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THE CORPORATE LEGALITY GAME A LAB EXPERIMENT ON THE IMPACT OF POLICIES, FRAMES AND INFORMATION

Leonardo Becchetti
Vittorio Pelligra
Fiammetta Rossetti

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The Corporate Legality Game
A Lab Experiment on The Impact of Policies, Frames and Information

Leonardo Becchetti[+]
University of Rome Tor Vergata
Vittorio Pelligra[°]
University of Cagliari and CRENoS
Fiammetta Rossetti[^]
University of Rome Tor Vergata

Abstract[*]

A company that pursues illicit practices (e.g., money laundering, tax dodging, corruption of public officials in procurement races, etc.) may underprice and crowd out competitors that behave legally, thereby eroding the public good of legality and integrity. Recently born institutional legality ratings tackle this problem by signaling companies with excellent legality record to consumers. Redistributive policy actions aimed to tax "defectors" (i.e. buyers of unrated products) in favor of "co-operators" (i.e. buyers of "legality-rated" products) may further enforce legality, and fight corruption. We analyze the impact of the legality-rating frame by means of a randomized experiment. The experiment accounts for the effects of fiscal policies that redistribute income from defectors to co-operators either in presence or in absence of the legality frame. Our findings document that the redistribution mechanism, the legality frame and the conformity information design contribute to alleviate the prisoner's dilemma and generate significant deviations from the Nash Equilibrium.

Keywords: Analysis of Collective Decision-Making, Corruption, Laboratory Experiment, Redistribution, Conformity.
Jel classification: D7, D73, C92, H2

1. Introduction

One of the main goals of our paper is to test with a lab experiment the impact of the newly created corporate legality ratings on consumer choices and their willingness to pay for legality. We do so by modeling the problem as a "Vote-with-the-Wallet Game" (VWG) (Becchetti and Salustri, 2015), a hybrid contribution multiplayer prisoner's dilemma where the company with the legal rating sells a more expensive product but contributes to the public good of legality and reduces corruption. We therefore test whether consumers are willing to pay for this public good when properly informed about it.

The definition of corruption as "the misuse of entrusted power for private benefit" (Pope, 2000) highlights the relationship between corruption and public goods, which is at the roots of our research. The delivery of public goods requires the exercise of delegated powers by the state, thus creating the potential for corruption (Eigen and Eigen-Zucchi, 2003). Ideally, good public institutions should be characterized – among other aspects – by uncorrupted bureaucracy in order to bring economic growth along (La Porta et al., 1999). The Human Development Index (2013) explicitly includes corruption in the cluster of social capital levers for policy intervention.

Even though experts and public opinion are more and more aware of how serious the corruption problem is, they also know that fighting corruption - and contributing to the public good of the enforcement of legality - is not an easy task. Most of the literature correctly considers corruption as a specific attribute of government officials, and acknowledges that precisely this characteristic makes extremely difficult to fight corruption. The threat of elections – along with the frequent updates of expectations by means of opinion polls - can force politicians to be more accountable, and consumer/investor choices contribute to make corporations accountable. On the other hand, government officials are not easy to remove, and their actions are much harder to control and make accountable. What must however be considered is that the other side of a corrupted government official is a corrupting agent such as individuals or corporate organizations. One dimension of legality and corruption therefore involves corporations and, more specifically, their competition, tax and financing practices.

A novel and relevant initiative in this respect is that promoted at the end of 2012 by the Italian Competition Authority[1] (i.e. *Autorità Garante della Concorrenza e del Mercato*, ICA from now on) that decided to award legal firms with a legality rating in order to fight corruption. To apply for the legality rating Italian firms must have reached a turnover of at least two million euros in the year before, and be in the registry of businesses since least two years. After evaluating the information provided

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[1] The ICA is an independent agency created by the Law No. 287 of 10 October 1990 whose goal is to enforce the Competition Act.

by a company, the ICA may rate the company with a value from 1 to 3 stars depending on the quantity and quality of requisites the company fulfills. Legality is central in the process since "Having in place organizational frameworks to prevent and contrast corruption" is the most salient attainment that firms are required to prove if they endeavor to reach the highest 3-stars-legality rating. The legality rating lasts two years after which a firm can apply for rating confirmation, and during which it can be called off at any moment by the ICA should one or more accomplishments cease to be satisfied (full details of the legality rating mechanism are provided in Appendix 1).

The ICA rating mechanisms opens up to the idea that an original way to investigate how legality can be enforced is by checking with a randomized experiment whether the legality rating has effects on consumer choices and their willingness to pay.

Our paper testing the impact of the legality rating is original in several respects. We model the choice between products from producers labeled by the legality rating, and products by unlabeled producers as a multiplayer prisoner's dilemma. We show that the Nash equilibrium in which all players find it optimal to buy the unrated product is Pareto dominated by the choice of buying the legality rated product for reasonable parametric intervals. Within this theoretical framework we pursue a twofold goal of testing with a lab experiment: i) whether the legality rating significantly increases the willingness to pay for products sold by the legality-rated companies; and ii) whether fiscal policies that transfer resources from defectors to cooperators increase the consumption share of products sold by the legality-rated companies. In the experiment participants are asked for 20 consecutive rounds to choose between a product that costs more (not identified/identified with the legality rating product in non framed/framed treatments), and a product that costs less (not identified/identified with the unrated product in non framed/framed treatments). At the end of each round, the number of players who opted for the two alternatives is revealed. As to games with redistribution policies, a mechanism that mimics a fiscal advantage for the rated product is introduced at the end of the tenth round. In this way part of the extra gains of "defectors" (i.e. those who bought the cheaper product from the unrated firm) is redistributed to "cooperators" (i.e. those who bought the more expensive product from the rated firm).

It is worthwhile noticing that the redistribution mechanism tested in our experiment is not far from many policy rules that are already implemented in the reality. The most telling example relates to feed-in tariffs that provide subsidies to individuals choosing renewable energy (i.e. installing solar panels) which are paid by all taxpayers in a balanced government budget framework (Couture and Gagnon, 2010; Klein et al., 2008; Mendonça, 2007; European Commission, 2008; REN21,

2009).[2] Feed-in tariffs are adopted in around 63 countries (for Europe see Directive 2001/77/EC) and grossly correspond to our approach of redistributing from defectors to cooperators in a multiplayer prisoner's dilemma. In this perspective, our experiment is designed to tests whether redistribution policies combined with the legality rating adoption may contribute to the public good of legality, and shall fight the public bad of corruption in the same way as they are intended to do with feed-in tariffs in environmental sustainability. Last but not least, we test whether different information structures impact differently on our treatments by comparing choices in sessions where the information is about the past number of cooperators in the same group with those in sessions where the information is about the past average number of cooperators in other treatments with the same characteristics (conformity treatment). In this respect our experiment hinges on the standard definition of conformity and conditional cooperation in the literature. The former relates to the degree to which an individual in a group modifies her/his behavior to fit the views of the society (see Moscovici, 1985 and Cialdini and Trost, 1998 among others). The two main rationales for doing so are, according to the literature (Carpenter, 2004), avoiding disutility for deviating from social norms, and taking advantage of the information processed by others. In a different way, conditional cooperation refers to the inclination to contribute more to a public good the more other subjects contribute (Fischbacher et al., 2001; Fischbacher and Gächter, 2010). These two definitions imply that conformity is more related to culture and social norms, while conditional cooperation to the behavior of players participating to the same game and possibly in the same reference group and affecting with their choices the player's payoff.

The paper is divided into seven sections (including introduction and conclusions). In the second section we discuss how the corruption literature applies to the particular case of our paper. In the third section we describe the vote with the wallet legality game, modeled as a multiplayer prisoners' dilemma. In the fourth section we present our experiment design. In the fifth section we present and discuss results on hypothesis testing while in section six we present our econometric findings. The seventh section concludes.

2. Corruption literature and legality as a public good

Legality – as opposed to corruption – allows (and supports) a system "where advancement based on merit is the rule and favoritism the exception" so that

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"governments and markets alike promote value, and prosperity results" (Mungiu-Pippidi, 2015). When abuses occur and corruption takes over "social allocation is directed preferentially rather than ethically" (p.196). In systems that fail to limit corruption those in power hinder virtuous individuals (i.e. either firms, or persons) in order to seize their privileged access to resources. This latter situation results in a shared "public bad" and, consequently, legality can be considered as a public good. As a consequence the widespread presence of corruption prevents talented people and clean activities from flourishing (Morano-Foadi, 2006) thereby producing an adverse selection that picks out the worst players - either citizens or firms. Helliwell (2015) finds that corruption is one of the six factors that explain 75 percent of the differences in happiness across countries, thereby providing strong support for our claim that an anticorruption choice produces a positive externality contributing to the production of a public good.

The rationale for considering legality a public good, a fundamental hypothesis in the theoretical benchmark presented in section 3, hinges on several arguments: i) with tax dodging or tax evasion the company reduces public resources available for the provision of public goods and services (thereby making the nexus with the enjoyment of public goods of the general population straightforward); ii) with money laundering it reinforces criminal organizations and competes unfairly with other companies exploiting a cheaper source of external finance; iii) with its illegal behavior it corrupts government officials to obtain unfair advantage in public procurement; iv) by using illegal practices it takes advantage of unfair competition at the risk of crowding out from the market more efficient legal firms. More specifically points ii)-iv) generate unfair social allocation which translates into a public bad especially for the weakest individuals of the society (see section 2). Therefore, it is clear that a legal corporate conduct entails a public good component and a positive externality even though it is costlier than the illegal conduct (as it can be easily understood by what said at points i)-iv)) and is therefore reasonable to assume that companies choosing the illegal conduct may underprice those choosing the legal conduct.

Given the reflections above, the "extra cost" that legal companies must suffer in order to keep their lawful behavior will turn into higher prices for consumers who still choose to buy products from them. Eventually, this extra cost will translate, *coeteris paribus*, into the positive externality produced by the legal corporate conduct, and will pass on to the reduction of the overall corruption within society. We provide a theoretical benchmark for this trade-off in the section that follows

3. The model

By adapting the Becchetti and Salustri (2015) model to the vote-with-the-wallet choice in presence of legality rating, the utility conditional to the choice of voting

with the wallet for the legality rating product) (*vl*) or buying the conventional product (*vc*) in the simplest two-player game can be written as

$$U_i(S) = \begin{cases} \lambda + \alpha - \gamma & if\ S = (vl, vl) \\ \dfrac{1}{2}\lambda + \alpha - \gamma & if\ S = (vl, vc) \\ \dfrac{1}{2}\lambda & if\ S = (vc, vl) \\ 0 & if\ S = (vc, vc) \end{cases}$$

where $S := (S^i, S^{-i}) \in \{vc, vl\}^2$ indicates the strategy profile.

