To Switch or Not to Switch Payment Scheme? Determinants and Effects in a Bargaining Game

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Abstract

The incentive scheme selected in a laboratory experiment might trigger different type of behavior in participants. This paper is an attempt to screen the strategies adopted by agents in a bargaining game when buyer and seller have partly conflicting interests and are asymmetrically informed. We allow participants to choose the incentive scheme through which they will be paid at the end of the experiment controlling for past experience and individual characteristics. It is well known that payment method is highly correlated to the risk preferences shown by individuals, but little research is devoted to the analysis of the behavior induced by Random Lottery Incentive scheme (RLI for short) and Cumulative Scheme payment (CS for short) both on individual and social results. This paper aims to fill the gap.

Keywords: bargaining, experiment, gender, payment scheme.
JEL: C78; C91; D82; J16; J33

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Please, don't cite, this is a preliminary work

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1 Introduction

In bargaining games strategic behavior of trading partners is essential for the final gains. What is generally underestimated is the importance of payment schemes in shaping strategic behavior and the heterogeneity of agents who may feel attracted by different incentive schemes that better suit their characteristics and preferences. Indeed, specific payment methods in bargaining games are likely to affect individual strategies, but also tend to favor those subjects who perceived a specific incentive mechanism as more appropriate to the task and to their attitudes.

In this work we study the characteristics and strategic behaviors of experienced sellers and buyers who trade over the selling of a firm and have the option to change their payment-incentive scheme from a Random Lottery Incentive to a Cumulative Scheme (RLI and CS hereafter). In particular, we investigate whether past experience and individual characteristics affect the choice of switching payment scheme and whether this choice influences strategic behaviors. The key point is that agents are characterized by heterogeneous preferences and may behave differently when they have the option to sort themselves into payment incentive mechanisms associated to different levels of riskiness that better suit their intrinsic attitudes.
So far methodological studies in the experimental context have focused on the validity of RLI and CS as unbiased and optimizing incentive schemes. Holt (1986) shows that responses to RLI might be biased by other tasks when subjects are not represented by expected utility preferences. Starmer and Sugden (1991) discuss Holt's hypothesis, rejecting his model but without ruling out the possibility that RLI is a bias-payment scheme. Although some critiques are moved to RLI, Cubitt et al. (1998) and Beattie and Loomes (1997) among others, restore the validity of RLI. [1]

In this sense, the number of experiments adopting RLI rather than CS incentive have decreased in the last decades and when comparing the two payment schemes, results appear quite mixed in the literature. Lee (2008) underlines that risk-averse subjects incentivized by CS tend to follow decreasing absolute risk aversion and behave more risk aversely while RLI is a method that can control for wealth effect and is considered a better incentive scheme. Laury (2005) focuses on eliciting choices under different payment schemes, including RLI and CS, finding out that no significant difference rises. [2]

Even though subjects might be consistent across incentive schemes when their choices affect their own payoff, things might change when they are asked to antic-

[1] Since only one task will be paid for real, the RLI may encourage subjects to think about each task as if it were the only task faced and have the desirable effect of eliminating wealth effects (Bardsley 2010).

[2] Further discussion on incentive mechanisms to adopt in experimental settings is discussed by Azrieli et al. (2012), Cox et al. (2014), Harrison and Swarthout (2014).

ipate the strategy of another agent. To the best of our knowledge, current analysis explores individual decision making under different payment schemes in "games against nature," while changing incentives in games where individuals should reason and learn about other's behavior has not been explored (Beattie and Loomes, 1997).

This paper is an attempt to screen the strategies adopted by subjects in a bargaining game when buyer and seller have partly conflicting interests and asymmetric information. We are particularly interested in the role of *incentives* and *motivations*. As described by Bardsley et al. (2009), *motivation* determines the behavior of subjects, although it is not controllable by experimenters because of the difficulty of knowing, for example, whether subjects preferences conform to the payment scheme imposed by the experimenter. This work tries to include both elements by allowing subjects to take their own design decision in light of their individual experience and preferences.

Previous contributions mostly focus on the effects of different incentive schemes on productivity and final payoff, without taking into account the fact that neglecting the importance of sorting into a particular scheme may lead to an overestimation of the role of incentives (Lazear, 2000). Only few empirical studies address this issue. In a controlled laboratory environment, Dohmen and Falk (2011) investigate which personal characteristics beyond individual productivity differences provoke workers to self-select into variables instead of fixed-pay contracts, and how relevant characteristics such as risk aversion, relative self-assessment, social preferences, gender, or personality shape the selection process. Their results reveal the importance of multidimensional sorting. Indeed, they find that output in the variable-payment schemes is higher than output under fixed-wage regime and they were able to attribute output differences to productivity sorting (more productive workers prefer the variable payment). Moreover, they find that women are less likely to choose a variable-payment scheme than men, supporting the idea that women tend to shy away from competition and select jobs that involve little or no competition.

The experiment of Eriksson et al. (2009) confirms the relevance of self-selection and the risk of overestimating variability of the effort exacerbated in experiments related to tournaments due to the fact that a competitive payment scheme is imposed on very risk-averse or under-confident subjects. In fact the choice on payment scheme, driven by risk preferences, reduces the variance of effort.

This paper focuses on a laboratory experimental setting which mimics a bargaining problem, using a modified version of Acquiring-a-Company game (Samuelson and Bazerman, 1985). An informed seller has to sell a company to an uninformed buyer, which offers a price based on a message (which can be true or can be false) on the value of the firm.

Experienced players, after playing 31 rounds of the bargaining problem, either assigned to the seller role or the buyer role, are asked to choose whether to switch from a RLI scheme, based on one random round selected at the end of the experiment, to a CS, consisting on the average payoff gained for the following stage, lasting 12 rounds.

The final goal of the paper is to understand the redistribution of the final outcomes and the social equality stemming from the incentive scheme chosen, and the matching between different payment schemes. In order to reach this goal, we structured the analysis in three steps. First, we study the individuals' determinants of switching into a specific payment scheme, taking advantage of the availability of the past history of behavior and performance in the first stage of 31 rounds, as well as background information on individual characteristics. Second, we investigate whether the chosen payment scheme affects behavior and outcomes. Finally, we focus on the redistributive issue. In particular we study whether, under asymmetric information and different incentive schemes, sellers and buyers are able to share the total surplus of a single trade, and whether social equality is favored by switching incentive scheme.

Our results point out that sellers choose the payment scheme regardless of past history and that female sellers are more attracted by the CS scheme than male sellers, while buyers, who are actually facing the risky choice, prefer RLI where they moderate riskiness by playing more aggressively, but this is true only for female buyers. After choosing the payment scheme, sellers are generally more willing to accept the deals when paid according to CS, while buyers are more likely to earn more when choosing the RLI scheme, associated to lower price offers to the sellers.

Players are unaware of the payment selected by their trading partner, although the seller gets better deals when choosing CS and meeting a CS buyer; buyer improves his/her payoff by selecting RLI and meeting with a CS seller.
This paper is organized as follows. Section 2 describes the game model. Section 3 focuses on the experimental approach and Section 4 illustrates the results. The main conclusions of the paper are reported in Section 5.

