

Online Appendix: Not for Publication

Gotta Have Money to Make Money?

Bargaining Behavior and Financial Need of Microentrepreneurs

Morgan Hardy, Gisella Kagy and Lena Song

A Theoretical Framework Appendix

A.1 Nash Bargaining Solution

Under full-information, the set-up outlined in Section V constitutes a Nash bargaining problem: the set of seller and buyer payoffs V is compact and convex and there exists seller and buyer payoff pairs in V that give strictly higher payoff to both than the disagreement pair. This follows from the fact that seller and buyer utility functions are both continuous, increasing and weakly concave, and $v > 0$.

Recall that the transaction price p^* solves the maximization problem in (2):

$$\max_{0 \leq p \leq v} (u(p + \omega) - u(\omega))(v - p)$$

The price p^* can be characterized by the following first-order condition:

$$\frac{u(p^* + \omega) - u(\omega)}{u'(p^* + \omega)} = v - p^*$$

An interior solution p^* exists and satisfies the second-order condition, and therefore maximizes (2), as $u(c)$ is strictly increasing and weakly concave.

A.2 Decreasing Absolute Risk Aversion

We will now show that under this set-up, decreasing absolute risk aversion is the key property that drives a positive relationship between endowment and price. This is in line with the often noted result that risk aversion benefits the opponent in bargaining with riskless outcomes (see, for example, Roth, 1979 and Kihlstrom and Schmeidler, 1981).

Lemma. *Price increases in endowment if seller's utility function $u(c)$ exhibits decreasing absolute risk aversion. That is, p^* increases in ω if the Arrow-Pratt measure of absolute risk aversion $A(c) = -\frac{u''(c)}{u'(c)}$ is decreasing.*

Proof. Denote $F(p^*(\omega), \omega) = u(p^*(\omega) + \omega) - u(\omega) - u'(p^*(\omega) + \omega)(v - p^*(\omega))$. We know from the first-order condition that $F(p^*(\omega), \omega) = 0$. Therefore, we have:

$$\frac{dp^*}{d\omega} = \frac{\frac{\partial F}{\partial \omega}}{-\frac{\partial F}{\partial p^*}} = \frac{u'(p^* + \omega) - u'(\omega) - u''(p^* + \omega)(v - p^*)}{u''(p^* + \omega)(v - p^*) - 2u'(p^* + \omega)}$$

We will now show that $\frac{dp^*}{d\omega}$ is positive if seller's utility function exhibits decreasing absolute risk aversion.

The denominator is negative since $u''(c) \leq 0$ and $u'(c) > 0$. Therefore:

$$\frac{dp^*}{d\omega} > 0 \iff u'(p^* + \omega) - u'(\omega) - u''(p^* + \omega)(v - p^*) < 0$$

Substitute in $v - p^* = \frac{u(p^* + \omega) - u(\omega)}{u'(p^* + \omega)}$ from the first-order condition into the inequality above:

$$\frac{dp^*}{d\omega} > 0 \iff u'(p^* + \omega) - u'(\omega) - u''(p^* + \omega) \frac{u(p^* + \omega) - u(\omega)}{u'(p^* + \omega)} < 0$$

Factor out $u(p^* + \omega) - u(\omega)$:

$$\frac{dp^*}{d\omega} > 0 \iff \left(\frac{u'(p^* + \omega) - u'(\omega)}{u(p^* + \omega) - u(\omega)} - \frac{u''(p^* + \omega)}{u'(p^* + \omega)} \right) (u(p^* + \omega) - u(\omega)) < 0$$

By the Generalized Mean Value Theorem, there exists a point $x \in (\omega, p^* + \omega)$ where

$$\frac{u'(p^* + \omega) - u'(\omega)}{u(p^* + \omega) - u(\omega)} = \frac{u''(x)}{u'(x)}$$

Substitute this in:

$$\frac{dp^*}{d\omega} > 0 \iff \left(\frac{u''(x)}{u'(x)} - \frac{u''(p^* + \omega)}{u'(p^* + \omega)} \right) (u(p^* + \omega) - u(\omega)) < 0$$

Now since $u(c)$ is increasing, $u(p^* + \omega) - u(\omega) > 0$. Therefore:

$$\frac{dp^*}{d\omega} > 0 \iff \frac{u''(x)}{u'(x)} - \frac{u''(p^* + \omega)}{u'(p^* + \omega)} < 0$$

Finally, note that with $x < p^* + \omega$, we have $\frac{dp^*}{d\omega} > 0$ if $\frac{u''(c)}{u'(c)}$ decreases in c .

