'_i(E_m)\beta'_i(\epsilon_m, .))}, \]

and

\[ \phi_m (p, \theta) \equiv \frac{pu'_i(D_m)\alpha'_i(d_m) \theta}{(1 - p) u'_i(E_m)\beta'_i(\epsilon_m, .)}. \]

For any \( a \), there is a unique optimal level of donation \( g^* (a, p, \theta, s_m) \) and overreporting \( g^{ex} (a, p, \theta, s_m) \). The solution of the maximization problem is given in Table 9. For instance, row 1 of Table 9 says that at the
optimum the individual does not donate any money to the charity ($g^* = 0$) but reports a donation of $I$ (i.e. overreport its donation by $g^{e*} = I$) if the probability of detection $p$ is smaller than or equal to the threshold $\phi_m(\theta)$ and the altruism parameter $a$ is lower than $\hat{a}_m(p, \theta, s_m)$.

### A.3 Proof of Proposition 1

**Proof.** First, consider the marginal utility of overreporting and donations under the rebate:

$$\frac{\partial U_i}{\partial g_i} = u_i'(d_r) p a_i'(d_r) (-s_r \theta) + u_i'(E_r) (1 - p) a_i'(e_r) s_r$$

$$\frac{\partial U_i}{\partial g^e_i} = pu_i'(d_r) \left( a_i'(d_r) (-1 + s_r) + a \beta'_i(\delta_r,.) \right) + (1 - p) u_i'(E_r) \left( a_i'(e_r) (-1 + s_r) + a \beta'_i(\epsilon_r,.) \right)$$

The marginal utility of donations in equation (13) is necessarily higher than the marginal utility of overreporting (12) if

$$a'_i(.) < a \beta'(.,.)$$

To see this, I plug $a'_i(.) = a \beta'(.,.)$ into equations (12) and (13):

$$\frac{\partial U_i}{\partial g_i} < \frac{\partial U_i}{\partial g^e_i}$$
which simplifies to:

\[ u_i'(D_r)p\alpha_i'(d_r)(-s_r\theta) + u_i'(E_r)(1-p)(\alpha_i'(e_r)s_r) < pu_i'(D_r)\alpha_i'(d_r)s_r + (1-p)u_i'(E_r)\alpha_i'(e_r)s_r, \]

which is true since \( \theta \) is non-negative, and \( \alpha, \beta, \) and \( u \) are strictly increasing and concave. That is, even in the case where \( \alpha_i'(.) = a\beta'\), the marginal marginal utility of donations in equation (13) is necessarily higher than the marginal utility of overreporting (12). This means that there will be evasion under the rebate if and only if \( \alpha_i'(.) > a\beta'\).

Similarly, there will be never evasion under the \textit{match} if \( \alpha_i'(.) < a\beta'\). To see this, consider the marginal utility of overreporting and donations under the match:

\[
\frac{\partial U_i}{\partial g_i} = u_i'(D_m)p\alpha_i'(d_m)(-s_m\theta) + u_i'(E_m)(1-p)a\beta_i'(e_m)\] 

\[
\frac{\partial U_i}{\partial g_i} = pu_i'(D_m)(-\alpha_i'(d_m) + a\beta_i'(\delta_m\cdot)(1+s_m)) + (1-p)u_i'(E_m)(-\alpha_i'(e_m) + a\beta_i'(\epsilon_m\cdot)(1+s_m))
\]

The marginal utility of donations in equation (16) is necessarily higher than the marginal utility of overreporting (15) if \( \alpha_i'(.) < a\beta'\). To see this, I plug \( \alpha_i'(.) = a\beta'\) into equations (15) and (16):

\[
\frac{\partial U_i}{\partial g_i} < \frac{\partial U_i}{\partial g_i}
\]

which simplifies to:

\[ u_i'(D_m)p\alpha_i'(d_m)(-s_m\theta) + u_i'(E_m)(1-p)\alpha_i'(e_m)s_m < pu_i'(D_m)\alpha_i'(d_m)s_m + (1-p)u_i'(E_m)\alpha_i'(e_m)s_m \]

which is true since \( \theta \) is non-negative, and \( \alpha, \beta, \) and \( u \) are strictly increasing and concave. This means that there will be evasion under the match if and only if \( \alpha_i'(.) > a\beta'\).

Second, in equilibrium, there is evasion if the marginal utility of overreporting is higher than the marginal utility of donations, and if the marginal utility of donations is positive:

\[
\frac{\partial U_i}{\partial g_i} > \frac{\partial U_i}{\partial g_i} \geq 0.
\]

That is, there will be more evasion under the rebate than under the match if the ratio of the marginal
utility of overreporting to the marginal utility of donation is higher under the rebate than the match:

\[
\frac{\partial U_i / \partial g_i^e}{\partial U_i / \partial g_i} \bigg|_r > \frac{\partial U_i / \partial g_i^e}{\partial U_i / \partial g_i} \bigg|_m. \tag{17}
\]

\[
\frac{\partial U_i / \partial g_i^e}{\partial U_i / \partial g_i} \bigg|_r = \frac{s_r (-\alpha_i'(d_r) p\theta u'_i(D_r) + \alpha'_i(e_r) (1 - p) u'_i(E_r))}{p(a\beta'_i(\delta_r,\cdot) - \alpha'_i(d_r) (1 - s_r)) u'_i(D_r) + (1 - p) (a\beta'_i(\epsilon_r,\cdot) - \alpha'_i(e_r) (1 - s_r)) u'_i(E_r)} \tag{18}
\]

\[
\frac{\partial U_i / \partial g_i^e}{\partial U_i / \partial g_i} \bigg|_m = \frac{s_m (-\alpha_i'(d_m) p\theta u'_i(D_m) + a\beta'_i(\epsilon_m,\cdot) (1 - p) u'_i(E_m))}{pu'_i(D_m) (a\beta'_i(\delta_m,\cdot) (1 + s_m) - \alpha'_i(d_m)) + (1 - p) u'_i(E_m) (a\beta'_i(\epsilon_m,\cdot) (1 + s_m) - \alpha'_i(e_m)).} \tag{19}
\]

If I plug in the equivalent subsidy \(s_m = s_r/(1 - s_r)\), equation (19) becomes:

\[
\frac{\partial U_i / \partial g_i^e}{\partial U_i / \partial g_i} \bigg|_m = \frac{s_r (-\alpha_i'(d_m) p\theta u'_i(D_m) + a\beta'_i(\epsilon_m,\cdot) (1 - p) u'_i(E_m))}{pu'_i(D_m) (a\beta'_i(\delta_m,\cdot) (1 - s_r)) u'_i(D_m) + (1 - p) u'_i(E_m) (a\beta'_i(\epsilon_m,\cdot) (1 - s_r)) u'_i(E_m).} \tag{20}
\]

The marginal utility of donation is the same under the match and rebate (see denominators of equations (18) and (20)), since \(\alpha, \beta,\) and \(u\) are strictly increasing and concave. However, the marginal utility of overreporting is higher under the rebate than under the match, since a necessary condition for overreporting is that \(\alpha'_i(\cdot) > a\beta'(\cdot,\cdot)\). Since \(\alpha\) and \(\beta\) are strictly increasing and concave, inequality (17) must hold whenever there is overreporting and hence, overreporting is more likely under the rebate than under the match. \(\square\)

