

# Participatory Accountability and Collective Action<sup>◇</sup>

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## Abstract

There is general agreement that the existence of participatory institutions is a necessary condition for accountability, especially where top-down institutions are malfunctioning or missing. In education, the evidence on the effectiveness of participatory accountability is mixed. We argue that participation is a social dilemma and therefore depends, at least partly, on individuals' propensity to cooperate with others for the common good. This being the case, the mixed evidence could be owing to society-level heterogeneities in individuals' willingness and ability to overcome collective action problems. We investigate whether individuals' propensity to cooperate plays a role in parents' decisions to participate in both a school accountability system – i.e., a “short route” to accountability – and parliamentary elections – i.e., a “long route” to accountability, – by combining survey data on 1800 individuals' participation decisions with measures of their willingness to contribute to a public good in the context of a very simple, clearly defined laboratory experiment. We conduct our study in a new democracy, Albania, involving parents of children enrolled in primary schools. Our findings confirm that, both across individuals within communities and across communities, the decision to hold teachers and school directors accountable *directly* through participation at the school level, and *indirectly* through political participation correlates with cooperativeness in a simple public goods game.

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**KEYWORDS:** accountability; participation; collective action; public good game

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## 1. Introduction

Accountability refers to “the act of holding public officials and service providers answerable for processes and outcomes, and imposing penalties if specified outputs and outcomes are not delivered” (Lewis and Petterson, 2009). Effective accountability requires the establishment of clear rules and responsibilities, monitoring, and actual enforcement of predetermined penalties when rules are not followed and responsibilities are not met. While governments have a central role in setting the rules and responsibilities of public service providers through formal institutional arrangements, monitoring and penalty-enforcement cannot be supplied by the government alone.<sup>1</sup> Problems of conflict of interest and possible collusion between the monitors and the monitored<sup>2</sup> call for a more participatory approach to the problem of accountability, i.e. an approach that directly involves service recipients (see World Bank, 2004).

Under the participatory approach, governments put institutions in place that allow citizens to play an active role in keeping service providers accountable. There are two possible routes to participatory accountability: a long route and a short route (World Bank, 2004). The long route connects recipients of the services and policymakers; in the ideal institutional setting, with well-functioning electoral systems, free from patronage and clientelism, and with perfect information on the standards that public service provision should meet, service recipients hold policymakers accountable for the delivery of public services through the exercise of the vote. However, the ideal setting is hardly ever a reality, especially in less developed countries, where the route between service recipients and policymakers is itself often long and tortuous. Decentralization may shorten the route to a certain extent, but electoral inefficiencies, elite capture and imperfect information may still hinder accountability.<sup>3</sup> In such contexts, the shortest “local” route to accountability, connecting service recipients directly to service providers, may be more viable (World Bank, 2004).

We argue that, although the type and amount of participation required in the short and long routes is different, in both cases an individual’s decision to participate has the characteristics of a collective action problem, i.e., a situation where individuals “face choices in which the maximization of the short-term self-interest yields outcomes leaving all participants worse off than feasible alternatives” (Ostrom, 1998). Individual participation in holding service providers directly to account or in voting involves a private cost. However, individual participation benefits others, as efficacy requires a

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<sup>1</sup> In the words of Paul Collier, “accountability is about restraints on government power and so depends upon the institutions conceded by government under pressure from citizens. Unlike other public goods, accountability cannot be provided by the government alone” (<http://bostonreview.net/BR34.4/collier.php>).

<sup>2</sup> For instance, in Kenya, Kremer and Chen (2001) reported that when headmasters were charged with the duty of monitoring and reporting primary school teacher attendance so that bicycles could be awarded to those with good attendance records, the headmasters indicated that all their teachers had sufficiently good records to deserve a bike, while independent verification revealed otherwise.

<sup>3</sup> See Oates (1972) and Azfar et al. (2001) for general discussion of the possible limitations of decentralization.

significant number of participants; hence, participation has the characteristics of a social dilemma and is likely to be subject to “free-rider” problems (Samuelson, 1954; Olson, 1965; Grossman and Hart, 1980).