2 Game Model

The game we adopted in this work is based on a modified version of the Acquiring-A-Company game proposed by Samuelson and Bazerman (1985). The firm owned by the seller has value v (known only by seller), randomly generated according to the uniform distribution $(0, 1)$. However, for the seller the value of the firm is only qv, with $0 < q < 1$. The distribution of v and the value of q are common knowledge, while the value of the firm v is only known by seller. If trade occurs at price p, the buyer earns $v - p$ and the seller $p - qv$.[3] The decision process in each round is as follows:

(i) knowing v, the seller sends the value message $\hat{v} = \hat{v}(v)$ which might be true ($\hat{v} = v$) or false ($\hat{v} \neq v$);

(ii) after receiving message $\hat{v}$, the buyer proposes the price $p = p(\hat{v})$;

(iii) after receiving the price offer, the seller accepts it ($\delta(p) = 1$) or rejects it ($\delta(p) = 0$).

The seller earns $\delta(p)(p - qv)$ and the buyer $\delta(p)(v - p)$: when trading, i.e., when $\delta(p) = 1$, the total surplus $v(1 - q)$ is always positive. When not trading, i.e., when $\delta(p) = 0$, both buyer and seller earn nothing.

Since $\delta(p) = 1$ is only optimal for $p \geq qv$, a risk-neutral buyer expects to earn

$$\int_0^{p/q} (v - p)\, dv = (0.5 - q)\, \frac{p^2}{q^2} \tag{1}$$

which increases (decreases) with p for $q < 0.5$ ($q > 0.5$). Since $v < 1$ implies $vq < q$, it is never optimal for the buyer to offer a price higher than q: the price $p = q$ is optimal for $q \leq 0.5$ whereas trade is avoided by $p = 0$ for $q > 0.5$. This benchmark solution is not questioned by cheap talk, i.e. the value message $\hat{v}$.

Still one might want to speculate how behavior is affected when $-$ at least some $-$ seller participants are feeling obliged to tell the truth. When expecting this, buyer participants may believe the message $\hat{v}$ and suggest a price between $q\hat{v}$ and $\hat{v}$. Fairness-minded buyer participants might even propose the price $p(\hat{v}) = \frac{(1+q)\hat{v}}{2}$ splitting the surplus from trade $(1 - q)\hat{v}$ equally split so that the Surplus Share (SS) gained by seller and buyer is $SS_{Buyer} = SS_{Seller} = \frac{(1-q)v}{2}$which implies$\frac{p-qv}{(1-q)v} = \frac{v-p}{(1-q)v}$. Actually quite a number of seller participants feel obliged to choose $\hat{v}(v) = v$, and many price offers lay between $q\hat{v}$ and $\hat{v}$. However, cheap talk value messages more frequently induce opportunistic sellers to try to exploit buyers by "making up" via $\hat{v}(v) > v$ and this, in turn, questions buyers' trust in the message sent by the seller. We expect experienced buyers to be more skeptical and less trusting in order to avoid losses and the winner's curse.[4]

[3] Di Cagno et al. (2015) is based on the same model

[4] Winner's curse in the modified version of Acquiring-a-company game has been discussed by Di Cagno et al. (2015)

3 Experimental Protocol

We refer to the last stage results of a broader experimental project as Stage 1.[5] This stage consists of playing the bargaining game for 12 rounds and has been preceded by 31 rounds of the same game, which should allow our participants to fully understand the game (we call it Stage 0).

We ran 12 sessions with a total of 376 students (11 sessions with 32 participants each, plus one session with 24), recruited among the undergraduate population of Jena University using Orsee (Greiner, 2004), at the laboratory of Max Planck Institute in Jena. The experiment was fully computerized using z-Tree (Fischbacher, 2007).

At the beginning of the experiment, before Stage 0, each participant is randomly assigned to one of the two possible roles (seller or buyer) and remains in this role throughout the whole experiment. Half of the participants are buyers, the other half sellers. Without being made aware of this, half of the sellers and buyers were males and the other half females. In each round, participants were randomly matched with a partner in the other role in order to possibly trade the firm owned by the seller. The value of the firm v, randomly selected for each seller-buyer pair according to a discrete uniform distribution concentrated on $(0, 100)$, is told only to the seller (the actual values in the experiment, selected in steps of five, were 5, 10, ..., 95). Both (seller and buyer) are aware of the proportion (q), correlating the true evaluations v for buyer and qv for seller linearly. This proportion q is randomly selected from a discrete uniform distribution $(0, 1)$; the actual values q in the experiment were rescaled in $\%$ and could only assume the following values: 10, 20, 30, 40, 50, 60, 70, 80, or 90 percent.

Table 1: Road map of game rounds

Step†	Seller	Buyer	Description
0	q, v known Partner information*	q known Partner information*	Initial information provided to buyers and sellers
1	Message $\hat{v}$	X	Seller sends message to Buyer
2	X	Price offer $p(\hat{v})$	Buyer makes price offer
3	Acceptance $\delta(p)$	X	Seller accepts or refuses price offer
4	Payoff $\delta(p)(p - qv)$	Payoff $\delta(p)(v - p)$	Seller and Buyer informed on payoff

† Each round involves four-steps.

* Partner information depends on the treatment.

X Participants wait for partner's decision, i.e. they are inactive.

[5] The English translation of the Instructions of the whole experiment is reported in Appendix5, where Phase III refers to what we name here Stage 1. We refer to previous stages as Stage 0.

In each round (see Table 1) bargaining proceeds in the following way: The seller sends a value message ($\hat{v}$) to the buyer which can be true or false but not exceed 100. After receiving the message, the buyer proposes a price p which cannot exceed 100. Having received the price offer, the seller can accept it or not. If accepted, the firm is sold at the offered price; if not, no trade takes place. After each round, payoffs are calculated and privately communicated to buyer and seller.
Random matching between buyers and sellers was implemented to balance our sample by gender constellation. Pairs occurred in equal proportion: male buyer/female seller, male buyer/male seller, female buyer/male seller and female buyer/female seller. Participants were reminded in each round that they have been randomly paired and they received some initial information on their trading partner. We ran four treatments differing in information provided on the trading partner at the beginning of each round. In treatment U (Unknown), trading partners randomly matched in pairs, are unaware of the other's gender, which becomes known in treatment G (awareness of Gender constellation). Treatment OC (Other Confound) provides information about the field of study instead (Economics versus Non-Economics). Finally, treatment E (Embedded Gender Constellation) provides information about other's gender and field of study.

3.1 Payment Method

At the beginning of the experiment, subjects were instructed that the payment method adopted for the first part of the experiment was RLI scheme, in particular a round randomly selected at the end of the whole experiment was going to be truly paid.[6] At the beginning of Stage 1, participants are asked which payment they prefer to adopt for the following 12 rounds of Stage 1, either keeping the RLI scheme or switching to an average cumulative method. Immediately after Stage 1, in Stage 2[7] subjects played the Holt and Laury's (2002) lottery protocol to elicit risk preferences. Final gains were communicated privately at the end of the experiment, after Stage 2.

