

# A Supporting Information for Lü, Scheve, and Slaughter’s “Inequity Aversion and the International Distribution of Trade Protection”

## A.1 Model of Inequity Aversion and Individual Trade-Policy Preferences

This section of the appendix develops in further detail the model of individual trade-policy preferences with inequity aversion presented in the paper.

In a perfectly competitive economy with the size of the population normalized to one and  $n$  sectors, individuals maximize the utility function given by

$$u_i = x_0 + \sum_{i=1}^n u_i(x_i) - \alpha \sum_{i \neq j} \phi_j \max\{I_j - I_i, 0\} - \beta \sum_{i \neq j} \phi_j \max\{I_i - I_j, 0\} \quad (1)$$

This utility function has two components: utility from consumption ( $x_0 + \sum_{i=1}^n u_i(x_i)$ ) and disutility from inequity aversion ( $-\alpha \sum_{i \neq j} \phi_j \max\{I_j - I_i, 0\} - \beta \sum_{i \neq j} \phi_j \max\{I_i - I_j, 0\}$ ). Goods/sectors and types of individuals—as all individuals within a sector are identical—are indexed by  $i$ ,  $i = 1, 2, \dots, n$ .  $x_0$  is the consumption of the numeraire good 0 and  $x_i$  is the consumption of non-numeraire good  $i$ . The utility functions  $u_i(\cdot)$  are increasing functions which are differentiable, separable, and strictly concave.

To account for inequity aversion, we incorporate a social preference term into the individual’s utility function. The term for inequity aversion is equivalent to the specification in Equation (1) in Fehr and Schmidt (1999: 822).  $I_i$  is income of individual  $i$  and  $\phi_i$  indicates the fraction of population working in sector  $i$ . As in Fehr and Schmidt, the parameter  $\beta$  measures utility loss from advantageous inequality when  $I_i > I_{-i}$ , and the parameter  $\alpha$  measures the utility loss from disadvantageous inequality when  $I_i < I_{-i}$ .

We assume that workers in sector  $i$  all earn identical incomes which are a function of their labor and the return to a sector-specific input owned only by individuals working in each respective sector. Note that an individual owns at most one type of sector-specific input, and we assume the sector-specific factor input is indivisible and non-tradable. The

technologies to produce these goods have constant returns to scale, and the specific factor inputs have inelastic supplies. The numeraire good 0 is produced with labor alone and sets the economy-wide return to labor. The non-numeraire good  $i$  is produced with labor and the sector-specific factor input. We normalize the wage to 1, and the aggregate reward to the specific factor depends on the domestic price of the good, that is,  $\pi_i(p_i)$ , where  $p_i$  is the domestic price. We index each sector's return such that  $\pi_i(p_i) > \pi_{i-1}(p_{i-1})$ . The total income ( $I_i$ ) to an individual in sector  $i$ , is equal to their wage of 1 plus  $\pi_i(p_i)$ . Individual consumption must meet the budget constraint such that  $I_i \geq x_0 + \sum_{i=1}^n p_i x_i$ . We also denote the exogenous world price of the good to be  $p_i^*$ . The policy choice under consideration is a specific tariff or subsidy  $\tau_i$  on the good produced in sector  $i$ , such that  $\tau_i = p_i - p_i^*$

The net revenue per capita from trade policies (tariffs or subsidies) is expressed as

$$r(\mathbf{p}) = \sum_{i=1}^n (p_i - p_i^*) [d_i(p_i) - y_i(p_i)] \quad (2)$$

where  $d_i(p_i)$  is the demand function of good  $i$  by an individual, and  $d_i(\cdot)$  equals the inverse of  $u'_i(x_i)$ , and  $y_i(p_i)$  is the domestic output of good  $i$  and  $y_i(p_i) = \pi'_i(p_i)$ .  $\mathbf{p} = (p_1, p_2, \dots, p_n)$  is a vector of domestic prices of the non-numeraire goods. Each individual receives an equal net transfer of  $r(\mathbf{p})$ . The consumer surplus derived from these goods is  $s(\mathbf{p}) \equiv \sum_i u_i[d_i(p_i)] - \sum_i p_i d_i(p_i)$ . Given these assumptions, we can derive individuals' indirect utility in sector  $i$  as follows:

$$\begin{aligned} Z_i(\mathbf{p}) = & 1 + \pi_i(p_i) + r(\mathbf{p}) + s(\mathbf{p}) - \alpha \sum_{i \neq j} \phi_j \max\{\pi_j(p_j) - \pi_i(p_i), 0\} \\ & - \beta \sum_{i \neq j} \phi_j \max\{\pi_i(p_i) - \pi_j(p_j), 0\} \end{aligned} \quad (3)$$