The parameter $\lambda \in [0, +\infty)$ measures the total value of the contribution to the public good of legality given by the vote with the wallet legality choice (purchase of the product with legality rating). This is because that choice contributes to transform legality into a competitive factor thereby increasing the advantage that other corporations have in doing the legality rating choice and contributing to the public good described in section 2. This effect however crucially depends on the share of players choosing the (*vl*) strategy (which is trivial in the two-player version, while less so in the multiplayer version which follows). The parameter $\alpha \in [0, +\infty)$ measures the nonnegative utility arising from the satisfaction of player's other-regarding preferences[3] (if any) when buying the product with legality rating. The parameter $\gamma \in [0, +\infty)$ represents the price difference between the two choices, that is, the cost difference between the price of the product awarded by the legality rating and that of the conventional product. Based on the literature discussed in the two previous sections we reasonably assume that illegal practices (tax dodging, cheaper cost of external finance due to money laundering, corruption of government officials to obtain advantage in public procurement, etc.) provide unfair competitive advantage and therefore allow the legality unrated company to underprice the legality rated company.[4] In the model (and in the experiment structure which follows) we as well

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[3] This assumption finds strong grounds in results from the experimental literature providing ample evidence of distribution and intention-based other regarding preferences such as of (positive and negative) reciprocity (Rabin, 1993), inequity aversion (Fehr and Schmidt, 1999, and Bolton and Ockenfels, 2000), other-regarding preferences (Cox, 2004), social welfare preferences (Charness and Rabin, 2002), betrayal aversion (Bohnet and Zeckhauser, 2004) and various forms of pure and impure (warm glow) altruism (Andreoni, 1989 and 1990).

[4] In this sense when looking at how we model the choice of the legality rated company, our model fits the Besley and Ghatak's (2007) definition of corporate social responsibility as the stance of companies who "retail public goods".

assume for simplicity that players are not income constrained in the game, or that $Y_i > \gamma$ for all $i = 1,2$ (where Y_i is the income of the i-th player).[5]

Following Becchetti and Salustri (2015) we know that, if $G = (N, (S^i)_{i \in N}, (U_i)_{i \in N}$, $N = \{1,2\}$ and $S^i = \{vl, vc\}$, (vc,vc) is the unique NE of the game when $\frac{1}{2}\lambda + \alpha < \gamma$ and (vl,vl) otherwise. The prisoner's dilemma arises in the area of intermediate values of the extra cost of the legal product γ where $\frac{1}{2}\lambda + \alpha < \gamma < \lambda + \alpha$. In this interval the strategy pair (vl,vl) Pareto dominates the unique NE - (vc,vc).

Following again Becchetti and Salustri (2015) $n > 2$, $G_n = (N, (S^i)_{i \in N}, (U_i)_{i \in N})$, $N = \{1, ..., n\}$, and $S^i = \{v, a\}$ for each $i \in N$ in the multiplayer version of the game. The new payoff function is

$$U_i(S^i, S^{-i}) = \begin{cases} \dfrac{j+1}{n}\lambda + \alpha - \gamma & \text{if } S^i = vl \\ \dfrac{j}{n}\lambda & \text{if } S^i = vc \end{cases}$$

with j measuring the number of players choosing the vl strategy in S^{-i}. The unique NE of the game is (vc,vc) when $\frac{1}{n}\lambda + \alpha < \gamma$, while (vl,vl) otherwise. The qualifying difference with respect to the two players' game is the extension of the parametric interval of the PD since the latter occurs when $\left(\frac{1}{n}\lambda + \alpha < \gamma < \alpha + \lambda\right)$.

Given our focus on large consumer markets where the number of "players" is very large, results from the multiplayer game tell us that the PD is a very relevant issue. As well, Becchetti and Salustri (2015) show that mutual conventional voting has problems in terms of renegotiation proofness and the formation of coalition of voters has the paradoxical effect of increasing the value of free-riding/ buying conventional strategies. These considerations make the introduction of redistribution policies even more relevant.

4. The experimental design

The experiment is made of 18 sessions. During each session a group of 10 participants play 20 rounds of the VWG by, in each round, choosing between product *A* and product *B*. We consider three different treatments:

1. In the "baseline" treatment only basic neutral instructions[6] are provided with no explanation neither about why *A* is more expensive than *B* (i.e. 10

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[5] Said in other terms this implies that only players without income constraints can participate to the game.

Experimental Currency Units (ECUs) against 5 ECUs, where 2 ECUs=1 euro), nor about the reason players get a bonus (i.e. 3 ECUs representing the positive externality of each voter for legality while the total market contribution to the public good is 30 if all players buy good A) each time *A* is opted for. In each session the 20 rounds are divided into two phases: in the "no redistribution phase", 10 rounds are played as described above; in the "redistribution phase", in each of the other 10 rounds, part of the payoff (i.e. 1 ECU) is taken from each player buying product *B*, and reallocated at the end of each round in equal parts among those who chose product *A*. This treatment is supposed to mimic a policy action aimed to redistribute resources from defectors to co-operators.

2. In the "frame" treatment the game is played as in the "baseline" but now a non-neutral description of the two products. More specifically it is said that product A is provided by a company awarded by a 3-star ICA legality rating (the participants can read detailed characteristics of the legality rating system in a leaflet provided by experimenters).

3. The "conformity" treatment is similar to the "frame" treatment but now we provide information about how many players on average bought product *A* during the corresponding rounds in those sessions which have the same characteristics. This kind of information, instead of the number of co-operators in the same group, is used to appraise to what extent players tend to conform to prior evidence they come to be aware of (i.e. players in sessions 13 to 15 (16 to 18) are told the average share of cooperators observed in sessions 7-9 (10-12) respectively). In this way our design aims at disentangling the effect of conditional cooperation from conformity-driven reasons.

The above three treatments are brought together in 6 combinations, each of them repeated for 3 consecutive sessions as shown in Table 1.

4.1 Experimental Procedures

The data used for the present study were collected by means of an experiment administered by the Behavioral Economics Research Group (BERG) of the University of Cagliari (Italy). The BERG recruited 180 volunteers (with exact gender

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balance in each session) among the students of different academic disciplines, and performed the experiment in November 2015.

The overall experiment accounted for 18 sessions with 10 participants playing their own games from a computer terminal each of them had been randomly assigned to. The z-Tree platform (Fischbacher, 2007) was used to program the experiment.

After the participants reached they respective terminals, general instructions were read aloud and they were informed that the experiment consisted of two phases, but they received only the specific instructions for phase one. Questions about the structure of the game, the procedures and the payment rules were then answered privately. Participants played the first ten rounds of the game.

When everyone had completed phase one, subjects were given phase two instructions, which were read aloud. The exact sequence of what happened in each round is as follows: i) experimenters ask to each player her/his belief about the number of co-operators in each round; ii) the players play the VWG (in the baseline, frame or conformity variant); iii) the number of co-operators for that round (but not their identity) is publicly revealed; iv) players are asked to grade (on a 0-10 scale) their satisfaction for the game, for their own behavior and for the behavior of other players in the session in three different questions. After the end of the 20th period (i.e. the second part) of every session, each participant is required to fill out a questionnaire about his/her socio-demographic characteristics, her/his degree of trust towards the others and of satisfaction with life, his/her political orientation, and about her/his use of social networks (see Appendix 4).

Eventually 1 of the 20 rounds played by each player is drawn randomly at the end of each session, and cashed to her/him together with her/his profit from the whole game. Moreover each participant gets a gratuity of 5 ECUs as a participation fee, and this token sums up to the final individual earnings. Last, players are paid 5 ECUs if they guess correctly the number of co-operators in an extracted round in order to incentivize the formulation of their beliefs.

With reference to the Becchetti and Salustri (2015) model described in section 3, the relevant parameters for the experiment are set as follows:

$$n = 10, \quad \lambda = 30, \quad \gamma = 5$$

with $\alpha = 0$ for simplicity. This implies that players' payoff function may be written as[7]

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[7] Note that in our utility function we do not have the endowment since the parameters are expressed as differentials between the choice of vote and the choice of abstain.

$$
U_i(S^i, S^{-i}) = \begin{cases} \dfrac{j+1}{n}\lambda - \gamma & \text{if } S^i = vl \\[2ex] \dfrac{j}{n}\lambda & \text{if } S^i = vc \end{cases}
$$

$$
= \begin{cases} \dfrac{j+1}{10}3 - 5 & \text{if } S^i = vl \\[2ex] \dfrac{j}{10}3 & \text{if } S^i = vc \end{cases}
$$

where j is the number of players who chose the strategy vl strategy in S^{-i}. Given the parametric values chosen in our experiment, (vc,vc) is the unique (inefficient) NE of the multiplayer game in the baseline treatment since $\frac{1}{n}\lambda + \alpha < \gamma < \lambda + \alpha$ (i.e. $3 < 5 < 30$). However in redistribution treatment things change and cooperating players have non-inferior payoffs if they are less than three (see Table A3.4 in Appendix 3).

Note as well that welfare calculated as the sum of product sales' revenues (if we consider the cost paid to purchase one of the two products as welfare for product sellers) or as the sum of players' profits is monotonically increasing in the number of cooperative choices since the latter produce a sizeable externality for all other players.

5. Hypothesis testing

In order to outline formally the hypotheses to be tested in the experiment let us define $C_{(i,t)}$ as the strategy selected in round t by the i-th player of game G, where $G \in$ {Base, Legality Frame, Legality Frame Conformity, Redistribution, Redistribution Legality Frame Conformity} indicates the session type with $C \in \{vl, vc\}$, vl being the strategy of choosing the "responsible" product (product A) and vc the strategy of choosing the conventional product (product B).

Based on these definitions and by conveniently setting the strategy $vl=0$ and the strategy $vc=1$, we can test

Hypotheses 1a: (no effect of the legality frame in absence of redistribution policies)

H_0: $C_{i,t\ (Base)} = C_{i,t\ (Legality\ Rating)}$

H_A: $C_{i,t\ (Base)} \neq C_{i,t\ (Legality\ Rating)}$

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With this hypothesis we test the null of absence of effects of the legality rating frame vis-à-vis the "blind" vote with the VWG benchmark. In the blind benchmark players know by inspecting game payoffs that, when purchasing the more expensive good, a positive externality is created for all players irrespective of the choices of the latter. No other information or meaning is given to the two products. Note as well that in this base treatment, under the NE the share of players choosing the more expensive good incorporating the public good component (*vc* strategy) should be zero.

Hypothesis 2: (no redistribution effect under the blind vote with the wallet game)

H_0: $C_{i,t \ (Base)} = C_{i,t \ (Redistribution)}$

H_A: $C_{i,t \ (Base)} \neq C_{i,t \ (Redistribution)}$

With this hypothesis we test the null that the redistribution mechanism has no effect in the "blind" vote with the wallet game where the more expensive good that incorporates the public good component is not identified with the legality rating product. Rejection of this hypothesis in direction of a significantly higher share of cooperators under the policy mechanism would imply that a balanced budget policy device redistributing from defectors to cooperators significantly increases the share of cooperators and, with it, total welfare in the game (measured as the sum of utilities of all players).

