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ABSTRACT

The Social Value of a SARS-CoV-2 Vaccine: Willingness to Pay Estimates from Four Western Countries*

SARS-CoV-2 vaccines give rise to positive externalities on population health, society and the economy in addition to protecting the health of vaccinated individuals. Hence, the social value of such a vaccine exceeds its market value. This paper estimates the willingness to pay (WTP) for a hypothetical SARS-CoV-2 vaccine in four countries, namely the United States (US), the United Kingdom (UK), Spain and Italy during the first wave of the COVID-19 pandemic when no specific vaccine had been approved nor subsidised. WTP estimates are elicited using a payment card method to avoid 'yea saying' biases, and we study the effect of protest responses, sample selection bias, as well as the influence of trust in government and risk exposure when estimating the WTP. Our estimates suggest evidence of an average value of a hypothetical vaccine of 100-200 US dollars once adjusted by purchasing power parity (PPP). Estimates are robust to a number of checks.

JEL Classification: H23, H42, I18

Keywords: social value, willingness to pay, vaccine value, vaccine attitudes, payment card, sample selection, protest responses, positive externalities, COVID-19

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1 Introduction

Vaccine preventable diseases remain among the leading causes of illness and death across the world, making vaccination critical to protect individuals' health. However, their social value exceeds the private of these individual 'protective effects'. This is because vaccines exert large externalities on others in society, including the unvaccinated. For instance, in terms of health security alone, vaccine take-up increases the probability of reaching herd immunity (i.e., point at which a sufficient proportion of the population is immune to a disease thus conveying 'community' protection to susceptible individuals), which has direct impacts on others by reducing contagion, preventing morbidity and mortality, and diminishing the need for restrictions that hamper economic activity and social life. Vaccine availability does not, however, necessarily entail widespread vaccination demand as some share of the population might be unwilling to vaccinate. Hence, the population perceives a social value of vaccination and this social value depends, in part, on individual level preferences. Hence, social and individual estimates of the social value of a vaccine might not necessarily coincide.

The gravity of the deadly COVID-19 pandemic spurred rapid investment in vaccine development, with the first SARS-CoV-2 vaccine candidate entering clinical trials a mere 66 days after the virus was initially sequenced. Subsequently, multiple SARS-CoV-2 vaccines have been found to be safe and produce a sufficient immune response to gain approval for population-level vaccination with very few exclusionary criteria. However, the value of a vaccine to individuals and society is impacted by individual perception on multiple levels (e.g., the vaccine itself, the development process, regulatory agencies). Although some vaccines such as the H1N1 vaccine during the 2009 influenza pandemic are highly accepted

(Blasi et al. 2012), the World Health Organization (WHO) declared vaccine hesitancy as one of the top ten global health threats in 2019, and vaccine hesitancy and acceptability is the variability in the social value of a vaccine as perceived by individuals themselves. This paper elicits the willingness to pay (WTP) for a hypothetical vaccine during the first wave of the COVID-19 pandemic in four western countries, namely the United States (US), the United Kingdom (UK), Spain and Italy. That is, using a payment card method, we estimate a monetary equivalent value of a SARS-CoV-2 vaccine (compensating variation) of a vaccine independently of its efficacy and characteristics. Given that individuals suffer from embedding effects, the elicitation of the WTP is unlikely to vary with vaccine characteristics (Jones-Lee et al. 1995). WTP estimates are important to guide vaccine pricing and reimbursement decisions in different countries and settings.

The next section reports how the study contributes to the related literature. Section 3 describes the data, section 4 specifies the empirical strategy followed, section 5 reports the results, section 6 provides robustness checks to the estimation, and a final section concludes.

2 Related Literature

2.1 Vaccine hesitancy and mistrust

The uptake of vaccines is often challenged by individuals and groups who refuse to vaccinate on religious, philosophical, or socio-political grounds (Wolfe & Sharp 2002) and thus are classified as 'vaccine hesitant' (Opel et al. 2011). Risk-seeking and less pro-social individuals (Betsch et al. 2013) are less likely to vaccinate, and women are generally less likely to support vaccinations than men (Neumann-Böhme et al. 2020), though there is considerable variation based on the specific vaccine and across age ranges. An important factor that impacts vaccine hesitancy is trust in medicine and healthcare providers (Thomson et al. 2016), which varies across socio-demographic groups and country.

An underlying driver of immunization uptake is concern about the value of vaccines (Gust et al. 2008) and especially their side effects and safety (Neumann-Böhme et al. 2020). Limited knowledge of what vaccines do, and opposition from trusted sources (e.g., family and friends) has been shown to play an important role in some countries (Rainey et al. 2011). Trust in information from governments has been shown to be positively related to SARS-CoV-2 vaccine acceptance in a 19-country survey (Lazarus et al. 2020). Similarly, trust with key stakeholders such as the WHO and health care systems may be especially important. An environment of distrust in institutions and "experts" additionally can hamper the public acceptability of vaccines. Evidence suggest that trust in healthcare professionals has a key role in attitudes to vaccination (Benin et al. 2006). Indeed, trust plays a central role as knowledge about vaccines is generally limited both among individuals who take vaccines as well as those who refuse them (Cooper et al. 2008).

2.2 Vaccination intentions

A recent survey across 19 countries found that 71.5% of participants would be very or somewhat likely to receive a SARS-CoV-2 vaccine with higher willingness to vaccinate in the Asian and middle-income countries sampled (Lazarus et al. 2020). Consistently, Neumann-Böhme et al. (2020) estimate that 73.9% of respondents from a number of European countries (Denmark, France, Germany, Italy, Portugal, the Netherlands, and the UK) stated that they would be willing to get vaccinated. Evidence from an Australian survey on attitudes about COVID-19 suggests that ∼86% intend to get the vaccine, and almost half (44%) of those who would not, were more likely to believe the threat of COVID-19 has been exaggerated (Dodd et al. 2020). Sherman et al. (2020) showed that in July ∼64% of the UK population were willing to be vaccinated when a COVID-19 vaccine becomes available. In addition, US survey data of 1,000 adults in April 2020 found 57.6% intended to be vaccinated (Fisher et al. n.d.).

2.3 Willingness to pay estimate methods and findings

Previous research has estimated the WTP for a number of hypothetical vaccines (Bishai et al. 2004, Harapan, Wagner, Yufika, Winardi, Anwar, Gan, Setiawan, Rajamoorthy, Sofyan, Vo, Hadisoemarto, Müller, Groneberg & Mudatsir 2020); however, the emergence of the global COVID-19 pandemic has put the estimation of an accurate WTP estimate at the core of public policy research. WTP is central to understanding consumer preferences even when a good is purchased by a third party such as health insurer or health system. The measurement of WTP for a global public good across several countries requires using a specific instrument to capture the welfare effect of the provision of such public good. Stated preference techniques use surveys to elicit preferences and reveal individuals' WTP values for either non-market resources or goods that have not been valued by the market such as vaccines, which have large externalities and are most often provided or subsidized by governments.

This is a common technique to use in the absence of market data (Carson & Hanemann 2006). WTP elicitation often uses some form of a (single or double bounded) discrete choice approach and bidding game simulations. These approaches are unlikely to produce precise estimates as individuals are subject to 'yea saying', starting point bias, and to holding a set of inconsistent and strong assumptions about underlying preferences required for such approaches (Carson & Hanemann 2006). This results from the fact that WTP estimates for a vaccine are subject to value uncertainty, especially when some individuals are potentially vaccine hesitant.

An alternative methodology proposed in the context of value uncertainty is the payment card (PC) method where respondents are presented a range of bids and asked to circle the value representing their maximum WTP (Mitchell & Carson 1989). The true value is expected to lie in the lower and higher interval if such a value exists. Individuals are expected to consider a range of values in which their WTP would lie, so there are limited strategic responses, and thus individuals are more likely to state the true WTP value (Ready et al. 2001). PC methods are not absent of biases such as potential framing effects of WTP values and, more generally, biases from PC design (Cameron & Huppert 1989, Mitchell & Carson 1989). They have, however, been advocated in health care decision making (Donaldson et al. 1997) and research in health care does not find evidence of the attributed design biases when using PCs (Ryan et al. 2004). Finally, to avoid mid-point biases one can employ interval regression methods and use a wider range of values. Following previous work, we do not adopt an increasing PC format but offer increasing ranges of values in boxes to tick (Smith 2006).

Existing studies estimating the willingness to pay for SARS-COV-2 vaccines are limited in scope and follow a referendum format to elicit WTP estimates. Some evidence from surveys that did not attempt to estimate the willingness to pay for a vaccine as such found that 50% of US adults would pay US $50 for the vaccine while 25% would pay $75 (Crane et al. 2020). Using a referendum format in Indonesia, which is sensitive to 'yea saying', the estimated value was US $57.20 (Harapan, Wagner, Yufika, Winardi, Anwar, Gan, Setiawan, Rajamoorthy, Sofyan, Vo, Hadisoemarto, Müller, Groneberg & Mudatsir

2020). However, to our knowledge no other previous study has elicited a WTP value on the United States. Another study used a double bounded referendum format in Chile, and estimates varied between US $252-31 Cerda & García (2021). Finally, a study in Malaysia using similar methods elicited a value of US $30.66 (Wong et al. 2020)

3 Data

We designed a survey to be fielded by IPSOS/MORI using their Online Omnibus panel. The survey asked 4,313 residents of the Italy (n=1,051), Spain (n=1,079), the United Kingdom (UK) (n=1,098) and the United States (US) (n=1,085) about their personal experience, risk perceptions, behaviors, financial impacts from the pandemic and intention to vaccinate against COVID-19. The survey was run from 10 -14 July 2020. The sample is representative at the national level and is stratified. Income and education were collected using different scales in each country. We harmonised income values by using predictions from an interval regression, run separately in each country, with country-specific income classes as dependent variables and age, employment status, and region of residence as predictors. Then, in order to have comparable values, we multiplied income values for countries different from the US by the exchange rate and by the PPP index. For education, we assigned to each respondent the number of years necessary to obtain the highest reported educational degree and then we categorized this variable in three classes identifying individuals with less than 8, or with 8 to 13, or with 14 or more years of education. Finally, since also our main outcome variable, i.e. WTP, is recorded in intervals and local currencies, hence we decided to convert WTP values from the UK, Spain and Italy in US $ accounting for differences in PPP. We accomplished this by multiplying original WTP lower (upper) bounds by the exchange rate and by the PPP index. Values obtained with this procedure are then rescaled to match the nearest lower (upper) bound for WTP. Descriptive statistics for the variables of interest, PPP index and exchange rate considered are shown, by country, in Table A1.