To determine individual preferences about trade policy in sector  $j$  ( $\tau_j$ ), we derive an expression for optimal tariffs by maximizing this function with respect to  $p_j$  which is simply the sum of the exogenous world price and the tariff. We are looking for the domestic prices (and implied tariffs) in sector  $j$  that maximize welfare for an individual in sector  $i$ .

In order to derive the partial derivative equations below with respect to  $p_j$ , consider the following steps:

$$d[1 + \pi_i(p_i)]/dp_j = 0$$

$$d[r(\mathbf{p})]/dp_j = d\{(p_j - p_j^*)[d_j(p_j) - y_j(p_j)]\}/dp_j$$

$$\text{Since we define net imports as } m_j(p_j) \equiv d_j(p_j) - y_j(p_j)$$

$$\Rightarrow d[r(\mathbf{p})]/dp_j = (p_j - p_j^*)m'_j(p_j) + m_j(p_j)$$

$$d[s(\mathbf{p})]/dp_j = d\{u_j[d_j(p_j)] - p_j d_j(p_j)\}/dp_j = -d_j(p_j) = -m_j(p_j) - y_j(p_j)$$

$$d\{-\alpha \sum_{i \neq j} \phi_j \max\{\pi_j(p_j) - \pi_i(p_i), 0\}\}/dp_j = -\alpha \phi_j y_j(p_j) \quad \text{if } \pi_j(p_j) > \pi_i(p_i) \text{ \& } i \neq j$$

$$d\{-\beta \sum_{i \neq j} \phi_j \max\{\pi_i(p_i) - \pi_j(p_j), 0\}\}/dp_j = \beta \phi_j y_j(p_j) \quad \text{if } \pi_j(p_j) < \pi_i(p_i) \text{ \& } i \neq j$$

Using these expressions and combining terms, this yields:

$$\frac{\partial Z_i}{\partial p_j} = (p_j - p_j^*)m'_j(p_j) - y_j(p_j) - \alpha \phi_j y_j(p_j) \quad \text{if } \pi_j(p_j) > \pi_i(p_i) \text{ \& } i \neq j \quad (4a)$$

$$\frac{\partial Z_i}{\partial p_j} = (p_j - p_j^*)m'_j(p_j) - y_j(p_j) + \beta \phi_j y_j(p_j) \quad \text{if } \pi_j(p_j) < \pi_i(p_i) \text{ \& } i \neq j \quad (4b)$$

where again  $m_j(p_j) \equiv d_j(p_j) - y_j(p_j)$  is the net import function. Next, we set the first order conditions (4a) and (4b) to zero.

$$(p_j - p_j^*)m'_j(p_j) - y_j(p_j) - \alpha \phi_j y_j(p_j) = 0 \quad \text{if } \pi_j(p_j) > \pi_i(p_i) \text{ \& } i \neq j \quad (5a)$$

$$(p_j - p_j^*)m'_j(p_j) - y_j(p_j) + \beta \phi_j y_j(p_j) = 0 \quad \text{if } \pi_j(p_j) < \pi_i(p_i) \text{ \& } i \neq j \quad (5b)$$

For (5a), we can solve for the optimum tariff preferred by individual  $i$  when  $\pi_j(p_j) > \pi_i(p_i)$ :

$$(p_j - p_j^*)m'_j(p_j) - y_j(p_j) = \alpha \phi_j y_j(p_j)$$

$$(p_j - p_j^*)m'_j(p_j) = y_j(p_j) + \alpha \phi_j y_j(p_j)$$

Since  $\tau_i = p_i - p_i^*$ , we have:

$$(p_j - p_j^*) = \tau_j^{D-0} = \frac{y_j(p_j)}{m'_j(p_j)} + \alpha\phi_j \frac{y_j(p_j)}{m'_j(p_j)} = \frac{y_j(p_j)}{m'_j(p_j)} [1 + \alpha\phi_j] \quad \text{if } \pi_j(p_j) > \pi_i(p_i) \& i \neq j$$

where the superscript  $D-0$  indicates the optimal tariff for disadvantageous inequality when  $\pi_j(p_j) > \pi_i(p_i)$ .