### A.4 Proof of Proposition 2

**Proof.** In equilibrium, there is evasion if the marginal utility of overreporting is higher than the marginal utility of donations, and if the marginal utility of overreporting is positive:

\[
\frac{\partial U_i}{\partial g_i^e} \geq \frac{\partial U_i}{\partial g_i} > 0.
\]

That is, the individual overreports an amount equal to the income if the marginal utility of overreporting is greater than zero and if the ratio of the marginal utility of overreporting to the marginal utility of donation (i.e. the marginal rate of substitution of overreporting for donations) is greater than one:

\[
\frac{\partial U_i / \partial g_i^e}{\partial U_i / \partial g_i} \bigg|_r > 1, \tag{21}\]

\[
\frac{\partial U_i / \partial g_i^e}{\partial U_i / \partial g_i} \bigg|_m > 1. \tag{22}\]
The marginal rate of substitution of overreporting for donations under the rebate is given by
\[
\frac{\partial U_i}{\partial g_i^e} = \left. \frac{s_r (-\alpha_i' (d_r) p \theta u_i' (D_r) + \alpha_i' (e_r) (1 - p) u_i' (E_r))}{p (a \beta_i' (\delta_r, \cdot) - \alpha_i' (d_r) (1 - s_r)) u_i' (D_r) + (1 - p) (a \beta_i' (e_r, \cdot) - \alpha_i' (e_r) (1 - s_r)) u_i' (E_r)} \right|_{r}.
\]

(23)

If I plug in the equivalent subsidy \( s_m = s_r / (1 - s_r) \), the marginal rate of substitution of overreporting for donations under the match is given by:
\[
\frac{\partial U_i}{\partial g_i} = \left. \frac{s_r (-\alpha_i' (d_m) p \theta u_i' (D_m) + \alpha_i' (e_r) (1 - p) u_i' (E_m) + a \beta_i' (\delta_m, \cdot) - \alpha_i' (d_m) (1 - s_r)) u_i' (D_m) + (1 - p) (a \beta_i' (e_m, \cdot) - \alpha_i' (e_m) (1 - s_r)) u_i' (E_m)}{p (a \beta_i' (\delta_m, \cdot) - \alpha_i' (d_m) (1 - s_r)) u_i' (D_m) + (1 - p) (a \beta_i' (e_m, \cdot) - \alpha_i' (e_m) (1 - s_r)) u_i' (E_m)} \right|_{m}.
\]

(24)

We see in equations (23) and (24) that if there is overreporting, the marginal utility of overreporting and the marginal utility of donations decrease due to an increase in the probability, since \( \alpha, \beta \) and \( u \) are strictly increasing and concave (Note: the marginal utility of donations stays constant if there is no overreporting). However, the marginal utility of overreporting decreases relatively stronger than the marginal utility of donations, because of the following reasons. If the probability increases, the marginal utility of donations decreases only due to the concavity of \( \alpha, \beta \), and \( u \) (see denominators of equations (23) and (24)). In contrast, the marginal utility of overreporting decreases relatively more than the marginal utility of donations. If the probability increases, the marginal cost of overreporting \( s_r \alpha_i' (d_m) \theta u_i' (D_m) \) increases and the marginal benefits of overreporting \( s_r \alpha_i' (e_r) u_i' (E_r) \) and \( s_r a \beta_i' (\epsilon_m, \cdot) u_i' (E_m) \) under the rebate and match, respectively, decrease as \( \alpha, \beta \), and \( u \) are concave and strictly increasing (see numerators of equations (23) and (24)). As a result, an increase in the probability \( p \) reduces overreporting under the rebate and match subsidy.

A.5 Proof of Proposition 3

Proof. In equilibrium, there is evasion if the marginal utility of overreporting is higher than the marginal utility of donations, and if the marginal utility of overreporting is positive. I use equations (23) and (24) to compare an increase of the probability of detection under an equivalent match and rebate subsidy. If the probability \( p \) increases, the marginal utility of donations decreases in the same manner under the match and rebate (see denominators of equations (23) and (24)) (Note: the marginal utility of donations stays constant if there is no overreporting). However, we see at the numerators of equations (23) and (24) that the marginal utility of overreporting is lower under the match than under the rebate, since a necessary condition for overreporting is that \( \alpha_i' (\cdot) > a \beta' (\cdot, \cdot) \) and \( \alpha \) and \( \beta \) are strictly increasing and 

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concave. Since the marginal utility of overreporting under the match is lower than under the rebate, an increase in the probability under the match is more likely to cause the marginal rate of substitution to become smaller than one than an increase in the probability under the rebate. In other words, an increase in the probability may have no effect on overreporting under the rebate, because inequality (21) may be still fulfilled and thus the individual would overreport an amount equal to the income. In contrast, an equivalent increase in the probability under the match may have the consequence that the necessary condition for overreporting shown in inequality (22) is no longer fulfilled and thus the individual has no longer an incentive to overreport.

A.6 Proof of Proposition 4

Proof. In equilibrium, there is evasion if the marginal utility of overreporting is higher than the marginal utility of donations, and if the marginal utility of overreporting is positive. We see in equations (23) and (24) that if there is overreporting the marginal utility of overreporting and the marginal utility of donations increase due to an increase in the subsidy rate $s_r$, since $\alpha, \beta$ and $u$ are strictly increasing and concave. However, the marginal utility of donations increases relatively stronger than the marginal utility of overreporting, because of the following reasons. If the subsidy rate increases, the marginal utility of donations increases relatively stronger than the marginal utility of overreporting, because of the following reasons. If the subsidy rate increases, the marginal utility of donations $\alpha'_i(.) s_r u'_i(.)$ increases, since $\alpha, \beta$ and $u$ are strictly increasing and concave (see denominators of equations (23) and (24)). In contrast, the marginal utility of overreporting increases relatively less than the marginal utility of donations due to an increase in the subsidy rate. If the subsidy rate increases, both the marginal cost of overreporting $s_r \alpha'_i (d_m) \theta u'_i (D_m)$ and the marginal benefits of overreporting $s_r \alpha'_i (e_r) u'_i (E_r)$ and $s_r a \beta'_i (e_m, \cdot) u'_i (E_m)$ under the rebate and match, respectively, increases as $\alpha, \beta$, and $u$ are concave and strictly increasing (see numerators of equations (23) and (24)). As a result, an increase in the subsidy rate $s_r$ reduces overreporting under the rebate and match subsidy.