4 Empirical strategy

We estimate the following interval regression (IR) model:

$$[WTP_l, WTP_u] = \alpha + X^{'}\beta + \epsilon \tag{1}$$

WTP_l and WTP_u are the lower and upper bounds of WTP as elicited by the payment card scale reported in Table A2. WTP is recorded as an interval variable with both left and right censoring. X is a matrix of control variables including the following dimensions: (i) basic controls like gender, age, years of education, employment status and monthly income in US$ and adjusted for PPP; (ii) exposure to COVID-19 measured by a variable recording whether the respondent or one of her household members has had COVID-19, distinguishing between those who had symptoms but did not get tested and those with a positive test result; (iii) economic situation during lockdown, distinguishing between respondents who had improved or worsened household finances during lockdown; (iv) type of family, including variables measuring whether respondent is married and the number of kids ages 0 to 17 years; (v) level of trust in respondent's national government or in the WHO; (vi) an individual assessment of the preference towards a health-economy trade-off, defined on the basis of the following survey question: 'If you were asked to advise the government on choosing between prioritizing immediate economic gains or immediate public health gains in your country, what would be your position be on a 0 to 100 scale now?'; (vii) country-specific fixed effects. For detailed information about our variables of interest see Table A1.

After estimating the model proposed in equation 1, we can calculate average WTP and its standard deviation to test whether the average individual in the sample has a WTP that is different from zero. We elicit the WTP for the average person in our sample through the linear combination of significant coefficients, from equation 1, multiplied by average values, for continuous variables, or relative frequencies, for categorical variables. In addition, we can use coefficients from equation 1 to obtain average WTP values for individuals with characteristics that are different from the average person in the sample and test whether WTP values differ among the selected categories, or with respect to the average person. We test these assumptions using standard t-tests, assuming the usual confidence levels.

In addition to declaring a positive numeric value for WTP, respondents could also declare that they were either not prepared to pay for a SARS-CoV-2 vaccine, that they do not know, or that they preferred not to say how much they would be willing to pay for a SARS-CoV-2 vaccine. Therefore, sample selection can arise if respondents self-select in eliciting WTP value, or in declaring a positive WTP valueHence, applying a simple OLS estimator to obtain the average WTP might not turn out to reflect the existing heterogeneity in valuation and bias our estimates if differences in the level of trust for authorities affect the probability of reporting a valid WTP. Correcting for such measurement error entails deciding how to handle nonresponses and zeros. If nonresponse (zeros) are treated as missing, we risk overestimating the average WTP, because we would exclude respondents that intended to declare a WTP of zero. Yet, if zeros are true valid answers (resulting from genuine mistrust in the vaccine), we risk underestimating the WTP if vaccine hesitant respondents represent a significant share of the sample. In order to shed light on this we estimate the following probit model:

$$y_i^k = \gamma + X^{'}\delta + V^{'}\lambda + \mu \tag{2}$$

where y_i^k, with $i = 1, ..., 3$ represent the probability to: (i) not prepared to pay, (ii) don't know how much respondent i would be willing to pay, and (iii) prefer not to say how much respondent i would pay for a SARS-CoV-2 vaccine; X are the same observable covariates already described for equation 1 and V is a matrix of observable covariates describing vaccination intentions.

We can estimate the magnitude of the bias deriving from self-selection using a two-step Heckman selection model:

$$d^{*} = \omega + Z^{'}\rho + \varrho \tag{3}$$

$$d = \begin{cases} 1 \quad \text{if} \quad d^{*} > 0 \\ 0 \quad \text{if} \quad d^{*} \leq 0 \end{cases} \tag{4}$$

$$[WTP_l, WTP_u] = \begin{cases} \iota + X^{'}\psi + \varepsilon \quad \text{if} \quad d^{*} > 0 \\ - \quad \text{if} \quad d^{*} \leq 0 \end{cases} \tag{5}$$

$[WTP_l, WTP_u]$ represent the lower and upper limits for the WTP in PPP and expressed in US$. In this model we assume that $\varrho \sim N(0,1)$, $\varepsilon \sim N(0, \sigma^2)$ and $cor(\varrho, \varepsilon) = \rho$. Problems arise in estimating ψ when $\rho \neq 0$. This means that the error term in the outcome equation will not have a mean of zero and will be correlated with the explanatory variables, leading to inconsistent estimates. X is the matrix of exogenous control variables including all the variables already discussed for equation 1. $Z = X, V$ includes also the control variables described in V, i.e., vaccination intentions. The Heckman model uses a two-step procedure, assuming that ϱ and ε are independent of the explanatory variables, and estimates ρ from the selection equation by MLE, and computes the inverse Mills ratio $\hat{\lambda} = \frac{\phi(Z'\rho)}{\Phi(Z'\rho)}$ that is included as a regressor in the following equation:

$$[WTP_l, WTP_u] = \pi + X'\theta + \hat{\lambda} + \vartheta \tag{6}$$

The estimators from this two-step procedure are consistent and asymptotically normal. The Heckman model is identified even when the same independent variables appear in both the selection and the outcome equation due to non-linearity in the selection equation deriving from the inverse Mill's ratio, which may lead to imprecise estimates in the outcome equation. We need to find at least one independent variable that affects selection, but not the outcome. In our model we use a variable that takes a value of one if the respondent does not intend to take the SARS-CoV-2 vaccine and 0 otherwise. In our view this variable should have a clear influence on the selection equation but not on the WTP value, under the assumption that respondents who do not intend to take the SARS-CoV-2 vaccine. A limitation to this strategy is represented by the fact that we can expect that individuals not willing to take the vaccine are also those that won't declare a WTP for a SARS-CoV-2 vaccine making identification impossible. For this reason we added to the WTP question an additional information, stating that WTP should be declared assuming that: "vaccination for COVID-19 was proven to be 100% safe and was not available through the country's healthcare system or covered by insurance". This particular feature allows us to separate the behaviour of respondents who are not willing to take the SARS-CoV-2 vaccine because they are afraid of the possible adverse effects on health from that of what we define as protest respondents, i.e. those who do not disclose their WTP as a form of protest.

5 Results

5.1 Sample selection

Table 1 shows the estimated odds-ratios from equation 2, where the outcomes of interests are the probability to: not be prepared to pay for a SARS-CoV-2 vaccine (col. 1), don't know (col. 2), and prefer not to say (col. 3). Looking at the first column we can see that, many of the covariates included in the model are significantly different from 0. Not intending to receive a SARS-CoV-2 vaccine increases the probability of not being prepared to pay for the vaccine by 300%. Unemployed individuals are 20% more likely to not be prepared to pay for the SARS-CoV-2 vaccine. Respondents that experienced COVID-19, either by having suspected infection (i.e., showing symptoms) or having tested positive, are 20% less likely to not be prepared to pay for the SARS-CoV-2 vaccine. Experiencing an improvement in household finances during lockdown decreases the probability of not being prepared to pay for a SARS-CoV-2 vaccine by 20%. We observe similar results for respondents with 1 child and with 2 or more children aged $<$ than 17 years, for which the probability to not be prepared to pay for the SARS-CoV-2 vaccine decreases by 14% and 21%. We also document that trust in one's national government and in the WHO decreases the probability to not be prepared to pay for a SARS-CoV-2 vaccine by 22% and 23% respectively. Lastly, respondents from Spain and the US are less likely to not be prepared to pay for the SARS-CoV-2 vaccine. Looking at columns (2) and (3), i.e. those measuring the association between observable characteristics and the probability to either respond 'don't know' or 'prefer not to say' how much they would be willing to pay for the SARS-CoV-2 vaccine, we see that no clear patterns emerge from the analysis. We find some significant coefficients, but they do not seem to be consistent with a sample selection hypothesis. From this analysis we can conclude that there is evidence of possible protest responses in our sample in those respondents declaring that they are not prepared to pay for the vaccine. In particular, those that do not trust their national government or the WHO and those who are not willing to receive the SARS-CoV-2 vaccine are also those who are more likely to declare that they are not prepared to pay for the vaccine. Assigning a value equal to 0 to the WTP of these individuals would downward bias the average WTP and lead us to draw imprecise conclusions.

Table 2 shows a comparison of three strategies that we can adopt to control for sample selection. Column (1) shows IR estimates from equation 1 when respondents who are not prepared to pay for a SARS-CoV-2 vaccine are all assigned a WTP equal to 0. This represents our most conservative approach and thus the estimated average WTP can be thought of as a lower bound of the true value. Column (2) shows IR estimates from equation 1 when respondents who are not prepared to pay for a SARS-CoV-2 vaccine are excluded from the analysis. In this case the estimated average WTP can be thought as an upper bound of the true value. Columns (3) and (4) list estimates from the two-step Heckman model, related to the outcome - column (3) - and the selection - column (4) - equations. Table 3 shows predictions for the average WTP obtained according to the three different strategies adopted. First of all, looking at column (3) we can see that the inverse mills ratio is significantly different from zero, implying presence of sample selection and thus suggesting the adoption of the Heckman model as our preferred choice. As indicated by the selection equation, respondents who are not willing to take the SARS-CoV-2 vaccine are 66% less likely to be prepared to pay for the SARS-CoV-2 vaccine. Estimated coefficients are generally very close among the three proposed strategies, but lead to different WTP values. Looking at Table 3 we can see how under the first, stringent strategy, average WTP is equal to US $106.8 adjusted by PPP, whereas under the second, lenient strategy, average WTP is equal to US $172.0 adjusted by PPP. These two values are statistically different from each other, as highlighted in Table A6, at the 1% confidence level. The average WTP obtained from the Heckman model lies between these values and is equal to US $143.4 adjusted by PPP. Since, as proved above, there is evidence of sample selection and the estimated average WTP values are sensitive to the strategy adopted we decided to use the Heckman model as our preferred specification.

Lastly, we perform some robustness checks to account for the effect of protest responses. Accordingly, we can transform the average WTP estimated from the Heckman model into local currencies by multiplying by the PPP and the exchange rate between US$, €and £. We estimate that the WTP of US $143.4 adjusted by PPP corresponds to €81.80, €82.88, and £69.81.