Similarly, for (5b), we can solve for the optimum tariff preferred by individual  $i$  when  $\pi_j(p_j) < \pi_i(p_i)$  as

$$(p_j - p_j^*)m'_j(p_j) - y_j(p_j) = -\beta\phi_j y_j(p_j)$$

$$(p_j - p_j^*)m'_j(p_j) = y_j(p_j) - \beta\phi_j y_j(p_j)$$

Since  $\tau_i = p_i - p_i^*$ , we have:

$$(p_j - p_j^*) = \tau_j^{A-0} = \frac{y_j(p_j)}{m'_j(p_j)} - \beta\phi_j \frac{y_j(p_j)}{m'_j(p_j)} = \frac{y_j(p_j)}{m'_j(p_j)} [1 - \beta\phi_j] \quad \text{if } \pi_j(p_j) < \pi_i(p_i) \& i \neq j$$

where the superscript  $A-0$  indicates the optimal tariff for advantageous inequality.

To summarize, we obtain the following optimum tariffs preferred by individual  $i$  for sector  $j$ :

$$\tau_j^{D-0} = \frac{y_j(p_j)}{m'_j(p_j)} [1 + \alpha\phi_j] \quad \text{if } \pi_j(p_j) > \pi_i(p_i) \& i \neq j \quad (6a)$$

$$\tau_j^{A-0} = \frac{y_j(p_j)}{m'_j(p_j)} [1 - \beta\phi_j] \quad \text{if } \pi_j(p_j) < \pi_i(p_i) \& i \neq j \quad (6b)$$

This expression, like similar models in the literature, defines optimal tariffs implicitly because import demand and domestic output are endogenous. Nonetheless, this expression provides us with a description of how inequity aversion influences tariff preferences. Assuming good  $j$  is a normal good, then  $y_i(p_i) = \pi'_i(p_i) > 0$ . Further,  $m'_j(p_j) < 0$  because net imports decrease with increases in the domestic price and recall that  $\phi_j$  is simply a positive weight for the size of sector  $j$ . This implies that for sectors with incomes higher than a given individual  $i$  ( $\pi_j(p_j) > \pi_i(p_i) \& i \neq j$ ), an increase in  $\alpha$  results in a lower preferred tariff. This means that the greater an individual's utility loss from disadvantageous inequality, the lower will be the preferred tariff for that individual in all sectors with higher incomes. Because tariffs raise returns to specific factors, the more that individuals do not like it when others make more than they do, the lower they will want the tariff for these sectors to be.

Similarly, we can evaluate the impact of advantageous inequality. For sectors with incomes lower than a given individual  $i$  ( $\pi_j(p_j) < \pi_i(p_i)$  &  $i \neq j$ ), an increase in  $\beta$  results in a higher preferred tariff. This means that the greater an individual's utility loss from advantageous inequality, the higher will be the preferred tariff for that individual in all sectors with lower incomes. Because tariffs raise returns to specific factors, the more individuals do not like it when others make less than they do, the higher they will want the tariff for these sectors to be.

The primary objective of the empirical work in this paper is to provide experimental evidence testing these two hypotheses and to use the experiments to consistently estimate the parameters  $\alpha$  and  $\beta$ . It should be noted that the magnitudes of the effects of both types of inequity aversion depend on the parameters  $y_j(p_j)$ ,  $m'_j(p_j)$ , and  $\phi_j$  but our experiments allow us to abstract from this complication.