At the end of each round, participants received feedback about their final payoff for that round (in ECU). The conversion rate from experimental points to euro (1 euro=30 ECU) was announced in the instructions. If the seller accepted the offered price, the buyer earned the difference between the value of the firm and the price $(v - p)$ and the seller the difference between the accepted price and her evaluation of the firm $(p - qv)$. If the price was not accepted, the final gain from trade for both was zero due to no trade. Participants received an initial endowment of 300 ECU (10 euro) in order to avoid bankruptcy.

[6] Stage 0 collects both Phase I and Phase II in the instructions, where Phase I lasted 1 incentivized round and the 30 rounds of Phase II were paid according to RLI payment method.

[7] Reported in Appendix5 as Phase IV of instructions.

4 Result

The result section focuses on different aspects related to the bargaining problem. We consider both decision variables related to strategies adopted by buyers and sellers and their final outcomes. The decision variables we consider are:

- Seller's cheating propensity: the share $\frac{\hat{v}-v}{\hat{v}}$ for $\hat{v} > 0$, the relative difference between the value stated and the true one;
- Buyer's rentability: the share $\frac{\hat{v}-p}{\hat{v}}$, a measure of the gains sought by buyers given the message received and their trust on it. [8]

Both measures indicate the aggressiveness of seller and buyer in dealing with the trading partner. Then we consider the outcome of the trading process:

- Seller's surplus share ($\frac{p-qv}{(1-q)v}$) and buyer's surplus share ($\frac{(v-p)}{(1-q)v}$) when the deal is accepted.
- number of times the deal was refused; this variable is considered as an outcome from buyer's point of view and a decision variable when we consider the seller role.

The advantage of our experiment is the opportunity to study when/which subjects switch the payment mode, and whether they act more cautiously in one trading role compared to the other. This decision might be affected by inertia and wealth effect. In this sense, we design the experiment in order to account for switching from RLI to CS because (a.) subjects are not affected by wealth effect in the phase before switching payment and (b.) RLI is perceived as riskier compared to CS. We control whether switching is driven by individual characteristics such as gender and risk preferences.

We base the result analysis on (i) individual determinants and experience, the latter focusing on the last 10 rounds of Stage 0, which is the last phase of previous Stage where subjects have played enough rounds to become experienced players (Section 4.1). The following step (ii) is to evaluate how the payment selection changes the bargaining results from the seller and buyer point of view, in particular whether one group will end up better off than the other in terms of total surplus share gained in each period (Section 4.2). Finally, (iii) it is analyzed whether subjects are better off keeping or changing the payment scheme (Section 4.3). The final analysis is aimed to analyze whether switching improves the result for both trading partners or minimizes losses in the game (Section 4.4).

[8] Given the exogenous firm values v and q selected at each round, rentability and cheating are considered as percentages on the value stated by sellers

4.1 Why Do Players Switch?

Table 2: Random payment choice in stage 1 by gender and role

Test on average selection of the random payment (RLI):				
	Female	Male	Female and Male	P value (F-M)
Sellers	0.117	0.255	0.186	0.015
	(94)	(94)	(188)	
Buyers	0.245	0.277	0.261	0.620
	(94)	(94)	(188)	
Sellers and Buyers	0.181	0.266	0.223	0.048
	(188)	(188)	(376)	
P value (S-B)	0.02	0.74	0.08	

Notes: Percentage of subjects choosing random lottery incentive scheme in stage 1 and test on payment scheme choice by gender and role. Number of observations in parenthesis.

At the beginning of Stage 1, the majority of sellers (81%) and buyers (73%) decide to be paid through the average payment scheme. When we look at the gender composition, we find a significant difference between female and male sellers i.e., female sellers choose (significantly) more than males the cumulative payment (see Table 2). This gender difference does not hold for buyers. Males choose the random payment around 25% more of the time than females do.

Apparently, the group of female sellers chooses with higher frequency the cumulative payment when it is playing in the role that does not involve any risk.[9]

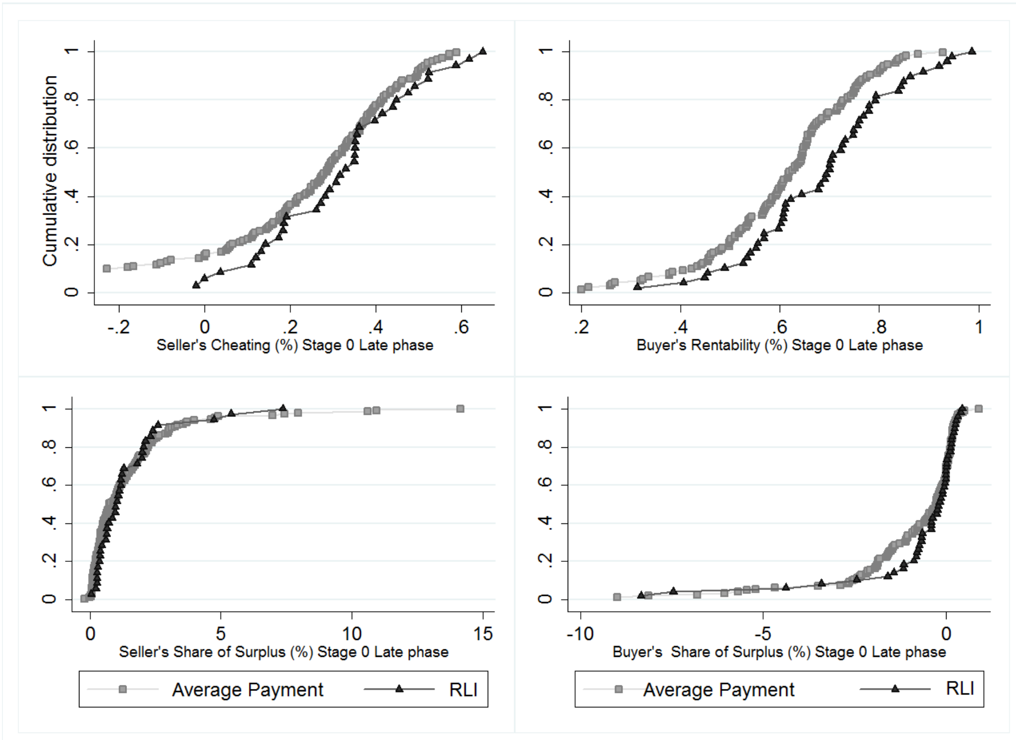
Past history plays a role in payment selection, as does role and gender. Figure 1 compares past choices (last ten rounds from Stage 0) with the payment scheme selected at the beginning of Stage 1 in order to control whether past decisions and outcomes drive sorting into payment scheme. Figure 1 considers both seller's decision and outcome on the left side and buyer's rentability and surplus share on the right side.

When we look at sellers, cheating propensity and final surplus share are not distributed differently if we control for those selecting CS rather RLI scheme. The cumulate distribution is alike for both groups with non-parametric test confirming the graphical intuition. Buyers seeking for higher rentability are more likely to select the RLI scheme in Stage 1 (p-value < 0.01), but when we decompose the effect across gender, the result is significant only for female buyers (p-value < 0.003).

Table 3 collects the regression analysis where we account for gender, role, and past experience (referring to both decisions and outcomes). In particular, from model (1) to (3), we focus on seller's likelihood to keep RLI payment by past cheating, by past surplus share of accepted deals (in both cases including average, standard deviation, minimum, and maximum), and by past acceptance rate (we consider

[9] We test risk preferences distribution among roles and gender, without finding any relevant difference.