Hypothesis 3: (no policy effect under legality rating frame)

H_0: $C_{i,t \ (Legality \ Rating)} = C_{i,t \ (Redistribution \ Legality \ Rating)}$

H_A: $C_{i,t \ (Legality \ Rating)} \neq C_{i,t \ (Redistribution \ Legality \ Rating)}$

Under hypothesis 3 we test the null that the redistribution policy in presence of the legality frame has no effects on the share of "responsible" choices.

Hypothesis 4: (non differential base/legality rating redistribution effect)

H_0: $C_{i,t \ (Redistribution)} = C_{i,t \ (Redistribution \ Legality \ Rating)}$

$$H_A: C_{i,t \ (Redistribution)} \neq C_{i,t \ (Redistribution \ Legality \ Rating)}$$

The null of our hypothesis 4 is that the legality frame makes no significant difference in the share of players voting for the legality rated product in presence of the policy redistribution mechanism.

The combination of these tests provides important insights on the relevance/effectiveness of the frame and of the policy mechanisms. As well, a significant departure from a zero share of players choosing the (*vl*) strategy in the base and in the legality frame treatment implies departure from the NE.

Note finally that it is possible to verify the welfare effects of the redistribution mechanism in the blind vote with the wallet game by calculating the average difference in payoffs between players in the base and in the redistribution mechanism. Since the redistribution mechanism is balanced budget the total welfare gain is the product of the average difference for the number of players participating to the game. The same approach can be followed to verify the welfare effect of the redistribution mechanism under the legality frame.

Similar hypotheses can be formulated to compare the effect of providing information about the other members of the same group versus the effect of information about the average behavior of the members of the other groups in the same treatments. This comparison allows us to disentangle behaviors inspired by conditional cooperation from those driven by simple conformity.

5.1 Empirical findings

Experimental findings show that the null of hypothesis 1 is rejected and the legality frame matters (Table 2). More specifically the frame raises by around 9 percent the share of cooperators (from 27.8 to 36.5 percent) (χ^2 10.33, p-value 0.001) under the standard (non conformity) information treatment. The share of cooperators is slightly higher under the conformity information treatment (39.8 percent) and significantly higher than under the base treatment also in this case (χ^2 19.297, p-value 0.001). The share of cooperators in the redistribution treatments is significantly different from the corresponding shares in non-redistribution treatments, and more so under the base than under the legality framed treatments (hypotheses 2 and 3). More specifically, the share of players choosing the more expensive product rises to 37.5 percent with the introduction of the redistribution mechanism in the base treatment (χ^2 12.745, p-value 0.000), to 41.7 percent in the legality frame treatment (but the significance of the difference vis-à-vis the non

redistribution framed treatment is much weaker given the effect of the frame, χ^2 3.364, p-value 0.067) and to 45.3 percent in the legality frame treatment with conformism (again a weaker difference vis-à-vis the non redistribution frame with conformism, χ^2 3.712, p-value 0.054). The issue in the last two cases is that the legality frame already raises the share of cooperators with respect to the base treatment so that the additional effect of the redistribution policy is much weaker. If we look at the average share of cooperators in the non framed treatments with redistribution (37.5 percent) and the average share of cooperators in the legality framed (non redistribution) treatments (36.5 and 39.8 percent) we find that they are very close suggesting that the legality rating is almost a substitute of the redistribution policy in absence of the frame.

The average share of cooperators in the framed redistribution treatments (in both the conformity and non conformity treatments) is higher than under the (non framed) redistribution treatments (45.3 and 41.7 vs 37.5 percent) but the legality frame produces a significantly higher share of co-operators in redistribution treatments only in the first case (χ^2 7.587, p-value 0.006).

When splitting the redistribution effect between sessions where the redistribution treatment comes first and those where redistribution comes after we find that the effect is concentrated on the first case. That is, the most relevant effect is the fall in the share of cooperators in sessions starting with redistribution after redistribution ceases.

For a synthetic view on our findings note that the combination of frame, redistribution mechanism and conformity treatment (sessions 13-15 in the second ten rounds and sessions 16-18 in the first ten rounds) produces a growth in the production of the positive externality of around 63 percent vis-à-vis the benchmark base treatment, while the same growth is 31, 35 and 43 percent in the frame, redistribution and frame plus conformity treatments respectively. Note as well that the legality frame under the conformity information treatment (sessions 13-15 in the first ten rounds and sessions 16-18 in the second ten rounds) produces a share of co-operators close to 40 percent, well above the NE of that treatment in which no one should cooperate.

5.2 Dynamic descriptive findings

The dynamics of the average share of cooperators plotted in Figures 1A-1F give further insights on what is behind results from static tests. In the non framed sessions starting with the base treatment, the number of cooperators in the first round is 53 percent and irregularly declines down to 33 percent in the last (10th) non redistribution round (Figure 1A). With the introduction of the redistribution mechanism it jumps up to 50 percent in the 11th round and ends up at a level (36

percent), which is higher than 20 percent, that is, the upward bound of the share of cooperators which makes cooperation the highest payoff strategy. First round shares of cooperators in framed sessions starting with absence of redistribution mechanisms are higher (70 and 66 percent respectively under the conformity and non conformity treatments), reflecting the relevance of the legality frame (Figures 1C and 1E). They however irregularly decline to a final share of 30 and 33 percent respectively. The jump generated by the introduction of the redistribution mechanism is sharp bringing the share of cooperators to 66 (in framed conformity sessions) and 50 percent (in framed non conformity sessions).

Patterns of sessions starting with redistribution treatments are different as expected. In the non-framed sessions we start with an average share of cooperators of 40 percent and we end up to 36 percent in the 10th session. The elimination of the redistribution mechanism produces a downward jump to 33 percent leading to the "equilibrium" share of cooperators of 20 percent in the last session (Figure 1B).

Initial shares of cooperators in the framed sessions starting with the redistribution mechanisms are higher (70 and 63 percent respectively in the conformity and non conformity treatments). In both cases the shares fall to 43 percent in the last session before the end of the redistribution mechanism. There is almost no downward jump in the 11th session when the redistribution mechanism is removed and the final shares of cooperators are respectively 43 and 33 percent (above the equilibrium level of 20 percent).

5.3 Dynamic hypothesis testing

In order to identify the statistically significant factors driving the dynamics of the vote with the wallet game we estimate the following fully augmented logit specification

$$PGChoice_{i,t,s} = \beta_0 + \beta_1 AvgGroupPGChoice_{t-1,s} + \beta_2 RedistributionBase_{t,s} + \beta_3 \text{LegFrame}_{t,s} + \beta_4 Leg\text{FrameRedistribution}_{t,s} + \beta_5 \text{LegConfFrame}_{t,s} + \beta_6 Leg\text{ConfFrameRedistribution}_{t,s} + \beta_7 Round + \beta_8 [E(AvgGroupPGChoice_{t-1,s}) - AvgGroupPGChoice_{t-1,s}] + \sum \delta_i SocioDem_i + \varepsilon_{i,t,s} \qquad (2)$$

where *PGChoice* is a (0/1) dummy taking value 1 if the *i*-th individual purchases in session *s* at round *t* the relatively more expensive good A generating a positive payoff externality on the other player. The first regressor - $AvgGroupPGChoice_{t-1,s}$ - is the lagged average share of responsible voters. Note that the (one round) lagged average players' choice considered in all treatments excluding the conformity treatments is that about which the player is informed, that is, the (one round) lagged average choice of players in the same session (see experiment instruction in Appendix 3). In

conformity treatments the information corresponds to the mean of the three (one round) lagged average players' choices in the corresponding non-conformity sessions (i.e. the average of what happened in sessions 7-9 (10-12) for each sessions going from 13 to 15 (16 to 18)). The substantial difference between the two cases is that in the first we reveal an information directly affecting players' payoffs, while in the second case information that may produce cultural conformity but does not affect directly players' payoffs. Hence, the null of absence of conditional cooperation implies that $\beta_1 = 0$ (excluding conformity treatments from the estimate) while we have conditional cooperation when β_1 is positive and significant under non-conformity treatments and conformity when β_6 is positive and significant under conformity treatments.

The variables that follow in the specification pick up intercept changes in presence of different types of treatments. *RedistributionBase* is a dummy equal to 1 if the redistribution mechanism is applied in the baseline session *s* at round *t*, *LegFrame (LegFrameConformity) is* a dummy equal to 1 if the legality frame (legality frame with conformity) treatment applies, while the *LegFrameRedistribution* and *LegConfFrameRedistribution* dummies pick up the two (non conformity and conformity) framed treatments with redistribution mechanism. The base treatment is the omitted benchmark. The variable *Round* picks up the round number thereby controlling for the presence of dynamic effects in the share of cooperators. $E\big(AvgGroupPGChoice_{i,t-1,s}\big) - AvgGroupPGChoice_{t-1,s}]$ is a variable picking up the effect of past errors in the expectation on the number of cooperating players. *SocioDem* variables capture the socio-demographic factors we add as controls in the estimates[8] (age, gender, mother education, father education, mother professional status, father professional status). The detailed definitions of variables used in econometric estimates are provided in Table 3.1.

6. Econometric findings

The first specification includes just dummies for different treatments, while in the augmented specifications that follow we gradually introduce socio-demographic controls (Table 3.2, columns 1 and 2). The *Round* variable is negative and significant documenting that the decay effect already observed in Figures 1A-1E (the number of players making the cooperative choice that progressively falls as far as the number of rounds grows) is econometrically significant. The null of absence of

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[8] For further details on the socio-demographic variables and their impact see questions 1-11 of the Questionnaire in Appendix 3 and detailed descriptive and econometric findings in Appendix 4.

conformity/conditional cooperation[9] is rejected since the coefficient of the lagged players' choice (β_1) is positive and significant. Its positive sign implies that a fall in the share of cooperators in the previous round reduces the probability of the player's cooperative choice in the round that follows. Coefficients on dummies picking up different treatments show that redistribution always generates a significant increase in the probability of a cooperative choice whatever the underlying reference treatment (base, frame with/without conformism in the other session rounds). The legality frame is positive but not significant in the dynamic estimate.

In terms of economic significance redistribution raises by 36 percent the probability of a cooperative choice if we depart from the logit model and assume that the dependent variable is normal using a probit estimate. The probability raises to 43 percent if we add the legality frame and to 56 percent if we add the legality frame in the conformity treatment. This implies that the probability of a cooperative choice is more than 50 percent higher when we combine redistribution, legality frame and conformity treatment.