To better interpret these expressions, we rewrite them in terms of ad valorem tariffs (or subsidies) denoted by  $t_j$  and set them so that  $t_j = (p_j - p_j^*)/p_j^*$ . We divide both sides of Equations 6a and 6b by  $p_j$ . For the left hand side, this gives us:

$$\frac{\tau_j}{p_j} = \frac{p_j - p_j^*}{p_j} = \frac{(p_j - p_j^*)/p_j^*}{1 + (p_j - p_j^*)/p_j^*} = \frac{t_j}{1 + t_j}$$

And for the full expressions:

$$\frac{t_j^{D-0}}{1 + t_j^{D-0}} = \frac{y_j(p_j)}{m'_j(p_j)p_j} [1 + \alpha\phi_j] \quad \text{if } \pi_j(p_j) > \pi_i(p_i) \text{ \& } i \neq j \quad (7a)$$

$$\frac{t_j^{A-0}}{1 + t_j^{A-0}} = \frac{y_j(p_j)}{m'_j(p_j)p_j} [1 - \beta\phi_j] \quad \text{if } \pi_j(p_j) < \pi_i(p_i) \text{ \& } i \neq j \quad (7b)$$

Further, let the elasticity of import demand  $e_j = m'_j(p_j)p_j/m_j(p_j) < 0$ , then we can rewrite our expressions for ad valorem tariffs as:

$$\frac{t_j^{D-0}}{1 + t_j^{D-0}} = \frac{1}{\frac{m_j(p_j)}{y_i(p_j)}e_j} [1 + \alpha\phi_j] \quad \text{if } \pi_j(p_j) > \pi_i(p_i) \text{ \& } i \neq j \quad (8a)$$

$$\frac{t_j^{A-0}}{1+t_j^{A-0}} = \frac{1}{\frac{m_j(p_j)}{y_j(p_j)} e_j} [1 - \beta \phi_j] \quad \text{if } \pi_j(p_j) < \pi_i(p_i) \text{ \& } i \neq j \quad (8b)$$

Suppose  $\alpha = \beta = 0$ , i.e., there is no inequity aversion. Then in this situation the preferred tariff of individual  $i$  for sector  $j$  is  $\frac{t_j}{1+t_j} = \frac{1}{\frac{m_j(p_j)}{y_j(p_j)} e_j}$ . Individuals prefer negative protection in other sectors (e.g. import subsidies) to subsidize their consumption. The optimal tariff/subsidy depends on import penetration and the elasticity of import demand as in standard models.

With inequity aversion, we note that disadvantageous inequality reduces the preference of tariff protection for sector  $j$  because as  $\alpha$  increases,  $\frac{t_j}{1+t_j}$  decreases because  $e_j < 0$ . Conversely, advantageous inequality increases the preference of tariff protection for sector  $j$  because as  $\beta$  increases,  $\frac{t_j}{1+t_j}$  increases. Individuals in sector  $i$  prefer lower (higher) tariffs for sector  $j$  if they have incomes less (greater) than sector  $j$ , and these effects are increasing in the magnitude of  $\alpha$  and  $\beta$ . These are the key predictions of the model that our empirical work evaluates.

## A.2 Description of Survey Experiments

To estimate the effect of inequity aversion on support for sector-specific trade protection, we designed a survey experiment that randomly assigned respondents to consider trade protection for industries with different wage levels and recorded their support for sector-specific trade protection. In China, the experiment was conducted in face-to-face interviews for a national sample of the Chinese adult population living in major cities and county-level cities<sup>1</sup>. In the United States, the experiment was conducted over the internet for a nationally representative sample of the U.S. adult population.<sup>2 3</sup>

The English translation of the question that we asked to elicit support for sector-specific trade protection in China was:

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<sup>1</sup>The experiment was conducted by the Horizon Research Consultancy Group in Summer 2009.

<sup>2</sup>The experiment was conducted by Knowledge Networks as part of their QuickView studies employing respondents from their KnowledgePanel in Summer 2009. For more information, see [www.knowledgenetworks.com](http://www.knowledgenetworks.com).

<sup>3</sup>Both experiments were reviewed and granted exemptions by Yale University's Human Subjects Committee.

There is an industry in China in which the average worker makes X yuan per month. To increase the wages of workers in this industry, some people want the government to limit imports of foreign products in this industry. Others oppose these limits because such limits would raise prices that consumers pay and hurt other industries. Do you favor or oppose limiting the import of foreign products in this industry?

IF FAVOR: Do you strongly favor or only somewhat favor limiting the import of foreign products in this industry?

IF OPPOSE: Do you strongly oppose or only somewhat oppose limiting the import of foreign products in this industry?