□

B Context and Data Appendix

In this appendix we provide supplemental information for Sections 2 and 3 of the main paper.

B.1 The Hohoe Garment Maker Study

The garment making microenterprises interviewed for this project come from the Hohoe Garment Maker Study. The Hohoe Garment Maker Study has been collecting information on all garment making microenterprises in Hohoe town since 2014, with the broader aim of providing an in-depth look into how microenterprises operate and change over time.

Hohoe is the main town in Hohoe District, and residents are considered to be middle-income by Ghanaian standards. The garment making industry in Hohoe is similar to garment industries in other towns in Ghana, and we believe is representative of the typical garment making microenterprise experience in Ghana.

To order a garment, the buyer will bring fabric to the firm and specify the style/cut for the garment that they want. The seller and the buyer will bargain over the price of the garment to be sewn, as prices are not set beforehand. If a price is agreed upon for the garment, the buyer will leave the fabric with the seller, but will not pay the agreed upon transaction price until the completed garment is picked up. In this industry a mixture of human and electrically powered sewing machines are used to sew garments, and the main variable cost the microenterprise incurs to make the garment is the cost of labor.

At the start of the Hohoe Garment Maker Study in 2014, a census was completed that identified all operational garment making firms in Hohoe town and surrounding areas and collected baseline information on the firm and owner characteristics. Firm owner characteristics included the age of the garment maker, education, cognitive ability (as measured by the Raven's Score), ethnic group, marital status and number of children. Firm characteristics included the age of the business, profits last month, number of paid workers the firms has, and the number of other garment firm contacts a given firm had.

In addition to the current paper, data from the Hohoe Garment Maker Study has been used to investigate the role of market crowding in explaining the gender profit gap (Hardy and Kagy, 2020, 2018), the impact of electricity shortages on productivity (Hardy and McCasland, 2019), and the

role of technology diffusion (Hardy and McCasland, 2021).

B.2 2018 and 2019 Data Collection Details

The data used in the main analysis of this paper were collected in January 2018 and January 2019 as part of a New York University class. A professional survey team was hired to collect the data, the students were only observers. The course enrolled up to 15 students and the enumerator team was set to be roughly double the class size. The final course assignment had the students estimate the impact of their own presence on respondent behavior. A student was present for approximately half of all interviews. Student presence is controlled for in all specifications indicating “YES” for survey controls.

Because the data collection was paid largely by the New York University course budget, the survey team was funded to work in the district for only the 2 days required for the students’ experience. Although our enumerator team was large enough to cover all of the sample in this 2 day time frame, the short duration of our time in district meant that not all firm owners in the Hohoe Garment Maker Study were available during both years. The majority of firm owners not surveyed were either travelling or ill. We see no significant differences between the sample of firms in operation in both 2018 and 2019, those who were surveyed in both 2018 and 2019, and those who delivered a garment in both 2018 and 2019 (Table A.2).

The key component of this data collection was the bargaining over the price of a potential children’s shirt order. The shirt that was ordered from the microenterprises were all of the same design and size, the only factor that varied was the color of the fabric.

B.3 Garment Quality

In addition to the survey data collected from firm owners, we obtained independent quality ratings of each garment. Each shirt was evaluated for its overall quality by an expert in Accra, on a 0 - 10 scale with 10 being the highest quality. Quality was measured based on systematic considerations, including, but not limited to, how straight the lines of the garment were sewn, quality of button sewing, and symmetry from left to right. A rubric was used to create this rating. Pooled and yearly means of garment quality are reported at the bottom of of Table A3. Garment quality is included as a time-varying control in the main analysis.

