

Are people willing to pay for reduced inequality?*

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Abstract

Would consumers be willing to pay more for goods for which there is less inequality in wages across those involved in their production? In incentive-compatible behavioural choice studies on representative samples of the English and US populations, we find significantly positive willingness to pay for such inequality reductions in over 80% of subjects. Whilst it varies with political leaning and the extent of the inequality reduction, willingness to pay is positive across the political spectrum and for all studied inequality differences. It is higher for more intuitive and informative inequality-reporting formats. Our findings have policy implications for both governments and firms. On the one hand, they suggest the promise of universal provision of product-level inequality information as a tool for moderating income inequality. On the other, they highlight the potential relevance of inequality reporting for firms' marketing strategies.

Keywords: Income inequality; inequality information provision; consumer willingness to pay; inequality attitude; inequality reporting.

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1 Introduction

Income inequality is a topic of increasing controversy and relevance (Deaton, 2021; World Economic Forum, 2014), which has only been heightened with the Covid-19 crisis. Economics has traditionally concentrated either on understanding income inequality, documenting its extent, evolution and potential causes, or on proposing ‘downstream’ policies aimed at ‘correcting’ or ‘curing’ it, principally through some form of taxation and redistribution (Acemoglu and Autor, 2011; Atkinson et al., 2011; Piketty, 2014). Accordingly, studies on public opinion have largely focused, beyond attitudes to the inequality itself, on the public’s attitudes *qua* citizens to redistribution (Almås et al., 2020; Kuziemko et al., 2015; Orton et al., 2007). However, this risks overlooking the power that the public *qua* consumers could have ‘upstream’ in ‘preventing’ income inequality. Informing consumers of the inequality associated to each good on the market may impact their purchasing choices, exerting downward pressure on inequality, even before redistribution. Recent theoretical research makes a policy case for blanket inequality reporting at the point of purchase.¹ Specifically, it has been shown to lead to a reduction in overall income inequality whenever there is a non-negligible proportion of consumers who are willing to pay more for less excessive inequality in the production of the goods they purchase (Hill, 2023). Are there such consumers? Classical economics typically assumes that they aren’t—hence its disregard for information as a policy tool in this context. Yet, for an empirical question, this has undergone surprisingly little experimental investigation to date. The main aim of this paper is to provide an experimental reply to this question that subscribes to the existing norms in Behavioral Economics. Moreover, it also suggests a raft of further questions, including: How many consumers are willing to pay a premium for such inequality reductions, and how much? How does their willingness to pay vary with the extent of the inequality reduction, the format in which inequality information is presented or—given the political divisiveness of the issue—their political leanings? Beyond the obvious relevance of these questions for evaluating the policy of blanket inequality reporting, they are also crucial for informing companies’ consumer-oriented social communication policies (Section 5).

Motivated by these questions, we investigate *willingness to pay* (WTP) for reduced inequality across the production of goods through two pre-registered, incentive-compatible, online

¹Whilst some information about inequality at the company level is currently publicly available (see for instance AFL-CIO, 2020, companies’ annual reports, and footnote 4), it is not available for all products, and rarely provided at the point of purchase. Moreover, as Hill (2023) shows, blanket inequality reporting—i.e. reporting for all goods—may be expected to have different impacts from voluntary labelling, such as Fair Trade certifications.

	CEO-to-Median (CEO-MW)	Gini Index (GI)	Inequality scale (IS)	CEO: Min Wage; Median: Min Wage (2D)
Very High (<i>inequ_B</i>)	750:1	0.55	E	300:1; 1:3
High (<i>inequ_H</i>)	250:1	0.45	D	30:1; 1:3 300:1; 3:1
Medium (<i>inequ_M</i>)	50:1	0.25	B	
Low (<i>inequ_L</i>)	5:1	0.15	A	30:1; 3:1
# Subjects (England)	270	102	95	73
# Subjects (US)	540	183	194	163

Table 1: Summary of reporting formats and inequality levels used in the experiment

behavioural choice studies, on country-wide representative samples. Subjects were faced with shopping situations in which they had a fixed budget to spend on towel sets. They made a series of binary choices between towel sets that were comparable in all respects except for price and income inequality across the employees of the companies producing them, which were indicated. From their choices, we elicit their willingness to pay (WTP) for given inequality reductions: that is, the premium they were willing to pay to get the low-inequality towel set as opposed to the one with higher inequality. To incentivise choices, we employed a Random Incentive Mechanism based on those standard in Behavioral Economics. Several subjects were randomly chosen and had one of their choices played ‘for real’: they were sent a towel set for which the price and the inequality of the company producing it corresponded approximately to those they had selected in the choice, as well as their change from the allocated budget (see Table 2). Our study was carried out on representative samples of the English and US populations. In both these countries, income inequality has recently been an important and hotly debated topic in the public sphere,² though their residents are on average more accepting of income inequality compared to other developed countries.³

Beyond collecting evidence pertaining to the main motivating question—are consumers willing to pay more for less excessive inequality?—our experiment also explored how WTP is impacted by the extent of the inequality reduction and the format in which inequality is reported. More specifically, we examined three degrees of inequality reduction for each of the following four inequality reporting formats (Table 1). The CEO-to-median-worker pay ratio (CEO-MW)—the ratio of the company’s CEO pay to its median pay across the workforce—is

²For instance, inequality is a central theme of the Biden administration (e.g. forbes.com) and of the Deaton review set up by the UK Institute for Fiscal Studies (ifs.co.uk).

³For example, in the ISSP 2009 data (ISSP Research Group, 2017) on participants’ ideal CEO-to-unskilled worker pay ratio (the ratio of how much a CEO should earn to how much an unskilled worker should earn), the US ($Mdn = 6.7$, interquartile range [3.3, 17.5]) has a higher median ratio than Europe ($Mdn = 4$, interquartile range [2.5, 6.7]), with the UK ($Mdn = 5.3$, interquartile range [3, 10.4]) lying between the two.

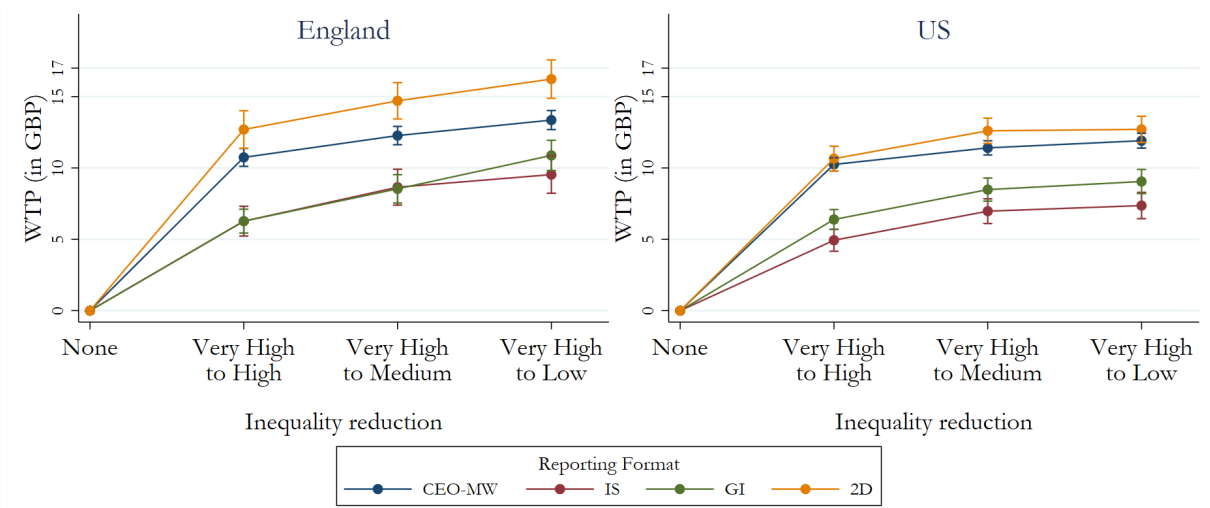


Figure 1: Mean WTP in £ for various inequality reductions, across reporting formats

Note: Mean willingness to pay (with error bands corresponding to the standard errors of the mean) across respondents in each country for each of the four inequality reporting formats (CEO-to-median-worker pay ratio, Inequality score, Gini index, 2-dimensional format) for each of the three extents of inequality reduction (Very High to High, Very High to Medium, Very High to Low; see Table 1, and Table A.6 for the coding of inequality levels under the 2D format). WTP was converted from USD to GBP for US respondents using the exchange rate \$1 = £0.75 at the time of the US experiment (24 November, 2020). Sample sizes as in Table 1.