5.2 Baseline estimates

Table 4 shows the main results from our preferred specification. Columns (1-6) list coefficients estimated from the Heckman model described in equations 3-5, when different set of covariates, already described in the empirical strategy of the paper, are included stepwise. This is to ensure that estimates from our preferred specification (col. 6) are not affected by the presence of high levels of correlation among covariates. By comparing coefficients across specifications we can see that, generally, estimates are quite stable. The inverse mills ratio is always significantly different from 0, which means that sample selection represents a serious issue that we should correct in order to have reliable and unbiased estimates. Focusing on column 6 we can see that WTP varies with age in a nonlinear way with a u-shaped relation, i.e. the effect first decreases and then increases again after a certain threshold. We can calculate that, according to our estimated parameters, the age at which WTP is minimum is equal to 53 years. Before this value the effect of age on WTP is negative, beyond it becomes positive. Respondents with 8-13 years and with more than 14 years of education have WTP of $41.90 and $57.62 higher with respect to respondents with 5-8 years of education. Results on education are in line with Crane et al. (2020). Respondents employed part-time, self-employed, or in other conditions[1] have WTP of $39.23, $36.26 and $56.17 lower than those employed full-time. We found no significant differences in WTP levels of retired or unemployed respondents with respect to respondents employed full-time. An additional $100 of monthly income increases WTP by $1.25. Testing positive for COVID-19 has a large positive impact on WTP, with infection increasing WTP by $114.79 over respondents who were not infected by COVID-19. Respondents who experienced a negative shock in household finances also have a WTP of $25.05 lower than respondents whose household finances remained stable during lockdown. Respondents who are married, or that have 1, or 2 or more kids ages 0-17 years have WTP of $27.27, $49.81 and $57.79, higher than single or childless respondents, respectively. Respondents that trust their national government a fair amount or a great deal have WTP of $28.78 higher than respondents who do not trust their national government. Respondents that prioritize health over the economy have a higher WTP.

[1]Full-time parent, homemaker, military, retired, student/pupil.

In particular a 1 percentage-point increase in the health economy trade-off is associated with a \$0.45 increase in WTP. Lastly, we find that respondents from the UK have an additional WTP of \$32.43, relative to Italian respondents, whereas respondents from the US have WTP of \$57.25 lower than Italian ones. We found no significant differences between respondents from Spain and Italy. The estimated average WTP is equal to \$143.4 and is highly significant (t-stat = 9.76).

5.3 WTP predictions conditional on observable characteristics

We used the estimated coefficients from Table 4 to obtain predictions for the WTP of individuals with different socio-demographic characteristics. We present these results both graphically in Figure 1 and analytically in Table A6. Panel a) of Figure 1 shows the predicted WTP for the average respondents and for respondents aged 18, 53 and 75 years, respectively. As we can see from Table A6, 18-year-old respondents have a WTP of \$229.3, whereas 53- and 75-year-old respondents have a WTP of \$115.4 and \$156.8, respectively. As documented both from Figure 1 and from the t-test performed in Table 1, 18-year-old respondents' WTP is significantly different with respect to the average WTP (column 4) and with respect to WTP of both 53 and 75-years old respondents. Panel b) of Figure 1 shows the estimated WTP by level of education, again looking at Table A6 we can see that respondents with 5-8 years of education have a WTP of \$93.34, whereas respondents with 8-13 years and more than 14 years have a WTP of \$135.2 and \$151, respectively. The latter WTP is significantly different from that of the reference category, i.e. respondents with 5-8 years of education. Panel c) shows WTP predictions by employment status. We do not find evidence of significant differences in this respect. Looking at Table A6 we can see that WTP varies between \$101.2 for respondents in other employment conditions and

$157.3 for respondents employed full-time. Interestingly, unemployed individuals have a WTP of $150.8, which is very similar to that of respondents employed full-time. This result can be explained if we assume that unemployed respondents have high returns from an effective vaccine, since it would allow them to have a higher probability of a return to everyday life returning and their finding employment. Panel d) of Figure 1 shows the WTP for respondents with monthly income in US $ adjusted by PPP at the 10-th and 90-th percentiles of the distribution. High-income respondents have a WTP of $175.8, whereas low-income ones have a WTP of $119.4 (see Table A6). Panel e) of Figure 1 shows the WTP for respondents who were infected by COVID-19 with respect to those who did not have COVID-19. The former group has a WTP of $253.7, that is almost twice that of the latter group revealing that direct exposure to COVID-19 is associated with the highest WTP among people in the sample. WTP of respondents who tested positive to COVID-19 is significantly different with respect to the average WTP (column 4) and with respect to WTP of individuals who did not have COVID-19. This could be expected as these respondents have experienced direct, negative impacts of COVID-19 including potential health-related challenges, lost income, job losses, and household-related challenges. Panel h) of Figure 1 shows the WTP according to marital status, where we can see that married respondents have a WTP of $154.2 and unmarried ones have a WTP of $127. Panel h) of Figure 1 shows the WTP according to the number of kids with 0-17 years. Childless respondents have a WTP of $124.7 compared to respondents with 1, or with 2 or more kids ages 0-17 years that have WTP equal to $174.5 and $182.5, respectively. Panels i) and j) of Figure 1 show the WTP according to level of trust in the national government and the WHO, respectively. Respondents with trust levels for the national government and the WHO equal to fair/great deal have a WTP of $159.8 and $146.3, respectively, whereas respondents that do not trust the National Government and the WHO have a WTP of \$131.0 and \$139.4, respectively. Panel k) of Figure 1 shows the WTP according to the index measuring preferences towards the health economy trade-off. Respondents who prioritize health have WTP equal to \$164.9 and those who prioritize the economy have a WTP equal to \$119. Lastly, Panel l) of Figure 1 shows the WTP according to the respondents' country of origin. Respondents from Italy and Spain have the same WTP of \$152, whereas respondents from the UK have a WTP of \$184.4 and those from the US of \$94.72.

5.4 Heterogeneous effects

In this section we investigate the presence of possible heterogeneous effects among the variables considered in our main model. We performed this analysis considering interactions among basic covariates and country of origin, and all other covariates presented in equations 3-5. We show results graphically in Figure 2 considering only variables with significant interactions. Looking at trust in the national government we can see that respondents with a fair/great level of trust and with age of 30-40 years have an additional WTP of \$67.77 (s.e. = 39.88) with respect to respondents in other age groups. Unemployed respondents that trust the national government have a WTP of \$47.86 (s.e. = 22.91) lower with respect to employed ones. Finally, respondents who trust the national government in the US have a WTP of \$59.05 (s.e. = 29.10) higher with respect to their counterparts in Italy, Spain and in the UK. Focusing on trust in the WHO we can see that respondents with age between 50 and 60 years have a WTP of \$53.64 (s.e. = 30.12) lower with respect to other age groups. In addition respondents in the UK and in the US who trust the WHO have a WTP of \$80.24 (s.e. = 33.61) and of \$42.09 (s.e. =

23.32) with respect to Italian and Spanish ones. Lastly, considering interactions among basic covariates and exposure to COVID-19 we see that respondents who were infected by COVID-19 and aged between 40 and 50 years and between 50 and 60 years have a WTP of \$193.94 (s.e. = 80.31) and \$135.80 (s.e. = 79.94) lower with respect to respondents in other age classes.

6 Robustness

In this section we propose additional analyses to check the robustness of our main estimates. First, we test the sensitivity to the inclusion of regional dummies and regional control variables. Second, we calculate the average WTP using an inverse probability weight (IPW) estimator, as an alternative method to account for selection. Third, we present estimates considering WTP values in local currencies. Table A3, columns (1-3), shows how estimates change when the Heckman model, equations 3-5, includes regional control variables measuring the stringency index calculated by Thomas et al. (2020), the number of days since the last peak, and the number of cases per 1,000 population[2], or alternatively, regional fixed effects. Column (1) shows our main estimates, controlling for country dummies, as a comparison, column (2) adds regional dummies, and column (3) accounts for the regional covariates discussed above. As we can see the estimated coefficients do not change significantly across specifications, and always remain within the confidence interval of our main estimates. Interestingly, regional covariates are significantly different from zero, revealing that an increase in the stringency index by 1 point implies an additional WTP of \$2.93, possibly because individuals exposed to stricter con-

[2]We obtained this data from Guidotti & Ardia (2020). the number of days since the last peak is calculated as the number of days between the date corresponding to the maximum number of cases registered in each region since the 1st of January 2020 and the interview date.

finement measures see vaccination as a means to get back to their lives, as documented by Brodeur et al. (2021) find that mental health in the EU and the US may have been severely affected by the pandemic and lockdown. In addition, we see that an additional day from the peak implies an extra WTP of $0.88. This result, in line with the previous finding on the stringency index, means that individuals living in regions returning to a normal situation are willing to pay more money to get the vaccine and maintain the current situation. Finally, we see that 100 additional positive individuals - per 1,000 population - decreases WTP by $9.23. This result could be explained by considering that individuals living in regions with a large number of cases may believe that their region is closer to reaching a herd immunity to COVID-19.

In the same Table, column (4), we show estimates obtained using Inverse Probability Weighting (IPW) as an alternative way to account for selection. Under this strategy, following Abadie (2005), we weighted estimates by the inverse propensity score of observing a positive WTP. Formally we weight observations by the probability of declaring a positive WTP, conditional on the observed covariates:

$$WTP_i^{>0}\frac{pr}{pr(Z_i)} + (1 - WTP^{>0})\frac{1 - pr}{1 - pr(Z_i)}, \tag{7}$$

where pr is the unconditional probability of observing a positive WTP value ($WTP_i^{>0}$); $pr(X_{pct})$ is the propensity score (likelihood of $WTP_i^{>0}$ conditional on a set of observable characteristics available for all individuals in the sample). We estimate the propensity score by means of a logistic regression. The dependent variable takes value 1 for individuals with a positive WTP and 0 for individuals with WTP equal to 0 or missing and observable covariates are represented by $Z = X, V$, i.e. the covariates already described in the empirical strategy. Columns (5-6) show IPW estimates when we included regional control variables and regional dummies. Irrespective of the strategy used, or of the control variables included, results do not change with respect to our benchmark specification. Table A4 shows the average WTP obtained as a linear combination of significant coefficients estimated in previous models. Including regional dummies or regional control variables (columns 1-3) does not change significantly our estimated results. WTP ranges from \$143.2, in our main specification, to \$156.4 and \$139.1 when including regional dummies and regional control variables, respectively. Weighting observations by the probability of declaring a positive WTP, conditional on the observed covariates (columns 4-6) decreases the average WTP to \$109.00, \$129.00, and \$109.90 when including country dummies, regional dummies, and regional covariates, respectively. Although estimates are lower using this strategy, we must stress that confidence intervals always widely overlap with those obtained from the Heckman model.