A.7 Proof of Proposition 5

Proof. In equilibrium, there is evasion if the marginal utility of overreporting is higher than the marginal utility of donations, and if the marginal utility of overreporting is positive. I use equations (23) and (24) to compare an increase of an equivalent match and rebate subsidy rate. If the subsidy rate $s_r$ increases, the marginal utility of donations under the rebate and match increase in the same manner (see denominators of equations (23) and (24)). However, we see at the numerators of equations (23) and (24) that the marginal utility of overreporting is lower under the match than under the rebate, since
a necessary condition for overreporting is that \( \alpha'_i(\cdot) > a \beta'(\cdot) \) (see inequality (14)), and \( \alpha \) and \( \beta \) are strictly increasing and concave. Since the marginal utility of overreporting under the match is lower than under the rebate, an increase in the subsidy rate under the match is more likely to cause the marginal rate of substitution to become smaller than one than an increase in the subsidy rate under the rebate. In other words, an increase in the subsidy rate may have no effect on overreporting under the rebate, because inequality (21) may be still fulfilled and thus the individual would overreport an amount equal to the income. In contrast, an equivalent increase in the subsidy rate under the match may have the consequence that the necessary condition for overreporting shown in inequality (22) is no longer fulfilled and thus the individual has no longer an incentive to overreport.

B Additional Tables

Table 10: Understanding of the instructions

<table>
<thead>
<tr>
<th>Understanding items (( n = 89 ))</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>The instructions of part 1 were clearly formulated.</td>
<td>6.16</td>
<td>1.30</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>The instructions of part 2 were clearly formulated.</td>
<td>5.62</td>
<td>1.56</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>The instructions of part 3 were clearly formulated.</td>
<td>6.33</td>
<td>1.31</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>The instructions of part 4 were clearly formulated.</td>
<td>6.42</td>
<td>1.23</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>The procedures followed in this experiment preserved my anonymity.</td>
<td>6.34</td>
<td>1.25</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>The money I passed to my selected charity will be transferred to the charity.</td>
<td>5.97</td>
<td>1.23</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

Notes: Responses to the understanding items are from 1 (strongly disagree) to 7 (strongly agree). Part 1 refers to the allocation part. Part 2 refers to the reporting part. Part 3 refers to the risk elicitation task. Part 4 refers to the social preference elicitation task.
Table 11: Net donations, marginal effects of a random effects tobit model (full table)

<table>
<thead>
<tr>
<th>Dependent Variable:</th>
<th>Allocation Part</th>
<th>Allocation Part</th>
<th>Reporting Part</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ln(Net Donation + 0.1)</td>
<td>ln(Net Donation + 0.1)</td>
<td>ln(True Net Donation + 0.1)</td>
</tr>
<tr>
<td>Rebate</td>
<td>0.0696</td>
<td>0.239</td>
<td>0.461</td>
</tr>
<tr>
<td></td>
<td>(0.648)</td>
<td>(0.634)</td>
<td>(0.705)</td>
</tr>
<tr>
<td>ln(Price)</td>
<td>−1.375***</td>
<td>−1.393***</td>
<td>−1.466***</td>
</tr>
<tr>
<td></td>
<td>(0.136)</td>
<td>(0.137)</td>
<td>(0.156)</td>
</tr>
<tr>
<td>ln(Price) × Rebate</td>
<td>1.030***</td>
<td>1.046***</td>
<td>0.918***</td>
</tr>
<tr>
<td></td>
<td>(0.190)</td>
<td>(0.192)</td>
<td>(0.217)</td>
</tr>
<tr>
<td>Age</td>
<td>0.0400</td>
<td>0.0102</td>
<td>0.0373</td>
</tr>
<tr>
<td></td>
<td>(0.0336)</td>
<td>(0.0340)</td>
<td>(0.0379)</td>
</tr>
<tr>
<td>Male</td>
<td>−0.694*</td>
<td>−0.454</td>
<td>−0.530</td>
</tr>
<tr>
<td></td>
<td>(0.377)</td>
<td>(0.374)</td>
<td>(0.417)</td>
</tr>
<tr>
<td>ln(Endowment)</td>
<td>−2.409</td>
<td>−2.975</td>
<td>0.0627</td>
</tr>
<tr>
<td></td>
<td>(2.111)</td>
<td>(2.191)</td>
<td>(2.475)</td>
</tr>
<tr>
<td>Machiavelli</td>
<td>−0.0471***</td>
<td>−0.0325*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0148)</td>
<td>(0.0169)</td>
<td></td>
</tr>
<tr>
<td>Holt and Laury switch</td>
<td>−0.0691</td>
<td>−0.112</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0705)</td>
<td>(0.0857)</td>
<td></td>
</tr>
<tr>
<td>Allocation Part</td>
<td>−0.113</td>
<td>0.0945</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.657)</td>
<td>(0.728)</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>267</td>
<td>267</td>
<td>267</td>
</tr>
<tr>
<td>Wald Chi-squared</td>
<td>159</td>
<td>175</td>
<td>143</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>−384</td>
<td>−379</td>
<td>−409</td>
</tr>
</tbody>
</table>

Notes: Standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. Marginal effects are evaluated at the means. A random effect tobit model is estimated in columns (1) to (3). The dependent variable in columns (1) and (2) is the net donation of the allocation part, which is the amount the charity receives because of the donation. The dependent variable in column (3) is the net donation of the reporting part, which is the actual amount the charity receives because of the donation and not the reported amount. Under the rebate subsidy, the net donations is equal to the amount the subject decides to donate. Under the match subsidy, the net donation is equal to the amount the subject decides to donate times the subsidy rate. I include a constant, and dummies for charities and sessions in all regressions.
Table 12: Rebate versus match, proportion of misreporting

<table>
<thead>
<tr>
<th>(1) Price of giving €1 to charity</th>
<th>(2) Probability of detection</th>
<th>(3) Rebate underreporting</th>
<th>(4) Match exact reporting</th>
<th>(5) Match overreporting</th>
<th>(6) Fisher’s test p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>€0.80</td>
<td>4%</td>
<td>5</td>
<td>1</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.80</td>
<td>50%</td>
<td>8</td>
<td>2</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.50</td>
<td>4%</td>
<td>6</td>
<td>1</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.50</td>
<td>50%</td>
<td>9</td>
<td>1</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.25</td>
<td>4%</td>
<td>6</td>
<td>1</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.25</td>
<td>50%</td>
<td>7</td>
<td>1</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>19</td>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: n indicates the number of observations under a given price or probability. I compare whether the subjects underreport, overreport, or report the donation correctly under the rebate and match subsidy. I compare the proportion under a certain price of giving (e.g. €0.80) and probability (e.g. 4%).
Table 13: Rebate versus match, marginal effects (full table)