C Supplementary Tables and Figures Appendix

Figure A1: Survey Protocols

This figure depicts the paper training materials for surveyors. Subfigure (a) was memorized by surveyors in order to hit various price points in response to seller offers while bargaining naturally. Sub-figure (b) was used as a training mechanism for surveyors to understand the tablet bargaining system. However, in practice, the tablet would determine responses to seller offers and the surveyor was responsible only for game introduction and then facilitation of tablet and seller interactions.

OE. ORDER EXERCISE	
<p>Now, I would like to discuss the possibility of making a purchase from you today. New York University is interested in purchasing some children's clothing. Specifically, we would like you to sew for us a child's shirt. I would need this garment made by no later than Friday morning. I leave town on Friday morning and cannot collect the shirt and make the payment after this time.</p>	
Bargaining worksheet:	
<p>A. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC (First price: "At what price would you be willing to sew a shirt for us?")</p> <p>B. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC (If > 10GHC: "Would you be willing to sew the shirt for 10 GHC?")</p> <p>C. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC (If > 15GHC: "Would you be willing to sew the shirt for 15 GHC?")</p> <p>D. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC (If > 20GHC: "Would you be willing to sew the shirt for 20 GHC?")</p> <p>E. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC (If > 22GHC: "Would you be willing to sew the shirt for 22 GHC?")</p> <p>F. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC (If > 25GHC: "Would you be willing to sew the shirt for 25 GHC?")</p> <p>G. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC (If > 30GHC: "Would you be willing to sew the shirt for 30 GHC?")</p> <p>Did you agree upon a price?</p> <p>H.</p> <p>I. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC (Final price: Write the final price agreed upon. It must be <=30GHC.)</p>	<p>AN. If no first price, why not?:</p> <p>1. <input type="checkbox"/> Business too busy</p> <p>2. <input type="checkbox"/> Personal Reason</p> <p>3. <input type="checkbox"/> Other</p> <p>1. <input type="checkbox"/> YES</p> <p>2. <input type="checkbox"/> NO</p>
<p>SURVEYOR: If firm owner has agreed to sew the garment before Friday morning, deposit the fabric and measurements.</p>	