Finally, we show in Table A5 estimates using WTP values in local currencies. By comparing results from the full model (column 6) between this Table and our main estimates, with WTP in US\$ adjusted by PPP (Table 4), we observe that almost always the same variables are significant. The inverse mills ratio is significantly different from 0, meaning that selection plays an important role also in this case. The magnitude of the estimated coefficients is different and also implies differences in the estimated linear combinations used to obtain average WTP values, that are now lower than before. However, this was an expected result since the exchange rate and PPP between €or and US \$s are higher than 1, as shown in Table A1.

7 Conclusion

This paper has examined the social value of a SARS-CoV-2 vaccines, given the presence of positive externalities on population health, society and the economy. This paper estimates the willingness to pay (WTP) for a hypothetical SARS-CoV-2 vaccine in four countries, namely the United States (US), the United Kingdom (UK), Spain and Italy during the first wave of the pandemic when no specific vaccine had been announced nor subsidised. Our estimates suggest that the social value of such a vaccine exceeds its market value. WTP estimates are elicited using a payment card method to avoid 'yea saying' biases, and we study the effect of protest response, sample selection bias, as well as the influence of trust in government and risk exposure on estimates of WTP. We find the average value of a hypothetical vaccine to be 100-200 US dollars once adjusted by purchasing power (PPP) in a sample of four western countries. Findings demonstrate no variation between Spain and Italy but higher values in the UK and lower values in the US compared to the other countries. Our results reveal that WTP in the US results in part from respondents' mistrust in the national government, since respondents who trust the US government declare WTP equal to respondents in other countries.

We find that results are particularly sensitive to personal experiences with COVID-19, notably, we find that individuals who have been sickened by the virus are willing to pay significantly more than those who have not been infected. These findings are robust to numerous tests for robustness including the handling of 'don't knows' and protest responses. These findings are important for policy makers in understanding the societal value of the SARS-CoV-2 vaccine in the absence of individual level purchasing decisions. Without a market price and negotiations between governments and manufactures which may include some portion of research and development cost, the unit price is not an indicator of either cost or demand/supply. These WTP estimates provide insights into the level at which society values the SARS-CoV-2 vaccine and can be used for priority setting.

These findings suggest that the social value of a SARS-CoV-2 vaccine is considerably larger than the actual price of any vaccine which indicates that vaccine encompass significant welfare improvements. Our results do not just justify full vaccine subsidization in the context of COVID-19 vaccines, and even to some degree incentives for vaccine take up, given the externalities it engenders for everyone else in the economy, and more widely in society.

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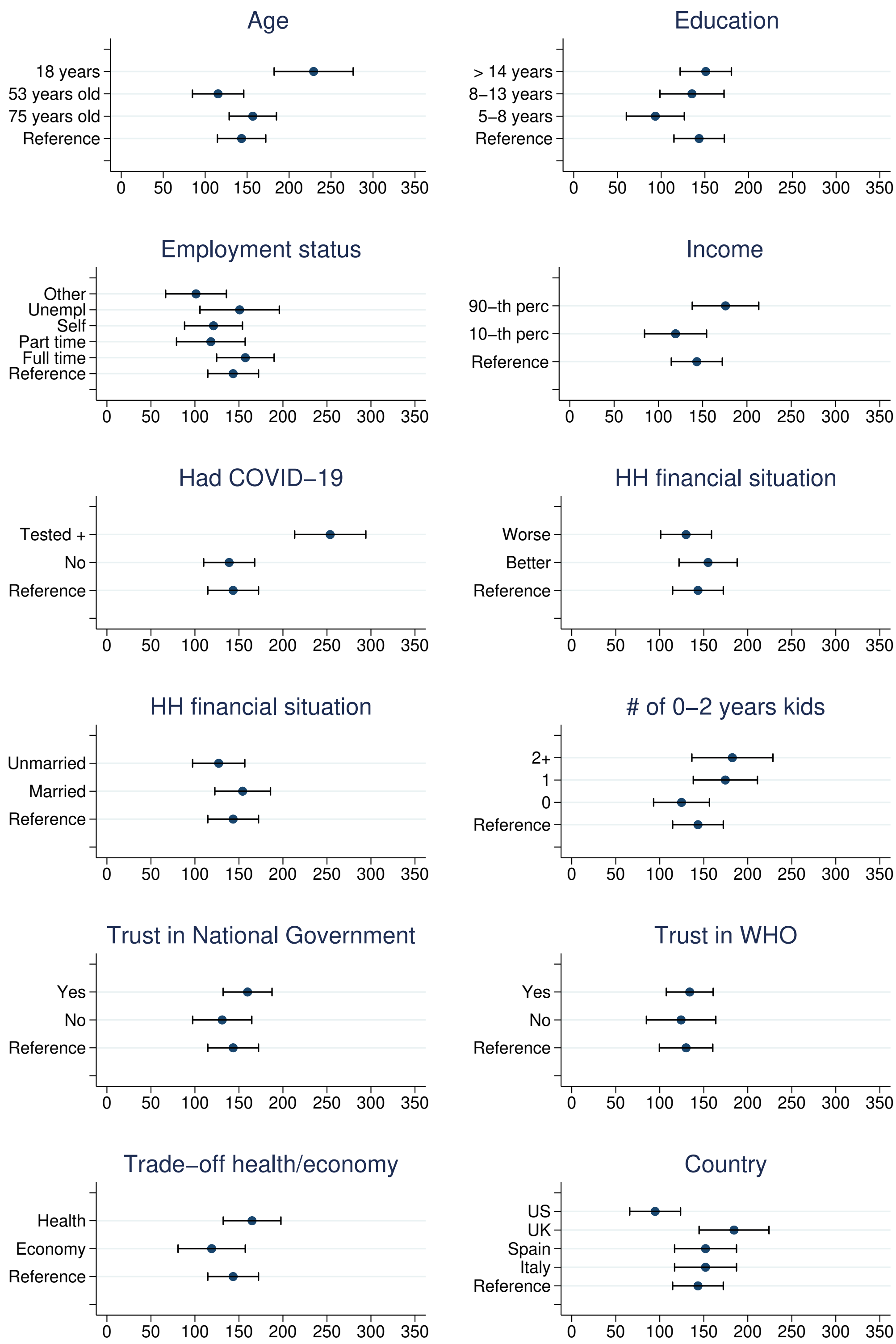
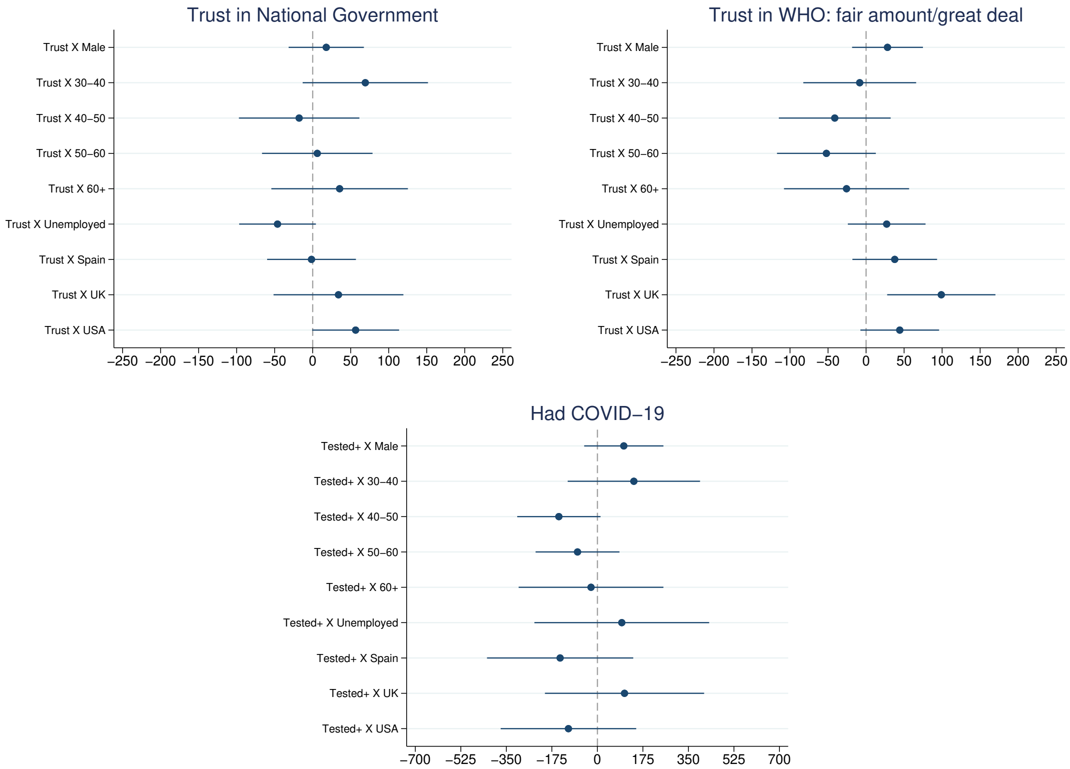


Notes: This Figure shows predictions for the WTP of individuals with different socio-demographic characteristics. We obtained predictions through linear combination of significant coefficients from Table 4. Points represent the average prediction, whereas the horizontal bars show the 95% confidence interval.

Figure 1: Average WTP (PPP) in US $, conditional on sample characteristics



Notes: This Figure shows heterogeneous effects among the variables considered in our main model, obtained by performing interactions among basic covariates and country of origin, and all other covariates presented in equations 3-5. We report only significant interactions, i.e. using trust in national government and in the WHO, or exposure to COVID-19. Points represent the average value, whereas the horizontal bars show the 95% confidence interval.

Figure 2: WTP (PPP) in US $, heterogeneous effects for respondents who trust National Government and WHO, and who tested positive for COVID-19.