<table>
<thead>
<tr>
<th></th>
<th>(1) PROBIT</th>
<th>(2) HURDLE</th>
<th>(3) TOBIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable:</td>
<td>Overreport</td>
<td>ln(Overreport + 0.1)</td>
<td>ln(Overreport + 0.1)</td>
</tr>
<tr>
<td>Rebate</td>
<td>22.00***</td>
<td>−6.59</td>
<td>46.81***</td>
</tr>
<tr>
<td></td>
<td>(6.20)</td>
<td>(9.00)</td>
<td>(10.86)</td>
</tr>
<tr>
<td>Probability</td>
<td>−0.483***</td>
<td>−0.467*</td>
<td>−0.973***</td>
</tr>
<tr>
<td></td>
<td>(0.185)</td>
<td>(0.272)</td>
<td>(0.347)</td>
</tr>
<tr>
<td>Probability × Rebate</td>
<td>0.518**</td>
<td>0.213</td>
<td>1.057**</td>
</tr>
<tr>
<td></td>
<td>(0.249)</td>
<td>(0.383)</td>
<td>(0.470)</td>
</tr>
<tr>
<td>ln(Price)</td>
<td>0.258***</td>
<td>0.869***</td>
<td>0.655***</td>
</tr>
<tr>
<td></td>
<td>(0.0930)</td>
<td>(0.139)</td>
<td>(0.179)</td>
</tr>
<tr>
<td>ln(Price) × Rebate</td>
<td>−0.187</td>
<td>−0.499**</td>
<td>−0.461*</td>
</tr>
<tr>
<td></td>
<td>(0.122)</td>
<td>(0.193)</td>
<td>(0.236)</td>
</tr>
<tr>
<td>SVO</td>
<td>0.190***</td>
<td>−0.0838</td>
<td>0.430***</td>
</tr>
<tr>
<td></td>
<td>(0.0731)</td>
<td>(0.0714)</td>
<td>(0.157)</td>
</tr>
<tr>
<td>SVO × Rebate</td>
<td>−0.219***</td>
<td>0.0188</td>
<td>−0.456***</td>
</tr>
<tr>
<td></td>
<td>(0.0841)</td>
<td>(0.0714)</td>
<td>(0.173)</td>
</tr>
<tr>
<td>SVO²</td>
<td>−0.00856***</td>
<td>0.00125</td>
<td>−0.0187***</td>
</tr>
<tr>
<td></td>
<td>(0.00308)</td>
<td>(0.00340)</td>
<td>(0.00640)</td>
</tr>
<tr>
<td>(SVO × Rebate)²</td>
<td>0.00872**</td>
<td>0.00393</td>
<td>0.0180**</td>
</tr>
<tr>
<td></td>
<td>(0.00369)</td>
<td>(0.00794)</td>
<td>(0.00747)</td>
</tr>
<tr>
<td>SVO³</td>
<td>0.0000964***</td>
<td>0.000000082</td>
<td>0.000202***</td>
</tr>
<tr>
<td></td>
<td>(0.0000353)</td>
<td>(0.0000328)</td>
<td>(0.0000696)</td>
</tr>
<tr>
<td>(SVO × Rebate)³</td>
<td>−0.0000852*</td>
<td>−0.0000651</td>
<td>−0.000165*</td>
</tr>
<tr>
<td></td>
<td>(0.0000461)</td>
<td>(0.0000453)</td>
<td>(0.0000932)</td>
</tr>
<tr>
<td>Machiavelli</td>
<td>0.195**</td>
<td>−0.406*</td>
<td>0.475**</td>
</tr>
<tr>
<td></td>
<td>(0.0945)</td>
<td>(0.222)</td>
<td>(0.224)</td>
</tr>
<tr>
<td>Machiavelli × Rebate</td>
<td>−0.519***</td>
<td>0.194</td>
<td>−1.082***</td>
</tr>
<tr>
<td></td>
<td>(0.154)</td>
<td>(0.234)</td>
<td>(0.281)</td>
</tr>
</tbody>
</table>

Continued on next page
<table>
<thead>
<tr>
<th></th>
<th>(1) PROBIT</th>
<th>(2) HURDLE</th>
<th>(3) TOBIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machiavelli$^2$</td>
<td>$-0.00132^{**}$</td>
<td>$0.00291^{**}$</td>
<td>$-0.00314^{**}$</td>
</tr>
<tr>
<td></td>
<td>$(0.000626)$</td>
<td>$(0.00144)$</td>
<td>$(0.00147)$</td>
</tr>
<tr>
<td>(Machiavelli × Rebate)$^2$</td>
<td>$0.00315^{***}$</td>
<td>$-0.00220$</td>
<td>$0.00645^{***}$</td>
</tr>
<tr>
<td></td>
<td>$(0.000968)$</td>
<td>$(0.00152)$</td>
<td>$(0.00180)$</td>
</tr>
<tr>
<td>ln(Endowment)</td>
<td>$0.214$</td>
<td>$2.100$</td>
<td>$-3.804$</td>
</tr>
<tr>
<td></td>
<td>$(1.102)$</td>
<td>$(1.474)$</td>
<td>$(2.441)$</td>
</tr>
<tr>
<td>Holt and Laury switch</td>
<td>$0.601^{**}$</td>
<td>$-0.943$</td>
<td>$1.363^{**}$</td>
</tr>
<tr>
<td></td>
<td>$(0.253)$</td>
<td>$(0.585)$</td>
<td>$(0.593)$</td>
</tr>
<tr>
<td>(Holt and Laury switch)$^2$</td>
<td>$-0.0379^{**}$</td>
<td>$0.0649^{*}$</td>
<td>$-0.0815^{**}$</td>
</tr>
<tr>
<td></td>
<td>$(0.0165)$</td>
<td>$(0.0369)$</td>
<td>$(0.0386)$</td>
</tr>
<tr>
<td>Male</td>
<td>$0.272$</td>
<td>$0.154$</td>
<td>$0.776^{**}$</td>
</tr>
<tr>
<td></td>
<td>$(0.166)$</td>
<td>$(0.209)$</td>
<td>$(0.386)$</td>
</tr>
<tr>
<td>Allocation Part</td>
<td>$0.439$</td>
<td>$-1.452^{***}$</td>
<td>$0.734$</td>
</tr>
<tr>
<td></td>
<td>$(0.271)$</td>
<td>$(0.361)$</td>
<td>$(0.640)$</td>
</tr>
<tr>
<td>Donation Allocation Part</td>
<td>$-0.00923$</td>
<td>$-0.0352^{***}$</td>
<td>$-0.0333^{*}$</td>
</tr>
<tr>
<td></td>
<td>$(0.00838)$</td>
<td>$(0.0117)$</td>
<td>$(0.0181)$</td>
</tr>
<tr>
<td>Austria</td>
<td>$-0.366^{*}$</td>
<td>$-0.428^{*}$</td>
<td>$-0.725$</td>
</tr>
<tr>
<td></td>
<td>$(0.218)$</td>
<td>$(0.257)$</td>
<td>$(0.478)$</td>
</tr>
<tr>
<td>Third Countries</td>
<td>$-0.364^{*}$</td>
<td>$-0.605^{***}$</td>
<td>$-0.838^{*}$</td>
</tr>
<tr>
<td></td>
<td>$(0.190)$</td>
<td>$(0.216)$</td>
<td>$(0.436)$</td>
</tr>
<tr>
<td>Observations</td>
<td>534</td>
<td>231</td>
<td>534</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>$-216$</td>
<td>$-948$</td>
<td>$-677$</td>
</tr>
</tbody>
</table>

Notes: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Marginal effects are evaluated at the means. A random effect probit model is estimated in column (1), where the dependent variable is equal to one if the subject overreports the donation, and zero otherwise. A random effect tobit model is estimated as the second stage of a lognormal hurdle model in column (2). In column (3) a random effect tobit model is estimated. The dependent variable in columns (2) and (3) is the level of overreporting, where overreporting is the reported donation minus the actual amount donated. I include a constant, and dummies for charities and sessions in all regressions.
C Instructions Rebate Treatment

General Instructions

You have been asked to participate in a study of decision making. The study consists of **FOUR INDEPENDENT PARTS**. You will receive compensation for your participation, which will be paid to you in cash at the end of the study. The experiment is **funded by The Vienna Center for Experimental Economics, which is an institution of the University of Vienna**. Please do not talk during the study.