If we augment our specification with the difference between the one period lagged belief on the share of cooperative choices and the one period lagged share of cooperative choices we find that the variable is positive and significant (Table 3.2, column 3). This implies that players do not follow an error correction rule in their choices.

In Tables 4 and 5 we repeat our estimates by considering in separate estimates the legality frame with and without the conformity treatment. Our findings show that the conditional cooperation effect and the impact of the legality frame are stronger in magnitude under the conformity treatment (even though only weakly significant in the second case).[10] As well the "error correction" term is no more positive and significant (Table 5).

The fact that information on other players behavior is processed differently in conformity treatment sessions (where players are informed not about past behavior of those in their same session but about the average past behavior of those playing in the three sessions of the same kind without conformity treatment) is documented by a specific test where we check whether the difference between beliefs about the number of cooperators and the actual number of cooperators is the same in non conformity versus conformity treatments.

More specifically, we test whether

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[9] This variable picks up both conformity and conditional cooperation since it is common to conformity and non-conformity treatments. The test is differentiated in the separate estimates that follow in Tables 4 and 5.

[10] We test whether there is a significant difference with a dummy picking up the differential conditional cooperation effect in the overall sample estimate of Table 3.1 but the dummy is not significant. Hence the difference between the two coefficients observed in Tables 4 and 5 is not statistically significant.

H_0: $Ei[nCoop_{,t\ (Conformity)}] - [nCoop_{t\text{-}1\ (Conformity)}] =$
$= Ei[nCoop_{,t\ (NonConformity)}] - [nCoop_{t\text{-}1\ (NonConformity)}]$

where $Ei[nCoop_{,t\ (Conformity)}]$ is the expected number of cooperators in one's own session formulated at time t after information on co-operators in t-1 is revealed and *Conformity (NonConformity)* indicates all sessions with/without the conformity treatment. We find that the null is rejected in direction of a narrower difference in the conformity treatment (t-stat 3.852, p-value 0.000). This implies that experiment participants adjust their belief more when having information on what players in other similar sessions have done (conformity treatment) than when having information on what players of their same session have done (non-conformity treatment). On the contrary, the same difference when we look at choices and not at beliefs is not significant. The combined effect of these findings supports the hypothesis that players are influenced relatively more by information under the conformity treatment in terms of beliefs, even though econometric findings rejecting the error correction hypothesis document that this is not the case for choices.

7. Conclusions

A corrupt corporate conduct may weaken legality and strengthen corruption thereby creating a negative externality for all society members. Examples of it are the effects of money laundering on promoting unfair competition and reinforcing criminal organisations, tax dodging or tax evasion directly reducing resources for the provision of public goods, corruption of government officials in procurement races leading to misuse and misallocation of resources dedicated to the provision of public goods.

In our paper we consider the recent experience of institutional legality ratings and test whether the latter may contribute to fight corruption by influencing consumer choices.

We test the impact of such information on the multiplayer PD consisting in choosing between a more expensive legal product (which contributes positively to the public good of legality) and a less expensive illegal product. In our randomized experiment we test the specific impact of the legality-rating frame attributed to the more expensive legal product and of policy mechanism which redistribute away part of the revenues from defectors to cooperators.

Our main findings are that: i) the legality frame under the conformity treatment produces a share of co-operators close to 40%, that is, well above the NE of the game in which no one should cooperate; ii) redistribution significantly increases the cooperative attitude both in static tests and dynamic estimates even though in our

redistribution treatments the strategy yielding the highest payoff remains the non cooperative choice when the number of cooperators is above 20 percent in the group; iii) the legality frame in baseline treatments is significant in static tests but loses significance in the dynamic estimates when we control for the significant effect of the legality frame with redistribution; iv) the combination of frame, redistribution mechanism and conformity information design generates a growth in the cooperative choice (and therefore in the production of the positive externality) of around 63 percent vis-à-vis the benchmark base treatment. v) dynamic estimates document the presence of decay of cooperation over time; vi) separate dynamic estimates for conformity/non conformity treatments show that the effect of the legality frame and of the one period lagged behavior of other players is stronger (even though not statistically significantly different) under the conformity frame. Separate test shows that adjustment of beliefs is stronger under the conformity treatment.

Overall in terms of anticorruption policies our experiment suggests that willingness to pay for legality exists but can be substantially reinforced with redistribution policies and with cultural processes that induce conformism. As well, the paper documents that institutional legality rating systems such as those created by the ICA in Italy, if properly advertised to consumers and combined with redistribution mechanisms, may provide benefits to rated companies increasing the demand for their products.

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Tables and Figures

Table 1. Experimental design

Treatment	No. of sessions	Phase 1 (10 rounds)	Phase 2 (10 rounds)	Phase 3	No. of players
Baseline	1 - 3	Baseline	Redistribution	Questionnaire	30
	4 - 6	Redistribution	Baseline	Questionnaire	30
Frame	7 - 9	Frame	Frame + Redistribution	Questionnaire	30
	10 - 12	Frame + Redistribution	Frame	Questionnaire	30
Conformity	13 - 15	Frame (conformity)	Frame (conformity) + Redistribution	Questionnaire	30
	16 - 18	Frame (conformity) + Redistribution	Frame (conformity)	Questionnaire	30

Table 2. Hypothesis testing

Alternatives compared	Obs	Players (%) cooperating with each alternative	Pearson χ^2	P-value
Base vs Redistribution	1200	0.278 - 0.375	12.745	0.000
Frame vs Redistribution Frame	1200	0.365 - 0.417	3.364	0.067
Frame (conformity) vs Redistribution Frame (conformity)	1200	0.398 - 0.453	3.712	0.054
Base vs Frame	1200	0.278 - 0.365	10.327	0.001
Base vs Frame (conformity)	1200	0.278 - 0.398	19.297	0.000
Redistribution vs Redistribution Frame	1200	0.375 - 0.417	2.178	0.140
Redistribution vs Redistribution Frame (conformity)	1200	0.375 - 0.453	7.587	0.006
Base - before vs Redistribution - after	600	0.337 - 0.363	0.469	0.494
Base - after vs Redistribution - before	600	0.22 - 0.387	19.717	0.000
Frame - before vs Redistribution Frame - after	600	0.403 - 0.403	0.000	1.000
Frame - after vs Redistribution Frame - before	600	0.327 - 0.43	6.810	0.009
Frame (conformity) - before vs Redistribution (conformity) Frame - after	600	0.383 - 0.433	1.552	0.213
Frame (conformity) - after vs Redistribution (conformity) Frame - before	600	0.413 - 0.473	2.188	0.139

Figures 1a-1f. Share of players choosing the "responsible" product under different treatments
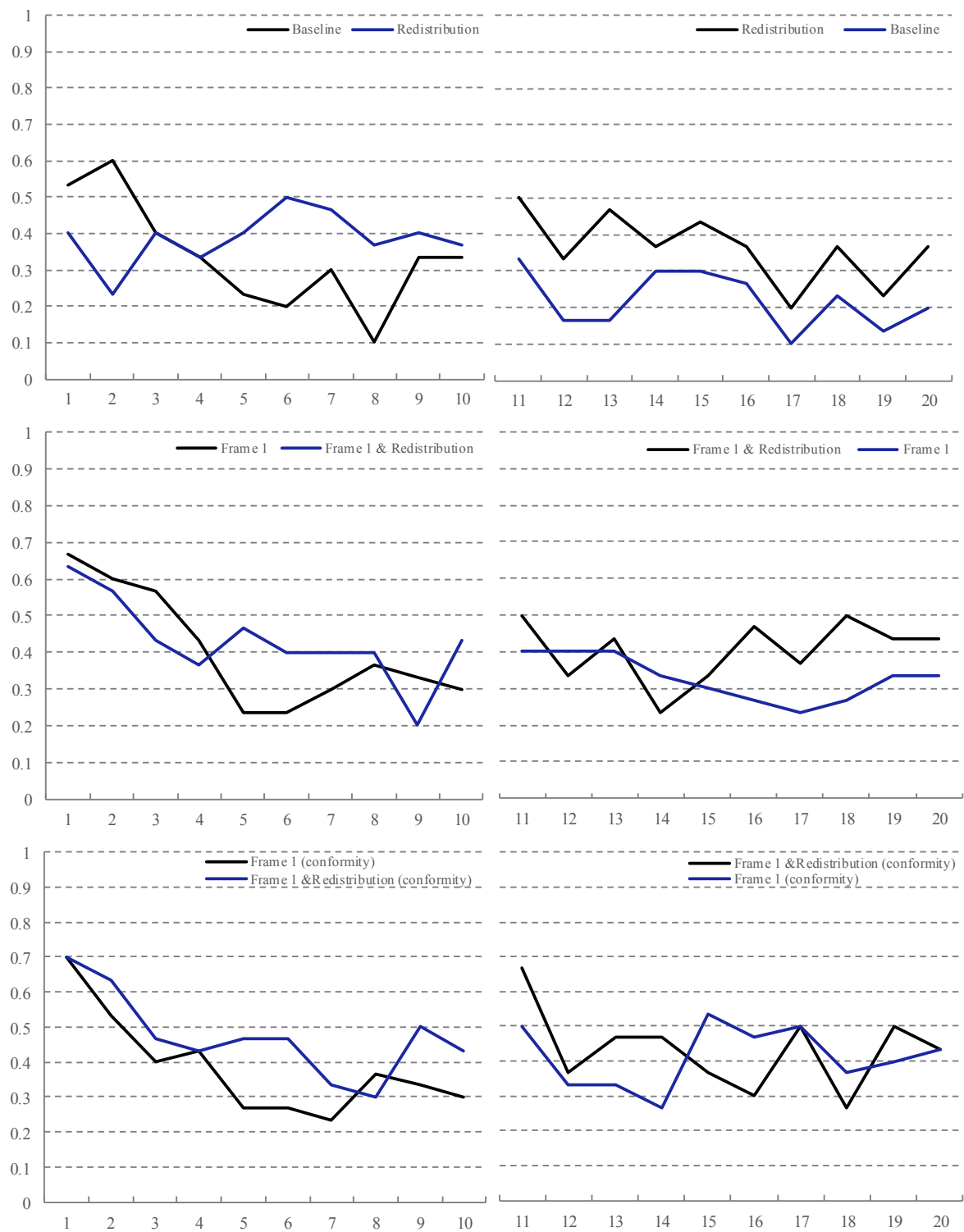
Table 3.1 Definition of variables used in the Econometric estimates