by far the most commonly used measure of company-level inequality both in practice⁴ and in the empirical literature on attitudes to CEO pay (Section 2). Theoretically, the CEO-MW is related to quantile ratios, which are often used in the inequality literature (Atkinson et al., 2008; Katz et al., 1999; OECD, 2020). The Gini index (GI)—a real number between 0 (perfect equality) and 1 (a single individual receives all the income)—is one of the most common inequality measures in the economic literature on country-level inequality (OECD, 2020). The Inequality score (IS) is a 5-point scale from A (lowest inequality) to E (highest inequality), of the sort frequently used for information provision concerning energy efficiency (noa, 2020), nutritional quality (Dubois et al., 2021; Julia et al., 2018) or environmental footprint (ADEME, 2020). The 2-dimensional measure (2D) comprises of two ratios—the ratio of the company’s CEO pay to the country’s minimum wage, and the ratio of the company’s median worker pay to the minimum wage. Though more informative, it can typically be computed from the same company-level data needed to calculate the CEO-MW ratio. By separating up-side and down-side inequality, it allows insight into peoples’ relative sensitivity to inequalities driven by excesses at the top vs. the bottom of the distribution.

Our main finding, which is illustrated in Figure 1, is the striking extent of willingness to

⁴Following the adoption of the Dodd-Frank Act, publicly traded US firms are required to disclose their CEO-to-median worker pay ratios in their annual reports (see sec.gov). Similar obligations are present in the UK (gov.uk) and France (economie.gouv.fr).

pay for inequality reduction, both in the size of WTP and more importantly in the proportion of subjects for which it is positive. On average, respondents were willing to pay a premium of between 16% and 54% for the lower-inequality good (depending on the reporting format and inequality reduction), with only 10% of subjects exhibiting no willingness to pay in all tasks. Surprisingly, given the divisiveness of inequality in political discourse, WTP is typically positive across the political spectrum. We also uncover some interesting variations in WTP. Whilst it is typically increasing in the size of the inequality reduction, there is often a point after which it ‘flattens out’ (i.e. ceases to increase for further reductions), and this happens earlier for subjects that are further on the Right of the political spectrum. Moreover, an important driver of WTP seems to be opinions about the size of country-level inequality, with more agreement that inequality is too large being associated with higher WTP. Finally, we find that the WTP elicited when inequality is reported in the CEO-to-median-worker pay ratio format is significantly larger than when reported using the Gini index or the Inequality Score.

2 Related Literature

The extensive literature on inequality attitudes does not to date provide a full reply to our research questions. Survey studies (ISSP Research Group, 2017; Kiatpongsan and Norton, 2014; Osberg and Smeeding, 2006), for instance, have typically focused on subjects attitudes *qua* citizens to society-level inequalities and its drivers, rather than their attitudes *qua* consumers to inequality characteristics of purchased goods.

The Behavioral Economics literature on inequality and fairness, which typically involves incentive-compatible experiments, is sometimes divided into two strands (Clark and d’Ambrosio, 2015). One examines ‘disinterested’ opinions or ‘normative’ evaluations of income inequality: whether an individual considers a certain inequality level acceptable independently of how it affects them, as when they occupy the role of a spectator or social planner (Almås et al., 2020; Konow, 2000). Such decision contexts do not closely match those of a consumer making purchasing choices among goods associated with different inequality levels: for one, she has much less direct power over inequality than a social planner. The other strand focuses, typically in strategic situations, on ‘comparative’ or positional evaluations where individuals’ preferences are sensitive to how their payoff compares to others’, and hence where they lie in the income distribution (e.g. Fehr and Schmidt, 1999, 2003, 2006; Bolton and Ockenfels, 2000). Particularly

pertinent for our research questions are experiments where a subject's choice affects a third party, such as in the ultimatum game with a bystander (Güth and Van Damme, 1998) or in experiments on externalities in markets (Bartling et al., 2015; Breyer and Weimann, 2015; Falk and Szech, 2013; Pigors and Rockenbach, 2016). Beyond 'consumers' and 'firms', these experiments typically involve a single third party—as opposed to a group of workers in the case relevant here—and, in information treatments, full information is provided about all players' payoffs—as opposed to information on income inequality across workers, which may be insufficient to deduce their salaries. Hence, compared to the consumer context, these experimental markets naturally involve increased salience of the 'positional' comparison of consumers' with workers' payoffs, with typically less focus on inequality across workers. However, they do underline the importance of investigating purchasing behaviour in a consumer context. For instance, Bartling et al. (2015) find that subjects presented with options framed as buying products with different 'impacts' on a third party have lower propensity for socially responsible decisions than those faced with the same decisions framed as choosing among distributions across subjects. This suggests the relevance of investigating contexts of consumer choice among goods associated with different inequalities, as compared to contexts where decisions are framed in distributional terms.

Beyond the decision context, two other differences between the situations studied here and those typical in the Behavioural Economics literature are relevant. The first is the information provided. An important theme in the aforementioned literature is the importance of fairness in determining the acceptability of inequalities in payoffs. This is typically revealed in studies where subjects are fully informed of the relevant fairness considerations—say, of agents' 'merit' of their allotted payoffs (e.g. Cappelen et al., 2013, 2020a; Almås et al., 2020). By contrast, a consumer informed of the income inequality across employees of the firm producing a good knows something about the inequality in pay, but not about merit. Any inequality attitudes that emerge in such a context can be interpreted as those that subjects hold under their expectations about merit, or alternatively independently of merit. This ties in with the second distinction, which concerns the scale of inequality: while the inequalities in many of the cited experiments involve differences in the order of tens of dollars at most, some real-world within-firm inequalities can involve a thousand-fold difference between the highest and lowest pay (see Figure 2, Section 3.3). So whilst the existing literature has shown that some inequalities in payoffs may be deemed acceptable because of fairness considerations, none have experimen-

tally explored inequalities as large as those relevant in the current context. Hill (2023) proposes a reduced-form preference model where inequalities up to a certain level may be deemed acceptable because potentially justified, for instance by possible or expected merit, but which permits aversion to inequalities above that level—an attitude that he calls *extreme-inequality aversion*. The current study is to our knowledge the first in the Behavioral Economics tradition to examine such extreme-inequality attitudes in a consumer context.

Perhaps the closest papers to our research question belong to a small consumer-oriented literature on inequality attitudes (Mohan et al., 2015; Mohan et al., 2018; Benedetti and Chen, 2018), which finds a negative correlation between *willingness to buy* from a firm and its CEO-to-median-worker pay ratio. This literature typically focuses on stated measures of willingness to buy equally priced goods associated with differing inequalities, for instance. Yet willingness to pay for goods produced with reduced inequality is more relevant for evaluating both the consequences of inequality information provision for overall inequality (Hill, 2023) and the impact of inequality communication on firms’ pricing policies. Moreover, these studies are typically not incentive compatible, in the sense that the mechanism relating subjects’ payment to their reported choices makes it in their best interests for their reports to correctly reflect their preferences.⁵ Yet, since the effect of inequality information must pass through consumers’ purchasing decisions, an incentive-compatible elicitation arguably helps to get closer to actual preferences, mitigating for instance hypothetical or social desirability biases (Harrison and Rutström, 2008; Krumpal, 2013). Finally, the studies in this literature have not used general population samples. To provide a full reply to our research question, capable of convincing economists of the relevance of the policy of inequality information as well as informing firms about the pertinence of reporting their inequality, an incentive-compatible study of consumers’ willingness to pay for reduced inequality, ideally on country-level general population samples, is still lacking. This observation is the key motivation for the current study.