To insure your complete anonymity, you drew an ID number from a bag when entering the lab. One person drew a three-digit ID number. This person will be the monitor in this session. The monitor will receive the average payoff of the participants in this session. The monitor will verify that the instructions of all parts of the experiments will be followed. The monitor is in the room where the experiment is conducted during the experiment. The monitor cannot associate your decisions and your payoffs with your person. Also, you will not be informed about the decisions and the payoffs of the other participants.

The person responsible for your payment, called the experimenter, is located in a different room. The experimenter cannot associate your decisions and payoffs with your person, since the experimenter never faces the participants. **Your anonymity towards the experimenter will always be insured, also after the experiment.** An assistant guides and assists the monitor, and will answer your questions. The assistant is located in the room where the experiment is conducted and does not leave this room until the end of the experiment. The assistant will never see your ID numbers. If you have questions during the experiment, hide your ID number and raise your hand. The assistant will come to your seat.

Your earnings will be determined at the end of the experiment, after you have finished all four parts. Your anonymity is also insured when you confirm your payment. The monitor will distribute your earnings in a sealed envelope which will be labeled on the front with your ID number. How the anonymous payment is made, is explained on the next page.
Anonymous Payment

At the end of the experiment, you will receive a receipt where you confirm your payment. This receipt needs to be sent to the accounting department of the University of Vienna because of bookkeeping regulations. Nevertheless, we want to maintain your anonymity towards all persons in the laboratory. For this reason, the payment will be done in the following way.

1. You will receive a receipt that has the following text on the front side:

   "I confirm with my signature on the back side of this receipt to have received the amount of XX.XX EUR.

   I participated in Session XX of Experiment 2013_005. The financial summary of this session will arrive separately at DLE Finanzwesen und Controlling."

   The back side of the receipt will state:

   "Name_ _ _ _ _ _

   Place, date_ _ _ _ _ _ Signature_ _ _ _ _ _"

2. The experimenter will put the receipt and your money in an envelope. The experimenter will put a sticker with your ID number on top of the envelope and will seal the envelope.

3. The experimenter will hand over the envelope for the payment, and a new empty, colored envelope to the monitor. (The experimenter will not enter the room where the experiment is conducted.) The colored envelope will have the address of the accounting department of the University of Vienna on top of it.

4. You will receive the envelopes from the monitor.

5. You will be asked to take your money out of the envelope and to sign the back of the receipt. You should also remove the sticker with your ID number from the envelope.

6. The monitor will check the signature. IMPORTANT: The monitor will not see the front side of the receipt. That is, the monitor will not know how much money you earned.

7. You will be asked to put the signed receipt in the new colored envelope and to seal the envelope.

8. The monitor and the experimenter will go to the nearest mailbox and will drop the envelopes in the mailbox for these receipts to be sent to the accounting department.
Selection of Charity

- In part 1 and 2 of the experiment, you are asked to allocate money between yourself and a charity organization.

- Before you start with part 1 of the experiment, you are going to see a list of ten charities with a brief description of the services each provides on the computer screen. You are asked to select one, and only one, of these ten charities.

- You will earn money in either part 1 or part 2 of the experiment. Otherwise, part 1 and part 2 are completely unrelated! After you have finished all four parts of the experiment, you will draw a chip numbered from 1 to 100 to determine which part is relevant for your payment. If the drawn chip number is between 1 and 50, part 1 is relevant for your payment. If the drawn chip number is between 51 and 100, part 2 is relevant for your payment.

- In any case, you will earn money for part 3 and part 4 of the experiment.
# Part 1

## General Description of Part 1

In part 1 of the experiment, you are asked to allocate money between yourself and the charity organization you selected. For each allocation problem you are given an endowment of €30 by the experimenter. You are asked to allocate this money between yourself and the charity. For every euro you pass to the charity, the experimenter will give money to you. The amount of money the experimenter gives to you differs in the three allocation problems.

1. In one problem, the experimenter will give to you €0.20 for every euro you pass to the charity. For instance, if you pass €X to the charity (where X can contain cent amounts), the experimenter will give to you €0.20 times X.

2. In one problem, the experimenter will give to you €0.50 for every euro you pass to the charity. For instance, if you pass €X to the charity (where X can contain cent amounts), the experimenter will give to you €0.50 times X.

3. In one problem, the experimenter will give to you €0.75 for every euro you pass to the charity. For instance, if you pass €X to the charity (where X can contain cent amounts), the experimenter will give to you €0.75 times X.

Note that you will see these problems in a random order. For instance, it is possible that in the first problem, the experimenter will give to you €0.75 for every euro you pass to the charity; in the second problem, €0.20 for every euro you pass; and in the third problem, €0.50 for every euro you pass.

**Important Note:** In all decisions you can choose any amount to keep and any amount to pass, but the amount you keep plus the amount you pass must equal your endowment of €30.

## Payment of Part 1

Before you start making your three choices, we explain to you exactly how these choices will affect your earnings.

- Remember from the instructions at the beginning that **you will earn money in either part 1 or part 2 of the experiment.** Otherwise, part 1 and part 2 are completely unrelated! After you have finished all four parts of the experiment, you will draw a chip numbered from 1 to 100 to determine which part is relevant for your payment. If the drawn chip number is between 1 and 50, part 1 is relevant for your payment. If the drawn chip number is between 51 and 100, part 2 is relevant for your payment.

- In part 1 of the experiment, you are asked to make three choices and record these in the two final columns of the table with the three allocation problems that you will see on the computer screen. However, only one of the
three choices will be used in the end to determine your earnings if part 1 of the experiment will be paid to you. We will determine your earnings in the following way. After you have finished all four parts of the experiment, the monitor and the assistant will come to your desk. Then, you will be asked to **draw a chip numbered from 1 to 3 from a bag held by the monitor to select which of the three problems, i.e. which of the allocation decisions, determines your payment and the payment of the charity.**

- If the chip number is 1, problem 1 will determine the payment.
- If the chip number is 2, problem 2 will determine the payment.
- If the chip number is 3, problem 3 will determine the payment.

After you have drawn the chip number, the assistant will type in your chip number on the password-protected computer screen. Note that each problem has an equal chance of being selected in the end. Even though you will make three decisions, only one of these will end up affecting your earnings. However, you will only know which problem will be chosen for your payment after you have finished all four parts of the experiment.

- If part 1 is relevant for your payment, **you will be paid in cash** according to the amount you decided to pass to the charity in that problem (i.e. you will get the money you keep, plus the money the experimenter gives additionally to you).

- The experimenter will also calculate the money passed to the charity organization (i.e. the charity will get the money you pass to the charity) after you have finished all four parts of the experiment. If part 1 is relevant for your payment, the **charity organization you selected will receive an online bank transfer** according to the amount you decided to pass to it. The monitor will verify the bank transfer.