The question that we asked to elicit support for sector-specific trade protection in the United States was:

There is an industry in the United States in which the average worker makes X dollars per year. Some people favor establishing new trade barriers such as import taxes and quotas because trade barriers would increase the wages of workers in this industry. Others oppose new trade barriers because they would raise prices that consumers pay and hurt other industries. Do you favor or oppose these new trade barriers?

IF FAVOR: Do you strongly favor or only somewhat favor new trade barriers for this industry?

IF OPPOSE: Do you strongly oppose or only somewhat oppose new trade barriers for this industry?

The value of X was assigned randomly across respondents to be equal to 800, 2,000, or 4,000 yuan in China and 18,000, 40,000, or 80,000 dollars in the United States.<sup>4</sup> These values were chosen so that respondents were considering trade protection for low, average, and high wage industries. For example, in the U.S., the low value of \$18,000 corresponds to an income a bit higher than the total money income in 2007 for an adult who worked full-time, year-round at the 10th percentile in the income distribution.<sup>5</sup> Alternatively, one can think about this low income amount as the wage earned by a worker who worked full-time, year round at about \$9.00 per hour or a bit higher than the minimum wage. The average value was selected as a round value close to the median total money income in 2007 for an adult who worked

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<sup>4</sup>Note that monthly income was used in China because that is the most common way to think about earnings in that country whereas annual income was used in the United States where it is more common to think in annual terms about what a good salary is.

<sup>5</sup>The source for this data is the Current Population Survey, Annual Social and Economic Supplement, Table PINC-02.

full-time, year-round of \$41,245. Similarly, the high wage of \$80,000 falls at about the 84th percentile in the total money income distribution in 2007. The values for China correspond to points in the 2007 monthly Chinese wage distribution similar to those used for the United States.<sup>6 7</sup>

The descriptive statistics for our dependent variable are reported in the text and Table 1 of the paper. Here, we report the descriptive statistics for our control variables and provide evidence that the samples across treatment groups are very closely balanced.<sup>8</sup> Table A-1 describes the sample mean for control variables by treatment group, and the difference-in-means test between treatment groups for the China experiment. As shown, the differences between treatment groups are not statistically significant at the 0.05 level. Further, we estimated several multinomial logit models in which the treatment assignment is a function of these control variables, and in some specifications respondents' occupation/industry and survey location indicator variables. As expected from a random experiment with a fairly large sample, all the coefficient estimates in the multinomial logit models are not statistically significant and the model overall does not explain variation in treatment assignment. Similarly, Table A-2 describes the sample mean for control variables by treatment group and the difference-in-means test between treatment groups for the U.S. experiment. Again, the results reported in Table A-2 as well as the unreported multinomial logit regression results confirm that the samples across treatment groups are very closely balanced.

### **A.3 Supplemental Experiment: Inequity Aversion and Inefficient Policy**

One of the distinctive features of trade policy is that it is an inefficient policy instrument for redistributing income. In fact, why governments use trade policy at all to redistribute

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<sup>6</sup>See National Bureau of Statistics of China (2008) China Statistical Yearbook, Beijing: China Statistics Press.

<sup>7</sup>Note that the slight difference in the English translation of the Chinese question arose from back translation and pilot testing of the original U.S. question.

<sup>8</sup>The control variables are *College Grad* equal to one if the respondent graduated from college and zero if not, *Female* equal to one if the respondent is female and zero if not, *Age* equal to age in years, and *Personal Income* (in thousands) equal to an individual's monthly (China) or annual (U.S.) income (see paper for further description of the construction of this variable).



Variables	Mean Estimates by Treatment Category			Difference Estimates		
	Low Wage 800Y	Middle Wage 2,000Y	High Wage 4,000Y	Low- Middle	Low- High	Middle- High
<i>Female</i>	0.51 (0.50)	0.52 (0.50)	0.49 (0.50)	-0.01 (0.02)	0.02 (0.02)	0.03 (0.02)
<i>College Grad</i>	0.13 (0.34)	0.14 (0.35)	0.13 (0.34)	0.72 (0.02)	0.33 (0.02)	0.18 (0.02)
<i>Age</i>	39.11 (12.17)	38.68 (11.66)	39.69 (12.31)	-0.01 (0.57)	0.00 (0.58)	0.01 (0.57)
<i>Personal Income</i>	2.01 (1.66)	1.95 (1.57)	1.97 (1.65)	0.72 (0.08)	0.82 (0.08)	0.56 (0.08)
Sample Size	878	877	881	0.43 (0.48)	-0.58 (0.60)	-1.01 (0.86)

Table A-1: Summary Statistics for Control Variables in China Experiment. Columns 1-3 report mean estimates for each control variable by treatment category and the standard error of the estimate in parentheses. Columns 4-6 report difference-in-means tests, the standard error in parentheses, and p-value assuming unequal variances.