Beyond the literature dedicated to inequality attitudes, a wide range of papers study the effects of information about characteristics of goods other than income inequality. For instance, a large literature on Fair Trade labels, including survey (De Pelsmacker et al., 2005) as well as field studies (Hainmueller et al., 2015; Hiscox et al., 2011), suggests that a significant proportion of consumers are willing to pay a premium for goods with such labels. Notably,

⁵The only incentive-compatible study of which we are aware (Mohan et al., 2018) gives subjects the choice between equal-valued gift vouchers for firms with different income inequality levels, and hence does not focus on willingness to pay for a good from these firms.

non-incentivisation of survey responses has attracted criticism in this literature (Andorfer and Liebe, 2012). From an economic point of view, voluntary labelling involves a signalling element that blanket inequality reporting does not: for instance, ‘bad’ cases are unambiguously identified under blanket reporting, though not under voluntary labelling. Moreover, labels like Fair Trade or B-Corp are typically binary, whereas the information on inequality is richer. Market experiments comparing blanket information to voluntary labelling suggest that these differences may have an impact (Pigors and Rockenbach, 2016). So again, whilst suggestive, this literature does not bear directly on our research question. Indeed, studies on compulsory labelling, for instance on nutritional or environmental properties, are closer to our question, at least as concerns the voluntary nature of the labels. Interestingly, lab experiments on nutritional labelling typically find effects on consumer behaviour that go in the same direction as those found in comparable field experiments, albeit with different magnitudes (Crosetto et al., 2020; Dubois et al., 2021), thus suggesting the potential relevance of findings in consumer-oriented lab studies when moving to the field.

3 Methods

3.1 Participants, stimuli and treatments

Participants in both studies ($n = 270$ for the English study, conducted in May 2020; $n = 540$ in the US one, conducted between late November 2020 and January 2021) were recruited as per the pre-registration,⁶ through Qualtrics (an online panel provider). We requested samples of the English (respectively US) over-18 population with quotas mirroring census data based on age, gender, region and, in the case of the US, education level. As displayed in Table A.16 (Online Appendix A), each sample was representative of the over-18 population of the respective country, in terms of age, gender and region of abode. After basic socio-demographic questions, eligible subjects were given instructions (Figures C.1-C.2; Online Appendix C), and a set of comprehension questions to check that they had understood them correctly (Figure C.3). Only subjects which correctly completed the comprehension questions continued with the experiment. The median time taken to complete the experiment was 11.1 minutes in the English study, and 12.0 minutes in the US one.

⁶The public registrations can be found online on the Open Science platform at <https://osf.io/vsk39> for the English study, and <https://osf.io/ehr53> for the US one.

The experiments were identical bar the translation of choice questions into the home currency and one survey question (vote in the 2020 US Presidential Election; see Table C.1). We used a fixed 3 [alternative reporting format: GI, IS, 2D] \times 3 [Inequality reduction: Very High to High, Medium, Low] mixed design with the alternative reporting format as a between-subject factor and the inequality reduction as a repeated factor. Each treatment group undertook two blocks of elicitation tasks: one for the CEO-MW format, and the other for the treatment-dependent alternative inequality reporting format (Table 1). At the beginning of each block the inequality format used was explained, and subjects had two attempts to complete a comprehension question concerning it before proceeding (see Figures C.4–C.7). Each block involved the elicitation of three WTPs, each of which involved the reduction in inequality from a benchmark very high inequality level and low price to a lower inequality level (see Table 1). The order of blocks was randomised for each subject, as was the order of elicitation within each block. After completing these tasks, subjects answered feedback and survey questions, detailed in Table C.1.

3.2 Elicitation technique

Participants were presented with situations in which they are shopping online for towel sets, with a budget of £50 / \$65.⁷ Each choice question involved two suitable 6-piece white cotton towel sets from two different, anonymous online home retailers. They were told that the towel sets were comparable in every way except for the price and the inequality in income across employees of the company producing and selling them, of which they were informed. In each choice question, they were asked to choose the towel set they wished to buy.

For the benchmark price and inequality level ($price_B$, $inequ_B$) and an inequality level $inequ_n$, we elicited the indifference point—the price $price_n$ such that the subject is indifferent between a towel set with ($price_B$, $inequ_B$) and one with ($price_n$, $inequ_n$). This was done using a version of the ‘bisection’ or ‘staircase’ method (Bostic et al., 1990; Cornsweet, 1962), which involves a chained sequence of binary-choice questions with fixed inequality and varying price (see Figure C.8 for a typical question). The benchmark $price_B$ was set at £30; while $price_i$, initially set at £30, varied in increments, with a lower bound of £10 and an upper bound of £60. The first two binary choices in each sequence, for $price_i = £30, £40$, were the same for all participants. Sub-

⁷The US price points were designed to approximately match the English ones, under the exchange rate on the first day of the US study (24 November, 2020): \$1 = £0.75. Henceforth, we conduct the discussion in pounds, under the understanding that the same points hold for the US study and the corresponding dollar values.

sequent binary choices followed the logic of the bisection process, with the varying parameter ($price_i$) determined by previous choices. It was designed such that $price_{i+1} > price_i$ (respectively $price_{i+1} < price_i$) if the $(price_i, inequ_n)$ good was chosen (resp. not chosen) in the previous question. More specifically, let \underline{price} be the largest $price_i$ such that $(price_i, inequ_n)$ is chosen over $(price_B, inequ_B)$ in some choice (and set it at $-\infty$ if there is no such choice), and \overline{price} be the smallest $price_i$ such that $(price_B, inequ_B)$ is chosen over $(price_i, inequ_n)$ in some choice (and set it to ∞ if there is no such choice). It follows that the subject's indifference point lies in the interval $[\underline{price}, \overline{price}]$. At each stage in the sequence, if the interval thus defined on the basis of previous choices did not stretch to ∞ or $-\infty$, the next question involved the mid-point price $\frac{1}{2}(\overline{price} + \underline{price})$; so, at the subsequent stage, the width of the interval was halved. If $\overline{price} = \infty$ (i.e. there were no choices in which the subject has chosen $(price_B, inequ_B)$), the subsequent choice involved the price £10 or £5 higher than the largest price yet faced by the subject; and similarly for $\underline{price} = -\infty$.⁸ The procedure stopped when the width of the interval $[\underline{price}, \overline{price}]$ was at most £1.00 or when the limit of the range for $price_i$ was reached; it was designed such that there were between 5 and 7 binary choices. At the end, the indifference point $price_n$ was taken to be the midpoint of the interval $[\underline{price}, \overline{price}]$ if it did not stretch beyond the £10–£60 range, and the boundary point reached if it did. The WTP for the reduction in inequality from $inequ_B$ to $inequ_n$ is $price_n - price_B$. If $price_n < price_B$, the WTP is negative.

This elicitation only situates the indifference point in the interval $[\underline{price}, \overline{price}]$, so the most conservative estimate for this point (in the context of this study, which is focused on the possibility of positive WTP) is \underline{price} . The price points were set on the basis of typical prices of towel sets on the market at the time—which ranged from below £30 to above £60 (see also Section 3.4)—and designed such that all elicitations involved roughly the same number of binary choices. By contrast, the budget allocated to subjects (£50) was determined by financial considerations. So some subjects may have been offered towel sets costing more than their budget. However, by design, any such subject, and *a fortiori* any subject for which $\underline{price} > £50$, faced a choice between the benchmark good and a towel set with the specified lower inequality level priced at £50, and chose the latter. Hence, independently from any incentive issues with subsequent choice questions, the subject's choices indicate that she is willing to spend all of her budget (£50) on a towel set with the specified inequality. We thus define the lowest possible

⁸Specifically, after the first two choices with $price_i = £30, £40$, the sequence of $price_{i+1}$ is (£50, £55, £60) if $\overline{price} = \infty$, and (£20, £15, £10) if $\underline{price} = -\infty$.

WTP coherent with the subject’s fully-incentivised choices, $WTP_{min} = \underline{price} - price_B$ when $\underline{price} \leq £50$, and $WTP_{min} = 50 - price_B$ otherwise.⁹ WTP_{min} is more relevant than WTP for testing (strictly) positive willingness to pay, for it guarantees that results are not driven by the arbitrary choice of the midpoint of $[\underline{price}, \overline{price}]$ as our indifference point, and avoids poorly incentivised choices.

Note finally that the elicitation involved straight-out binary choices. Although this implies a within-subject comparison of the goods available in each choice, this task is arguably closer to real-life purchasing contexts than Multiple Price Lists, buying or selling prices, or willingness-to-buy reports focusing on single goods taken in isolation.