**Summary of Part 1**

- You are asked to make three choices in this part of the experiment.
- For each decision problem you are asked to choose how much money you pass to the charity you selected and how much money you keep for yourself.
- For every euro you pass to the charity, the experimenter will give to you either €0.20, €0.50, or €0.75, depending on the allocation decision as explained above.
- You may choose different allocations in different problems, and you may revise your decisions and make them in any order. When you have made your final decisions, click on “OK” and wait until the experiment continues.
Understanding Part 1

Part 1 of the experiment will start shortly. Before you start with the allocation problems of part 1, you are asked to answer some questions on the computer. With these questions, we just want to make sure that you have complete understanding of how the allocation problem works.

- Your answers will not count towards any payment. You should nevertheless take the questions seriously, since you may gain experience in answering these questions. This experience helps you to make decisions when part 1 starts.

- You are going to see a table with three allocation problems. Note that the numbers that occur in this example on the screen have been randomly generated. They are not meant as examples of "good" or "bad" choices. They only serve to illustrate how part 1 works.

- Do not worry if you have difficulties with finding the answers. The computations you are asked to do here will be done by the computer during the experiment. We will explain the solutions later on.

Are there any questions?

Now you may begin answering the questions on the computer. Remember that you are not allowed do talk with anyone during the entire experiment; raise your hand if you have a question.
Part 2

General Description of Part 2

In part 2 of the experiment, you are asked to make 1. an allocation decision and 2. an information decision.

1. **You are asked to allocate money between yourself and a charity organization.** You are going to see a table with three allocation problems on the *Decision Screen*. You are asked to make an allocation decision for each problem. For each allocation problem you are given an endowment of €30 by the experimenter. You are asked to allocate this money between yourself and the charity you selected.

2. **You are asked to inform the experimenter about your allocation on the Information Screen.** For every euro you inform the experimenter to have passed to the charity, the experimenter will give money to you. The amount of money the experimenter gives to you differs in the problems and is either €0.20, €0.50, or €0.75 as explained below.

- On the *Decision Screen*, you are going to see a table with three allocation problems. You are asked to make an allocation decision for each problem and record these decisions in the two final columns of the table.

- On the *Information Screen*, you are going to see a table with six problems. On the *Information Screen*, you will be asked to inform the experimenter about your allocation made on the *Decision Screen*. You will make six decisions and record these in the two final columns, but only one of the six choices will be used in the end to determine your earnings.

- After you finished all four parts of the experiment, you will draw a chip numbered from 1 to 100 to determine whether your information on the *Information Screen* (not on the *Decision Screen*) will be checked or not. Your information will be checked if your drawn chip number is lower than or equal to a threshold number. This threshold number differs in the problems and is either 4 or 50, as explained below.

- If your information is checked, the experimenter will give money to you according to the amount you decided to pass to the charity (*Decision Screen*).

- You have to pay a fee to the experimenter if, and only if, your information is checked AND the amount you inform the experimenter to have passed to the charity (*Information Screen*) is higher than the amount you decided to pass to the charity (*Decision Screen*). The fee is some amount of money multiplied by the difference between the amount you inform the experimenter to have passed to the charity (on the *Information Screen*) and the amount you decided to pass to the charity (on the *Decision Screen*). The amount of money that is multiplied differs in the problems and is either €0.06, €0.15, or €0.23, as explained below.
Details of Part 2

The amount of money the experimenter gives to you and the possible fee differs in the problems:

1. In one problem, the experimenter will give to you €0.20 for every euro you inform the experimenter to have passed to the charity. For instance, if you inform the experimenter to have passed €X to the charity (where X can contain cent amounts), the experimenter will give to you €0.20 times X.

   The possible fee in this case is €0.06 multiplied by the difference between the amount you inform the experimenter to have passed to the charity (on the Information Screen) and the amount you decided to pass to the charity (on the Decision Screen).

2. In one problem, the experimenter will give to you €0.50 for every 100 cents you inform the experimenter to have passed to the charity. For instance, if you inform the experimenter to have passed €X to the charity (where X can contain cent amounts), the experimenter will give to you €0.50 times X.

   The possible fee in this case is €0.15 multiplied by the difference between the amount you inform the experimenter to have passed to the charity (on the Information Screen) and the amount you decided to pass to the charity (on the Decision Screen).

3. In one problem, the experimenter will give to you €0.75 for every euro you inform the experimenter to have passed to the charity. For instance, if you inform the experimenter to have passed €X to the charity (where X can contain cent amounts), the experimenter will give to you €0.75 times X.

   The possible fee in this case is €0.23 multiplied by the difference between the amount you inform the experimenter to have passed to the charity (on the Information Screen) and the amount you decided to pass to the charity (on the Decision Screen).

Note that you will see these problems in a random order. For instance, it is possible that in the first problem, the experimenter will give to you €0.75 for every euro you inform the experimenter to have passed to the charity; in the second problem, €0.20 for every euro you inform the experimenter; and in the third problem, €0.50 for every euro you inform the experimenter.

Important Note: In all decisions you can choose any amount to keep and any amount to pass, but the amount you keep plus the amount you pass must equal your endowment of €30.
The threshold that determines whether your information will be checked or not differs in the problems:

1. In three problems, your information will be checked if your drawn chip number is lower than or equal to 4.

2. In three problems, your information will be checked if your drawn chip number is lower than or equal to 50.

You will see these threshold numbers in a random order. For instance, it is possible that the threshold number is 50 in the first three problems, and 4 in the last three problems.

Important Note: Whether your information will be checked or not is independent of the information you provide on the Information Screen.

Payment of Part 2

Before you start making your three choices, we explain to you exactly how these choices will affect your earnings.

• Remember from the instructions at the beginning that you will earn money in either part 1 or part 2 of the experiment. Otherwise, part 1 and part 2 are completely unrelated! After you have finished all four parts of the experiment, you will draw a chip numbered from 1 to 100 to determine which part is relevant for your payment. If the drawn chip number is between 1 and 50, part 1 is relevant for your payment. If the drawn chip number is between 51 and 100, part 2 is relevant for your payment.

• In part 2 of the experiment, you are asked to make six choices on the Information Screen. However, only one of the six choices will be used in the end to determine your earnings if part 2 of the experiment will be paid to you. We will determine your earnings in the following way. After you have finished all four parts of the experiment, the monitor and the assistant will come to your desk. Then, you are asked to draw a chip numbered from 1 to 6 from a bag held by the monitor to select one of the six problems on the Information Screen to determine your payment and the payment of the charity.

  – If the chip number is 1, problem 1 will determine the payment.
  – If the chip number is 2, problem 2 will determine the payment.
  
  ...

  – If the chip number is 6, problem 6 will determine the payment.

After you have drawn the chip number, the assistant will type in your chip number on the password-protected computer screen. Note that each problem on the Information Screen has an equal chance of being selected in the end. Even though you will make six decisions on the Information Screen, only one of these will end up affecting
your earnings. However, you will only know which problem will be chosen for your payment after you have finished all four parts of the experiment.

- If part 2 is relevant for your payment, you will be paid in cash in the selected problem.