Figure 1: Past decisions and outcomes by payment scheme



Notes: We consider decisions and outcomes from the last 10 rounds of Stage 0, splitting the subjects by the payment decision made at the beginning of Stage 1

the last 10 rounds of Stage 0). Female sellers are more likely to switch for the cumulative payment regardless of past decisions and outcomes. Risk preferences (weakly but) significantly affect the choice made by sellers; those showing risk-loving attitudes are more willing to keep the RLI scheme.

On the right side of Table 3, from model (4) to (6), we analyze the RLI scheme as a function of buyer's rentability, surplus share of accepted deals and acceptance rate in the last 10 rounds of Stage 0. Those offering lower prices (seeking higher rentability and trusting less) are more willing to maintain the RLI scheme until the end of the experiment. These buyers are characterized by more aggressiveness and are rejected more often (acceptance rate is significantly and negatively related to RLI scheme), and make higher profit when trades are accepted. The payment selections for buyers are greatly influenced by past choices and outcomes. Apparently their choices do not involve risk preferences.

Table 3: Payment scheme: the role of past decisions and outcomes

	Sellers			Buyers		
	Dependent: RLI dummy					
	(1)	(2)	(3)	(4)	(5)	(6)
	β/(se)	β/(se)	β/(se)	β/(se)	β/(se)	β/(se)
Male	0.57**	0.55**	0.54**	-0.00	0.02	0.10
	(0.23)	(0.22)	(0.22)	(0.21)	(0.21)	(0.20)
Risk	0.09*	0.09*	0.09*	0.02	-0.05	0.00
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)
Average Cheat (%)	-0.51					
	(1.19)					
Sd Cheat	-2.04					
	(3.36)					
Min Cheat	-0.04					
	(1.02)					
Max Cheat	1.25					
	(1.40)					
Average Rentability (%)				3.68**		
				(1.48)		
Sd Rentability				1.63		
				(5.03)		
Min Rentability				0.11		
				(1.50)		
Max Rentability				-1.40		
				(2.31)		
Average SS (%)[1]		0.01			0.32*	
		(0.12)			(0.18)	
Sd SS		-0.17			0.14	
		(0.16)			(0.19)	
Min SS		0.28			-0.00	
		(0.27)			(0.05)	
Max SS		0.06			-0.86**	
		(0.05)			(0.40)	
Average Acceptance (%)			0.80			-1.33***
			(0.64)			(0.46)
Constant	-1.71***	-1.58***	-1.98***	-2.19***	0.12	-0.05
	(0.53)	(0.28)	(0.43)	(0.82)	(0.36)	(0.30)
Observations	188	185	188	188	174	188
Chi-squared	11.64	14.88	11.64	13.04	7.33	9.07
Pseudo R^2	0.09	0.07	0.06	0.06	0.05	0.04

Notes: Probit estimation and standard errors in parenthesis. All the decisions are based on individual average decision of the final 10 rounds of Stage 0. Risk measure goes from 0 (maximum risk averse) to 9 (maximum risk seeking).
[1] Surplus share (SS) include only the accepted deals: the analysis is consistent when we analyze the surplus share including not accepted contracts. * p<0.1, ** p<0.05, *** p<0.01.

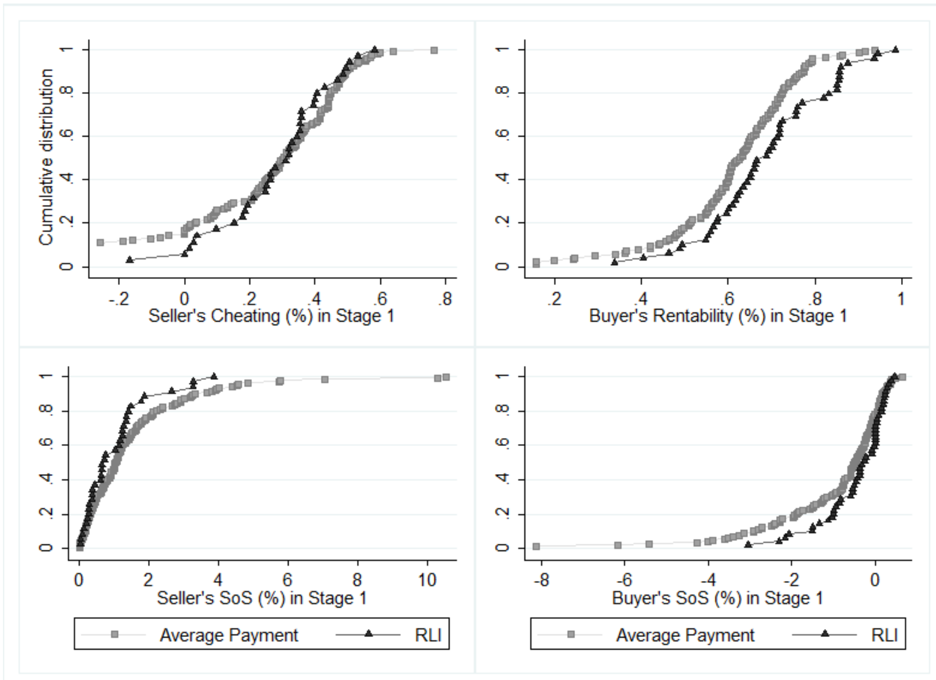
Result 1 *While buyers are affected by past experience (rentability, acceptance and surplus share), the choices made by sellers are mainly related to individual characteristics. Risk preferences play no role for buyers while sellers are partially driven by them.*

4.2 Payment Scheme and New Strategies

At the beginning of Stage 1, we ask subjects if they prefer to keep RLI payment or switch to CS payment. Subjects sorting themselves in new payment scheme might also change their behavior. This section is aimed to describe the individual strategy after selecting the payment.

We compare cumulative distribution of seller's cheating and surplus share of

Figure 2: Decision and outcomes in Stage 1 by payment scheme selection in Stage 1



Notes: We consider the average decision by subjects in the 12 rounds of Stage 1.

subjects switching to CS and those keeping the RLI scheme in Stage 1 (left side of Figure 2) and buyer's rentability and surplus share (right side of Figure 2). Results are now different from what we concluded looking at Figure 1: Seller's cheating distribution (graph top-left of Figure 2) does not differ across payment schemes, (non parametric test confirms this) but the rate of participants stating the true value of v is significantly higher among those keeping the RLI payment (see Appendix 5 Table 5). Additionally, when we consider the seller's outcome, we find that sellers are making better deals when selecting the cumulative scheme although the non-parametric test does not reveal a significant difference.

Buyer's rentability after payment selection is consistent with the analysis of the last 10 rounds of Stage 0. Buyers who are more skeptical and seeking a larger surplus share are trying to offset the risk of having losses, and they are willing to select the RLI scheme because they use a game strategy based on a very low level of trust toward sellers. As we discussed in Section 4.1, the effect is mainly driven by female buyers.

Even looking at the surplus share distribution after the payment selection we notice a similar path for the last 10 rounds of Stage 0. Buyer's surplus share improves when subjects sort themselves in the RLI. In fact, the probability of incurring losses strongly decreases (p-value <0.003).