Variables	Mean Estimates by Treatment Category			Difference Estimates		
	Low Wage \$18,000	Middle Wage \$40,000	High Wage \$80,000	Low- Middle	Low- High	Middle- High
<i>Female</i>	0.47 (0.50)	0.50 (0.50)	0.47 (0.50)	-0.03 (0.03)	0.01 (0.03)	0.04 (0.03)
<i>College Grad</i>	0.26 (0.44)	0.27 (0.45)	0.27 (0.45)	0.20 (0.02)	0.84 (0.02)	0.14 (0.02)
<i>Age</i>	50.05 (17.02)	50.00 (16.57)	48.65 (16.32)	-0.01 (0.85)	0.00 (0.86)	0.00 (0.84)
<i>Personal Income</i>	35.86 (31.15)	35.32 (32.96)	37.10 (34.75)	0.65 (0.95)	0.68 (1.10)	0.97 (1.11)
Sample Size	776	773	746	0.54 (0.75)	-1.24 (1.76)	-1.77 (1.81)

Table A-2: Summary Statistics for Control Variables in United States Experiment. Columns 1-3 report mean estimates for each control variable by treatment category and the standard error of the estimate in parentheses. Columns 4-6 report difference-in-means tests, the standard error in parentheses, and p-value assuming unequal variances.

income when other policies could do so more efficiently is a central question in the international political economy literature. To explore further the importance of inequity aversion in understanding trade policy preferences, and perhaps shed some light on why individual citizens support costly redistribution, we conducted a small follow-up experiment with a subset of our U.S. respondents. We asked the following question immediately after the respondents answered the initial trade question analyzed above:

Considering this same industry in which the average worker makes X dollars per year, economists have estimated that to raise this worker's salary by 5,000 dollars per year through new trade barriers such as import taxes and quotas, it would cost Y dollars per year to the US economy in terms of higher consumer prices and higher costs for other industries for each worker helped. Do you still favor or oppose these new trade barriers?

IF FAVOR: Do you strongly favor or only somewhat favor new trade barriers for this industry?

IF OPPOSE: Do you strongly oppose or only somewhat oppose new trade barriers for this industry?

The value of X was set equal to the same value initially assigned to that respondent (18,000, 40,000, or 80,000 dollars) in our main question described above and the value of Y was set equal to either 5,000 dollars for the efficient redistribution or 7,500 for the inefficient redistribution. This experiment allows us to investigate whether the pattern of trade preferences that we observe in our main experiment remain even when the inefficiency of the policy is made salient to respondents.<sup>9</sup> The evidence presented thus far already suggests that inequity aversion helps explain support for inefficient redistributive trade policy, but our second experiment makes the inefficiency unambiguous.

Table A-3 presents the key results from this experiment, focusing on the results for the variable *Trade Opinion 3* which records support for increased trade barriers as a 1 and codes opposition as a 0. The first panel reports the mean estimates and standard errors for those respondents that received the efficient prime of \$5,000 and for those that received the

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<sup>9</sup>One caveat which should be kept in mind in thinking about this second experiment is that our survey respondents may have a tendency to stick to their original policy opinion in order to remain consistent in their views. We note, though, that almost 20% of our respondents changed positions from support to opposition or vice-versa. Further, as we discuss below there is heterogeneity in our results across the efficient and inefficient prime suggesting individuals were willing to respond to the new information.