In education, reforms aiming to improve accountability by increasing parental participation in schools – also called school-based management reforms – have been and are currently being conducted in a number of places around the world.<sup>4</sup> The few scientific evaluations of their effectiveness have focused on two issues: 1) the institution of participatory mechanisms; and 2) the extent to which parents are aware of such mechanisms. Existing studies (Banerjee et al, 2010; Blimpo and Evans, 2011; Duflo et al., 2011; Pradhan et al. 2011) provide mixed evidence of success,<sup>5</sup> yet the reasons for the contrasting results obtained in different societies are unclear.<sup>6</sup> We argue that variations in the success of participatory interventions could be owing, at least partly, to variations in individuals’ willingness to act cooperatively in collective action problems.<sup>7</sup> Experimental studies employing public goods games have shown that individuals vary markedly in their willingness to cooperate with others for the common good (Isaac and Walker, 1988; Fehr and Gächter, 2000; Fischbacher et al., 2001; Bowles and Gintis, 2002; Fischbacher and Gächter, 2010, among others).<sup>8</sup> Moreover, a few additional experimental studies (Heinrich et al., 2005; Herrmann et al., 2008; Gächter et al., 2012) have highlighted that a significant proportion of the variation in individuals’ willingness to cooperate occurs at the society level.<sup>9</sup>

We investigate whether, both at the individual- and the community-level, willingness to cooperate with others for the common good is associated with willingness to participate in both the short- and the long-route to accountability. We conduct our study in Albania, a country that slowly transitioned

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<sup>4</sup> In practice, school-based management (SBM) programs may or may not give decisional power to the parents. Some programs give parents decisional power over the school budget only; others involve parents also in the choice of the curriculum and textbooks; others give parents responsibilities in the hiring and firing of teachers; others invite parents to participate in the development of a school improvement plan, and possibly in fund-raising, and so on and so forth. School-based management programs may also exclude parents from participating in the decision process. See Wohlstetter and Odden (1992) for a categorization of school-based management models, and Barrera-Osorio et al. (2009) for a comprehensive review of school-based management reforms recently undertaken all over the world.

<sup>5</sup> For mixed evidence not relating to the education sector, see Olken (2007) and Bjorkman and Svensson (2008).

<sup>6</sup> Investigations based on observational rather than experimental data – also called “retrospective studies” – conducted in the US (Houtenville and Conway, 2007) in Argentina (Eskeland and Filmer, 2007), in El Salvador (Jimenez and Sawada, 1999), in Mexico (Gertler et al., 2008; and Skoufias and Shapiro, 2006), among others, all show a significant impact of participatory programs and parental involvement on education outcomes.

<sup>7</sup> This is an important issue that has received little attention in the existing empirical literature. As stated by Platteau (2008), in order for participation to be effective, “community members must be able to use the available information jointly in a way that creates some action, that is, they must be able to come together, share and discuss their knowledge and be ready to act on it” (p. 128).

<sup>8</sup> For comprehensive reviews of the experimental literature relating to behavior in public goods experiments see Ledyard (1995) and Chaudhuri (2011).

<sup>9</sup> One important society characteristic that has been shown to be negatively correlated with individual contributions to a public good (Habyarimana et al. 2007), participation in community activities (Alesina and La Ferrara, 2000), community-based monitoring of public service providers (Bjorkman and Svensson, 2010), and local public good provision (Miguel and Gugerty, 2004) is ethnic fragmentation.

from communism to a parliamentary democracy in the 1990s, and that, like other new democracies in Eastern Europe and the Balkans, is characterized by the lack of an active civil society, owing to policies implemented by former regimes to eliminate groups mediating between the individual and the state or control these groups in order to prevent organized opposition to the regime (Lipset, 1993).<sup>10</sup>

Our analysis is based on a comprehensive survey of 1800 parents and 900 teachers, randomly selected from 180 nationally representative primary schools. Isolating the effect of willingness to cooperate with others in collective action scenarios is empirically challenging. We generate a direct, *experimental* measure of individuals' propensities to cooperate with others in social dilemmas, by involving the parents and teachers in a simplified version of the public goods game first introduced by Cardenas et al. (2009). We then correlate cooperativeness in the game with parents' decision to participate in both the short route to accountability, i.e. the decision to participate in the election of parent class representatives, and the long route to accountability, i.e., the decision to vote in the most recent parliamentary elections. The nature of the survey sampling also allows us to investigate whether and how the distribution of willingness to cooperate varies spatially within Albania.

We found that parents who behaved cooperatively in the public goods game are significantly more likely to have participated in the election of parent class representatives who go on to elect parent representatives to the school board. This relationship remains significant after controlling for the degree to which parents are informed about aspects of local accountability in schools. We also found that parents who behaved cooperatively in the public good game are more likely to (claim that they) have voted in the latest national elections. Our data show significant variation in both participation and cooperativeness across districts. Our district-level analysis confirms that districts characterized by a higher proportion of cooperative parents have a higher degree of participation in school accountability and a higher turnout in the 2009 elections according to official records.