This result resembles the conclusions from Stage 0, although the sorting effect amplifies it in Stage 1. While males are choosing the payment scheme regardless of their role and decisions, female participants sort themselves to the cumulative scheme when they are in the role of seller in order to avoid the payment mechanism perceived as riskier. Figure 2 justifies this choice because cumulative scheme seems more rewarding than the RLI scheme.

When we consider buyers, female subjects select RLI scheme as much as males even though the female subjects choosing it are also moderating the riskiness of the game by playing with a lower degree of trust toward seller, and offering lower prices.

The analysis in Table 4 focuses on three types of dependent variables representing results of Stage 1, in particular the acceptance rate, the surplus share gained (average and standard deviation) when deals are accepted. The model we implement is:

$$y_i = \alpha + \beta_1 Male \times CS_i + \beta_2 Male \times RLI_i + \beta_3 Female \times RLI_i + \gamma X_i + \delta Risk_i + \epsilon_i \tag{2}$$

Where we account for the interaction between payment and gender (the benchmark is the fourth category Female×CS), X_i which is the average cheating (rentability) for seller (buyer) and risk measure. In the left columns of Table 4, we consider as dependent variables Seller's acceptance (model 1), average surplus share (model 2) and surplus share standard deviation (model 3). The analysis that underlines the acceptance rate is related to gender and payment scheme selected, in particular female sellers choosing CS are more likely to accept the price offered by buyers than female sellers choosing RLI, but the result can be extended also when we compare female sellers with CS incentive to the male sample (although the result is not significant). Surplus share is statistically higher (p-value<0.1) for women choosing CS but this is significant only when we compare with males selecting RLI. This implies that women are able to close more deals when sorting themselves in CS and also make the best of it. This result is confirmed by the robustness check in the last 10 rounds of Stage 0 (Appendix 5, Table 6): No interaction between contract scheme and gender is significant before choosing the payment contract. Females switching to CS in Stage 1 are able to perform on average better than other subjects, seeking a higher surplus share (on average) and closing more deals than the other groups.
In the right columns of Table 4, we focus on the likelihood that the buyer's offer will be accepted (model 4), with average surplus share (model 5) and surplus share

standard deviation (model 6). Buyers are earning significantly more when sorting themselves in the RLI scheme, although there is no statistical difference in the coefficient "RLI*Female" and "RLI*Male" where we account for the gender effect. More aggressive buyers, seeking for larger shares of gains, are generally accepted less frequently but this effect seems stronger for male buyers rather than female ones. Standard deviation of surplus share through the 12 rounds of Stage 1 is significantly lower, both for sellers and buyers, when RLI payment is selected.

Table 4: The role of payment scheme sorting on acceptance rate and surplus share in Stage 1

	Seller			Buyer		
	(1) Acceptance (Mean)	(2) SS accept[1] (Mean)	(3) SS accept[1] (SD)	(4) Acceptance (Mean)	(5) SS accept[1] (Mean)	(6) SS accept[1] (SD)
	β/(se)	β/(se)	β/(se)	β/(se)	β/(se)	β/(se)
Cumulative Scheme*Male	-0.02	-0.53	-1.14	-0.05*	0.48	-0.88
	(0.03)	(0.46)	(0.91)	(0.03)	(0.48)	(1.00)
RLI*Male	-0.05	-0.98*	-1.82*	-0.06*	1.06**	-2.32**
	(0.04)	(0.52)	(0.99)	(0.04)	(0.52)	(0.96)
RLI*Female	-0.10*	-0.70	-1.94**	-0.03	1.08**	-2.00*
	(0.06)	(0.53)	(0.89)	(0.04)	(0.50)	(1.06)
Cumulative Scheme*Female	Benchmark					
Average Cheating (%)	0.04*	0.16	0.24			
	(0.02)	(0.17)	(0.29)			
Average Rentability (%)				-0.66***	1.79	-3.24
				(0.19)	(1.78)	(3.90)
Risk	0.01**	0.01	0.00	0.01*	-0.03	0.10
	(0.01)	(0.09)	(0.18)	(0.01)	(0.08)	(0.15)
Constant	0.51***	2.85***	4.74***	0.94***	-3.05***	6.65***
	(0.03)	(0.57)	(1.17)	(0.13)	(1.09)	(2.33)
Observations	188	187	185	188	184	183
R^2	0.06	0.02	0.02	0.32	0.04	0.04

Notes: Dependent and independent variables are based on individual average and standard deviation of the 12 rounds of Stage 1. Risk measure goes from 0 (maximum risk averse) to 9 (maximum risk seeking). Seller's cheat (%) is measured as difference $\frac{\hat{v}-v}{\hat{v}}$. Buyer's rentability (%) measures the distance between price offer and message received $\frac{\hat{v}-p}{\hat{v}}$.
[1] Surplus share (SS) include only the accepted deals: the analysis is consistent when we analyze the surplus share including not accepted contracts. * p<0.1, ** p<0.05, *** p<0.01.

Result 2 *Female sellers choosing CS are more likely to accept the price offered by buyers and to get larger surplus share (significant only when comparing with males choosing RLI). Female buyers select RLI scheme as much as males but their strategy aims to moderate the risk, by playing with lower degree of trust toward seller and offering for lower prices.*

4.3 Matching Contracts

The total surplus in each deal is exogenously defined by the problem variables (q and v); players cannot change the available social surplus from trade. We investigate how payment scheme affects redistribution between agents and whether switching (or not) favors some agents. Thanks to previous results, we concluded that switching the payment scheme is a signal of individual preferences for men and it is more related to strategizing for women. In this sense, we now discuss which payment scheme allows participants to pursue higher profits and via which one they better perform.

In the bimatrices of Figure 3 we compare the aggressiveness for sellers and buyers (cheating and rentability), acceptance and surplus share. Each matrix represents results for seller and buyer, in particular, we set the trade between buyer and seller choosing CS as the reference point. The other cells represent the other possible matches, and we check if these are significantly different from the reference group for sellers (first number in bracket) and buyers (second number).

The design excludes to be informed on the payment selected by the trade partner, although the results are significantly changing given the matching partner and the contract he or she has chosen.

Figure 3: Incentive scheme matching between seller and buyer on acceptance rate and surplus share

		Buyer	
		RLI	CS
Seller	RLI	(0.285 , 0.092**)	(0.225 , 0.017)
	CS	(0.127 , 0.079***)	Benchmark

Cheating/Rentability

		Buyer	
		RLI	CS
Seller	RLI	(-0.363***, -0.436***)	(-0.067,-0.082)
	CS	(-0.184***,-0.1773*)	Benchmark

Acceptance

		Buyer	
		RLI	CS
Seller	RLI	(-1.130, 1.131)	(-0.831, 0.831)
	CS	(-0.986*, 0.986*)	Benchmark

SS accepted trades

		Buyer	
		RLI	CS
Seller	RLI	(-0.902* , 0.771)	(-0.518 , 0.487)
	CS	(-0.699**, 0.613**)	Benchmark

SS (all plays)

Notes: Coefficients from panel regressions (probit for acceptance dummy and xtreg for the other variables). We consider here the 12 rounds of Stage 1. All results are considered as difference with seller (left entry) and buyer (right entry) choosing CS. * p<0.1, ** p<0.05, *** p<0.01.