3.3 Inequality levels

The CEO-MW inequality levels used in the experiment (Table 1) were set based on the ISSP 2009 data on ‘ideal’ CEO and median worker pay (ISSP Research Group, 2017; Kiatpongsan and Norton, 2014), the distribution of CEO-to-median pay ratios among the 265 companies in the *Consumer Discretionary* category (relevant for the textile industry) among the *Russell 3000* companies in the AFL-CIO data set (AFL-CIO, 2020), and the CEO-to-mean pay ratios of 99 *FTSE 100* companies in the CIPD data set (CIPD, 2020).¹⁰ These distributions are displayed in Figure 2; see Table A.18 for further details. Our very high inequality benchmark level in the CEO-MW format, 750:1, corresponds to the 86th percentile of companies in the *Consumer Discretionary* industry in the AFL-CIO sample and the 98th percentile for the UK sample. The low level, 5:1, roughly matches to the ‘ideal’ CEO-MW ratios in the UK and the US (ISSP Research Group, 2017) and the 1st percentile among companies in *Consumer Discretionary* industry. Our intermediate inequality levels were selected to span the range of percentiles: the medium level, 50:1, is located below the first quartile for the *Consumer Discretionary* group and between the first quartile and the median for the UK sample, whereas the high level, 250:1, is located between the median and the third quartile for the *Consumer Discretionary* group and between the third quartile and the 90th percentile for the UK sample.

Every effort was made to calibrate the inequality levels under the other formats with those set for the CEO-MW. As noted in the Introduction, Gini indices are frequently used to mea-

⁹In the case where $\underline{price} = -\infty$, WTP_{min} is set at $WTP = -20$, corresponding to the lower bound of the price range, £10.

¹⁰Although CEO-to-mean and CEO-to-median pay ratios are not directly comparable (with the mean employee pay often above the median employee pay), we also consider the CIPD UK data set since one of the studies is run in the UK where CEOs of large corporations tend to be paid less than their US counterparts.

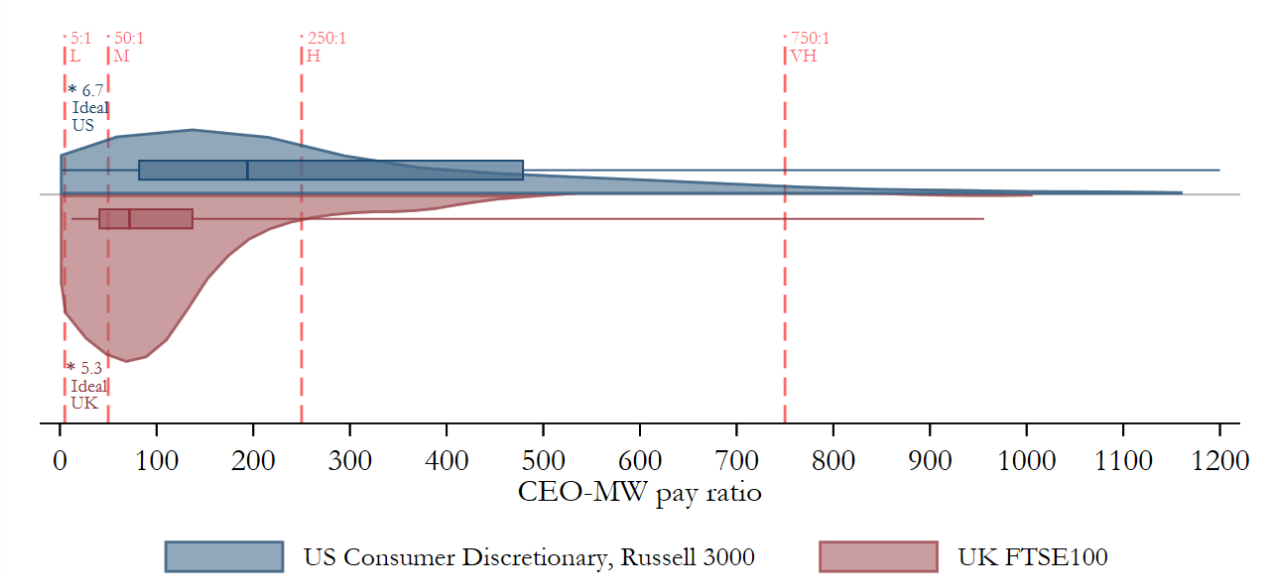


Figure 2: Distribution of pay ratios for publicly listed companies (US, UK; FYE2018)

Note: Sources: AFL-CIO (2020), CIPD (2020). This figure shows the box plot (1st, 25th, 50th, 75th and 99th percentiles) together with the estimated kernel density (using the Epanechnikov kernel function) of (i) the distribution of CEO-to-median-worker pay ratio for publicly listed Russell 3000 US companies in the “Consumer Discretionary” industry in blue (for which the pay ratio was collected by AFL-CIO, $n = 265$); and (ii) the distribution of CEO-to-mean-worker pay ratio for publicly listed UK companies in the FTSE 100 in red (for which the pay ratio was collected by CIPD, $n = 99$). The US kernel density was calculated excluding the unique outlier above 4000 and with a bin width of 100, the UK kernel density was calculated with a bin width of 50. US values above 1200 are not shown for ease of presentation (see Table A.18 for details). For comparison, red dashed vertical lines show the 4 levels of CEO-to-median-worker pay ratio used in our experiments (Table 1). Bold stars indicate the ‘ideal’ CEO-MW in the ISSP 2009 data (ISSP Research Group, 2017; $n = 808$ for the UK sample, $n = 1,378$ for the US sample).

sure country-level income inequality, though significantly less for firm-level inequality. The inequality levels under the GI used here (i.e. 0.15, 0.25, 0.45 and 0.55; see Table 1) were thus based on the distribution of Gini indices at the country level (World Bank, 2020)—which range from 0.24 to 0.63. They roughly mirror the percentile rank of our CEO-MW ratio levels, as well as the few existing data points on the GI at the company level.¹¹ For the Inequality Score, we assigned ‘A’ to reflect the ISSP data’s ‘ideal’ CEO-MW of 5:1, and ‘E’ to mirror the very high level of 750:1. On the basis of the location of the CEO-MW levels with respect to the median of the *Consumer Discretionary* group (Figure 2), we assigned a value of ‘D’ to roughly correspond to the 250:1 level, and a value of ‘B’ for the 50:1 level. The calibration in the case of the 2D CEO-to-minimum wage / Median-to-minimum wage ratio is facilitated by the fact that the CEO-MW value can be derived from the 2D one; these translations are given in Table A.6. Clearly, the very high and low inequality levels under the 2D format correspond to CEO-to-

¹¹Specifically, the only study we could find reporting company-level Gini index (Morais and Kakabadse, 2014) reports the ‘Corporate Gini index’ for a multi-national retail company as ranging from 0.16 to 0.25 whereas the CEO-MW ranged from 55:1 to 71:1. Data concerning a software company which implements the policy of making the pay of all its employees publicly available indicate a GI of 0.16 and CEO-MW of 2:1.

median worker pay ratios that are comparable to the corresponding levels under the CEO-MW formats. The choice of 1:3 median-to-minimum wage ratio for the very high level is based on data from the *Consumer Discretionary* dataset (AFL-CIO, 2020), according to which 16 companies (resp. 5 companies) out of 265 have a median-to-UK minimum wage (resp. median-to-US minimum wage) ratio smaller than or equal to 1:3.¹² The intermediate 2D levels were chosen such that, for each of them, only one of up-side vs. down-side inequality differs with respect to the very high and low 2D levels, and so that their corresponding CEO-MW levels are comparable. As a consequence, whilst for the one-dimensional formats there is a clear ordering of the inequality levels, in the 2D format only the highest and lowest inequality levels used in the experiment can be unequivocally ordered with respect to the others according to inequality.

3.4 Incentivisation

Beyond the standard participation fee of roughly £2 / \$2.50, we implemented a Random Incentive Mechanism based on those standard in Behavioral Economics. At the beginning of the experiment, participants were informed that they each had an equal chance of being selected to receive the budget and have one of their purchasing decisions automatically selected by the program and played for real. ‘Playing for real’ involved, on the one hand, the participant being sent a towel set that is sold at the price and by a company with the inequality specified in the option they chose. On the other hand, they were sent, as change, the difference between the budget and the price of their chosen towel set. After data collection, randomly-chosen subjects (3 out of 270 in the English study; 6 out of 540 in the US study) were contacted for remuneration according to their choice in the same question, involving the Very High-to-Low inequality reduction on the CEO-MW scale, and the prices £30 and £40 (\$40 and \$50 in the US). Consenting subjects were sent towel sets with price and inequality level matching the option they selected in this choice question as well as the relevant change, as described in Table 2. By the experimental design, all subjects faced this question (Section 3.2). For subjects who are only interested in maximising their cash payout, as well as subjects who are not willing to pay more for goods with reduced inequality across production, the procedure yields an elicited WTP indistinguishable from 0.