Our results suggest that one important reason why, in some societies more than in others, creating participatory institutions and providing information about the existence and functioning of these institutions might fail to induce participation and bottom-up accountability is that potential participants might be unwilling or unable to overcome collective action problems. Our study also contributes to the literature on the external validity of public goods laboratory experiments by providing evidence of a correlation between behavior within a lab-type public goods game and behavior in naturally occurring decision-contexts within which inter-personal cooperation is also salient. While the public goods game has been shown to correlate with fishermen's productivity when pooling their catches with other fishermen (Carpenter and Seki, 2011), and with their propensity (not) to over-exploit common fishing grounds (Fehr and Leibbrandt, 2011), this is, to the best of our knowledge, the first study providing

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<sup>10</sup> For instance, in Albania religious practices were officially banned in 1967, to be reinstated in the 1990s.

evidence of a correlation between individuals' behavior in the public goods experiment and their willingness to cooperate with others in participatory accountability systems and civic engagement.

The paper is arranged as follows. Section 2 describes the Albanian context focusing, in particular, on the education sector. Section 3 describes the school survey and the public goods experiment. Section 4 presents descriptive statistics about the surveyed parents and explores individual and community characteristics affecting parents' cooperativeness in the public goods game. Section 5 reports our empirical results, and Section 6 provides some conclusions.

## **2. The Albanian context**

### **2.1 A new democracy**

Albania was the last country in Europe to participate in the “third wave of democracy” (Huntington, 1991). Despite the high levels of economic growth experienced during the democratic transition, Albania remains one of the poorest in Europe, with a per capita GDP of 8,000 USD (2010 international PPP \$). Albania's relative underdevelopment has been attributed, in part, to the slowness of its transition to democracy relative to other Eastern European countries. The new constitution, which established that the “sovereignty in the Republic of Albania belongs to the people” (article 2) and that “governance is based on a system of elections that are free, equal, general and periodic” (article 1), was adopted in 1998. Since then, there have been three parliamentary elections – not without controversies concerning electoral fraud, protests and boycotts by the losing party. In each, voter turnout has been around 50%.

Albania's slow transition to democracy has been attributed to the unique characteristics of its communist regime: its isolation from other countries, including the Soviet bloc, for half a century; the elimination of intellectuals (including western-educated Albanians); the abolition of religious practices; and the harsh persecution of opponents to the regime. With the end of communism, a new era began. According to Elbasani (2004), the recently acquired freedom was interpreted and understood by Albanians as the “unhindered pursuit of personal gains at the expense of society and public good”. One of the consequences of the repression of civic organizations during the communist regime is the lack of an active civil society, i.e. formal and informal organizations (with or without political objectives) and voluntary community participation, in the newly formed democracy of Albania.<sup>11</sup> This is consistent with the evidence that totalitarian regimes destroy social capital, however

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<sup>11</sup> According to Talifi (2008), most of the efforts to build a civil society in Albania – primarily undertaken by donor-based NGOs – have relied on awareness campaigns and capacity building, and have emphasized the importance of an informed society and electoral base. The inherent shortcoming of this approach is the assumption that by informing people about

conceptualized, i.e., as the density of individuals' informal networks, the extent of interpersonal trust, the density of voluntary organizations or the extent to which individuals play the cooperative solution in collective action problems (see Paldan and Svendsen, 2000; Rose, 1993; Smolar, 1996).

## 2.2. Spatial differences

Twelve counties and thirty-six districts constitute the territory of Albania. For historical, geographical and cultural reasons the north and the south of the country are substantially different. Historically, northern Albania has been more isolated than the south, relying on a patriarchal tribal system oriented around the institutions of clan and blood feuds. Southern rural communities have had more market-oriented institutions such as agricultural labor markets, because of the historical presence of *latifundia* (large estates) and the hiring of migrating labor. Moreover, the southern region has been culturally more open to change and to the influence of Western values. (Doll, 2003; Shala, 1997; Lawson and Saltmarshe, 2000).<sup>12</sup> The North-South cultural division also reflects a strong political polarization: the Northern regions are traditionally and historically allied to the Democratic Party (in office since 2005) while the Southern regions support the Socialist Party (in office from 1997 to 2005).<sup>13</sup> As shown empirically by Gërzhani and Schram (2000, 2009), Albanian politics is dominated by clientelism and patronage, whereby the party in power favors its own supporting regions over the rest of the country, and voters support their “own” party no matter what.

Besides the north-south distinction, Albania can be further divided in four main geographical areas – Coastal, Centre, Mountain and Tirana – which significantly differ in terms of economy, infrastructure and level of development. The Mountain region, in the north-east of the country, is most remote and poorest; the economy relies mainly on heavy industry, owing to the presence of minerals. Besides Tirana, the most developed areas are found on the coast, where both farming and trade opportunities abound. The central areas rely on light industries (food processing, wood, clothes etc.) and partly on agriculture. Migration from the Mountain region to the Coast and Tirana has increased markedly over the last 15 years, and explains the increasing heterogeneity in the coastal population. Figure 1A in the Appendix shows the north-south divide and the four main geographical areas in Albania.