Cheating and rentability are measures indicating the aggressiveness of players in getting larger profits. Buyer rentability (right entry in the upper left bimatrix) is significantly higher when buyers are sorting themselves in RLI scheme in Stage 1 (as well as late phase of Stage 0 see Appendix 5, Figure 5). The result is consistent to previous observations where buyers tend to sort themselves to RLI contract when more aggressive. When we control seller's cheating, left entry in the upper left bimatrix of Figure 3, no difference can be observed across groups.

Acceptance rate, in the upper right bimatrix, is significantly higher when seller and buyer choose to switch to CS contract, while the likelihood is lowest when both select the RLI scheme. When we double check for the last 10 rounds of Stage 0 (see Appendix 5, Figure 5), we confirm some sort of self-selection; sellers with RLI scheme meeting with future CS buyers in Stage 0 are trade partners with the highest probability to close the deal.

Looking at outcomes, we conclude that surplus share including only accepted deals (see lower left bimatrix in Figure 3) is significantly better (worse) for buyers (sellers) when choosing the RLI (CS). Buyer significantly improves his situation when meeting a CS seller, while seller is significantly worse off when meeting buyer with RLI scheme. When we consider the surplus share, including failed trades, the effect becomes even stronger (see lower right bimatrix in Figure 3). The effect is negligible when we look at outcomes in Stage 0 (see Appendix 5, Figure5).

Result 3 *Sellers choosing CS are closing more deals and making larger profits, compared to buyers, which are better off when they keep the RLI scheme. In particular sellers matched with RLI buyers are making significantly less profits, whereas buyers are better off when choosing the RLI scheme, but the effect is significant only when matched with CS seller.*

4.4 Social (In)Equality

The Acquiring-a-Company game is a positive sum game allowing for social equality in the form of $\frac{p-qv}{(1-q)v} = \frac{v-p}{(1-q)v}$. This is relevant for our study because we want to assess here whether contracts affect the social best achieved in different trading groups, characterized by different decisions over payment scheme.

In particular we focus on the difference between results achieved by each couple of sellers and buyers in each round of Stage 1: $|SS_{Seller} - SS_{Buyer}|$ as a measure of social inequality: it takes value equal to zero in case of equality between partners.

Matrices in Figure 4 show social inequality both in last rounds of Stage 0 (on the left) and in Stage 1(on the right). Each matrix represents the difference between surplus share, in particular, we set the trade between buyer and seller both choosing the CS, as the reference point. The other cells represent the other possible matches, and we check if there is any significant difference from the reference group.

In Stage 0 we don't find any significant difference across contracts. When we look at Stage 1, the social inequality is significantly lower when CS sellers meet RLI buyers compared to the benchmark solution, where both seller and buyers selected CS contracts (benchmark cell is the lower right cell of each matrix). The CS seller

Figure 4: Social inequality by trader's payment method

Seller		Buyer RLI	Buyer CS
	RLI	0.347	-1.164
	CS	-0.894	Benchmark

Social Inequality, Stage 0

Seller		Buyer RLI	Buyer CS
	RLI	-2.196	-1-653
	CS	-2.000**	Benchmark

Social Inequality, Stage 1

Notes: Marginal effects from interactions between contracts choices compared with seller and buyer choosing CS. The differences between surplus share include only the accepted deals: the analysis is consistent when we analyze the surplus share including not accepted contracts. * p<0.1, ** p<0.05, *** p<0.01.

trading with CS buyer drives more social inequality even when we compare with an RLI seller and buyer or an RLI seller meeting a CS buyer, but it is not significant. This implies that the probability to close a fair contract is higher when the seller selecting the CS scheme (associated to higher probability to accept, as discussed in Table 4) meets an RLI buyer (lower left of the right matrix in Figure 4), offering lower prices and being more skeptical.

Result 4 *Social (in)equality is (highest) lowest when CS sellers meet CS buyers but significantly (higher)lower only when we compare to CS sellers meeting RLI buyers.*

5 Final Remarks

The modified Acquiring-a-Company game admits two roles where only the uninformed side is actually experiencing risk. Although a seller's profit is a function of the price proposed by buyers, she/he always has the possibility to ultimately refuse the deal. We find that buyers selecting the RLI scheme are 25% of our sample regardless of gender. Women experiencing risky choice through many rounds, even if losses seems likely, become more tolerant toward risk and choose significantly more often the RLI scheme compared to female sellers. This might have two different explanations. On the one hand, it is commonly accepted that women shy away from competition (Niederle and Vesterlund (2007)) but in our case, experienced female buyers kept the payment scheme, perceived as riskier, because they adapted their behavior to the game.

As Casari et al. (2007) suggest, in repeated common value auction, women experience more often winner's curse at first than male participants. Because of the "shock therapy" at the beginning of the game, where they experience high losses, they adapt their strategies to avoid future failures (women turn from more aggressive bids to bid lower) maybe because they might have an initial lack of experience in strategic interactions compared to males (see Di Cagno et al. (2015) for further discussion on gender differences in the early phase of our experiment). In this sense, women improving their strategic interaction with more trials are able to select payment design preferred, consistently with their attitude during the game more than what males do.

On the other hand, when we consider female sellers choices, women shy away from riskier design selecting the CS, even though the decision does not involve a true risk. This result could be related to observations of gambling studies. Here women are more risk-averse in the gain-domain frame, although in the loss-domain, results are not conclusive (see Harbaugh et al. (2002), Schubert et al. (1999) and Eckel and Grossman (2008)). This could explain why women seem to be more risk-averse as sellers compared to when they are buyers.

In general, the payment scheme selected by subjects seem to favor the female attitude: sellers with CS incentive improve their outcomes. We cannot rule out that the improvement in results is related to the effect of more experience, but we think that CS triggers a different behavior from participants which accept more often price offers and moderate the aggressiveness which characterize the RLI scheme. Subjects that are less aggressive sort themselves to the CS scheme improving consistently their final result because they are more confident in this new design.

When we look at the combination of the trade result, conclusions are indicating that the incentive mechanism selected by subjects creates four different groups, where two of them are characterized by aligned interests and two have different ones. The game, based on partly conflicting interests between seller and buyer, seems to emphasize that social optimal occurs when a less aggressive seller meets with a buyer that is more willing to take the risk of being rejected. This work proposes new light on bargaining, introducing the role of suitable payment for the involved partners. It shows that switching to a safer incentive leads to better deals for sellers, while buyers, which switch to try to offset the risk, were actually worse off because they let sellers take advantage of their lack of aggressiveness.

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Appendix A

Introduction

Welcome to our experiment!

During this experiment you will be asked to make several decisions and so will the other participants.