Table 1: Protest vote & sample selection

	Not prepared to pay	Don't know	Prefer not say
	(1)	(2)	(3)
Not SARS-CoV-2 vaccine	3.0372***	0.8689	1.1682
	(0.193)	(0.074)	(0.152)
Male	0.9773	0.8573**	1.1887
	(0.059)	(0.058)	(0.135)
Age	1.0125	1.0134	1.0265
	(0.015)	(0.016)	(0.032)
Age^2	0.9999	0.9999	0.9997
	(0.000)	(0.000)	(0.000)
8-13 years of educations	1.0110	0.8489	0.9528
	(0.165)	(0.155)	(0.304)
$\geq$ 14 years of education	0.8848	0.7007**	1.2007
	(0.146)	(0.126)	(0.362)
Employed part-time	1.1458	1.0890	0.9452
	(0.108)	(0.121)	(0.202)
Self employed	1.1125	0.8894	1.1436
	(0.121)	(0.116)	(0.225)
Retired	0.9658	0.8283	0.8202
	(0.131)	(0.127)	(0.303)
Unemployed	1.2165*	0.8917	0.8083
	(0.137)	(0.120)	(0.210)
Other condition	0.9940	1.1612	1.5336**
	(0.108)	(0.130)	(0.302)
Monthly income (PPP) in $	1.0000	1.0000	0.9999**
	(0.000)	(0.000)	(0.000)
Had COVID-19: thinks so	0.7862**	0.9905	0.9891
	(0.094)	(0.134)	(0.232)
Had COVID-19: tested +	0.7689**	0.9436	1.5888*
	(0.074)	(0.157)	(0.382)
HH member had COVID-19: thinks so	0.8882	1.0326	1.0606
	(0.138)	(0.167)	(0.309)
HH member had COVID-19: tested +	0.9979	1.1646	1.3235
	(0.104)	(0.130)	(0.238)
HH finances during lockdown: better	0.8100**	0.8543	1.0721
	(0.073)	(0.091)	(0.203)
HH finances during lockdown: worse	0.9627	0.8640**	1.0902
	(0.061)	(0.063)	(0.142)
Married/couple	0.9978	0.8514**	1.1254
	(0.063)	(0.063)	(0.151)
1 kid	0.8538*	0.9296	0.8264
	(0.069)	(0.089)	(0.148)
2 or more kids	0.7921***	1.0147	0.8639
	(0.070)	(0.100)	(0.155)
Trust in National Gov.: fair/great	0.7794***	1.0291	0.8929
	(0.047)	(0.075)	(0.113)
Trust in WHO: fair/great	0.7738***	1.0076	0.9083
	(0.047)	(0.071)	(0.107)
Health/Economy trade-off	1.0006	0.9999	0.9975
	(0.001)	(0.001)	(0.002)
Spain	0.7156***	1.5771***	0.9768
	(0.062)	(0.145)	(0.141)
UK	1.0179	1.0375	0.7869
	(0.091)	(0.118)	(0.154)
US	0.7840**	1.5638***	0.7291
	(0.078)	(0.179)	(0.147)
Constant	0.4823*	0.2296***	0.1051***
	(0.186)	(0.101)	(0.089)
Observations	2,890	3,143	2,938

*Notes: This Table shows the estimated odds-ratios from the probit model presented in equation 2, where the outcomes of interests are the probability to: not be prepared to pay for a SARS-CoV-2 vaccine (col. 1), don't know (col. 2), and prefer not to say (col. 3) and control variables include the following dimensions: (i) basic controls like gender, age, years of education, employment status and monthly income in US$ and adjusted for PPP; (ii) exposure to COVID-19 measured by a variable recording whether the respondent or one of her household members has had COVID-19, distinguishing between those who had symptoms but did not get tested and those with a positive test result; (iii) economic situation during lockdown, distinguishing between respondents who had improved or worsened household finances during lockdown; (iv) type of family, including variables measuring whether respondent is married and the number of kids ages 0 to 17 years; (v) level of trust in respondent's national government or in the WHO; (vi) an individual assessment of the preference towards a health-economy trade-off, defined on the basis of the following survey question: 'If you were asked to advise the government on choosing between prioritizing immediate economic gains or immediate public health gains in your country, what would be your position be on a 0 to 100 scale now?'; (vii) vaccination intentions; and viii) country-specific fixed effects. Significant levels: *** p<0.01, ** p<0.05, * p<0.1*

Table 2: WTP (PPP) in US $ - sample selection

	Missing	Zeros	Heckman	
			Outcome	Selection
	(1)	(2)	(3)	(4)
Mills ratio			-71.1670***	
			(17.410)	
No SARS-CoV-2 vaccine				0.3301***
				(0.021)
Male	13.5927	18.5029	10.2719	1.0220
	(12.036)	(19.260)	(12.576)	(0.061)
Age	-9.3095***	-11.1750***	-9.6517***	0.9875
	(2.776)	(4.220)	(2.852)	(0.014)
Age^2	0.0853***	0.0940**	0.0901***	1.0001
	(0.031)	(0.047)	(0.032)	(0.000)
8-13 years of educations	39.8808***	67.0486***	41.9025***	0.9888
	(13.485)	(22.026)	(14.420)	(0.163)
$\geq$ 14 years of education	61.1581***	94.2990***	57.6236***	1.1291
	(12.260)	(19.750)	(12.630)	(0.186)
Employed part-time	-44.1358**	-53.6316*	-39.2359**	0.8721
	(17.850)	(32.058)	(18.700)	(0.083)
Self employed	-42.8130***	-57.7092***	-36.2683***	0.8975
	(12.882)	(21.419)	(13.201)	(0.096)
Retired	-13.8255	-21.2278	-17.9582	1.0348
	(21.309)	(33.502)	(22.350)	(0.142)
Unemployed	-13.9060	-11.8220	-6.5053	0.8226*
	(18.389)	(29.325)	(19.566)	(0.090)
Other condition	-55.6603***	-79.1669***	-56.1767***	1.0063
	(18.209)	(29.757)	(18.976)	(0.112)
Monthly income (PPP) in $	0.0130***	0.0185**	0.0125**	1.0000
	(0.005)	(0.008)	(0.005)	(0.000)
Had COVID-19: thinks so	12.0306	-7.2927	6.5942	1.2708**
	(26.447)	(38.109)	(28.275)	(0.144)
Had COVID-19: tested +	139.3119***	218.0202***	114.7906***	1.3011*
	(39.942)	(66.373)	(39.587)	(0.206)
HH member had COVID-19: thinks so	12.9168	-13.1049	10.7621	1.1211
	(34.743)	(44.379)	(36.418)	(0.168)
HH member had COVID-19: tested +	15.0328	28.8417	9.7975	1.0038
	(18.461)	(33.593)	(19.200)	(0.104)
HH finances during lockdown: better	22.6626	21.1861	14.5790	1.2330**
	(21.191)	(33.504)	(21.731)	(0.115)
HH finances during lockdown: worse	-23.7284**	-37.9352**	-25.0556**	1.0403
	(11.662)	(18.237)	(12.242)	(0.066)
Married/couple	24.5964**	38.0329**	27.2767**	1.0020
	(11.324)	(18.806)	(11.590)	(0.065)
1 kid	46.0351***	64.4804**	49.8174***	1.1711*
	(16.287)	(26.442)	(17.219)	(0.095)
2 or more kids	54.8653**	67.4616**	57.7985***	1.2598**
	(21.471)	(32.894)	(22.286)	(0.117)
Trust in National Gov.: fair/great	42.0409***	51.8223***	28.7867**	1.2827***
	(11.471)	(18.112)	(12.357)	(0.078)
Trust in WHO: fair/great	21.4334**	6.0560	6.8768	1.2939***
	(10.006)	(17.316)	(12.199)	(0.078)
Health/Economy trade-off	0.4787**	0.8927***	0.4589**	0.9994
	(0.199)	(0.333)	(0.211)	(0.001)
Spain	2.7853	-21.7972	-15.0111	1.3960***
	(14.483)	(23.824)	(16.143)	(0.120)
UK	33.8144**	52.3366*	32.4307*	0.9807
	(16.622)	(29.107)	(17.224)	(0.084)
US	-49.9097***	-87.9547***	-57.2576***	1.2726**
	(15.842)	(27.488)	(17.043)	(0.123)
Constant	155.2224**	209.6739**	214.7640***	2.0871*
	(70.517)	(105.247)	(74.199)	(0.791)
Observations	3,040	2,355	2,879	2,879

*Notes: This Table shows a comparison of three strategies that we can adopt to control for sample selection. Column (1) shows IR estimates from equation 1 when respondents who are not prepared to pay for a SARS-CoV-2 vaccine are all assigned a WTP equal to 0. Column (2) shows IR estimates from equation 1 when respondents who are not prepared to pay for a SARS-CoV-2 vaccine are excluded from the analysis. Columns (3) and (4) list estimates from the two-step Heckman model, related to the outcome - column (3) - and the selection - column (4) - equations. Control variables include the following dimensions: (i) basic controls like gender, age, years of education, employment status and monthly income in US$ and adjusted for PPP; (ii) exposure to COVID-19 measured by a variable recording whether the respondent or one of her household members has had COVID-19, distinguishing between those who had symptoms but did not get tested and those with a positive test result; (iii) economic situation during lockdown, distinguishing between respondents who had improved or worsened household finances during lockdown; (iv) type of family, including variables measuring whether respondent is married and the number of kids ages 0 to 17 years; (v) level of trust in respondent's national government or in the WHO; (vi) an individual assessment of the preference towards a health-economy trade-off, defined on the basis of the following survey question: 'If you were asked to advise the government on choosing between prioritizing immediate economic gains or immediate public health gains in your country, what would be your position be on a 0 to 100 scale now?'; (vii) vaccination intentions; and viii) country-specific fixed effects. Significant levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$*

Table 3: Average WTP (PPP) in US $ - sample selection

	Missing	Zeros	Heckman
	(1)	(2)	(3)
Average	106.8***	172***	143.4***
Standard deviation	(10.10)	(16.67)	(14.69)
t-stat	10.58	10.32	9.765

*Notes: This Table shows predictions for the average WTP obtained according to the three different strategies: column (1) shows IR estimates from equation 1 when respondents who are not prepared to pay for a SARS-CoV-2 vaccine are all assigned a WTP equal to 0. Column (2) shows IR estimates from equation 1 when respondents who are not prepared to pay for a SARS-CoV-2 vaccine are excluded from the analysis. Column (3) list estimates from the two-step Heckman model, related to the outcome equation. Control variables include the following dimensions: (i) basic controls like gender, age, years of education, employment status and monthly income in US$ and adjusted for PPP; (ii) exposure to COVID-19 measured by a variable recording whether the respondent or one of her household members has had COVID-19, distinguishing between those who had symptoms but did not get tested and those with a positive test result; (iii) economic situation during lockdown, distinguishing between respondents who had improved or worsened household finances during lockdown; (iv) type of family, including variables measuring whether respondent is married and the number of kids ages 0 to 17 years; (v) level of trust in respondent's national government or in the WHO; (vi) an individual assessment of the preference towards a health-economy trade-off, defined on the basis of the following survey question: 'If you were asked to advise the government on choosing between prioritizing immediate economic gains or immediate public health gains in your country, what would be your position be on a 0 to 100 scale now?'; (vii) vaccination intentions; and viii) country-specific fixed effects. Significant levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$*

Table 4: WTP (PPP) in US $.