- If your information is not checked, your payment will be the following:

  You will receive the money you decided to keep (Decision Screen) PLUS the money the experimenter gives to you according to the amount you inform the experimenter to have passed to the charity (Information Screen).

- If your information is checked, your payment will be the following:

  You will receive the money you decided to keep (Decision Screen) PLUS the money the experimenter gives to you according to the amount you decided to pass to the charity (Decision Screen). If your information is checked AND the amount you inform the experimenter to have passed to the charity (Information Screen) is higher than the amount you decided to pass to the charity (Decision Screen), you also have to pay a fee. (Note, this fee will be subtracted from your earnings.)

- The experimenter will also calculate the money passed to the charity organization (i.e. the money you decided to pass to the charity) after you have finished all four parts of the experiment. If part 2 is relevant for your payment, the charity organization you selected will receive an online bank transfer according to the amount you decided to pass to it. The monitor will verify the bank transfer. Note, the charity will always receive the money you decided to pass to the charity as you will have indicated on the Decision Screen.

Summary of Part 2

1. You are asked to make three choices on the Decision Screen. For each decision problem, you are asked to choose how much money you pass to the charity and how much money you keep for yourself.

2. You are asked to make six choices on the Information Screen. For each decision problem, you are asked to inform the experimenter about how much money you have passed to the charity and how much money you have decided to keep for yourself.

- For every euro you inform the experimenter to have passed to the charity, the experimenter will give to you either €0.20, €0.50, or €0.75 (depending on the problem as explained above).
• If your drawn chip number is lower than or equal to either 4 or 50 (depending on the problem as explained above), the information you provide on the Information Screen will be checked.

• You have to pay a fee to the experimenter if, and only if, there is a check AND the amount you inform the experimenter to have passed to the charity (on the Information Screen) is higher than your amount you decided to pass to the charity (on the Decision Screen).

• The possible fee is either €0.06, €0.15, or €0.23 (depending on the problem as explained above) multiplied by the difference between the amount you inform the experimenter to have passed to the charity (Information Screen) and the amount you decided to pass to the charity (Decision Screen).

• You may choose different allocations in different problems, and you may revise your decisions and make them in any order. When you have made your final decisions, click on “OK” and wait until the experiment continues.

Understanding Part 2

Part 2 of the experiment will start shortly. Before you start with part 2, you are asked to answer some questions on the computer. With these questions, we just want to make sure that you have complete understanding of how the allocation and information decisions in part 2 work.

• Your answers will not count towards any payment. You should nevertheless take the questions seriously, since you may gain experience in answering these questions. This experience helps you to make decisions when part 2 starts.

• You are going to see two screens, a Decision Screen and an Information Screen. First, on the Decision Screen you are going to see a table with three problems. Then, on the Information Screen you are going to see a table with six problems.

• Note that the numbers that occur in the examples on the screens have been randomly generated. They are not meant as examples of "good" or "bad" choices. They only serve to illustrate how part 2 works.

• Do not worry if you have difficulties with finding the answers. The computations you are asked to do here will be done by the computer during the experiment. We will explain the solutions later on.

Are there any questions?

Now you may begin answering the questions on the computer. Remember that you are not allowed do talk with anyone during the entire experiment; raise your hand if you have a question.
Part 3

General Description of Part 3

- In part 3 of the experiment, you are going to see a table with a list of ten choices between two options.
- You have the choice between Option A (left column) and Option B (right column) in each decision row and you are asked to indicate the option you prefer by either clicking on Option A or Option B.
- However, you are just asked to click on one of the decision rows of the table with the understanding that if you click on Option A or Option B in any row, all rows above your selected row are automatically selected as Option A (to count as your choice), and all rows below your selected row are automatically selected as Option B (to count as your choice).
- Your preferred options will have an orange background. You will be able to revise your choice until you click "OK".

Payment of Part 3

Before you start making your ten choices, we explain to you how these choices will affect your earnings.

- After you have finished all four parts of the experiment, the monitor and assistant will come to your desk. Then, you will draw a chip numbered from 1 to 10 from a bag to select which of the ten rows determines your payment. If the drawn chip number is 1, the first row will be chosen for your payment.
  - If the chip number is 1, row 1 will determine the payment.
  - If the chip number is 2, row 2 will determine the payment.
  ...
  - If the chip number is 10, row 10 will determine the payment.

That is, only one of the ten rows will end up affecting your earnings. Note that each of the ten rows has an equal chance of being selected in the end. Even though you will make ten decisions, only one of these will end up affecting your earnings. However, you will only know which decision row will be chosen for your payment after you have finished all four parts of the experiment.

- Then, you draw a second chip from 1 to 100 to determine your payment for the option you chose in the selected row (see the description of Option A and Option B in each row on the screen).
- After you have drawn the chip number, the assistant will type in your chip number on the password-protected computer screen.
• That is, your payment from this part is determined by your choice in the selected row and the drawn second chip number.

Summary of Part 3

• You have the choice between Option A and Option B in each of the ten decision rows.

• However, if you click on Option A or Option B in any row, all rows above your selected row are automatically selected as Option A, and all rows below your selected row are automatically selected as Option B.

• Your preferred options will have an orange background.

• You will draw a chip numbered from 1 to 10 to determine which of the ten rows will be selected for your payment. Then, you will draw a second chip from 1 to 100 to determine your payment for the option you chose in the selected row.

Understanding Part 3

Part 3 of the experiment will start shortly. Before you start with part 3, you are asked to answer some questions on the computer. With these questions, we just want to make sure that you have complete understanding of how the problem in part 3 works.

• Your answers will not count towards any payment. You should nevertheless take the questions seriously, since you may gain experience in answering these questions. This experience helps you to make decisions when part 3 starts.

• You are going to see a table with a list of ten choices between two options. Note that the choices of Option A and Option B that occur in this example on the computer screen are randomly generated. The choices are not meant as examples of "good" or "bad" choices. They only serve to illustrate how part 3 works.

• Do not worry if you have difficulties with finding the answers. The computations you are asked to do here will be done by the computer during the experiment. We will explain the solutions later on.

Are there any questions?

Now you may begin answering the questions on the computer. Remember that you are not allowed do talk with anyone during the entire experiment; raise your hand if you have a question.
Part 4 and Questionnaire

Description of Part 4

- In part 4 of the experiment, you have been randomly matched by the computer with another person in this room. This person will be referred to as person A (see Figure 1). Person A will be randomly matched with somebody else in this room (not you!), namely person B. At the same time, person C, who is neither person A nor person B, is matched with you. You will not be informed about who this other persons are, and the other persons will not be informed about you. All of your choices are completely confidential.

- You are asked to make six decisions about distributing money between you and person A. For this purpose, you are asked to answer six questions on the computer. In each question, you are asked to distribute money between yourself and person A. Please select your preferred distribution by clicking on the respective position on the line for each of these questions. You can select only one distribution for each question. Your decisions will determine amounts of money to be paid to you and person A.

- At the same time, person C is asked to make six decisions about distributing money between person C and you. The decisions of person C will determine amounts of money to be paid to you and person C.