(a) Ordering Exercise

BG. Bargaining Game	
<p>Now we are going to play our first game. In this game, you need to bargain with the computer over a "price", which determines how 30GHC will be divided between you and the computer. The "price" you offer indicates how much of the 30GHC you are proposing to keep for yourself. The computer has been programmed to behave like a buyer, bargaining with you over the price of a garment. Just like a real customer bargaining, the computer tries to minimize the "price" to be paid and has a fixed value (between 1 and 30), under which the computer will never accept your offer. It is always possible that the game ends before you reach an agreement, in which case neither you nor the computer will receive any of the 30GHC. This game is being played for real money, if you and the computer are able to agree on a "price", we will give you that money.</p>	
<p>SURVEYOR - USE THE BEANS AND BOWLS TO SHOW THE RESPONDENT HOW MUCH MONEY THEY WOULD BE GETTING AND HOW MUCH COMPUTER WOULD GET.</p>	
<p>A. Do you understand the instructions for the game? Surveyor: If 'No,' answer any questions</p>	<p>1. <input type="checkbox"/> YES 2. <input type="checkbox"/> NO</p>
<p>B. What initial amount would you like to offer the computer? If amount to computer >=20, then computer accepts Congratulations your price offer was accepted. You will receive (Price in A). End Game. If amount to computer <20, then computer rejects offer The computer rejects your offer. But they are counter-offering 10GHC to you, and 20 GHC to the computer. Do you accept this offer?</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Seller <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Computer</p> <p>1. <input type="checkbox"/> YES 2. <input type="checkbox"/> NO</p>
<p>D. If you do not accept, what is your counter offer? If amount to computer >=15, then computer accepts Congratulations your price offer was accepted. You will receive (Price in C). End Game. If amount to computer <15, then computer rejects offer The computer rejects your price. But they are counter-offering 15 GHC to you, and 15 GHC to the computer. Do you accept this offer?</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Seller <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Computer</p> <p>1. <input type="checkbox"/> YES 2. <input type="checkbox"/> NO</p>
<p>E. If you do not accept, what is your counter offer? If amount to computer >=10, then computer accepts Congratulations your price offer was accepted. You will receive (Price in E). End Game. If amount to computer <10, then computer rejects offer The computer rejects your price. But they are counter-offering 20 GHC to you, and 10 GHC to the computer. Do you accept this offer?</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Seller <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Computer</p> <p>1. <input type="checkbox"/> YES 2. <input type="checkbox"/> NO</p>
<p>H. If you do not accept, what is your counter offer? If amount to computer >=8, then computer accepts Congratulations your price offer was accepted. You will receive (Price in G). End Game. If amount to computer <8, then computer rejects offer The computer rejects your price. But they are counter-offering 22 GHC to you, and 8 GHC to the computer. Do you accept this offer?</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Seller <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Computer</p> <p>1. <input type="checkbox"/> YES 2. <input type="checkbox"/> NO</p>
<p>I. If you do not accept, what is your counter offer? If amount to computer >=5, then computer accepts Congratulations your price offer was accepted. You will receive (Price in I). End Game. If amount to computer <5, then computer rejects offer The computer rejects your price. But they are counter-offering 25 GHC to you, and 5 GHC to the computer. Do you accept this offer?</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Seller <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Computer</p> <p>1. <input type="checkbox"/> YES 2. <input type="checkbox"/> NO</p>
<p>K. If you do not accept, what is your counter offer? If amount to computer >=0, then computer accepts Congratulations your price offer was accepted. You will receive (Price in K). End Game.</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Seller <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Computer</p>
<p>L. If you do not accept, what is your counter offer? If amount to computer >=0, then computer accepts Congratulations your price offer was accepted. You will receive (Price in K). End Game.</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Seller <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> GHC to Computer</p>

(b) Bargaining Game with Computer

Table A1: Attrition

This table reports baseline characteristics collected in 2014 for the three samples of interest. The mean is reported followed by the standard deviation in parentheses. Column 1 includes all firms in operation during both years of data collection 2018 and 2019, Column 2 includes all firms surveyed in both years of data collection, and Column 3 includes only those firms surveyed in both years who also delivered a child's shirt in both years. Columns 4 and 5 display the differences between the samples. Profits are inflation adjusted to their January 2018 value. As a reference, the GHC/USD conversion rate was approximately 4.52 in January of 2018.

	(1)	(2)	(3)	(4)	(5)
	Firm in Operation	Firm Surveyed	Delivered Garment	Diff	Diff
	during Panel	Both Years	Both Years	(1) - (2)	(2) - (3)
Male	0.23 (0.42)	0.25 (0.43)	0.25 (0.44)	-0.02 (0.03)	0.00 (0.04)
Age of garment maker	35.80 (9.09)	35.87 (8.67)	35.53 (8.13)	-0.07 (0.70)	-0.33 (0.75)
Years of schooling	8.85 (2.30)	8.86 (2.24)	8.89 (2.24)	-0.01 (0.18)	0.03 (0.20)
Raven's Score (correct out of 12)	5.66 (2.69)	5.55 (2.66)	5.56 (2.74)	0.11 (0.21)	0.01 (0.24)
Ethnic group is Ewe	0.75 (0.43)	0.76 (0.43)	0.77 (0.42)	-0.01 (0.03)	0.01 (0.04)
Married or living with partner	0.73 (0.45)	0.73 (0.45)	0.76 (0.43)	0.00 (0.04)	0.03 (0.04)
Had a least one child	0.85 (0.36)	0.85 (0.36)	0.86 (0.35)	-0.01 (0.03)	0.01 (0.03)
Age of business	9.68 (7.92)	9.71 (7.72)	9.20 (6.73)	-0.02 (0.62)	-0.51 (0.64)
Profits last month	274.81 (301.81)	288.68 (319.80)	293.94 (333.68)	-13.87 (24.61)	5.25 (29.13)
Firm has paid workers	0.04 (0.20)	0.03 (0.18)	0.03 (0.16)	0.01 (0.01)	-0.01 (0.01)
Number of baseline contacts	4.84 (4.04)	5.21 (4.18)	5.11 (4.02)	-0.38 (0.32)	-0.10 (0.36)
Observations	375	282	229		