	Basic	Exposure	Economy	Family	Trust	Trade-off
	(1)	(2)	(3)	(4)	(5)	(6)
Mills	-115.5964***	-107.2435***	-103.7811***	-92.3016***	-71.4502***	-71.1670***
	(13.898)	(13.224)	(13.327)	(12.745)	(17.370)	(17.410)
Male	12.0083	11.1777	10.8151	10.7571	9.3183	10.2719
	(12.624)	(12.568)	(12.656)	(12.622)	(12.660)	(12.576)
Age	-6.6858***	-5.8465**	-5.8613**	-9.8334***	-9.6597***	-9.6517***
	(2.591)	(2.584)	(2.580)	(2.865)	(2.850)	(2.852)
Age^2	0.0535*	0.0462	0.0463	0.0922***	0.0905***	0.0901***
	(0.029)	(0.029)	(0.029)	(0.032)	(0.032)	(0.032)
8-13 years of educations	45.1552***	44.2937***	41.8027***	46.2913***	42.7333***	41.9025***
	(14.098)	(13.950)	(13.613)	(14.386)	(14.424)	(14.420)
$\geq$ 14 years of education	56.8008***	57.9387***	54.9996***	59.7640***	58.3432***	57.6236***
	(12.045)	(11.571)	(11.685)	(12.566)	(12.510)	(12.630)
Employed part-time	-44.7025**	-43.2728**	-41.2225**	-36.6258*	-38.9662**	-39.2359**
	(19.111)	(18.959)	(18.925)	(18.714)	(18.674)	(18.700)
Self employed	-45.9318***	-45.8108***	-41.1262***	-35.0435***	-36.3409***	-36.2683***
	(13.542)	(13.704)	(13.385)	(13.220)	(13.188)	(13.201)
Retired	-18.7973	-17.1352	-19.3135	-17.8090	-19.2294	-17.9582
	(22.582)	(22.642)	(22.541)	(22.490)	(22.359)	(22.350)
Unemployed	-27.1466	-25.0114	-23.0974	-3.4809	-6.2608	-6.5053
	(19.688)	(19.717)	(19.456)	(19.415)	(19.478)	(19.566)
Other condition	-66.0565***	-59.7590***	-58.7203***	-54.4614***	-56.0835***	-56.1767***
	(19.518)	(19.562)	(19.361)	(18.974)	(18.981)	(18.976)
Monthly income (PPP) in US $	0.0137***	0.0129**	0.0128**	0.0128**	0.0126**	0.0125**
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Had COVID-19: thinks so		11.9174	10.4930	7.0545	7.5892	6.5942
		(29.066)	(28.907)	(28.320)	(28.358)	(28.275)
Had COVID-19: tested +		129.4963***	129.0016***	114.8640***	115.1969***	114.7906***
		(40.899)	(40.386)	(39.876)	(39.672)	(39.587)
HH member had COVID-19: thinks so		6.2038	8.5900	9.1119	10.6879	10.7621
		(35.950)	(36.260)	(36.299)	(36.348)	(36.418)
HH member had COVID-19: tested +		10.9308	10.1687	8.2162	9.3774	9.7975
		(19.170)	(19.036)	(19.102)	(19.140)	(19.200)
HH finances during lockdown: better			20.5458	15.0537	15.8406	14.5790
			(22.163)	(21.856)	(21.979)	(21.731)
HH finances during lockdown: worse			-19.7353	-26.5398**	-24.4779**	-25.0556**
			(12.029)	(12.149)	(12.204)	(12.242)
Married/couple				29.6603**	27.8806**	27.2767**
				(11.623)	(11.649)	(11.590)
1 kid				49.9682***	50.5266***	49.8174***
				(17.160)	(17.322)	(17.219)
2 or more kids				59.6131***	59.1631***	57.7985***
				(22.107)	(22.124)	(22.286)
Trust in National Gov.: fair/great					28.8286**	28.7867**
					(12.387)	(12.357)
Trust in WHO: fair/great					7.4907	6.8768
					(12.265)	(12.199)
Health/Economy trade-off						0.4589**
						(0.211)
Spain	-17.1283	-19.3614	-18.6284	-18.3057	-12.2666	-15.0111
	(15.563)	(15.702)	(15.914)	(15.662)	(16.436)	(16.143)
UK	30.9814*	27.5845	24.7217	29.0394	31.0564*	32.4307*
	(17.618)	(17.452)	(17.513)	(17.763)	(17.308)	(17.224)
US	-66.4414***	-66.4746***	-68.4171***	-64.8923***	-56.9171***	-57.2576***
	(15.989)	(15.935)	(16.206)	(16.395)	(17.147)	(17.043)
Constant	254.9621***	226.9314***	236.2154***	264.8795***	236.5669***	214.7640***
	(68.509)	(69.508)	(68.279)	(69.579)	(71.133)	(74.199)
Observations	2,879	2,879	2,879	2,879	2,879	2,879
Average WTP	165.4	160.5	156.5	152.8	143.4	143.4
Standard deviation	13.18	12.71	12.82	12.63	14.68	14.69
t statistic	12.54	12.63	12.21	12.10	9.768	9.765

*Notes: This Table shows the main results from our preferred specification. Columns (1-6) list coefficients estimated from the Heckman model described in equations 3-5, when different set of covariates, already described in the empirical strategy of the paper, are included stepwise. Column (1) includes only basic controls like gender, age, years of education, employment status and income in US $ adjusted for PPP. Column (2) controls for whether respondents or their household members either experienced symptoms or tested positive for COVID-19. Column (3) controls for variations (either positive or negative) in household finances during lockdown. Column (4) takes into account whether respondents are married or have kids with age between 0 and 2. Column (5) controls for the level of trust, we define two variables taking value one if respondents trusts a fair/great deal and 0 if she trusts not very much/at all, in National Government and the WHO. Lastly, column (6) adds a variable revealing respondents' preferences towards prioritizing health or the economy, measured on a scale between 0 (prioritize the economy) and 100 (prioritize health). Significant levels: *** p<0.01, ** p<0.05, * p<0.1*

Appendix

Table A1: Descriptive statistics.

Variable	Modalities	Obs	Italy Mean	Std. Dev.	Obs	Spain Mean	Std. Dev.	Obs	UK Mean	Std. Dev.	Obs	USA Mean	Std. Dev.
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
PPP			1.49			1.47			1.59			1	
exchange rate			1.16			1.16			1.27			1	
						Intentions to vaccinate and WTP in US $ adjusted by PPP							
SARS-CoV-2 vaccine	Yes	972	0.74	0.44	956	0.8	0.4	1,007	0.82	0.39	1,006	0.76	0.43
	No	972	0.26	0.44	956	0.2	0.4	1,007	0.18	0.39	1,006	0.24	0.43
WTP	Not prepared to pay	921	0.32	0.47	841	0.2	0.4	972	0.25	0.43	933	0.24	0.42
	1-100	921	0.46	0.5	841	0.46	0.5	972	0.38	0.49	933	0.59	0.49
	101-500	921	0.18	0.38	841	0.3	0.46	972	0.31	0.46	933	0.15	0.35
	501-2,000	921	0.03	0.17	841	0.03	0.18	972	0.03	0.16	933	0.02	0.14
	¿ 2,000	921	0.01	0.09	841	0.01	0.08	972	0.02	0.15	933	0.01	0.08
						Basic covariates							
Gender	Female	1,051	0.51	0.5	1,079	0.5	0.5	1,094	0.5	0.5	1,085	0.51	0.5
	Male	1,051	0.49	0.5	1,079	0.5	0.5	1,094	0.5	0.5	1,085	0.49	0.5
Age		1,051	44.27	13.47	1,079	42.03	12.36	1,098	44.76	16.12	1,085	45.28	15.27
Education	5-8	1,051	0.08	0.27	1,079	0.07	0.26	1,098	0	0.06	1,085	0	0.03
	8-13	1,051	0.55	0.5	1,079	0.24	0.43	1,098	0.57	0.5	1,085	0.16	0.37
	13-18	1,051	0.37	0.48	1,079	0.69	0.46	1,098	0.43	0.49	1,085	0.84	0.37
Employment status	Employed full-time	1,051	0.45	0.5	1,079	0.64	0.48	1,098	0.45	0.5	1,084	0.43	0.5
	Employed part-time	1,051	0.12	0.33	1,079	0.12	0.32	1,098	0.14	0.34	1,084	0.1	0.3
	Self employed	1,051	0.11	0.31	1,079	0.06	0.24	1,098	0.06	0.23	1,084	0.08	0.28
	Retired	1,051	0.08	0.27	1,079	0.02	0.14	1,098	0.14	0.35	1,084	0.11	0.32
	Unemployed	1,051	0.1	0.3	1,079	0.07	0.26	1,098	0.12	0.32	1,084	0.15	0.36
	Other condition	1,051	0.14	0.35	1,079	0.08	0.28	1,098	0.09	0.29	1,084	0.12	0.33
Income	monthly income PPP (US $)	1,051	4274.52	1012.86	1,079	3974.48	1013.94	1,098	5602.4	1904.46	1,084	6035.15	2010.55
						Exposure							
Respondent/Family member	No COVID-19	1,043	0.8	0.4	1,067	0.73	0.45	1,088	0.73	0.45	1,083	0.8	0.4
Respondent had COVID-19	Thinks so, not tested	1,043	0.06	0.24	1,067	0.08	0.26	1,088	0.12	0.33	1,083	0.04	0.2
	Tested +	1,043	0.02	0.14	1,067	0.05	0.22	1,088	0.05	0.22	1,083	0.03	0.18
Family member had COVID-19	Thinks so, not tested	1,043	0.02	0.16	1,067	0.05	0.22	1,088	0.04	0.21	1,083	0.03	0.18
	Tested +	1,043	0.09	0.29	1,067	0.1	0.3	1,088	0.06	0.23	1,083	0.1	0.29
						Economy							
HH finances during lockdown	much better than before	988	0.37	0.48	1,021	0.42	0.49	1,049	0.38	0.48	1,032	0.48	0.5
	a little better than before	988	0.04	0.19	1,021	0.02	0.15	1,049	0.05	0.22	1,032	0.04	0.2
	a little worse than before	988	0.07	0.26	1,021	0.07	0.26	1,049	0.15	0.36	1,032	0.1	0.31
	much worse than before	988	0.32	0.47	1,021	0.37	0.48	1,049	0.26	0.44	1,032	0.24	0.43
	no difference to before lockdown	988	0.2	0.4	1,021	0.12	0.32	1,049	0.16	0.37	1,032	0.13	0.34
						Family							
Marital status	Single/Divorced/Widow	1,051	0.35	0.48	1,078	0.35	0.48	1,098	0.44	0.5	1,085	0.44	0.5
	Married/Couple	1,051	0.65	0.48	1,078	0.65	0.48	1,098	0.56	0.5	1,085	0.56	0.5
Number of kids	0	1,051	0.65	0.48	1,079	0.59	0.49	1,098	0.7	0.46	1,085	0.72	0.45
	1	1,051	0.2	0.4	1,079	0.24	0.43	1,098	0.17	0.38	1,085	0.13	0.34
	2+	1,051	0.14	0.35	1,079	0.17	0.38	1,098	0.13	0.33	1,085	0.15	0.36
						Trust							
Trust in National goverment	not very much/at all	1,011	0.5	0.5	1,048	0.59	0.49	1,034	0.5	0.5	1,038	0.66	0.47
	fair amount/great deal	1,011	0.5	0.5	1,048	0.41	0.49	1,034	0.5	0.5	1,038	0.34	0.47
Trust in WHO	not very much/at all	1,004	0.48	0.5	1,045	0.48	0.5	1,003	0.3	0.46	993	0.39	0.49
	fair amount/great deal	1,004	0.52	0.5	1,045	0.52	0.5	1,003	0.7	0.46	993	0.61	0.49
						Trade-off							
Health/Economy	0=Economy, 100=Health	896	52.27	25.68	890	57.39	24.96	933	49.74	27.34	959	53.74	28.58