Please read the instructions carefully. Your decisions, as well as the decisions of the other participants will determine your earnings according to some rules, which will be shortly explained later. In addition to your earnings from your decisions over the course of the experiment, you will receive a participation fee of 10 euro. Besides this amount, you can earn more euro. However, there is also a possibility of losing part of the participation fee, as it will be explained in the next section of these instructions. *But do not worry: you will never be asked to pay with your own money, as your losses during the tasks will be covered by the participation fee*. The participation fee and any additional amount of money you will earn during the experiment will be paid individually immediately at the end of the experiment; no other participant will know how much you earned. All monetary amounts in the experiment will be computed in ECU (Experimental Currency Units). At the end of the experiment, all earned in ECUs will be converted into euro using the following exchange rate:

30 ECU= 1 euro

You will be making your decisions by clicking on appropriate buttons on the screen. All the participants are reading the same instructions and taking part in this experiment for the first time, as you are.

Please note that hereafter any form of communication between the participants is strictly prohibited. If you violate this rule, you will be excluded from the experiment with no payment. If you have any questions, please raise your hand. The experimenter will come to you and answer your questions individually.

Description of the Experiment

This experiment is fully computerized. This experiment consists of the following **four phases, each composed by a different number of rounds**: Phase I of 1 round, Phase II of 30 rounds, Phase III of 12 rounds, and Phase IV of 10 rounds. After completing Phase I, you will proceed to Phase II; after completing Phase II, you will proceed to Phase III; after completing Phase III you will proceed to Phase IV. You can earn money in each phase of the experiment.

At the beginning and at the end of the Experiment, you are asked to reply to a short questionnaire.

At the beginning of the Experiment, each participant is randomly assigned one of two possible roles. Half the participants will be assigned the role of **Buyer**; the other half will be assigned the role of **Seller**. You will remain in the same role you have been assigned throughout the experiment.

In each of Phase I, II and III and in each of their rounds you will be matched with a different participant randomly assigned to you. In Phase IV you will decide individually and independently of your role.

Description of the Task – Phase I

In Phase I selling of a firm between a Seller, who owns the firm, and Buyer can take place. You will be told if you are Buyer or Seller, and will be matched with one of the other participant in the other role. For example, if you are selected as Buyer, then you will be randomly and anonymously matched with another participant who is a Seller.

The computer will randomly select the value of the firm among the following values: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90 and 95 (all the values are equally likely). This value will be communicated only to the Seller. The Buyer will not learn the value of the firm selected randomly by the computer.

The Seller's evaluation of the firm is proportional to the value of the firm selected by the computer. This proportion will be randomly selected by the computer and can only take one of the following values: 10, 20, 30, 40, 50, 60, 70, 80 or 90 percent (all the values are equally likely). The Seller's evaluation is the value of the firm multiplied by the selected proportion. The proportion will be communicated to both, Buyer and Seller, whereas the value of the firm will be known only to the Seller. *Do not worry: the software will provide the information on the decision screen, depending on your role, Seller or Buyer.*

As an example, suppose that the computer selected a value of the firm equal to 90 and a proportion of 50 percent, so that the Seller's evaluation of the firm will be 45, corresponding to 50 percent of 90. *In this case, the Seller will find on the screen of the computer that the value of the firm is 90, the proportion is 50 percent and that the Seller's evaluation is 45*; *the Buyer will find on the screen only the proportion of 50 percent.* Another example: suppose that the computer selected a value of the firm equal to 90 and a proportion of 80 percent. In this case, the Seller's evaluation will be equal to 72, corresponding to 80 percent of 90. *In this case, the Seller will find on the screen of the computer that the value of the firm is 90, the proportion is 80 percent and that the Seller's evaluation is 72*; *the Buyer will find on the screen only the proportion of 80 percent.*

The Seller sends a value message to the Buyer about the value of the firm, which can be either true or false. Therefore, the value message is not necessarily equal to the firm value nor to the Seller's evaluation of the firm. The message consists of an integer value between 0 and 100.

After having received the message, the Buyer makes a take-it-or-leave-it offer to the Seller by proposing a price, an integer number between 0 and 100. When making this offer, the Buyer just knows the value message and by which proportion of the value the Seller evaluates the firm.

After having received the price offer of the Buyer, the Seller decides whether to accept it or not. If she accepts, the firm will be sold for the offered price to the Buyer. If she does not accept, no trade takes place. After the Seller has decided, the payoffs of Buyer and of Seller are calculated and individually communicated at the end of Phase I. These payoffs are calculated as explained below and they are paid to all participants at the end of the experiment.

Calculation of the payoff in Phase I

The payoff of the unique round in Phase I does not depend on the value message and is calculated as follows:

If the Seller has accepted the offered price, the payoffs are:

- The Buyer earns the difference between the value of the firm and the accepted price
- The Seller earns the difference between the accepted price and the Seller's evaluation of the firm

An example: suppose that the firm value is equal to 45 and that the proportion of the firm value is 80 percent, so that the Seller's evaluation of the firm is 36. Suppose the Buyer offer a price equal to 40, and that the Seller accepts it. In this case, the Buyer earns 45 – 40 = 5, and the Seller earns 40 – 36 = 4.

Another example: suppose that the firm value is equal to 45 and that the proportion of the firm value is 80 percent, so that the Seller's evaluation of the firm is 36. Suppose the Buyer offers a price equal to 55, and that the Seller accepts it. In this case, the Buyer earns 45 – 55 = - 10, and the Seller earns 55 – 36 = 19.

If the Seller does not accept the Buyer's offer, the payoffs are 0 for both Seller and Buyer.

Description of the Task – Phase II

In Phase II, you will face for 30 rounds the same situation as in Phase I. As in the previous Phase, in each of the rounds you will be matched with a different participant randomly assigned to you.

The same instructions as in Phase I apply to Phase II, also the calculation of the payoffs.

The payment from this Phase will consist of the payoff of **one of the 30 rounds randomly selected**. For example, if round number five is selected, your payment for Phase II will be the payoff you earned in that round.

Calculation of the payoff in each round in Phase II

The payoff of each round in Phase II does not depend on the value message and is calculated as follows:

If the Seller has accepted the offered price, the payoffs are:

- The Buyer earns the difference between the value of the firm and the accepted price
- The Seller earns the difference between the accepted price and the Seller's evaluation of the firm

An example: suppose that the firm value is equal to 45 and that the proportion of the firm value is 80 percent, so that the Seller's evaluation of the firm is 36. Suppose the Buyer offer a price equal to 40, and that the Seller accepts it. In this case, the Buyer earns 45 – 40 = 5, and the Seller earns 40 – 36 = 4.

Another example: suppose that the firm value is equal to 45 and that the proportion of the firm value is 80 percent, so that the Seller's evaluation of the firm is 36. Suppose the Buyer offers a price equal to 55, and that the Seller accepts it. In this case, the Buyer earns 45 – 55 = - 10, and the Seller earns 55 – 36 = 19.

If the Seller does not accept the Buyer's offer, the payoffs are 0 for both Seller and Buyer.

Description of the Task – Phase III

In Phase III, you will face for 12 rounds the same situation as in Phase I. As in the previous Phase, in each of the rounds you will be matched with a different participant randomly assigned to you.

The same instructions as in Phase I apply to Phase III.

At the beginning of the Phase you will be asked if you prefer to be paid on the basis of the payoff of **one of the 12 rounds randomly selected** *or* on the basis of **the average payoff of the 12 rounds**. On the basis of your choice, the computer will calculate your payoff for this Phase.