Table A2: Experimental Bargaining Game Balance by Survey Day

This table reports baseline characteristics collected in 2014 by Day 1 or Day 2 of data collection. The mean is reported, followed by the standard deviation in parentheses. Profits are inflation adjusted to their January 2018 value. As a reference, the GHC/USD conversion rate was approximately 4.52 in January of 2018.

	Day 1	Day 2	Diff
Male	0.24 (0.43)	0.27 (0.45)	-0.03 (0.06)
Age of garment maker	35.61 (7.81)	35.39 (8.69)	0.22 (1.14)
Years of schooling	8.98 (2.21)	8.72 (2.28)	0.26 (0.31)
Raven's Score (correct out of 12)	5.76 (2.76)	5.22 (2.69)	0.53 (0.37)
Ethnic group is Ewe	0.81 (0.40)	0.72 (0.45)	0.09 (0.06)
Married or living with partner	0.74 (0.44)	0.78 (0.42)	-0.03 (0.06)
Had a least one child	0.87 (0.34)	0.85 (0.36)	0.02 (0.05)
Age of business	8.73 (6.11)	9.98 (7.64)	-1.25 (0.97)
Profits last month	278.31 (295.98)	320.40 (389.81)	-42.09 (48.90)
Firm has paid workers	0.03 (0.16)	0.02 (0.15)	0.00 (0.02)
Number of baseline contacts	5.00 (3.55)	5.29 (4.73)	-0.28 (0.59)
Observations	144	85	229

Table A3: Summary Statistics

This table reports the mean and standard deviation of bargaining behavior outcomes and time varying controls of each microenterprise in the final sample that was surveyed and delivered a garment both years. Column 1 pools together both years, Column 2 and 3 are for 2018 and 2019. Column 4 shows the difference between the two years with the associated standard error clustered at the firm owner level. All GHC values are inflation adjusted to January 2018. As a reference, the GHC/USD conversion rate was approximately 4.52 in January of 2018.

	(1)	(2)	(3)	(4)
	Pooled	2018	2019	Diff
<i>Panel (a): Bargaining Outcomes</i>				
Final Price	15.84 (4.46)	14.92 (4.22)	16.76 (4.50)	1.85 (0.32)
First Price	20.00 (7.21)	18.79 (6.74)	21.20 (7.47)	2.41 (0.52)
Number of Rounds	2.64 (1.17)	2.42 (1.02)	2.85 (1.28)	0.43 (0.09)
<i>Panel (b): Per Capita Household Liquidity and Time Varying Controls</i>				
Per Capita Household Liquidity	166.87 (294.51)	156.29 (295.25)	177.46 (294.03)	21.17 (25.14)
Garment business is primary income	1.00 (0.07)	1.00 (0.00)	0.99 (0.09)	-0.01 (0.01)
Pct. contribution to HH income	0.54 (0.33)	0.55 (0.32)	0.54 (0.34)	-0.00 (0.03)
Ratio of wage earners within HH	0.38 (0.49)	0.37 (0.48)	0.40 (0.49)	0.03 (0.04)
HH income per capita	132.85 (145.17)	131.24 (156.34)	134.45 (133.40)	3.21 (11.38)
Number orders possible next 7 days	14.60 (13.49)	16.32 (15.19)	12.89 (11.31)	-3.43 (0.92)
Firm profits expected next week	90.50 (138.16)	80.22 (147.20)	100.78 (127.97)	20.56 (11.25)
Firm profits last month	336.59 (315.53)	350.49 (325.36)	322.70 (305.46)	-27.80 (20.67)
Number orders in last 7 days	5.07 (6.57)	4.90 (6.29)	5.25 (6.84)	0.36 (0.44)
Total expenses last 7 days	43.43 (70.90)	45.27 (78.03)	41.59 (63.09)	-3.69 (6.47)
Quality of garment (1-10)	5.32 (0.90)	5.19 (0.83)	5.45 (0.95)	0.25 (0.07)
Price you think others charge	19.05 (5.44)	17.99 (5.78)	20.11 (4.88)	2.11 (0.45)
<i>Panel (c): Bargaining Experiment Outcomes</i>				
Final Price			13.67 (4.15)	
First Price			17.99 (5.10)	
Number of Rounds			2.12 (1.04)	
Observations	458	229	229	458