Notes: This Table shows descriptive statistics for the main variables of interest, PPP index and exchange rate considered are shown, by country.

Table A2: WTP lower and upper bounds in local currencies

WTP	
Lower	Upper
(1)	(2)
1	10
11	25
26	50
51	75
76	100
101	150
151	200
201	300
301	500
501	1000
1001	2000
2001	4000
4001	-

Notes: This Table shows the lower and upper bounds of WTP as elicited by the payment card scale.

Table A3: WTP (PPP) in US $. Robustness checks

	Heckman			IPW		
	(1)	(2)	(3)	(4)	(5)	(6)
Mills ratio	-71.2023***	-69.2271***	-56.5078***			
	(17.383)	(17.329)	(17.219)			
Male	10.3263	10.1329	6.4089	1.7489	1.5760	-3.7160
	(12.576)	(12.987)	(13.384)	(12.489)	(12.942)	(13.238)
Age	-9.2810***	-8.9115***	-9.3668***	-7.5477***	-7.3920**	-7.7064**
	(2.860)	(2.928)	(3.137)	(2.881)	(2.962)	(3.113)
Age^2	0.0858***	0.0816**	0.0870**	0.0697**	0.0679**	0.0714**
	(0.032)	(0.033)	(0.035)	(0.032)	(0.033)	(0.035)
8-13 years of educations	41.9736***	39.8855***	56.1226***	42.5123***	40.0688**	56.1179***
	(14.424)	(14.570)	(14.185)	(16.424)	(16.636)	(16.309)
$\geq$ 14 years of education	57.5831***	57.2999***	62.9701***	51.8578***	50.6723***	54.6733***
	(12.632)	(12.915)	(13.463)	(13.876)	(13.925)	(14.848)
Employed part-time	-38.8920**	-37.1070**	-34.1103*	-37.7009**	-35.5453**	-31.9148*
	(18.713)	(18.588)	(19.779)	(18.069)	(18.069)	(19.154)
Self employed	-36.0976***	-36.4505***	-34.1044**	-35.6912***	-35.5998***	-33.4764**
	(13.202)	(12.786)	(13.926)	(13.395)	(13.306)	(14.210)
Retired	-16.3734	-15.4922	-5.8422	-21.8021	-19.9767	-12.5585
	(22.283)	(22.487)	(24.693)	(22.566)	(22.905)	(24.801)
Unemployed	-6.5516	-7.8845	-4.0337	-18.3547	-18.9832	-15.6314
	(19.554)	(20.135)	(21.286)	(17.988)	(18.607)	(19.329)
Other condition	-55.5480***	-56.8320***	-54.8218***	-57.5259***	-59.3118***	-59.3742***
	(18.975)	(19.341)	(20.335)	(19.189)	(19.453)	(20.853)
Monthly income (PPP) in $	0.0126**	0.0123***	0.0154***	0.0089**	0.0092**	0.0109**
	(0.005)	(0.005)	(0.006)	(0.004)	(0.004)	(0.005)
Had COVID-19: thinks so	6.7253	8.7252	17.4855	0.9434	4.1688	7.9842
	(28.274)	(28.488)	(29.384)	(23.335)	(23.808)	(24.225)
Had COVID-19: tested +	115.0582***	118.7721***	111.1250***	76.5936*	80.1672**	73.2428*
	(39.576)	(39.115)	(40.354)	(41.616)	(40.355)	(41.809)
HH member had COVID-19: thinks so	10.8128	15.6577	20.1413	15.3020	21.8413	23.6503
	(36.419)	(36.126)	(40.515)	(29.743)	(29.769)	(33.082)
HH member had COVID-19: tested +	9.7688	12.0306	16.9962	20.7104	24.1747	28.5934
	(19.197)	(19.559)	(21.095)	(21.173)	(21.378)	(23.380)
HH finances during lockdown: better	14.6801	15.3774	16.3616	21.1200	21.9402	22.5078
	(21.726)	(21.556)	(21.790)	(22.521)	(22.061)	(22.876)
HH finances during lockdown: worse	-24.9839**	-26.0722**	-25.1809*	-25.3020**	-26.4827**	-27.1137**
	(12.241)	(12.549)	(12.963)	(12.047)	(12.282)	(12.801)
Married/couple	27.1290**	26.1291**	26.7766**	25.2020**	24.3223**	25.2620**
	(11.593)	(11.428)	(12.156)	(11.108)	(11.101)	(11.757)
1 kid	49.5231***	49.0442***	45.0194**	39.6114**	39.1821**	33.5475**
	(17.243)	(16.962)	(17.619)	(16.558)	(15.987)	(16.974)
2 or more kids	57.3380**	56.3110**	55.8130**	59.0628***	57.1983***	58.0316**
	(22.291)	(22.471)	(23.747)	(21.290)	(21.549)	(22.698)
Trust in National Gov.: fair/great	28.8093**	29.0840**	32.1085**	17.2774	16.7973	18.3648
	(12.359)	(12.506)	(12.713)	(11.621)	(11.708)	(12.094)
Trust in WHO: fair/great	6.9417	7.0290	12.6528	4.7141	4.3387	6.3565
	(12.191)	(12.308)	(12.688)	(10.322)	(10.432)	(10.886)
Health/Economy trade-off	0.4594**	0.4381**	0.3358	0.4048*	0.4182**	0.3173
	(0.211)	(0.208)	(0.230)	(0.208)	(0.203)	(0.229)
Stringency Index			2.9328**			2.5931**
			(1.157)			(1.138)
Days since peak			0.8840***			0.6875***
			(0.198)			(0.179)
Confirmed cases/population*1,000			-0.0923***			-0.0989***
			(0.031)			(0.030)
Constant	207.2819***	229.6470***	-62.6653	165.7562**	197.4747**	-46.8350
	(73.838)	(88.914)	(121.142)	(71.210)	(88.347)	(117.742)
Observations	2,879	2,879	2,693	2,879	2,879	2,693
Country dummies	Yes	No	No	Yes	No	No
Regional dummies	No	Yes	No	No	Yes	No
Regional controls	No	No	Yes	No	No	Yes

*Notes: This Table shows in column (1) our main estimates, controlling for country dummies, as a comparison, in columns (2) and (3) the inclusion of regional dummies, and regional covariates measuring the stringency index, the number of days since the last peak, and the number of cases per 1,000 population. In column (4), we show estimates obtained using Inverse Probability Weighting (IPW) as an alternative way to account for selection. Control variables include the following dimensions: (i) basic controls like gender, age, years of education, employment status and monthly income in US$ and adjusted for PPP; (ii) exposure to COVID-19 measured by a variable recording whether the respondent or one of her household members has had COVID-19, distinguishing between those who had symptoms but did not get tested and those with a positive test result; (iii) economic situation during lockdown, distinguishing between respondents who had improved or worsened household finances during lockdown; (iv) type of family, including variables measuring whether respondent is married and the number of kids ages 0 to 17 years; (v) level of trust in respondent's national government or in the WHO; (vi) an individual assessment of the preference towards a health-economy trade-off, defined on the basis of the following survey question: 'If you were asked to advise the government on choosing between prioritizing immediate economic gains or immediate public health gains in your country, what would be your position be on a 0 to 100 scale now?'; and vii) country-specific fixed effects. Significant levels : *** p<0.01, ** p<0.05, * p<0.1*

Table A4: WTP (PPP) in US $. Robustness checks

	Heckman			IPW		
	(1)	(2)	(3)	(4)	(5)	(6)
Average	143.2***	156.4***	139.1***	109***	129***	109.9***
Standard deviation	(14.66)	(32.59)	(13.39)	(10.90)	(30.38)	(10.49)
t-stat	9.770	4.800	10.39	10	4.246	10.47
Country dummies	Yes	No	No	Yes	No	No
Regional dummies	No	Yes	No	No	Yes	No
Regional controls	No	No	Yes	No	No	Yes