Variable	Definition
Responsible choice	Dummy taking value 1 if the individual opts for product A, and 0 otherwise
Responsible choice (average)	Average share of individuals opting for product A in a given game round
Belief about A	Expected number of participants who will buy product A during a given game round
Base	Dummy taking value 1 for baseline sessions, and 0 otherwise
LegFrame	Dummy taking value 1 for legality framed sessions, and 0 otherwise
LegConfFrame	Dummy taking value 1 for legality framed sessions with conformity information design, and 0 otherwise
RedistributionBase	Dummy taking value 1 when the redistributive mechanism takes place in baseline sessions, and 0 otherwise
LegFrameRedistribution	Dummy taking value 1 when the redistributive mechanism takes place in legality framed sessions, and 0 otherwise
LegConfFrameRedistribution	Dummy taking value 1 when the redistributive mechanism takes place in session with conformity information design, and 0 otherwise
Round	Number of session round
Gender (male)	Dummy taking value 1 if the individual is a man, and 0 otherwise (according to question 1. of the questionnaire)
Age	Age according to question 2. of the questionnaire (in Appendix 4)
Living condition	Three dummies generated according to question 4. of the questionnaire (see Appendix 4)
Education (father's side)	Five dummies generated according to question 5. of the questionnaire (see Appendix 4)
Education (mother's side)	Five dummies generated according to question 6. of the questionnaire (see Appendix 4)
Employment status (father's side)	Ten dummies generated according to question 7. of the questionnaire (see Appendix 4)
Employment status (mother's side)	Ten dummies generated according to question 8. of the questionnaire (see Appendix 4)
Income level	Six dummies generated according to question 10. of the questionnaire (see Appendix 4)

Table 3.2 The determinants of the cooperative choice: dynamic estimates

(dependent variable: (0/1 dummy taking value one if player chooses product A)

	(1)	(2)	(3)	(4)
AvgGroupPGChoice$_{t-1}$	0.600**	0.880***	0.609**	0.487*
	(0.290)	(0.278)	(0.291)	(0.293)
RedistributionBase	0.619***	0.581***	0.616***	0.587***
	(0.152)	(0.151)	(0.151)	(0.152)
LegFrameRedistribution	0.753**	0.831**	0.882***	0.818**
	(0.345)	(0.336)	(0.339)	(0.336)
LegConfFrameRedistribution	0.962***	0.943***	1.008***	0.979***
	(0.350)	(0.339)	(0.342)	(0.339)
LegFrame	0.417	0.522	0.548	0.498
	(0.346)	(0.336)	(0.339)	(0.336)
LegConfFrame	0.562	0.578*	0.606*	0.616*
	(0.349)	(0.339)	(0.342)	(0.338)
Round	-0.026***		-0.026***	-0.020**
	(0.008)		(0.008)	(0.009)
E (AvgGroupPGChoice$_{t-1}$) - AvgGroupPGChoice$_{t-1}$				0.086***
				(0.025)
Socio-demographics		√	√	√
Constant	-1.253***	-1.142	-0.797	-1.067
	(0.281)	(1.342)	(1.357)	(1.343)
Wald χ2	52.01 (0.00)	79.95 (0.00)	88.04 (0.00)	99.79 (0.00)
Observations	3,420	3,420	3,420	3,420
Number of id	180	180	180	180

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4. The determinants of the cooperative choice: dynamic estimates (framed conformity sessions excluded)

(dependent variable: (0/1 dummy taking value one if player chooses product A)

	(1)	(2)	(3)	(4)
AvgGroupPGChoice$_{t-1}$	0.474	0.887***	0.481	0.376
	(0.341)	(0.323)	(0.342)	(0.343)
RedistributionBase	0.623***	0.570***	0.622***	0.580***
	(0.151)	(0.150)	(0.151)	(0.152)
LegFrameRedistribution	0.761**	0.910***	0.987***	0.893***
	(0.303)	(0.301)	(0.305)	(0.299)
LegFrame	0.424	0.609**	0.652**	0.580*
	(0.303)	(0.301)	(0.305)	(0.298)
Round	-0.036***		-0.036***	-0.029***
	(0.010)		(0.010)	(0.010)
E (AvgGroupPGChoice $_{t-1}$) - AvgGroupPGChoice $_{t-1}$				0.111***
				(0.029)
Constant	-1.076***	-1.191	-0.703	-1.048
	(0.272)	(1.373)	(1.397)	(1.363)
Socio-demographics		√	√	√
Wald χ2	44.07 (0.00)	66.53 (0.00)	76.85 (0.00)	92.27 (0.00)
Observations	2,280	2,280	2,280	2,280
Number of id	120	120	120	120

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5. The determinants of the cooperative choice: dynamic estimates (framed non conformity sessions excluded)

(dependent variable: (0/1 dummy taking value one if player chooses product A)

	(1)	(2)	(3)	(4)
AvgGroupPGChoice$_{t-1}$	0.702*	1.042***	0.700*	0.598
	(0.416)	(0.385)	(0.416)	(0.421)
RedistributionBase	0.611***	0.571***	0.610***	0.597***
	(0.154)	(0.153)	(0.154)	(0.154)
LegConfFrameRedistribution	0.982***	0.984***	1.042***	1.023***
	(0.360)	(0.353)	(0.356)	(0.355)
LegConfFrame	0.554	0.577	0.611*	0.618*
	(0.360)	(0.354)	(0.356)	(0.355)
Round	-0.023**		-0.023**	-0.020*
	(0.011)		(0.011)	(0.011)
E (AvgGroupPGChoice $_{t-1}$) - AvgGroupPGChoice $_{t-1}$				0.049
				(0.031)
Constant	-1.325***	-1.448	-1.152	-1.249
	(0.319)	(1.869)	(1.884)	(1.876)
Socio-demographics		√	√	√
Wald χ2	39.24 (0.00)	69.55 (0.00)	73.00 (0.00)	75.52 (0.00)
Observations	2,280	2,280	2,280	2,280
Number of id	120	120	120	120

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

APPENDIX 1 – LEGALITY RATING

The Legality Rating is an instrument designed to increase the competitiveness of lawful companies by supporting their ethical and honest initiatives. It was approved by the Italian Parliament at the end of 2012.

Two conditions must be met by the enterprises that work in Italy in order to ask for the legality rating:
1. Achieving a turnover of at least two million of euros in the year before asking for the legality rating. This value must be ascribed either to the single enterprise, or to the group to which the single enterprise belongs to and whose balance-sheet was duly approved;
2. To be signed up in the registry of businesses for at least two years.

Companies willing to be rated can apply throughout an online form, and follow the guidelines published on the AGCM website.

The legality rating ranges from a minimum score of one star to a maximum score of three stars, and it is awarded by the Italian Competition Authority (ICA) on the base of information directly provided by the company and further verified through cross-checks with data owned by the public administration.

"One-star"-legality rating
In order to be eligible for the minimum score (i.e. the "one-star"-legality rating) a firm must fulfil the following requirements:
1. The entrepreneur and other relevant individuals must not be the recipients of preventive and / or precautionary measures, nor must they be convicted for tax-related crimes. They must not be addressed by judicial sentences for mafia, nor must they be involved with mafia activities of any sort. The firm must not have been submitted to compulsory administration, nor must it have been convicted for administrative wrongdoings.
2. In the 2-years period before applying for the legality rating the firm must not have been convicted for serious crimes related to anti-trust, for breaching the code of consumption, for not respecting norms about safety and security of the working place, or for not complying with the obligations towards employees and collaborators as for remunerations, contributions, insurance responsibilities, and fiscal matters. Moreover, the firm must not have been under scrutiny for declaring less income than what verified, for having experienced revocations of public funds that were not duly paid back by the firm itself, or for not having paid taxes. Likewise, the enterprise must not have received any sanction by the Italian Anti-Corruption Authority implying the prohibition either to sign contracts with the public administration, or to participate to auctions for public procurement.
3. Eventually, the company must declare to use exclusively traceable payment methods in order to process financial transactions whose value is higher than one thousand euros.

"Two-stars" and "three-stars"-legality rating
More requirements are needed for firms to be rated with two or three stars of legality. If at least six of the following accomplishments are met, then a firm will obtain two stars:
1. Complying with the Legality Protocol signed by the Ministry of Internal Affairs and the Italian Industrial Federation, with its guidelines for implementation, and with the Protocol signed by the Ministry of Internal Affairs and the Association of Cooperatives together with local prefectures and trade associations;
2. Using traceable payment methods also to process financial transactions whose amounts are lower than the threshold stated by the law;
3. Adopting an organizational framework apt to the conformity control as stated by the law;
4. Adopting processes that grant the Corporate Social Responsibility;
5. Being registered to lists of entities that are not prone to mafia infiltrations;
6. Endorsing the ethical codes of self-regulation that are defined by trade associations;
7. Having in place organizational frameworks to prevent and contrast **corruption**.

Denunciations of crimes by the entrepreneur and her family and collaborators, if followed by legal penal consequences, shall be hold in high esteem.

Duration of the legality rating
The legality rating lasts two years since its release, and it can be renewed upon request.
If one of the minimum prerequisites fails to exist, the ICA will revoke the one-star rating.
If conditions upon which a two-stars or a three-stars rating were awarded stop to be present, the ICA can reduce the legality rating.
The ICA will keep its website up to date with the list of companies awarded with the legality rating, along with effective dates and subsequent suspensions and revocations.

ENGLISH WEB PAGES ABOUT THE LEGALITY RATING BY AGCM:
http://www.agcm.it/en/newsroom/press-releases/2196-boom-of-requests-to-antitrust-authority-to-obtain-the-rating-of-legality.html

http://www.group.intesasanpaolo.com/scriptIsir0/si09/contentData/view/Rating_Legalit%C3%A0_eng.pdf?id=CNT-04-000000011635A&ct=application/pdf

http://www.agcm.it/en/statistics/doc_download/477-annualreport2014presentation.html

POLICY DOCUMENTS MENTIONING THE LEGALITY RATING BY AGCM:
Page 2: http://ec.europa.eu/competition/ecn/brief/03_2012/it_powers.pdf