This random incentive mechanism ensured that subjects were in complete ignorance about the purchasing decision that would be played for real if they were selected; it was thus in their

¹²The 2019 UK minimum hourly wage was £8.21; the US minimum wage was \$7.25.

Product	Used for remuneration			Choice question		
	Inequality	Price		Inequality	Price	
		England	US		England	US
1	785:1	£29.43	\$39.99	750:1	£30	\$40
2	2:1 (CEO) 6:1 (CFO)	£37.99	\$50.99	5:1	£40	\$50

Table 2: Inequality and price for 6-piece white cotton towel sets used for remuneration of subjects.

Note: Inequality is given in the CEO-MW ratio, though for the second product, we also give the ratio of the CFO-median worker pay ratio, the CFO being the highest paid employee. Prices obtained from the websites (online shops) of the companies; CEO-MW ratios obtained from AFL-CIO (2020) and companies' annual reports.

best interest to answer truthfully in each binary choice they faced.¹³ It did so whilst allowing us to remunerate according to the same choice question for all subjects. This was key to tackling the central challenge for incentive-compatible elicitation in this context, namely the difficulty in finding products whose inequality in production and price match those in the choice questions faced by subjects. For each reporting format, the cohort could face over 20 different prices for each of three different inequality levels: it is practically impossible to find towels sets on the market matching all combinations of price and inequality levels. Moreover, for certain formats, such as GI, publishable data on within-company inequality is unavailable. By relying on the obligation for listed companies in several countries to report their CEO-MW ratio, we used publicly available data to identify companies producing towel sets with appropriate differences in prices and inequality levels. By constructing our elicitation to include such points, and using the random incentive mechanism just described, we could ensure 'true' payment: the towel set received has approximately the same price and inequality as the one chosen (Table 2).

4 Results

4.1 Are people willing to pay for reduced inequality?

As indicated by Figure 1, and confirmed by Figure A.1 in Online Appendix A, both mean and median willingness to pay for reduced inequality are significantly higher than zero across inequality reductions, inequality reporting formats and countries. For the largest inequality reduction and the CEO-MW format, median WTP is £10 or over in both England and the US—a third of the price of the very high inequality good (£30). For all reporting formats and across

¹³Specifically, they could not rule out any of the choices as being possibly played for real, and hence their weakly dominant strategy was to answer truthfully.

both countries, one-sample two-sided t -tests reject the null hypotheses of zero WTP and of zero WTP_{min} for the largest inequality reduction ($p < 0.001$ in all cases; Table A.1b), and two-sided binomial tests reject the null hypothesis of equal distribution of strictly positive vs. negative or zero WTP_{min} for all inequality reductions ($p < 0.001$ in all cases; Table A.1a). In both England and the US, the proportion of subjects with (strictly) positive WTP_{min} is above 80% for all inequality reductions under the CEO-MW format, falling to just under 70% under the IS format. Only 10% of all subjects (29 out of 270 in England, 51 out of 540 in US) exhibited no willingness to pay across all levels of inequality reduction and reporting formats. Recall that our procedure permitted negative WTP (i.e. people willing to pay more for the more unequal good); 1% of all subjects (2 in England, 7 in US) exhibited strictly negative WTP across all levels of inequality reduction and reporting formats (see also Table A.2).

To check whether these results depend on the effects of subject income on the perception of the towel set (and its price), we repeated the tests in three income categories, and obtained similar results (Figure A.2).

Given our motivation in terms of information provision, we also check how our results are impacted by the extent to which participants would use inequality information if provided. During end-of-experiment survey questions, 67% of English subjects and 60% of US ones stated that they would definitely or probably use company-level inequality data when shopping (Table A.17a). Even if one sets all other subjects' WTP to zero—translating an assumption that, even if the information were available, they would ignore it—the tests for positive WTP under the CEO-MW format yield similar results.

Finally, we repeat these analyses using survey weights; see Figure B.1 which reproduces Figure 1 under survey weights, and Online Appendix B for further details. As is clear from the similarities between Figures B.1 and 1, the main conclusion of significant positive WTP is upheld. Rerunning the t -tests and binomial tests mentioned above under survey weights yields similar conclusions for most inequality reporting formats (Table B.1).

4.2 Is WTP sensitive to the extent of inequality reduction?

Figure 1 suggests that WTP is sensitive to the extent of inequality reduction. This is confirmed by one-way ANOVAs with repeated measures of WTP against reduction in inequality, which reject the null hypothesis of identical WTP across inequality reductions for all inequality formats and both countries ($p < 0.001$ in most cases; Table A.4). Friedman tests come to the same

conclusion ($p < 0.001$ in all cases).

Regression analysis (Table A.3) shows that the correlation between WTP and the extent of inequality reduction is generally positive, both across inequality formats and countries. However, there are interesting cross-country differences in the shape of the WTP curve. In particular, as depicted in Figure 1, the WTP curve for US respondents flattens more rapidly with increases in inequality reduction for the CEO-MW, GI and IS formats, as compared to the curve for their English counterparts. For the CEO-MW format, for instance, though both English and US subjects are willing to pay more for a reduction in inequality from 750:1 to 50:1 than for a reduction from 750:1 to 250:1, only among English subjects is there evidence that they are willing to pay an extra premium for a further reduction to 5:1.¹⁴ As discussed in Section 4.4 below, this may be related to differences in attitudes to fairness across the political spectrum, and the higher proportion of people with Right political leanings in our US sample as compared to the English one (Table A.16). Similar patterns emerge for most inequality reporting formats under re-analysis with survey weights (Table B.2).

Reductions to intermediate inequality levels in the 2D format involve reductions in up- and down-side inequality respectively (Table 1). Since the levels are comparable in absolute terms (Table A.6), our data can speak to the question of the comparative sensitivity of WTP to inequalities driven by excessively low pay at the bottom of the distribution vs. excessively high pay at the top. Two-sided paired t -tests in both countries and Wilcoxon signed-rank tests in the case of the US weakly reject the null hypothesis of equal WTP across the intermediate inequality levels ($p < 0.05$ in all these cases), with more subjects displaying higher WTP for the reduction in down-side inequality as opposed to up-side inequality (Table A.5).

4.3 Is WTP sensitive to the inequality reporting format?

Figure 1 suggests systemic differences in WTP across inequality reporting formats. This is confirmed by split-plot ANOVAs, with the WTP for the largest inequality reduction as the dependent variable, the CEO-MW v.s. treatment format the within factor, and the treatment format the between factor. They find a statistically significant main effect for the within factor (CEO-MW vs. the others) and its interaction with the between factor (IS vs. GI vs. 2D format), in both England and the US (Table A.7a). Two-factor repeated-measures ANOVAs comparing

¹⁴In terms of counts, whereas only 29% of US subjects showed a strictly higher WTP for the reduction to 5:1 than for the reduction to 50:1, 39% of English subjects did. In both cases, 52% of subjects exhibited the same WTP for the two reductions.

the CEO-MW format to the IS and GI formats respectively across levels of inequality reduction come to similar conclusions (Table A.7a). Moreover, two-sided paired t -tests and Wilcoxon signed-rank tests, conducted for each reduction in inequality, reject the null hypothesis of equal WTP between CEO-MW and both the IS and GI formats for most levels of inequality reduction and across both countries, with more subjects having higher WTP under CEO-MW than the contrary (Table A.7b). Our data thus points to higher WTP under CEO-MW format as compared to both IS and GI. By contrast, in the comparison between CEO-MW and the 2D format, the tests fail to reject the null hypothesis of identical WTP for the largest inequality reduction for US subjects; in the English cohort, the null hypothesis is weakly rejected by a t -test, with more subjects having higher WTP under the 2D format (Table A.7b).