*Notes: This Table shows in column (1) predictions for the average WTP obtained from our baseline specification, controlling for country dummies, as a comparison, in columns (2) and (3) predictions for the average WTP obtained after including in our baseline model regional dummies, or regional covariates measuring the stringency index, the number of days since the last peak, and the number of cases per 1,000 population. In column (4), we show estimates obtained using Inverse Probability Weighting (IPW) as an alternative way to account for selection.. Control variables include the following dimensions: (i) basic controls like gender, age, years of education, employment status and monthly income in US$ and adjusted for PPP; (ii) exposure to COVID-19 measured by a variable recording whether the respondent or one of her household members has had COVID-19, distinguishing between those who had symptoms but did not get tested and those with a positive test result; (iii) economic situation during lockdown, distinguishing between respondents who had improved or worsened household finances during lockdown; (iv) type of family, including variables measuring whether respondent is married and the number of kids ages 0 to 17 years; (v) level of trust in respondent's national government or in the WHO; (vi) an individual assessment of the preference towards a health-economy trade-off, defined on the basis of the following survey question: 'If you were asked to advise the government on choosing between prioritizing immediate economic gains or immediate public health gains in your country, what would be your position be on a 0 to 100 scale now?'; (vii) vaccination intentions; and viii) country-specific fixed effects. Significant levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$*

Table A5: WTP (not adjusted by PPP) in local currencies.

	Basic	Exposure	Economy	Family	Trust	Trade-off
	(1)	(2)	(3)	(4)	(5)	(6)
Mills	-88.4896***	-82.4338***	-78.3521***	-67.8714***	-59.1926***	-58.9426***
	(11.215)	(10.793)	(10.046)	(8.897)	(14.678)	(14.687)
Male	21.5319*	21.2278*	20.8208*	20.8172*	18.9136	19.7939
	(11.937)	(12.044)	(12.011)	(11.970)	(12.103)	(12.064)
Age	-0.2013	0.4099	0.3791	-2.8286	-2.7651	-2.7533
	(2.431)	(2.386)	(2.394)	(2.499)	(2.484)	(2.480)
Age^2	-0.0061	-0.0116	-0.0114	0.0261	0.0253	0.0249
	(0.030)	(0.029)	(0.029)	(0.030)	(0.030)	(0.030)
8-13 years of educations	26.9311***	28.3126***	25.1852***	29.0976***	25.9385***	25.1880**
	(9.192)	(9.120)	(8.837)	(9.787)	(9.868)	(9.968)
$\geq$ 14 years of education	38.7141***	41.2399***	37.6029***	41.3171***	39.8186***	39.1121***
	(10.058)	(10.684)	(10.565)	(11.242)	(11.126)	(11.110)
Employed part-time	-19.7356	-19.0083	-16.4878	-13.2301	-14.6209	-14.8647
	(18.049)	(18.005)	(18.147)	(18.226)	(18.617)	(18.638)
Self employed	-3.6960	-4.2651	1.2366	5.2624	4.6341	4.6603
	(26.369)	(25.933)	(26.367)	(26.386)	(26.237)	(26.223)
Retired	-5.9998	-4.4195	-7.2263	-6.5807	-8.8702	-7.6033
	(21.890)	(21.804)	(22.074)	(21.711)	(22.063)	(21.854)
Unemployed	-21.8491*	-21.1687*	-18.8562	-4.2553	-6.3583	-6.5719
	(12.756)	(12.786)	(12.760)	(13.687)	(13.645)	(13.729)
Other condition	-39.4913***	-34.8688***	-33.6972***	-31.1769***	-32.0268***	-32.1141***
	(12.130)	(11.960)	(11.832)	(11.861)	(11.979)	(12.012)
Monthly income (PPP) in US $	0.0111**	0.0108**	0.0106**	0.0108**	0.0104**	0.0104**
	(0.004)	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)
Had COVID-19: thinks so		17.3640	15.8690	14.3698	13.9217	12.9631
		(26.344)	(26.165)	(26.092)	(26.296)	(26.210)
Had COVID-19: tested +		70.6054*	70.2951*	59.4737	58.5323	58.0199
		(37.464)	(37.697)	(37.136)	(37.202)	(37.015)
HH member had COVID-19: thinks so		25.7406	28.8592	31.1814	32.8791	32.7909
		(38.650)	(38.520)	(38.764)	(38.646)	(38.559)
HH member had COVID-19: tested +		-9.3039	-10.1000	-11.6705	-10.6760	-10.3055
		(11.446)	(11.477)	(11.720)	(11.687)	(11.745)
HH finances during lockdown: better			22.6721	18.2334	18.3859	17.3093
			(21.758)	(21.331)	(21.515)	(21.620)
HH finances during lockdown: worse			-24.6517**	-29.4376**	-28.0993**	-28.6367**
			(10.908)	(11.502)	(11.520)	(11.560)
Married/couple				18.8732*	16.9498*	16.4001
				(10.380)	(10.085)	(10.084)
1 kid				28.1633*	28.0650*	27.4112*
				(14.782)	(14.767)	(14.684)
2 or more kids				61.7279***	60.7126***	59.5029***
				(22.861)	(22.705)	(22.795)
Trust in National Gov.: fair/great					25.4937**	25.4417**
					(12.601)	(12.564)
Trust in WHO: fair/great					-7.1637	-7.7267
					(13.344)	(13.315)
Health/Economy trade-off						0.4240**
						(0.201)
Spain	2.0035	0.1186	0.8424	1.3306	5.0220	2.4791
	(12.291)	(12.183)	(12.314)	(12.157)	(13.170)	(13.042)
UK	3.5610	0.4045	-2.9523	-0.3269	3.0881	4.3588
	(13.496)	(13.361)	(13.325)	(13.366)	(12.902)	(12.862)
US	21.5456	21.6329	19.1555	20.6714	27.6577*	27.3477*
	(13.481)	(13.476)	(13.278)	(13.425)	(14.268)	(14.152)
Constant	38.2452	16.4066	28.7637	53.3201	44.5677	24.3726
	(62.783)	(64.631)	(64.478)	(63.523)	(64.917)	(66.042)
Observations	2,890	2,890	2,890	2,890	2,890	2,890
Average WTP	101.6	98.73	94.25	78.44	75.23	75.41
Standard deviation	9.894	11.04	11.43	12.96	15.33	15.33
t statistic	10.27	8.945	8.247	6.053	4.907	4.920

*Notes: This Table shows the main results from our preferred specification when WTP is recorded in local currencies. Columns (1-6) list coefficients estimated from the Heckman model described in equations 3-5, when different set of covariates, already described in the empirical strategy of the paper, are included stepwise. Column (1) includes only basic controls like gender, age, years of education, employment status and income in US $ adjusted for PPP. Column (2) controls for whether respondents or their household members either experienced symptoms or tested positive for COVID-19. Column (3) controls for variations (either positive or negative) in household finances during lockdown. Column (4) takes into account whether respondents are married or have kids with age between 0 and 2. Column (5) controls for the level of trust, we define two variables taking value one if respondents trusts a fair/great deal and 0 if she trusts not very much/at all, in National Government and the WHO. Lastly, column (6) adds a variable revealing respondents' preferences towards prioritizing health or the economy, measured on a scale between 0 (prioritize the economy) and 100 (prioritize health). Significant levels: *** $p<0.01$, ** $p<0.05$, * $p<0.1$*

Table A6: Average WTP (PPP) in US $ - conditional on sample characteristics.

	WTP		$WTP \neq 0$	$WTP_i \neq WTP_{av}$	$WTP_i \neq WTP_{ref}$
	mean	sd	t-value	t-value	t-value
	(1)	(2)	(3)	(4)	(5)
Reference	143.4	14.69	9.76	0	0
			Age		
75 yrs	156.8	14.36	10.92	0.46	0
53 yrs	115.4	15.59	7.4	-0.92	-0.92
18 yrs	229.3	24.03	9.54	2.22	1.89
			Education		
5-8 yrs	93.34	16.9	5.52	-1.58	0
9-13 yrs	135.2	18.72	7.22	-0.25	1.18
14+ yrs	151	14.95	10.1	0.26	1.81
			Employment status		
full time	157.3	16.67	9.44	0.44	0
part-time	118.1	19.89	5.94	-0.73	-1.07
self employed	121.1	16.77	7.22	-0.71	-1.08
unemployed	150.8	23.01	6.55	0.2	-0.16
other condition	101.2	17.62	5.74	-1.31	-1.64
			Income (PPP in US $)		
10-th percentile	119.4	17.87	6.68	-0.74	0
90-th percentile	175.8	19.15	9.18	0.96	1.52
			Exposure to COVID-19		
no	138.9	14.79	9.39	-0.15	0
yes, tested +	253.7	20.63	12.3	3.12	3.24
			HH finances during lockdown		
better	154.9	16.85	9.19	0.36	0
worse	129.9	14.72	8.82	-0.46	-0.79
			Marital status		
married	154.2	16.14	9.55	0.35	0
unmarried	127	15.13	8.39	-0.55	-0.87
			# of 0-17 kids		
0	124.7	16.18	7.71	-0.61	0
1	174.5	18.58	9.39	0.93	1.43
2 or more	182.5	23.5	7.77	1.02	1.46
			Trust in National Government		
not very much/at all	131	17.12	7.65	-0.39	0
fair amount/great deal	159.8	14.16	11.29	0.57	0.92
			Trust in WHO		
not very much/at all	139.4	18.99	7.34	-0.12	0
fair amount/great deal	146.3	13.16	11.12	0.1	0.21
			Health/Economy trade-off		
economy	119	19.49	6.11	-0.71	0
health	164.9	16.72	9.86	0.68	1.27
			Country		
Italy	152	17.94	8.47	0.26	0
Spain	152	17.94	8.47	0.26	0
UK	184.4	20.26	9.1	1.17	0.85
US	94.72	14.73	6.43	-1.65	-1.75

Notes: This Table shows predictions for the WTP of individuals with different socio-demographic characteristics. We obtained predictions through linear combination of significant coefficients from Table 4. The Tbale shows the mean, standard deviation and t-test for the difference between group means.