APPENDIX 2 – SUMMARY STATISTICS AND COMPLETE ESTIMATION TABLES

Table A2.1 Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ChoiceA	3600	0.381	0.486	0	1
AvgGroupChoiceA	3600	0.381	0.169	0	0.9
Belief about A	3600	3.959	1.928	0	10
Base	1200	0.500	0.500	0	1
Frame	3600	0.167	0.373	0	1
Frame (conformity)	3600	0.167	0.373	0	1
Redistribution (base)	3600	0.167	0.373	0	1
Redistribution (frame)	3600	0.167	0.373	0	1
Redistribution (conformity)	3600	0.167	0.373	0	1
Gender (male)	3600	0.500	0.500	0	1
Age	3600	24.911	4.454	18	42
Living conditions					
(live alone)	3600	0.061	0.240	0	1
(live with the family)	3600	0.706	0.456	0	1
(live with other-not-related people)	3600	0.233	0.423	0	1
Education (father's side)					
(primary school)	3600	0.083	0.276	0	1
(middle school)	3600	0.356	0.479	0	1
(high school)	3600	0.428	0.495	0	1
(university)	3600	0.122	0.328	0	1
(other)	3600	0.011	0.105	0	1
Education (mother's side)					
(primary school)	3600	0.094	0.292	0	1
(middle school)	3600	0.383	0.486	0	1
(high school)	3600	0.372	0.483	0	1
(university)	3600	0.139	0.346	0	1
(other)	3600	0.011	0.105	0	1
Employment status (father's side)					
(self-employed)	3600	0.139	0.346	0	1
(clerk)	3600	0.133	0.340	0	1
(manual)	3600	0.128	0.334	0	1
(executive)	3600	0.056	0.229	0	1
(retired)	3600	0.300	0.458	0	1
(housework)	3600	0.000	0.000	0	1
(student)	3600	0.000	0.000	0	1
(entrepreneur)	3600	0.089	0.285	0	1
(unemployed)	3600	0.050	0.218	0	1
(other)	3600	0.106	0.307	0	1
Employment status (mother's side)					
(self-employed)	3600	0.067	0.249	0	1
(clerk)	3600	0.211	0.408	0	1
(manual)	3600	0.050	0.218	0	1
(executive)	3600	0.006	0.074	0	1
(retired)	3600	0.094	0.292	0	1
(housework)	3600	0.428	0.495	0	1
(student)	3600	0.006	0.074	0	1
(entrepreneur)	3600	0.033	0.180	0	1
(unemployed)	3600	0.028	0.164	0	1
(other)	3600	0.078	0.268	0	1
Income level					
(up to 15.000)	3600	0.350	0.477	0	1
(15.001 - 25.000)	3600	0.250	0.433	0	1
(25.001 - 35.000)	3600	0.200	0.400	0	1
(35.001 - 50.000)	3600	0.100	0.300	0	1
(50.001 - 90.000)	3600	0.083	0.276	0	1
(higher than 90.000)	3600	0.017	0.128	0	1

Table A2.2 Full regression findings for Table 3.2

	Responsible choice			
	(1)	(2)	(3)	(4)
AvgGroupPGChoice$_{t-1}$	0.600**	0.880***	0.609**	0.487*
	(0.290)	(0.278)	(0.291)	(0.293)
RedistributionBase	0.619***	0.581***	0.616***	0.587***
	(0.152)	(0.151)	(0.151)	(0.152)
LegFrameRedistribution	0.753**	0.831**	0.882***	0.818**
	(0.345)	(0.336)	(0.339)	(0.336)
LegConfFrameRedistribution	0.962***	0.943***	1.008***	0.979***
	(0.350)	(0.339)	(0.342)	(0.339)
LegFrame	0.417	0.522	0.548	0.498
	(0.346)	(0.336)	(0.339)	(0.336)
LegConfFrame	0.562	0.578*	0.606*	0.616*
	(0.349)	(0.339)	(0.342)	(0.338)
E (AvgGroupPGChoice $_{t-1}$) - AvgGroupPGChoice $_{t-1}$				0.086***
				(0.025)
Male		-0.138	-0.140	-0.144
		(0.275)	(0.278)	(0.274)
Age		0.037	0.038	0.035
		(0.032)	(0.032)	(0.032)
Living condition (live with the family)		-0.730	-0.714	-0.740
		(0.610)	(0.615)	(0.608)
Living condition (live with other people)		-1.171*	-1.156*	-1.180*
		(0.631)	(0.636)	(0.628)
Education (father's side; middle school)		-0.364	-0.366	-0.333
		(0.513)	(0.517)	(0.510)
Education (father's side; high school)		-0.417	-0.413	-0.388
		(0.549)	(0.553)	(0.546)
Education (father's side; university)		-1.104*	-1.095*	-1.030
		(0.650)	(0.654)	(0.647)
Education (father's side; other)		-5.534**	-5.565**	-5.460**
		(2.243)	(2.250)	(2.231)
Education (mother's side; middle school)		0.080	0.065	0.074
		(0.505)	(0.509)	(0.502)
Education (mother's side; high school)		-0.241	-0.255	-0.255
		(0.558)	(0.562)	(0.555)
Education (mother's side; university)		-0.609	-0.617	-0.610
		(0.678)	(0.684)	(0.675)
Education (mother's side; other)		4.824***	4.855***	4.802***
		(1.859)	(1.868)	(1.852)
Employment status (father's side; clerk)		0.073	0.077	0.071
		(0.494)	(0.498)	(0.492)
Employment status (father's side; manual)		0.688	0.701	0.691
		(0.479)	(0.483)	(0.477)
Employment status (father's side; executive)		0.106	0.114	0.083
		(0.683)	(0.688)	(0.679)
Employment status (father's side; retired)		-0.104	-0.098	-0.079
		(0.469)	(0.473)	(0.467)
Employment status (father's side; entrepreneur)		-0.135	-0.112	-0.147
		(0.609)	(0.614)	(0.607)
Employment status (father's side; unemployed)		-0.555	-0.545	-0.519
		(0.725)	(0.730)	(0.721)
Employment status (father's side; other)		0.906*	0.914*	0.927*
		(0.544)	(0.548)	(0.542)
Employment status (mother's side; clerk)		0.244	0.234	0.229
		(0.573)	(0.578)	(0.571)
Employment status (mother's side; manual)		-0.341	-0.356	-0.355
		(0.777)	(0.783)	(0.773)
Employment status (mother's side; executive)		-1.728	-1.691	-1.721
		(2.221)	(2.238)	(2.211)
Employment status (mother's side; retired)		0.461	0.448	0.431
		(0.721)	(0.727)	(0.718)
Employment status (mother's side; housework)		-0.408	-0.422	-0.416
		(0.552)	(0.556)	(0.549)
Employment status (mother's side; student)		0.107	0.090	0.154
		(1.673)	(1.688)	(1.666)
Employment status (mother's side; entrepreneur)		-0.218	-0.235	-0.212
		(0.887)	(0.893)	(0.883)
Employment status (mother's side; unemployed)		0.522	0.531	0.566
		(0.915)	(0.922)	(0.911)
Employment status (mother's side; other)		-1.226*	-1.240*	-1.224*
		(0.741)	(0.746)	(0.737)
Income level (15.001 - 25.000)		0.010	0.006	0.019
		(0.355)	(0.358)	(0.353)
Income level (25.001 - 35.000)		-0.017	-0.033	-0.008
		(0.394)	(0.397)	(0.392)
Income level (35.001 - 50.000)		-0.257	-0.268	-0.237
		(0.503)	(0.506)	(0.500)
Income level (50.001 - 90.000)		0.744	0.757	0.757
		(0.543)	(0.547)	(0.541)
Income level (higher than 90.000)		1.401	1.363	1.394
		(1.374)	(1.384)	(1.369)
Round	-0.026***		-0.026***	-0.020**
	(0.008)		(0.008)	(0.009)
Constant	-1.253***	-1.142	-0.797	-1.067
	(0.281)	(1.342)	(1.357)	(1.343)
Socio-demographics		√	√	√
	52.01	79.95	88.04	99.79
Wald χ2	(0.00)	(0.00)	(0.00)	(0.00)
Observations	3,420	3,420	3,420	3,420
Number of id	180	180	180	180

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.3 Full regression findings for Table 4

	Responsible choice			
	(1)	(2)	(3)	(4)
AvgGroupPGChoice$_{t-1}$	0.474	0.887***	0.481	0.376
	(0.341)	(0.323)	(0.342)	(0.343)
RedistributionBase	0.623***	0.570***	0.622***	0.580***
	(0.151)	(0.150)	(0.151)	(0.152)
LegFrameRedistribution	0.761**	0.910***	0.987***	0.893***
	(0.303)	(0.301)	(0.305)	(0.299)
LegFrame AvgGroupPGChoice$_{t-1}$	0.424	0.609**	0.652**	0.580*
	(0.303)	(0.301)	(0.305)	(0.298)
E (AvgGroupPGChoice $_{t-1}$) - AvgGroupPGChoice $_{t-1}$				0.111***
				(0.029)
Male		-0.005	-0.006	0.001
		(0.281)	(0.285)	(0.277)
Age		0.041	0.042	0.039
		(0.035)	(0.036)	(0.035)
Living condition (live with the family)		-0.302	-0.285	-0.358
		(0.592)	(0.600)	(0.584)
Living condition (live with other people)		-0.848	-0.821	-0.880
		(0.610)	(0.618)	(0.602)
Education (father's side; middle school)		-0.183	-0.183	-0.129
		(0.509)	(0.515)	(0.501)
Education (father's side; high school)		-0.358	-0.343	-0.305
		(0.546)	(0.553)	(0.538)
Education (father's side; university)		-1.015	-1.017	-0.957
		(0.654)	(0.662)	(0.644)
Education (father's side; other)		-1.010	-0.993	-0.912
		(1.556)	(1.574)	(1.531)
Education (mother's side; middle school)		-0.119	-0.146	-0.116
		(0.544)	(0.550)	(0.535)
Education (mother's side; high school)		-0.307	-0.330	-0.308
		(0.587)	(0.594)	(0.578)
Education (mother's side; university)		-0.386	-0.421	-0.405
		(0.750)	(0.760)	(0.739)
Education (mother's side; other)		-0.222	-0.218	-0.219
		(0.501)	(0.507)	(0.493)
Employment status (father's side; clerk)		0.072	0.076	0.071
		(0.487)	(0.493)	(0.480)
Employment status (father's side; manual)		-0.948	-0.958	-0.969
		(0.835)	(0.845)	(0.821)
Employment status (father's side; executive)		-0.910*	-0.917*	-0.859*
		(0.478)	(0.484)	(0.471)
Employment status (father's side; retired)		-0.900	-0.876	-0.926
		(0.588)	(0.595)	(0.579)
Employment status (father's side; entrepreneur)		-0.364	-0.354	-0.355
		(0.765)	(0.774)	(0.752)
Employment status (father's side; unemployed)		0.751	0.754	0.776
		(0.556)	(0.563)	(0.548)
Employment status (father's side; other)		-0.122	-0.153	-0.177
		(0.609)	(0.617)	(0.599)
Employment status (mother's side; clerk)		-0.542	-0.573	-0.570
		(0.755)	(0.765)	(0.744)
Employment status (mother's side; manual)		-1.837	-1.821	-1.958
		(1.949)	(1.973)	(1.921)
Employment status (mother's side; executive)		-0.118	-0.146	-0.192
		(0.806)	(0.816)	(0.794)
Employment status (mother's side; retired)		-0.314	-0.344	-0.350
		(0.598)	(0.606)	(0.589)
Employment status (mother's side; housework)		0.000	-0.020	0.009
		(0.930)	(0.941)	(0.917)
Employment status (mother's side; student)		1.328	1.346	1.389
		(0.991)	(1.003)	(0.976)
Employment status (mother's side; entrepreneur)		-1.117	-1.155	-1.146
		(0.726)	(0.735)	(0.715)
Employment status (mother's side; unemployed)		-0.031	-0.047	-0.040
		(0.362)	(0.367)	(0.357)
Employment status (mother's side; other)		0.201	0.174	0.205
		(0.375)	(0.380)	(0.369)
Income level (15.001 - 25.000)		-0.548	-0.573	-0.522
		(0.530)	(0.536)	(0.522)
Income level (25.001 - 35.000)		1.215*	1.233**	1.219**
		(0.620)	(0.628)	(0.611)
Income level (35.001 - 50.000)		1.787	1.767	1.836
		(1.238)	(1.253)	(1.221)
Round	-0.036***		-0.036***	-0.029***
	(0.010)		(0.010)	(0.010)
Constant	-1.076***	-1.191	-0.703	-1.048
	(0.272)	(1.373)	(1.397)	(1.363)
Socio-demographics		√	√	√
Wald χ2	44.07	66.53	76.85	92.27
	(0.00)	(0.00)	(0.00)	(0.00)
Observations	2,280	2,280	2,280	2,280
Number of id	120	120	120	120