Subjects' stated opinions on the formats may provide some hints into what is behind these differences. Quantile measures of inequality, such as the CEO-MW format, are known to carry less information about the middle of the income distribution than, say, the Gini index, though they may contain more information about the tails (Cowell, 2011; Piketty, 2014). Subjects typically consider the CEO-MW format to be more informative than GI (Table A.17b), which could be interpreted as an indication that they take more heed of information about the tails of the distribution when evaluating WTP. This could provide one explanation of the WTP difference between CEO-MW and GI: since the Gini Index is *ceteris paribus* less informative about the tails, it elicits lower WTP. Another explanation passes through understandability: subjects also find CEO-MW more understandable than GI (Table A.17b), suggesting that it 'connects' better with them, thus eliciting higher WTP. Under this explanation, the stated differences in informativeness reflect subjects' relative ignorance about what the Gini Index means as compared to the CEO-MW ratio, rather than a specific focus on certain parts of the income distribution. Our experiment cannot decide between these explanations, or indeed between them and a combination: WTP is higher under CEO-MW because it strikes a balance between informativeness and understandability, 'connecting' better with subjects whilst clearly singling out an objective, informative, conceptually simple and important dimension of inequality.

As noted in the Introduction, the Inequality Score was modelled on 5-point scores in use in the nutritional, energy or ecological domains, where it is typically considered easy to understand, although the details of its calculation are typically intricate at best and opaque at worst. Subjects considered CEO-MW to be more informative and, perhaps surprisingly, more understandable than IS (Table A.17b): again, one or both of these dimensions could have been

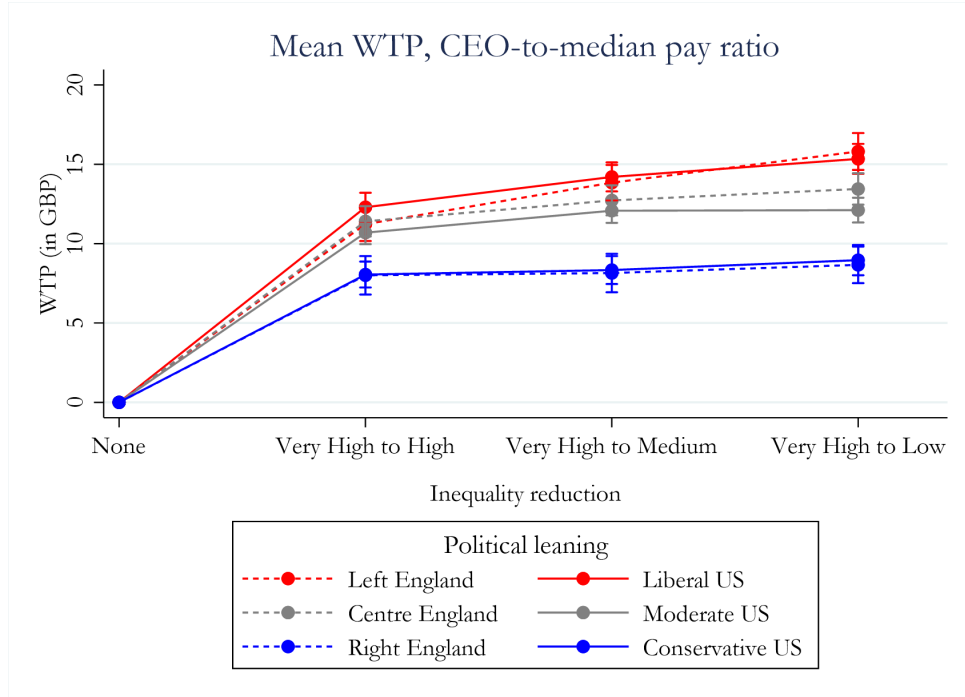


Figure 3: Mean WTP in £, over self-reported political leanings (CEO-MW format).

Note: This figure shows mean willingness to pay (with error bands corresponding to the standard errors of the mean) using the CEO-to-median-worker pay ratio reporting format for each of the four levels of inequality reduction (Very High to High, Very High to Medium, Very High to Low; see Table 1) across respondents in each country based on their answer to the question “On economic policy matters, where do you see yourself on the left/right spectrum?” (Table C.1). WTP was converted from USD to GBP for US respondents using the exchange rate \$1 = £0.75 at the time of the US experiment (24 November, 2020). $n = 270$ for the English sample; $n = 540$ for the US sample.

a driver of larger WTP.

4.4 WTP and political leanings

Figure 3 clearly indicates that willingness to pay is strictly positive across the political spectrum. This is confirmed by one-sample two-sided t -tests, which reject the null hypothesis of zero WTP_{min} under the CEO-MW format for all amounts of inequality reduction and every self-reported position as concerns economic policy on the Left/Right spectrum¹⁵ ($p < 0.001$ in all cases; Table A.8). Wilcoxon signed-rank tests yield similar results, as does a re-analysis of the data with survey weights (see Figure B.2, Appendix B). This finding also holds across all reported political parties in both countries, as well as across votes in the 2020 Presidential election in the US (Table A.8). Similar results hold for the other inequality reporting formats (Table A.9).

Figure 3 also suggests that, whilst positive across the board, WTP varies with political lean-

¹⁵Recoded as Liberal/Conservative spectrum for the US experiment.

ings. This is confirmed by one-way ANOVAs, rejecting the null hypothesis of constant WTP across political leanings ($F(2, 267) = 6.86, p = 0.001$ for England; $F(2, 537) = 11.02, p < 0.001$ for the US). Regressions of WTP against political leaning and the size of the inequality reduction (Table A.10) find that, in both countries, the WTP among the cohort with Right political leanings is significantly lower than for those in the Centre, though little significant difference was detected between the Centre and the Left. Moreover, they suggest that sensitivity of WTP to the extent of inequality reduction varies across political leanings. WTP increases with the extent of inequality reduction, at least in certain ranges, among those in the Centre; the increase tends to be more pronounced on the Left; it is, if anything, less pronounced on the Right. Separate WTP-against-inequality-reduction regressions for each political leaning confirm that, by contrast with the Left and Centre cohorts, no significant general increase in WTP across the inequality reductions explored here is found among those on the Right—for both analyses with and without survey weights (Tables A.3 and B.2). Similar patterns hold for the comparison between sympathisers of the two main political parties in each country and across voters for the two main candidates in the 2020 US Presidential Election.

This difference could be related to attitudes to fairness. A well-established experimental finding is the interdependence in people’s attitudes towards inequality and fairness (e.g. Almås et al., 2010; Cappelen et al., 2020b), with some inequalities being considered justified on grounds such as merit, desert or fairness (see also Fleurbaey, 2008). Though very large inequalities are seldom studied in this literature (Section 2), there could be inequality levels so high that a subject considers them unjustifiable no matter the underlying fairness-relevant considerations.¹⁶ For instance, a subject might consider a CEO-MW ratio of 750:1 to be unjustifiable no matter the merit of the actors: no CEO performance, say, could justify such a large pay gap. This judgement is naturally related to the subject’s WTP for inequality reduction: one reason that she is willing to pay more for a lower inequality level is that she finds the higher level unjustifiable. On the other hand, the subject might consider a CEO-MW ratio of 250:1 to be potentially justifiable, say by fairness considerations: sufficiently well-performing CEOs could deserve such a pay gap. In such a case, since she considers this much inequality to be potentially acceptable (and in the absence of further information about the company in

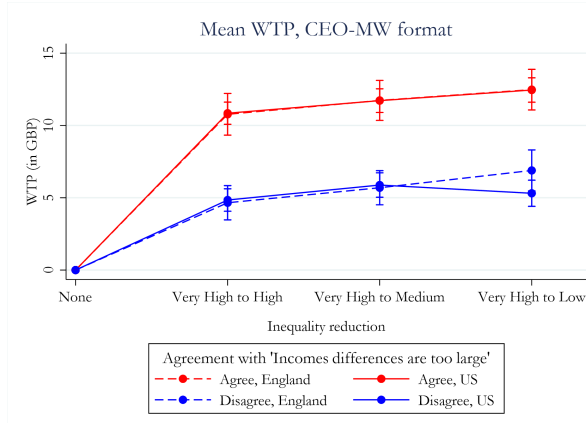
¹⁶As discussed in Section 2, since no information is provided in our experiment on fairness-related factors, the WTP elicited can be interpreted of as that holding independently of merit, or alternatively under subjects’ expectations about merit. For simplicity, we conduct this discussion in the language of the former case, though the points also apply to the latter case. The experiment permits both interpretations.

question), she might not be expected to pay more for a lower inequality level. In the light of this, the relatively fewer subjects on the Right willing to pay more for a further inequality reduction from high inequality levels (such as 250:1) may be indicative of a higher tendency on the Right to consider these inequality levels as acceptable, as compared to the Left. Indeed, the separate WTP-against-inequality-reduction regressions in the US (Tables A.3 and B.2) suggest that those on the Right are not willing to pay more for further inequality reductions from high levels (250:1), those in the Centre are not willing to pay more for further inequality reduction from medium levels (50:1), and those on the Left are willing to pay more in both cases. This suggests that subjects' potentially justifiable level of inequality decreases as one moves from Right to Left along the political spectrum. This, combined with the larger proportion of Right-leaning subjects in our US sample (Table A.16), could be related to the observed differences in the shape of the WTP curves across countries (Section 4.2).