Table A4: Summary Statistics on Sample of Firms Surveyed in Both Years

This table reports the mean and standard deviation of bargaining behavior outcomes and time varying controls of each microenterprise in the sample that was surveyed both years. Column 1 pools together both years, Column 2 and 3 are for 2018 and 2019. Column 4 shows the difference between the two years with the associated standard error clustered at the firm owner level. Note that quality of garment is missing for those who did not deliver a garment. All GHC values are inflation adjusted to January 2018. As a reference, the GHC/USD conversion rate was approximately 4.52 in January of 2018.

	(1)	(2)	(3)	(4)
	Pooled	2018	2019	Diff
<i>Panel (a): Bargaining Outcomes</i>				
Final Price	15.88 (4.31)	15.07 (4.09)	16.69 (4.38)	1.62 (0.28)
First Price	20.18 (7.53)	18.90 (7.23)	21.43 (7.61)	2.53 (0.54)
Number of Rounds	2.51 (1.26)	2.40 (1.02)	2.62 (1.46)	0.22 (0.09)
<i>Panel (b): Per Capita Household Liquidity and Time Varying Controls</i>				
Per Capita Household Liquidity	166.74 (286.75)	151.57 (276.03)	181.86 (296.77)	30.29 (21.91)
Garment business is primary income	0.99 (0.07)	1.00 (0.06)	0.99 (0.08)	-0.00 (0.01)
Pct. contribution to HH income	0.56 (0.34)	0.56 (0.32)	0.56 (0.35)	-0.00 (0.03)
Ratio of wage earners within HH	0.37 (0.48)	0.37 (0.48)	0.37 (0.48)	0.00 (0.04)
HH income per capita	133.73 (142.79)	134.53 (155.19)	132.94 (129.48)	-1.59 (10.13)
Number orders possible next 7 days	14.27 (13.13)	15.89 (14.38)	12.65 (11.55)	-3.24 (0.83)
Firm profits expected next week	85.42 (135.55)	76.42 (137.93)	94.42 (132.75)	18.00 (9.96)
Firm profits last month	327.94 (321.88)	344.80 (333.73)	311.09 (309.25)	-33.71 (18.67)
Number orders in last 7 days	4.77 (6.71)	4.59 (6.07)	4.96 (7.29)	0.38 (0.42)
Total expenses last 7 days	40.49 (66.61)	42.40 (72.24)	38.58 (60.52)	-3.82 (5.39)
Quality of garment (1-10)	5.32 (0.90)	5.17 (0.85)	5.46 (0.94)	0.28 (0.07)
Price you think others charge	18.93 (5.50)	17.79 (5.76)	20.07 (4.99)	2.28 (0.41)
<i>Panel (c): Bargaining Experiment Outcomes</i>				
Final price in computer bargaining game			13.84 (4.24)	
First price in computer bargaining game			18.19 (5.07)	
Number of rounds in computer bargaining game			2.16 (1.09)	
Observations	564	282	282	564

Table A5: Experimental Bargaining Game Balance by Random Endowment

This table reports baseline characteristics collected in 2014 by the two random endowment amounts received in the experimental bargaining game. The mean is reported followed by the standard deviation in parentheses. Profits are inflation adjusted to their January 2018 value. As a reference, the GHC/USD conversion rate was approximately 4.52 in January of 2018.