- In short, you give money to person A, person A gives to person B, person B gives to person C, and person C gives money to you.

- There are no right or wrong answers, this is all about personal preferences. After you have made up your mind, click on your preferred option. As you will see, with your choices you determine both the amount of money you receive as well as the amount of money person A receives.

Payment of Part 4

Before you start making your six choices, we explain to you exactly how these choices will affect your earnings for this part of the experiment.
• After you have finished this part of the experiment, the computer will randomly select one of the six decisions you made for your payment and the payment of person A. At the same time, the computer will randomly select one of the six decisions person C made for person C’s payment and for your payment.

• In short, your payment is the money you keep plus the money person C gives to you. Remember that the person that you are giving money (person A) differs from the person that is giving money to you (person C).

Questionnaire and Payment

• You are asked to fill in a questionnaire. Please note that this questionnaire will be used for research purposes only. If you finish the questionnaire, you will get €3 for filling in the questionnaire.

• While you are completing the questionnaire, the experimenter will determine your compensation. You will receive your compensation in an anonymous way, as explained at the beginning of the experiment. Please, take a look at the General Instructions that you received at the beginning of the experiment. Here, we just summarize the most important parts of these instructions.

• Remember, you are asked to sign the back side of the receipt. Then, you are asked to put the signed receipt in the new colored envelope and you are asked to to seal the envelope.

• While you are completing the questionnaire, the experimenter will also calculate the total money passed to each of the charities. The experimenters will make out checks for these amounts, and the monitor will place them in addressed and stamped envelopes.

• Note, the monitor will not see how much each individual passed to the charity. The monitor observes only the aggregated amounts passed to the charity. The monitor and the experimenter will go to the nearest mailbox and drop the envelope in the mailbox. After the monitor has signed a form that verifies that the study was conducted according to instructions, the monitor is free to leave.

Are there any questions?

Please do not talk with anyone while filling out the questionnaire; raise your hand if you have a question.
Questionnaire

Motivation Questionnaire

Please evaluate the following statements:
1=strongly disagree, 2=somewhat disagree, 3=slightly disagree, 4=no opinion, 5=slightly agree, 6=somewhat agree, 7=strongly agree

1. The instructions of part 1 were clearly formulated. (Please take the instructions of part 1 if you do not remember the content of part 1.)

2. The instructions of part 2 were clearly formulated. (Please take the instructions of part 2 if you do not remember the content of part 2.)

3. The instructions of part 3 were clearly formulated. (Please take the instructions of part 3 if you do not remember the content of part 3.)

4. The instructions of part 4 were clearly formulated. (Please take the instructions of part 4 if you do not remember the content of part 4.)

5. The procedures followed in this experiment preserved my anonymity.

6. The money I passed to my selected charity will be transferred to the charity.

7. I received plenty of time to carry out the task.

8. I was motivated to do well on the task.

9. The task was fun to perform, motivating me to achieve a payoff as high as possible.

10. I considered the experiment as fairly complex.

11. My payoff is determined not only by my own decision, but also by the decisions of the other players.

12. When making my decision, I thought about what other players might do.

13. Finally, please describe how you generated your decisions in the experiment.

Demographic Data Questionnaire

1. Birth: In what year were you born?

2. Household Budget: Who in your household would you consider to be primarily in charge of expenses and budget decisions? 1= self, 2=spouse, 3=parent, 4=other(specify), 5=do not know.

3. Gender: What is your gender? 1=male, 2=female

4. Relationship Status: What is your relationship status? 1=married, 2= in a relationship, 3=single, 4=divorced, 5=widowed, 6=other.
5. Employment: How would you best describe your current employment situation? 1=full-time employment outside of university, 2=part-time employment outside of university, 3=student only, 4=work at university as research assistant, 5=other.

6. Household Income: Please indicate the category that best describes your household income from all sources before all taxes in 2012. 1=5,000 and under, 2=5,001-10,000, 3=10,001-20,000, 4=20,001-30,000, 5=30,001-45,000, 6=45,001-60,000, 7=60,001-75,000, 8=75,001-100,000, 9=over 100,001, 10=Don’t know.

7. Number in Household: How many people are in your household? (Yourself and those who live with you and share your income and expenses)

8. Own Income: Your own income from all sources before taxes in 2012. Do not include income from other household members. 1=5,000 and under, 2=5,001-10,000, 3=10,001-20,000, 4=20,001-30,000, 5=30,001-45,000, 6=45,001-60,000, 7=60,001-75,000, 8=75,001-100,000, 9=over 100,001, 10=Don’t know.

9. Income Source: How do you receive your income? 1=fixed source (salary, pension), 2=hourly rate, 3=hourly rate plus tips, 4=loans/scholarships, 5=parents, 6=other.

10. Student Status: What is your student status? 1=full-time student, 2=part-time student taking less than 10 hours per semester, 3=other, non-student.

11. Study: What is your major? Indicate your field of study.

12. Years of study so far.

13. Which of the following programs are you following? 1=bachelor 2=diploma 3=master 4=doctorate 5=faculty or other non-student.

14. Tuition Fee: Do you pay tuition fee (not ÖH fee)? 1=yes, 0=no

15. Tuition Source: Who is primarily responsible for your living expenses while you are attending your studies? 1=self, 2=parent, 3=shared between self and parent, 4=scholarship/grant, 5=loans, 6=combination/other, 7=not applicable.


17. Country background: Please state the country where you were raised. (1=Austria, 2=other EU country or Switzerland, Liechtenstein, Norway, Iceland, 3 other European country 4 other)

18. Have you ever had a course related to game theory or decision theory?

Machiavellian IV personality test

In the following you will find a list of statements. Please read them carefully and answer them to what extent you agree or disagree. Even if in some cases you would like to say that your answers depend on the circumstances, you should
only choose one of the answers. Since all your responses are anonymous, you can answer freely. There is nobody on whom you need to make a good impression. The results can be only used if you answer very honestly.

1=strongly disagree, 2=somewhat disagree, 3=slightly disagree, 4=no opinion, 5=slightly agree, 6=somewhat agree, 7=strongly agree

1. Never tell anyone the real reason you did something unless it is useful to do so.

2. The best way to handle people is to tell them what they want to hear.

3. One should take action only when sure it is morally right.

4. Most people are basically good and kind.

5. It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.

6. Honesty is the best policy in all cases.

7. There is no excuse for lying to someone else.

8. Generally speaking, people will not work hard unless they are forced to do so.

9. All in all, it is better to be humble and honest than to be important and dishonest.

10. When you ask someone to do something for you, it is best to give the real reasons for wanting it rather than giving reasons which carry more weight.

11. Most people who get ahead in the world lead clean, moral lives.

12. Anyone who completely trusts anyone else is asking for trouble.

13. The biggest difference between most criminals and other people is that the criminals are stupid enough to get caught.

14. Most people are brave.

15. It is wise to flatter important people.

16. It is possible to be good in all respects.

17. Barnum was wrong when he said that there’s a sucker born every minute.

18. It is hard to get ahead without cutting corners here and there.

19. People suffering from incurable diseases should have the choice of being put painlessly to death.

20. Most people forget more easily the death of their parents than the loss of their property.