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table A2.4 Full regression findings for Table 5

	Responsible choice			
	(1)	(2)	(3)	(4)
AvgGroupPGChoice$_{t-1}$	0.702*	1.042***	0.700*	0.598
	(0.416)	(0.385)	(0.416)	(0.421)
RedistributionBase	0.611***	0.571***	0.610***	0.597***
	(0.154)	(0.153)	(0.154)	(0.154)
LegConfFrameRedistribution	0.982***	0.984***	1.042***	1.023***
	(0.360)	(0.353)	(0.356)	(0.355)
LegConfFrame	0.554	0.577	0.611*	0.618*
	(0.360)	(0.354)	(0.356)	(0.355)
E (AvgGroupPGChoice $_{t-1}$) - AvgGroupPGChoice $_{t-1}$				0.049
				(0.031)
Male		-0.360	-0.362	-0.369
		(0.373)	(0.375)	(0.373)
Age		0.034	0.034	0.033
		(0.041)	(0.042)	(0.041)
Living condition (live with the family)		-0.614	-0.581	-0.593
		(0.953)	(0.958)	(0.953)
Living condition (live with other people)		-0.989	-0.957	-0.962
		(0.969)	(0.975)	(0.970)
Education (father's side; middle school)		-0.303	-0.299	-0.284
		(0.748)	(0.752)	(0.749)
Education (father's side; high school)		-0.458	-0.449	-0.432
		(0.815)	(0.820)	(0.816)
Education (father's side; university)		-0.547	-0.523	-0.487
		(0.985)	(0.990)	(0.986)
Education (father's side; other)		-5.443**	-5.478**	-5.430**
		(2.400)	(2.410)	(2.405)
Education (mother's side; middle school)		0.512	0.516	0.511
		(0.693)	(0.696)	(0.693)
Education (mother's side; high school)		-0.329	-0.330	-0.347
		(0.806)	(0.810)	(0.806)
Education (mother's side; university)		-0.680	-0.675	-0.683
		(0.924)	(0.929)	(0.924)
Education (mother's side; other)		5.596***	5.632***	5.590***
		(1.959)	(1.968)	(1.962)
Employment status (father's side; clerk)		0.428	0.435	0.411
		(0.607)	(0.610)	(0.607)
Employment status (father's side; manual)		1.178*	1.197*	1.185*
		(0.608)	(0.612)	(0.609)
Employment status (father's side; executive)		0.144	0.158	0.131
		(0.897)	(0.902)	(0.898)
Employment status (father's side; retired)		0.535	0.553	0.547
		(0.614)	(0.617)	(0.614)
Employment status (father's side; entrepreneur)		1.240	1.279	1.226
		(0.897)	(0.902)	(0.898)
Employment status (father's side; unemployed)		-0.803	-0.800	-0.793
		(0.861)	(0.865)	(0.861)
Employment status (father's side; other)		0.461	0.481	0.484
		(0.698)	(0.702)	(0.699)
Employment status (mother's side; clerk)		0.345	0.336	0.328
		(0.677)	(0.681)	(0.678)
Employment status (mother's side; manual)		-0.824	-0.829	-0.843
		(1.018)	(1.024)	(1.019)
Employment status (mother's side; executive)		0.216	0.214	0.202
		(0.869)	(0.874)	(0.870)
Employment status (mother's side; retired)		-0.818	-0.825	-0.825
		(0.646)	(0.650)	(0.647)
Employment status (mother's side; housework)		0.360	0.353	0.393
		(1.717)	(1.727)	(1.719)
Employment status (mother's side; student)		0.360	0.353	0.393
		(1.717)	(1.727)	(1.719)
Employment status (mother's side; entrepreneur)		-1.128	-1.156	-1.117
		(1.163)	(1.169)	(1.164)
Employment status (mother's side; unemployed)		1.334	1.338	1.341
		(1.073)	(1.078)	(1.073)
Employment status (mother's side; other)		-1.210	-1.205	-1.192
		(0.941)	(0.946)	(0.942)
Income level (15.001 - 25.000)		-0.271	-0.279	-0.268
		(0.441)	(0.444)	(0.442)
Income level (25.001 - 35.000)		0.085	0.065	0.080
		(0.531)	(0.534)	(0.531)
Income level (35.001 - 50.000)		-0.012	-0.024	-0.015
		(0.665)	(0.669)	(0.666)
Income level (50.001 - 90.000)		0.610	0.617	0.628
		(0.681)	(0.685)	(0.682)
Round	-0.023**		-0.023**	-0.020*
	(0.011)		(0.011)	(0.011)
Constant	-1.325***	-1.448	-1.152	-1.249
	(0.319)	(1.869)	(1.884)	(1.876)
Socio-demographics		√	√	√
	39.24	69.55	73.00	75.52
Wald χ2	(0.00)	(0.00)	(0.00)	(0.00)
Observations	2,280	2,280	2,280	2,280
Number of id	120	120	120	120

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

APPENDIX 3 – INSTRUCTIONS

English Translation	Original Italian
General instructions	**Istruzioni Generali**
Welcome and thanks for participating to this experiment.	Benvenuto e grazie per aver deciso di partecipare a questo studio.
Our goal is to verify the impact of some factors on our decision processes.	Siamo interessati alla comprensione di alcuni fattori che influenzano i nostri processi decisionali.
Together with other participants you will have to take decisions in different situations. Depending of your decisions along with those of the other participants you will get a certain number of points. One among all your decision will be picked randomly and the points you get in that particular situation will be converted in euros (with the exchange rate 2 points = 1 euro) and paid to you in cash. Besides, you will receive 5 points for participating. These points will sum up to those gained during the experiment.	Durante questo studio ti troverai a dover prendere delle decisioni in differenti situazioni. Le tue decisioni insieme alle decisioni prese dagli altri partecipanti allo studio determineranno la vincita di un certo numero di punti. Tra tutte le decisioni che prenderai, una verrà estratta in maniera casuale, e i punti guadagnati in quella situazione verranno convertiti in euro e pagati realmente (tasso di conversione 2 punti = 1 euro). Per la sola partecipazione, poi, riceverai 5 punti che andranno a sommarsi a quelli guadagnati durante la sessione.
Your identity and those of the other participants to the experiment will never be revealed even after the end of the experiment. Also your choices and answers will be dealt with anonymously (without reference to your identity).	La tua identità e l´identità degli altri partecipanti non verranno mai svelate, né ora né dopo la fine dello studio. Anche tutte le tue scelte e ogni tua risposta verrà trattata in maniera assolutamente anonima senza nessun riferimento alla tua identità.
Overall the experimental session will last approximately one hour.	Nel complesso la sessione durerà approssimativamente un'ora.
We ask you to work alone and in silence.	Ti chiediamo di lavorare da solo e in silenzio.
Thanks for your participation!	Grazie ancora per la tua partecipazione!
Specific instructions	**Istruzioni specifiche**
Baseline Condition	**Gioco Base**
In this session you will be asked to choose (for 10 rounds) which, between two products (product A and product B), you intend to buy. For every round you will be given an endowment of 20 points that you will be able to spend to purchase one of the two products. At each round, after your choice and the choices of all other players, we will tell to you and them, without revealing their identity, how many players have chosen product A and product B. After this information you will play the following round.	In questa situazione dovrai scegliere ripetutamente (per 10 volte) quale tra due prodotti (prodotto A e prodotto B) acquistare. Ogni volta ti verrà assegnata una certa dotazione di punti che potrai spendere per l'acquisto di uno dei prodotti. Dopo che tu e tutti gli altri avranno scelto, ti verrà comunicato (in maniera anonima) quanti giocatori hanno scelto il prodotto A e quanti il prodotto B prima di giocare nuovamente
Round _n_	**Periodo _n_**
You receive an endowment of 20 points. You must choose whether to buy:	Ricevi una dotazione iniziale di 20 punti. Devi decidere se:
Product A	Acquistare il prodotto A.
Product B.	Acquistare il prodotto B.
Product A costs 10 points. If you buy product A you will receive 3 points for any of the other	Il prodotto A costa 10 punti. Acquistando il prodotto A otterrai 3 punti per ognuno degli altri

players choosing to buy product A.
Product B costs 5 points. If you buy product A you will receive 3 points for any of the other players choosing to buy product A.

The effect on your payoff of the two players' choices (buying product A or product B) are summarized in the table which follows: (table A3.1)

Each of the 10 players is in the same situation as you and faces the same payoff table.
Your final payoff from each of the different choices you may make (conditional to other participants' choices) is summarized in the following table: (table A3.2)

Please choose:
Product A
Product B

Redistribution Condition
Same as in the Base treatment plus:

Notice that, at the end of each round 1 point will be subtracted from the payoff of all those participants who have chosen product B. All those points will form a common fund that will equally divided among the participants who have chosen product A.
The effect on your payoff of the two players' choices (buying product A or product B) are summarized in the table which follows: (table A3.3)

Each of the 10 players is in the same situation as you and faces the same payoff table.
Your final payoff from each of the different choices you may make (conditional to other participants' choices) is summarized in the following table: (table A3.4)

Please choose:
Product A
Product B

giocatori che, nel tuo gruppo, ha scelto di acquistare come te il prodotto A.
Il prodotto B costa 5 punti. Acquistando il prodotto B otterrai 3 punti per ognuno degli altri giocatori che, nel tuo gruppo, ha scelto di acquistare il prodotto A.