	5 GHC	25 GHC	Diff
Male	0.24 (0.43)	0.27 (0.44)	0.03 (0.06)
Age of garment maker	34.73 (7.61)	36.31 (8.57)	1.58 (1.07)
Years of schooling	8.79 (2.24)	8.98 (2.24)	0.20 (0.30)
Raven's Score (correct out of 12)	5.25 (2.72)	5.86 (2.73)	0.61 (0.36)
Ethnic group is Ewe	0.80 (0.40)	0.75 (0.43)	-0.05 (0.06)
Married or living with partner in 2014	0.74 (0.44)	0.77 (0.42)	0.02 (0.06)
Had a least one child in 2014	0.85 (0.36)	0.87 (0.34)	0.02 (0.05)
Age of business	9.28 (6.94)	9.11 (6.54)	-0.17 (0.89)
Profits last month	307.48 (375.71)	280.74 (287.94)	-26.74 (44.32)
Firm has paid workers	0.03 (0.16)	0.03 (0.16)	-0.00 (0.02)
Number of baseline contacts	5.19 (4.22)	5.03 (3.83)	-0.16 (0.53)
Observations	113	116	229

Table A6: Relationship Between Per Capita Household Liquidity and Garment Completion

This table reports the estimated relationship between per capita household liquidity and garment completion across our two years of data collection for the sample of firms that were surveyed in both years. Per capita household liquidity is winsorized at the 1% level and is included as a z-score. All standard errors are clustered at the firm-level and displayed in parentheses. Survey controls include whether or not a student from NYU was present, the day the survey was completed, and year of survey. Time varying controls include the following: whether firm profit is his/her primary source of income, if firm owner earns over 50% of household income, wage earners ratio within the household, per capita household income winsorized at the top 1%, number of orders firm has had in last 7 days, firm profits in the last month winsorized at the top 1%, the number of orders the firm could handle in the next 7 days, and estimated profits in the next 7 days, total expenses for the firm in the last 7 days winsorized at the top 1%, and price that the firm owner thinks other firms are charging for the same garment. 89 percent of firm owners completed a garment.

	(1)	(2)	(3)	(4)
Z-score of per capita Household Liquidity	0.00524 (0.00919)	0.00140 (0.00916)	0.00488 (0.0150)	-0.00220 (0.0157)
Survey Controls	NO	YES	YES	YES
Firm Fixed Effects	NO	NO	YES	YES
Time Varying Controls	NO	NO	NO	YES
Number of Observations	564	564	564	564

Table A7: Impact of Randomized Endowment on Experiment Bargaining Behavior with Controls

This table reports the estimated impact of receiving a higher random endowment amount on experiment bargaining behavior outcomes with the inclusion of in-balanced controls. The only in-balanced control baseline variable is the Raven's score. Column 1 reports average estimated impacts across all days of data collection. Columns 2 and 3 report within day impacts. All standard errors are clustered at the firm-level and displayed in parentheses. As a reference, the GHC/USD conversion rate was approximately 4.89 in January of 2019.

	(1)	(2)	(3)
	All Days	Day 1	Day 2
	<u>Final Price</u>		
25 GHC Payment	1.00 (0.55)	1.49 (0.60)	0.40 (1.04)
Constant	12.50 (0.61)	12.20 (0.68)	12.46 (1.08)
	<u>First Price</u>		
25 GHC Payment	1.26 (0.68)	1.94 (0.82)	0.32 (1.14)
Constant	16.76 (0.84)	16.62 (1.03)	16.57 (1.37)
	<u>Number of Rounds</u>		
25 GHC Payment	0.23 (0.14)	0.28 (0.14)	0.19 (0.28)
Constant	1.86 (0.15)	1.79 (0.17)	1.82 (0.28)
Observations	229	144	85