<u>Calculation of the payoff in each round in Phase III</u>

The payoff of each round in Phase II does not depend on the value message and is calculated as follows:

If the Seller has accepted the offered price, the payoffs are:

- The Buyer earns the difference between the value of the firm and the accepted price
- The Seller earns the difference between the accepted price and the Seller's evaluation of the firm

An example: suppose that the firm value is equal to 45 and that the proportion of the firm value is 80 percent, so that the Seller's evaluation of the firm is 36. Suppose the Buyer offer a price equal to 40, and that the Seller accepts it. In this case, the Buyer earns 45 – 40 = 5, and the Seller earns 40 – 36 = 4.

Another example: suppose that the firm value is equal to 45 and that the proportion of the firm value is 80 percent, so that the Seller's evaluation of the firm is 36. Suppose the Buyer offers a price equal to 55, and that the Seller accepts it. In this case, the Buyer earns 45 – 55 = - 10, and the Seller earns 55 – 36 = 19.

If the Seller does not accept the Buyer's offer, the payoffs are 0 for both Seller and Buyer.

Description of the Task – Phase IV

Phase IV consists of 10 rounds; during this Phase you won't interact with other participants. During this Phase you are asked to choose between pairs of lotteries. In particular, in each round for each lottery pair you have to assess which one you would prefer to play.

At the end of the experiment, **one round** will be randomly selected for payment, and the computer will play on your screen the lottery that you have preferred in this round. The payment of Phase IV is given by the result of this lottery.

Your Final Payment

Your final payment will be displayed on the screen at the end of the experiment. It is determined as the sum of:

- Payoff from the unique round in Phase I (in euro)
- Payoff from one randomly selected round in Phase II (in euro)
- Payoff from EITHER one randomly selected round OR an average payment between 12 rounds from Phase III (in euro)
- Payoff from one randomly selected round in Phase IV (in euro)
- Participation fee.

Appendix B

Figure 5: Incentive scheme matching in Stage 0, Late Phase by payment scheme

Seller / Buyer	RLI	CS
RLI	(0.271 , 0.069*)	(0.265 , 0.004)
CS	(0.100 , 0.089***)	Benchmark

Cheating/Rentability

Seller / Buyer	RLI	CS
RLI	(-0.215, -0.275*)	(0.184*, 0.188*)
CS	(-0.220***, -0.226**)	Benchmark

Acceptance

Seller / Buyer	RLI	CS
RLI	(-0.215, -0.275*)	(0.184*, 0.188*)
CS	(-0.220***, -0.226**)	Benchmark

SS accepted trades

Seller / Buyer	RLI	CS
RLI	(-0.173 , 0.099)	(-0.101, 0.179)
CS	(-0.459 , 0.368)	Benchmark

SS

Notes: Coefficients from panel regressions (probit for acceptance dummy and xtreg for the other variables). We consider here the last 10 rounds of Stage 0. All results are considered as difference with seller and buyer choosing CS.
* $p<0.1$, ** $p<0.05$, *** $p<0.01$.

Table 5: The role of payment scheme sorting on sellers and buyers variables

Seller				Buyer			
	Cheating (%) $\frac{\hat{v}-v}{\hat{v}}$				Rentability (%) $\frac{\hat{v}-p}{\hat{v}}$		
	Sellers switching	Sellers not switching	P value		Buyers switching	Bueyrs not switching	P value
Late Phase Stage 0	0.073	0.314	0.097	Late Phase Stage 0	0.601	0.685	0.000
Stage 1	0.075	0.285	0.186	Stage 1	0.601	0.689	0.000
P-value	0.986	0.266		P-value	0.601	0.806	
	Truthtelling (v_hat=v)						
	Sellers switching	Sellers not switching	P value				
Late Phase Stage 0	0.175	0.180	0.808				
Stage 1	0.157	0.212	0.006				
P-value	0.170	0.269					
	SS for sellers				SS for buyers		
	Sellers switching	Sellers not switching	P value		Buyers switching	Bueyrs not switching	P value
Late Phase Stage 0	1.471	1.463	0.982	Late Phase Stage 0	-1.031	-0.752	0.382
Stage 1	1.499	1.044	0.104	Stage 1	-1.024	-0.464	0.021
P-value	0.895	0.149		P-value	0.975	0.279	
	Earnings for sellers				Earnings for buyers		
	Sellers switching	Sellers not switching	P value		Buyers switching	Bueyrs not switching	P value
Late Phase Stage 0	7.343	8.364	0.143	Late Phase Stage 0	4.050	3.759	0.772
Stage 1	7.387	6.663	0.217	Stage 1	5.106	4.925	0.843
P-value	0.910	0.039		P-value	0.135	0.285	
	Seller's Acceptance						
	Sellers switching	Sellers not switching	P value				
Late Phase Stage 0	0.503	0.549	0.126				
Stage 1	0.544	0.502	0.127				
P-value	0.020	0.202					

Notes: Test on average bargaining variables by payment choice comparing the Late Phase of Stage 0 with 12 rounds of Stage 1.

Table 6: The role of payment scheme sorting on acceptance rate and surplus share in Stage 0

	Seller			Buyer		
	(1) Acceptance (Mean)	(2) SS accept[1] (Mean)	(3) SS accept[1] (SD)	(4) Acceptance (Mean)	(5) SS accept[1] (Mean)	(6) SS accept[1] (SD)
	β/(se)	β/(se)	β/(se)	β/(se)	β/(se)	β/(se)
Cumulative Scheme*Male	0.01	0.32	0.98	0.02	0.68	-1.49
	(0.03)	(0.70)	(1.33)	(0.03)	(0.73)	(1.34)
RLI*Male	0.04	-0.21	-0.61	-0.01	0.68	-0.80
	(0.04)	(0.68)	(1.21)	(0.04)	(0.89)	(2.09)
RLI*Female	0.03	-0.13	0.44	-0.02	0.47	-1.28
	(0.06)	(0.67)	(1.45)	(0.04)	(0.72)	(1.36)
Average Cheating (%)	0.05**	0.65***	1.06**			
	(0.02)	(0.24)	(0.41)			
Average Rentability (%)				-0.84***	3.04**	-5.48*
				(0.20)	(1.50)	(2.89)
Risk	-0.00	-0.17	-0.32	0.00	-0.20	0.43
	(0.01)	(0.12)	(0.21)	(0.01)	(0.15)	(0.28)
Constant	0.51***	3.30***	4.99***	1.02***	-3.24***	6.76***
	(0.03)	(0.69)	(1.20)	(0.13)	(0.96)	(1.79)
Observations	188	188	185	188	182	174
R^2	0.08	0.03	0.03	0.45	0.05	0.05

Notes: Dependent and independent variables are based on individual average and standard deviation of the final 10 rounds of Stage 0. Risk measure goes from 0 (maximum risk averse) to 9 (maximum risk seeking). Seller's cheat (%) is measured as difference $\frac{\hat{v}-v}{\hat{v}}$. Buyer's rentability (%) measures the distance between price offer and message received $\frac{\hat{v}-p}{\hat{v}}$.

[1] Surplus share (SS) include only the accepted deals: the analysis is consistent when we analyze the surplus share including not accepted contracts. * p<0.1, ** p<0.05, *** p<0.01.