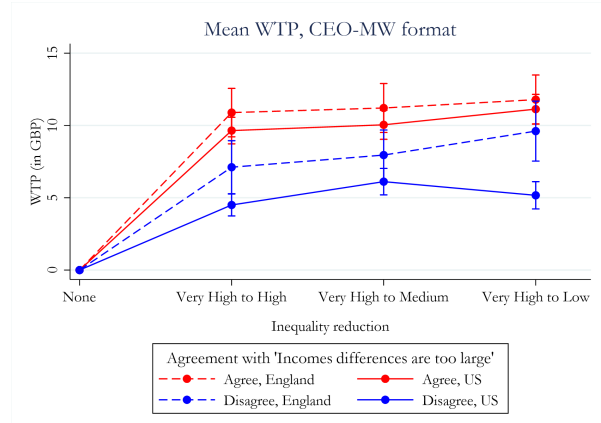
4.5 WTP and inequality attitudes

Although this study does not aim to investigate the causes of positive WTP for inequality reduction, our data can speak to the question of the relationship between WTP and self-reported attitudes typically linked to inequality. More specifically, three such attitudes were elicited (Table C.1): opinions on the size of country-level income inequality, opinions on whether people with high incomes deserve them—which can serve as a proxy for attitudes to fairness or merit as concerns high incomes—and opinions on the responsibility of government to reduce income differences—which can be used as a proxy for attitudes to government intervention. Regressions of the subjects' mean WTP against all three attitudes find that, across both countries, opinions on the size of country-level income inequality typically have the largest impact on WTP, both in terms of coefficient size and significance, with WTP increasing with agreement that income differences in the home country are too large (Table A.11).

Focusing on the interactions between opinions on the size of income inequality and the other two attitudes, note that there are significant proportions of subjects who consider inequality to be too large both among those who consider inequality not be a government responsibility (231 out of 364 subjects across both countries, i.e. 63%; Table A.12) and among those who consider high incomes to be deserved (200 out of 290 subjects across both countries, i.e. 69%; Table A.12). This suggests that people perceive little tension between concern for inequality on the one hand, and scepticism about government intervention or pro-fairness at-



(a) Subjects who do not agree that government has responsibility to reduce income inequality



(b) Subjects who agree that high incomes are deserved

Figure 4: Mean WTP in £, broken down by agreement that country-level inequality is too large.
Note: These figures show mean willingness to pay (with error bands corresponding to the standard errors of the mean) for each extent of inequality reduction (Table 1) under the CEO-MW format, broken down by country and by subjects' agreement with the following statement: "Differences in income in the United Kingdom [resp. United States] are too large". Figure 4a plots WTP **only** among subjects who do not agree with the statement "It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low income". Figure 4b plots WTP **only** among subjects who agree with the statement "Most of the time, people with high incomes deserve their high incomes". Attitudes measured on a 5-point Likert scale were converted to a binary "Agree/Disagree" index by mapping *Strongly agree* and *Somewhat agree* to "Agree" and the other responses to "Disagree". WTP was converted from USD to GBP for US respondents using the exchange rate \$1 = £0.75 at the time of the US experiment (24 November, 2020). Of the 83 (respectively 61) English respondents who disagree with government responsibility (resp. agree with deservingness), 52 (resp. 42) agree that inequality is too large. Of the 281 (resp. 229) US respondents disagree with government responsibility (resp. agree with deservingness), 179 (resp. 158) agree that inequality is too large.

attitudes on the other. Figure 4 focuses on those subgroups with attitudes towards government intervention and fairness that are typically associated with a lack of support for traditional inequality-reducing public policies, and plots WTP broken down by opinion on the size of income inequality. Figure 4a suggests that the latter opinions remain a major determinant of WTP for reduced inequality even among those who do not consider inequality reduction to be the government's responsibility. Accompanying regressions (Table A.13) confirm this suggestion: individuals in this subgroup who consider inequality to be too large are willing to pay approximately twice as much as those who do not share this belief, on average, for a given inequality reduction. Figure 4b and the accompanying regressions (Table A.13) suggest similar impacts of opinions about the size of inequality among those who agree that high-income individuals deserve their incomes, at least in the US, where a higher proportion of subjects hold this attitude. This suggests that the relationship between opinions on the size of income inequality and purchasing behaviour under inequality information isn't significantly impeded by either opposition to government intervention or pro-fairness attitudes.

Probing further into the possible relationship between subjects' opinions on potentially jus-

tifiable inequality levels and the shape of their WTP curve that was suggested in Section 4.4, Table A.14 presents WTP-against-inequality-reduction regressions among subgroups with different attitudes to fairness. In the US at least (where the size of each subgroup is larger), there is a notable difference in the typical slope of the WTP curve according to subjects' agreement that high incomes are deserved. Those that do agree—and hence whose attitudes betray a sensitivity to merit—are not willing to pay more for larger inequality reductions among those considered, whereas those that do not agree are, at least at certain inequality levels. This is consistent with the suggestion that WTP curves which flatten earlier are related to opinions that higher inequality levels are potentially justifiable, for instance on grounds of fairness. It is also consistent with the finding that the WTP curve flattens earlier on the Right (Section 4.4), given the larger agreement that high-incomes are deserved on the Right (over 60% agree) than on the Left (20% agree).

Finally, regressions incorporating a range of socio-demographic factors, as well as political leanings, attitudes linked to income inequality and the extent of inequality reduction point to gender and opinions on the size of country-level income inequality as the strongest determinants of WTP, both in terms of effect size and significance (Table A.15). The higher WTP found in females is consistent with existing research suggesting that women are more socially oriented than men (Andreoni and Vesterlund, 2001; Eckel and Grossman, 1998). Reported attitudes linked to inequality usurp the significance of the impact of political leanings whenever present in the regression, suggesting that they may be a driving factor behind the effect of political leanings on WTP. We fail to find evidence for significant differences in WTP between England and the US.

5 Discussion and Conclusion

This study uncovers widespread strictly positive WTP for reduction of the income inequality involved in the production of purchased goods—for over 80% of subjects—which, as noted at the outset, runs contrary to classical economic models. Importantly, this finding transpires under the incentivisation standards prevalent in Behavioral Economics: by exhibiting positive WTP, subjects potentially sacrifice actual cash payment for a 'lower inequality' good. Moreover, positive WTP is widespread not only for large inequality reductions but also for smaller ones, from an inequality level that, though high, is typical in the top 10% of most-unequal

firms (Figure 2). Furthermore, a large majority of subjects (over 60% in each country; Table A.17a) said that they would use inequality information in purchasing decisions if available. Our data thus suggests that providing product-level income inequality information can impact consumer behaviour, even in markets where all goods involve relatively high levels of inequality.

These findings have important public policy implications. As noted at the outset, providing consumers with product-level income inequality information has been shown to be a potential tool for moderating overall income inequality (Hill, 2023)—but its impact will hinge on peoples’ willingness to pay for reduced product-level inequality. Our results thus bode well for the effectiveness of such a policy. Note that, in this context, theoretical research identifies the proportion of the population with (strictly) positive WTP as the chief determinant of the effectiveness of inequality information provision as a policy tool (Hill, 2023, Cor 1 & Thm 2). So our most important result is the qualitative finding of a large proportion of subjects with positive WTP, rather than any specific quantitative data on the size of the WTP.

Our findings may also have consequences for firms’ marketing and strategy choices: after all, if consumers’ purchasing behaviour is sensitive to a product’s inequality, companies selling low-inequality products can potentially improve sales and mark-up by communicating this fact. Our results suggest a comparative conclusion: *ceteris paribus* and in certain ranges, many consumers are willing to pay more for a product associated with less income inequality than one associated with higher inequality. So a firm who markets its product by informing customers of its (low) inequality and a (higher) publicly available measure of the market ‘standard’ (for instance, the median or other quantile inequality for listed firms producing goods in the same category; see Figure 2) can expect higher sales or to be able to charge a higher price. Our main qualitative finding of widespread positive WTP highlights the relevance of this dimension for consumers, suggesting that it may be worthy of consideration by firms.