	<b>Efficient</b>		<b>Inefficient</b>	
	<b>Estimate</b>	<b>S.E.</b>	<b>Estimate</b>	<b>S.E.</b>
Mean	0.277	(0.019)	0.236	(0.019)
Observations	530		525	
<b>Difference Estimates</b>				
	<b>Efficient</b>		<b>Inefficient</b>	
	<b>Estimate</b>	<b>S.E.</b>	<b>Estimate</b>	<b>S.E.</b>
Low Treatment - Middle Treatment	0.016	(0.049)	0.115	(0.047)
Low Treatment - High Treatment	0.119	(0.047)	0.182	(0.045)
Middle Treatment - High Treatment	0.102	(0.046)	0.067	(0.042)
<b>OLS Estimates of Treatment Effects</b>				
	<b>Efficient</b>		<b>Inefficient</b>	
	<b>Estimate</b>	<b>S.E.</b>	<b>Estimate</b>	<b>S.E.</b>
<i>Middle Wage Treatment</i>	0.008	(0.052)	-0.149	(0.052)
<i>High Wage Treatment</i>	-0.099	(0.055)	-0.209	(0.050)
Standard Error of Regression	0.439		0.427	
Observations	481		493	
<b>Probit Estimates</b>				
	<b>Efficient</b>		<b>Inefficient</b>	
	<b>Estimate</b>	<b>S.E.</b>	<b>Estimate</b>	<b>S.E.</b>
<i>Disadvantageous Inequality, <math>\alpha</math></i>	-0.004	(0.003)	-0.008	(0.004)
<i>Advantageous Inequality, <math>\beta</math></i>	-0.002	(0.007)	0.009	(0.008)
Log-likelihood	-280.0		-259.7	
Observations	481		493	

Table A-3: Support for Trade Protection Under Efficient and Inefficient Prime. This table reports descriptive statistics and regression analyses for the variable *Trade Opinion 3* under the efficient prime of \$5,000 and the inefficient prime of \$7,500. The difference estimates report difference-in-means tests assuming unequal variances. The regression estimates adopt the Model 1 specification from Table 2 and the probit estimates employ the Model 4 specification from Table 4.

inefficient prime of \$7,500. Making the inefficiency of trade policy more salient moderately reduces support for protection from 0.28 to 0.24 of respondents. Given the sample size in this second experiment, this difference has a p-value of 0.13 (the difference for the full ordered responses has a p-value 0.04).

Our main interest is in whether our results indicating the importance of social concerns in opinion formation about trade are robust when individuals are primed about the inefficiency of trade policy. The second panel in Table A-3 reports the differences across treatment groups under the efficient and inefficient prime. Crucially, the estimates under the inefficient prime are 0.115, 0.182, and 0.067 for the low-wage minus middle-wage treatment, the low-wage minus high-wage treatment, and middle-wage minus high-wage treatment respectively. These differences are in the predicted direction, are of similar magnitudes as in our main experiment, and are statistically significant at the 0.01, 0.00, and 0.11 levels. Under the efficient policy prime, the results indicate a significant difference between the low and high-wage treatments and middle and high-wage treatments but not between the low and middle-wage treatments. Thus, if anything, the average wage of workers in the industry under consideration is more important for understanding preferences when the inefficiency of the policy is salient. This strengthens our interpretation that our main results indicate that social concerns are important for understanding why individuals are more or less likely to support costly redistributions. The third panel in Table A-3 reports the regression estimates for the *Middle Wage Treatment* and *High Wage Treatment* variables employing the Model 1 specification which includes demographic controls and state fixed effects. These estimates confirm the pattern observed in the difference estimates.

The fourth and final panel in Table A-3 presents probit estimates of the *Advantageous Inequality* and *Disadvantageous Inequality* parameters employing our Model 4 specification. Again, focusing our attention on the estimates for the respondents who received the inefficient prime, we find our estimates quite similar to those reported in Table 4 of the paper. The estimate for the *Disadvantageous Inequality* parameter is -0.008 (with a standard error of 0.004) compared to the Table 4 estimate of -0.010. The *Advantageous Inequality* estimate is

0.009 compared to 0.010 in Table 4. However, the *Advantageous Inequality* estimate here is imprecisely estimated with a standard error almost as large as the coefficient.<sup>10</sup> Again, when we compare these estimates across the efficient and inefficient prime, the results suggest, if anything, inequity aversion is more important for understanding policy opinions when it is salient that the policy is inefficient.

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<sup>10</sup>Given the smaller sample sizes here, we would emphasize the similarities in the magnitude of the estimates rather than imprecision of the *Advantageous Inequality* estimate.