Le conseguenze (in termini di guadagni) delle due possibili scelte (acquistare il prodotto A o il prodotto B) sono riassunte nella tabella 1 (tabella A3.1)

Ognuno dei 10 partecipanti si trova nella tua stessa situazione e ha la stessa tabella che descrive i guadagni a seconda delle scelte effettuate dagli altri giocatori.
Il tuo guadagno per ognuna delle 10 scelte dipende non solo da quale bene decidi di acquistare tu, ma anche dalle scelte di acquisto che faranno gli altri giocatori, secondo lo schema della tabella 2: (tabella A3.2)

Quale prodotto scegli?
Prodotto A
Prodotto B

Redistribuzione
Come nel trattamento base più:

Nota Bene: Rispetto alla situazione precedente però, ora c'è una novità. Ad ogni giocatore che avrà scelto il prodotto B verrà prelevato 1 punto che andrà a formare un fondo complessivo che verrà, poi, redistribuito in parti uguali a tutti i giocatori che avranno scelto il prodotto A.
Le conseguenze (in termini di guadagni) delle due possibili scelte (acquistare il prodotto A o il prodotto B) sono riassunte nella tabella n.3 (tabella A3.3).

Ognuno dei 10 partecipanti si trova nella tua stessa situazione e ha la stessa tabella che descrive i guadagni a seconda delle scelte effettuate dagli altri giocatori.
Il tuo guadagno per ognuna delle 10 scelte dipende non solo da quale bene decidi di acquistare tu, ma anche dalle scelte di acquisto che faranno gli altri giocatori, secondo lo schema della seguente tabella (tabella A3.4)

Quale prodotto scegli?
Profotto A
Prodotto B

Frame Condition	Frame
*As in the Baseline plus framed description of Product A as follow*s	*Come nel gioco base più la descrizione del prodotto A come segue*
Product A is a product or service provided by an enterprise awarded with the "3-stars legality rating". This rating can be conferred by the Italian Competition Authority (i.e. Autorità Garante della Concorrenza e del Mercato, "Authority" from now on) upon request of a company. In order to be signaled with the 3-stars rating a company must have in place organizational frameworks to prevent and fight of corruption. Specifically, conditions for 3-stars rating are stated by the Authority as follows:	Il prodotto A è un bene venduto da un'impresa a cui è stato attribuito il certificato "3 stelle di legalità". Questo certificato viene rilasciato dall'Autorità Garante della Concorrenza e del Mercato (AGCOM) su richiesta dell'impresa interessata. Per ottenere "3 stelle di legalità" è necessario che:
1. the entrepreneur must not be involved in lawsuit for mafia, tax-evasion, antitrust behaviours, unfair practices towards employees and customers, and bad administration (minimum accomplishments to be 1-star rated);	1. L'imprenditore non sia coinvolto in processi per mafia, evasione fiscale, comportamenti anticoncorrenziali, comportamenti scorretti ai danni di lavoratori e consumatori, e cattiva amministrazione (requisiti minimi per l'ottenimento di "1 stella di legalità");
2. the enterprise mush accomplish ministerial codes of conduct, employ trackable paying methods, adopt organisational frameworks liable to the legal conformity control, endorse processes that guarantee the Corporate Social Responsibility, be listed among enterprises that are not tied to mafia, and adhere to existing ethical codes of conduct;	2. L'impresa operi nel rispetto dei codici di condotta ministeriali, utilizzi sistemi di pagamento tracciabili, adotti modelli organizzativi che garantiscano i controlli di conformità, adotti processi in linea con la responsabilità sociale, compaia negli elenchi di imprese non legate all'organizzazione mafiosa, aderisca ai codici etici e di condotta esistenti
3. have in place organizational frameworks to prevent and fight corruption.	3. abbia "adottato modelli organizzativi di prevenzione e di contrasto della corruzione".
Product A costs 10 points. By buying product A you gain 3 points directly, and you will gain 3 points for each player who purchases product A too.	Il prodotto A costa 10 punti. Acquistando il prodotto A otterrai 3 punti per ognuno degli altri giocatori che, nel tuo gruppo, ha scelto di acquistare come te il prodotto A.
Product B is a product or service provided by an enterprise which is not awarded with the legality rating issued by the Authority (i.e. either the company did not enquire for the rating, or it asked for the rating but did not obtain it).	Il prodotto B è un bene o fornito da un'impresa priva del certificato di legalità AGCOM (può non averlo richiesto oppure non rispetta tutti i requisiti di cui sopra).
Product B costs 5 points. By buying product B you do not gain any point directly, but you will still gain 3 points for each player who purchases product A.	Il prodotto B costa 5 punti. Acquistando il prodotto B otterrai 3 punti per ognuno degli altri giocatori che, nel tuo gruppo, ha scelto di acquistare il prodotto A

Table A3.1

	Payoff	
Your choice	Product A	Product B
Participation bonus	5 points	5 points
Endowment	20 points	20 points
Cost	-10 points	-5 points
Benefit (from the choice of other participants)	+3 points for each participant choosing product A	+3 points for each participant choosing product A

Table A3.2

	When you buy A				When you buy B			
How many players choose good A	*Endowment*	*Cost*	*Benefit*	*TOTAL*	*Endowment*	*Cost*	*Benefit*	*TOTAL*
			3 X n =				*3 X n =*	
10	20	-10	30	**40**	-	-	-	-
9	20	-10	27	**37**	20	-5	27	**42**
8	20	-10	24	**34**	20	-5	24	**39**
7	20	-10	21	**31**	20	-5	21	**36**
6	20	-10	18	**28**	20	-5	18	**33**
5	20	-10	15	**25**	20	-5	15	**30**
4	20	-10	12	**22**	20	-5	12	**27**
3	20	-10	9	**19**	20	-5	9	**24**
2	20	-10	6	**16**	20	-5	6	**21**
1	20	-10	3	**13**	20	-5	3	**18**
0	-	-	-	-	20	-5	0	**15**

Table A3.3

	Payoff	
Your choice	Product A	Product B
Participation bonus	5 points	5 points
Endowment	20 points	20 points
Cost	-10 points	-5 points
Benefit (from the choice of other participants)	+3 points for each participant choosing product A	+3 points for each participant choosing product A
Redistribution effect	The share of the total points withdrawn from the buyers of B equally distributed among the buyers of A	-1 point

Table A3.4

	When you buy A					When you buy B				
How many players choose good A	*Endowment*	*Cost*	*Benefit*	*Redistribution*	*TOTAL*	*Endowment*	*Cost*	*Benefit*	*Redistribution*	*TOTAL*
			$3 \times n =$					$3 \times n =$		
10	20	-10	30	**-**	**40.0**	-	-	-	-	-
9	20	-10	27	**0.1**	**37.1**	20	-5	27	-1	**41.0**
8	20	-10	24	**0.3**	**34.3**	20	-5	24	-1	**38.0**
7	20	-10	21	**0.4**	**31.4**	20	-5	21	-1	**35.0**
6	20	-10	18	**0.7**	**28.7**	20	-5	18	-1	**32.0**
5	20	-10	15	**1.0**	**26.0**	20	-5	15	-1	**29.0**
4	20	-10	12	**1.5**	**23.5**	20	-5	12	-1	**26.0**
3	20	-10	9	**2.3**	**21.3**	20	-5	9	-1	**23.0**
2	20	-10	6	**4.0**	**20.0**	20	-5	6	-1	**20.0**
1	20	-10	3	**9.0**	**22.0**	20	-5	3	-1	**17.0**
0	-	-	-	-	-	20	-5	0	-1	**14.0**

NOTE: While in sessions 7-15 at the end of each round is provided the number of co-players choosing product A among the members of the same group, in sessions 16-18 along with the information about the average share of co-operators observed in the parallel sessions 10-12. This kind of information is provided to disentangle conditional cooperation from conformist-type behavior.

APPENDIX 4 – QUESTIONNAIRE

1. Gender: $\square_1$ M $\square_0$ F

2. Age: _____ years

3. District of residence_____

4. Housing condition:
    a. Live alone
    b. Live with family
    c. Live with other (not related) people

5. Father's education

    $\square_1$ Primary School $\square_2$ Middle School
    $\square_3$ Upper Intermediate/High school $\square_4$ University degree
    $\square_5$ Other_____

6. Mother's education

    $\square_1$ Primary School $\square_2$ Middle School
    $\square_3$ Upper Intermediate/High school $\square_4$ University degree
    $\square_5$ Other_____

7. Father's professional status

    $\square_1$ Self-employed $\square_2$ Clerk
    $\square_3$ Manual worker $\square_4$ Executive
    $\square_5$ Retired $\square_6$ Homemaker
    $\square_7$ Student $\square_8$ Entrepreneur
    $\square_9$ Unemployed $\square_{10}$ Other_____

8. Mother's professional status

    $\square_1$ Self-employed $\square_2$ Clerk
    $\square_3$ Manual worker $\square_4$ Executive
    $\square_5$ Retired $\square_6$ House activity
    $\square_7$ Student $\square_8$ Entrepreneur
    $\square_9$ Unemployed $\square_{10}$ Other_____

9. How many people are there in your household (including yourself)? _____

We would like to remind you that these data will only serve statistical purposes, that information will be handled anonymously and it shall never be disclosed at disaggregated level

10. Please, mark the class to which your annual household income (net) in 2015 belongs to

    $\square_1$ up to 15.000 $\square_2$ 15.001 - 25.000 $\square_3$ 25.001 - 35.000
    $\square_4$ 35.001 - 50.000 $\square_5$ 50.001 - 90.000 $\square_6$ higher than 90.000

11. On a scale from 0 to 10, please indicate your level of satisfaction with the experience of having undergone this experiment:

    Not satisfied at all =0 Completely satisfied =10

0	1	2	3	4	5	6	7	8	9	10

12. On a scale from 0 to 10, please indicate your level of satisfaction about the behaviour of the players who participate in your same game:

Not satisfied at all = 0   Completely satisfied = 10

0	1	2	3	4	5	6	7	8	9	10

13. On a scale from 0 to 10, please indicate your level of satisfaction about your own behaviour in the game:

Not satisfied at all = 0   Completely satisfied = 10

0	1	2	3	4	5	6	7	8	9	10

14. On a scale from 0 to 10, how would you rate the overall trustworthiness of others?

None = 0   Complete = 10

0	1	2	3	4	5	6	7	8	9	10

15. On a scale from 0 to 10, how would you rate your overall satisfaction with life?

Not satisfied at all = 0   Completely satisfied = 10

0	1	2	3	4	5	6	7	8	9	10

16. On a scale from 0 to 10, how would you rate your satisfaction about your financial situation?

Not satisfied at all = 0   Completely satisfied = 10

0	1	2	3	4	5	6	7	8	9	10

17. Please tick the box that mostly represent your political orientation:

Extreme LEFT				Extreme RIGHT

18. Have you got an account on Facebook?

☐$_1$YES   ☐$_0$NO

19. If you have an account on Facebook, how many friends do you have approximately on your account?

20. Have you got an account on Twitter?

☐$_1$YES   ☐$_0$NO

21. If you have an account on Twitter, how many people do you follow?
22. If you have an account on Twitter, by how many people are followed by?

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