The relative importance of the aforementioned qualitative finding—as well as the qualitative nature of our findings concerning comparisons of WTP across extent of inequality reduction, reporting formats, political leanings and inequality-related attitudes—puts into perspective some limitations of our study. For instance, the use of goods differing only in price and inequality leaves open the possibility of salience or experimenter demand effects. Though some contend that there is little evidence for demand effects in online surveys (Mummolo and Peterson, 2018), our protocol nevertheless adopts two recent recommendations for reducing

them (Haaland et al., 2023): incentivisation (Section 3.4) and neutral framing (Appendix C). As concerns salience, even if inequality information were available in real-life shopping situations, it would typically be less salient than in our experiment due to the presence of other factors involved in purchasing decisions. Indeed, this is the flip-side of our shopping-choice protocol: whereas the richness of products in the field, which typically differ on multiple dimensions beyond inequality, complicates elicitation of WTP for reductions in product-level inequality (as separated from the WTP for other factors), our protocol enables controlled measurement (Charness and Fehr, 2015; Falk and Heckman, 2009). Consequently, we would not expect the WTP measured here to perfectly align with differences in consumers’ propensity to pay for goods with varying inequalities in the field, both because these goods differ in other aspects and due to salience. However, the large proportion of our subjects who are willing to pay a strictly positive amount for inequality reduction suggests that the inequality dimension plays a role for many people. This is further supported by the large majority of subjects saying that they would use inequality information if provided. The suggestion that our finding of widespread positive WTP has a good probability of extending to real-life settings is also corroborated by comparable lab and field studies on, say, the related topic of nutritional labelling, which typically find effects that go in the same direction, albeit with different magnitudes (Crosetto et al., 2020; Dubois et al., 2021). Similar points can be made for our other qualitative findings. So whilst our study clearly calls for further research to explore WTP in more *in vivo* environments—including environments where the salience of inequality is manipulated by, say, marketing campaigns—it already suggests the promise of inequality information provision as a tool for policy makers and firms.

Another potential limitation of our study is the focus on one sort of good: towel sets. This design choice was imposed largely due to the challenge posed by incentive compatibility: to truthfully implement a subject’s choice between two goods, one needs to find comparable goods on the market with prices and firm-level inequality levels that are both publicly available and match those in the choice. It did not prove easy to do so for several interesting categories of goods. We use towel sets precisely because they were the most salient consumption good for which we could find appropriate products for incentivisation (Section 3.4, Table 2)—notably with sufficiently different, publicly available inequality levels. Our main finding can thus be reformulated as follows: for a product type selected on the basis of criteria which *prima facie* give no reason to expect particularly high WTP, there is widespread positive WTP in the

population. And our other qualitative findings can be reformulated similarly: for example, for a product type selected on the basis of criteria which *prima facie* give no reason to expect particular (in)sensitivity of WTP to political leaning, WTP is positive across the political spectrum. As such, although our study cannot address questions about the heterogeneity of WTP across product types, there is little reason to believe that its qualitative findings are specific to a single type. In particular, it suggests that widespread positive WTP could be a general phenomenon over several product types. As noted above, this is sufficient for basic effectiveness of inequality information provision as a public policy. This qualitative finding of course does not imply that WTP will be the same for all products: indeed, even under a rudimentary economic model where the inequality level of a good contributes to a subject’s evaluation of its utility, nothing implies the WTP for a given inequality reduction is independent of the characteristics of the good or the price.¹⁷ So whilst suggesting the potential interest of inequality information provision for governments and companies, our study leaves questions of how WTP for inequality reduction varies according to the type, consumption frequency, price range or status connotations of goods as topics for future research. Such research may help firms determine the promise of incorporating inequality information into their marketing in their sector.

Some of our other findings may also be relevant for practical challenges facing the implementation of information provision, be it by governments or companies. Beyond the issue of the medium for delivering inequality information to consumers at the point of purchase—suggestions include the use of a mobile phone application, for instance¹⁸—there remains the question of which inequality format to report. Little of the rich literature on inequality measures (Chakravarty, 2009; Cowell, 2011) has focused on their usefulness for communicating product-level inequality to consumers with no specialist knowledge or theoretical baggage. Our results suggest that the CEO-to-median-worker pay ratio fairs better on this front than the more sophisticated Gini Index and the simpler Inequality Score. Not only does it induce a higher WTP (Figure 1), but it is also considered more informative and easier to understand by most subjects and is preferred to the alternatives (Table A.17b). As discussed in Section 4.3, this may be because it strikes a balance between informativeness and understandability, ‘connect-

¹⁷More precisely, if the utility of a good of type t with properties q , price p and inequality level i is $u(t, q, p, i)$, the WTP for an inequality reduction from i to i' (everything else being fixed) is w such that $u(t, q, p, i) = u(t, q, p + w, i')$. Nothing in this rudimentary representation implies that the WTP should be the same for different good types, price levels or properties (such as quality or status connotation, for instance).

¹⁸Several of the practical details and economic consequences of the policy of universal inequality information provision have been discussed in Hill (2023): we refer interested readers to this paper and the references therein.

ing’ better with subjects whilst clearly singling out an objective, informative and conceptually simple dimension of inequality. These insights into the impact of different inequality formats may be of use to both governments and companies, and can help direct future research into format refinements.

The aim of this paper is to investigate the level, extent and determinants of WTP for inequality reduction, rather than scrutinise its causes. In particular, we take no position on whether WTP for inequality reduction is a ‘primitive’ or ‘derived’ attitude. For instance, it could be that consumers consider a product’s inequality to be indicative of some other dimension—for instance, the age of the producing firm, country of production, or sustainability¹⁹—and they have ‘primitive’ attitudes to that dimension, which drive our WTP findings. Unless there is reason to think that consumers’ perceived correlations change, the relevance of our central findings for governments and companies is unaffected by this possibility: whatever is behind it, WTP for reduced inequality continues to be positive for a large majority of subjects, and to exhibit the previously discussed patterns concerning the extent of reduction, reporting format, political leanings and inequality-related attitude. That said, firm-level data, summarised in Table A.19, can give a glimpse into possible correlates for firm-level inequality. For instance, it suggests that higher-inequality firms tend to be older and have more sales outside their country of residence, so, under the assumption that consumers correctly perceive these correlations, one or both could drive WTP for inequality reduction. Perhaps the most relevant potential ‘cause’ of WTP for inequality reductions would be pro-sustainability attitudes. The data does not support the hypothesis that well-informed consumers’ WTP for inequality reduction is driven by more general pro-environmental or pro-social attitudes: in fact, what correlation there is suggests that firms with high CEO-MW ratios perform better on pro-environmental and pro-social measures (see Table A.19). Whilst perhaps surprising at first, this is consistent with the emerging literature suggesting a positive correlation between ESG-performance and executive pay (Cohen et al., 2023). Further research is clearly required to ascertain whether there is a connection between WTP for reduced inequality and attitudes to firm characteristics other than inequality, and if so in which direction the causality runs.

Some of our findings nevertheless reveal correlates—and hence potential sources—of positive WTP beyond firm characteristics; in the process, they further comfort the promise of infor-

¹⁹The instructions explicitly stated that the products ‘are comparable in every way’ except price and inequality (Figure C.1): so subjects were informed that inequality was not indicative of *intrinsic* properties of the products, such as quality.

mation provision. First of all, while WTP varies across the political spectrum—consistent with findings that concern for inequality is related to political leanings (Kuziemko et al., 2015)—it is positive across the board, including on the Right and among those close to traditional Centre-Right political parties. This suggests that inequality information provision, be it by governments or firms, is unlikely to be politically divisive at the current time. Moreover, our data indicates that WTP is strongly related to opinions concerning the size of country-level income inequality, and that this relation persists both among those who consider that high incomes are typically deserved and among those unsympathetic to government intervention. To the extent that the latter attitudes are typically found among opponents of redistributive public policies, this suggests that ‘upstream’ policies passing through attitudes to consumption of high-inequality goods—such as information provision—may have broader buy-in than ‘downstream’ policies, such as redistribution. For instance, while surveys typically find that 40% of the UK population support government redistribution, 80% consider income inequality to be too large (Clery et al., 2017; Curtice et al., 2019). The latter figure, incidentally, is close both to the proportion of our subjects who shared this opinion and to the proportion with positive willingness to pay for reduced inequality.

6 References

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