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democratic and participatory institutions, participation will follow. Talifi (2008) argues that “this approach of civil society has decreased rather than increased public participation in the process, because simply telling people to participate is not a good enough approach to contribute to the democratization of the country”.

<sup>12</sup> The North and the South also differ in the main dialects spoken, i.e. the Gheg in the North and the Tosk in the South.

<sup>13</sup> Since 1997, Albania relies on a proportional voting system. The Democratic Party (DP) and the Socialist Party (SP) are the two dominant parties. In the 2009 elections, the DP obtained 40.18% of votes, all from the Northern regions, and the PD obtained 40.85% of votes, all from the Southern regions.

### 2.3 The education sector

In the years following the transition, there was a sharp decline in the coverage and quality of social services. School enrolment rates dropped and, in some areas, have still not recovered to pre-transition levels. Although 99% of the adult population is literate, the quality of education is low, as shown by Albania's performance in the 2009 Program for International Student Assessment (PISA). More than 50% of 15 years old students found it difficult "to use continuous texts unless the texts are short and clearly sign-posted; and even with such texts, they are unlikely to be able to do more than identify a main idea or find explicitly stated information."<sup>14</sup>

The Ministry of Education and Science (MoES) is the central government body responsible for implementing education policies and managing the education system. This responsibility is exercised by staff in the MoES and in twelve administration entities (REDs) functioning at the county level. The MoES is directly responsible for the development of curricula, the selection of textbooks, the structure of the academic year, setting the pay and workloads of teachers, the allocation of resources among local education institutions, and teacher training (World Bank, 2005). The 12 REDs are responsible for the delivery of primary and secondary education in their respective districts, but they are not decentralized government units. They are responsible for the appointment and transfer of teachers, the distribution of administrative materials to schools, inspections of schools, and planning and supervising the construction of new facilities and the rehabilitation of existing ones. However, the RED directors are appointed by the MoES and have no authority with respect to the amount of funding centrally allocated to their region.

The institutional framework currently in place relies on a system that assigns the task of monitoring teachers and imposing penalties for under-performance to administrative units that are not directly held to account by service recipients, i.e., it relies on top-down accountability.<sup>15</sup> However, the MoES has recently been promoting community engagement in school governance structures through parent committees and school boards. Parent committees are composed of elected parent class representatives, and school boards are composed of two or more (depending on the size of the school) parent representatives, one teacher representative, a student representative, a community representative and a RED representative. Parent class representatives are elected by the parents of pupils in their respective classes at the beginning of the school year. They, then, elect representatives from amongst themselves to the school boards.

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<sup>14</sup> See [http://www.portugal.gov.pt/pt/GC18/Documentos/ME/PISA\\_2009\\_1.pdf](http://www.portugal.gov.pt/pt/GC18/Documentos/ME/PISA_2009_1.pdf)

<sup>15</sup> The existing top-down system seems poor in terms of accountability is functioning poorly. According to our school survey, it is very common for teachers to believe that there are no negative repercussions to bad performance: about 50% indicated that they would not receive a penalty if they underperformed. Moreover, those who thought they would be penalized were unclear with respect to what kind of penalty they would receive.

While school boards have always existed, they have recently been given greater responsibilities for school governance. The main functions of the School Board are to examine and approve (by voting) the school's mid-term and annual plans and the school's annual financial report. The board also has decisional power for the adoption of curricula and textbooks, as well as the school's budget relating to contributions from the community or other donors, or revenues from school activities. School Board members may also discuss problems relating to the performance of teachers, or school directors, following complaints from parents, students, or teachers. Since 2008, the school director is not a member of the school board and, although he/she can still participate in meetings, he/she cannot vote.

- Figure 1 here -

Figure 1 depicts the accountability relationships in (pre-university) education in Albania. Participatory accountability can take the "long route", which connects parents directly to the ruling government and only indirectly to the school, through voting in parliamentary elections. Participatory accountability can also take a shorter route, connecting parents directly to the school through the election of parent class representatives that, in turn, elect parent members to school boards.

### **3. The School Stakeholder Survey**

We conducted the Albania School Stakeholder Survey as part of the World Bank's Accountability for Better Governance Program. The survey was primarily aimed at investigating the role that parents play in the institutional framework within which primary schools currently operate.

#### **3.1 Survey design and implementation**

The data collection took place between October and December 2009 in a representative sample of 180 primary schools, offering grades one to nine. The sampling strategy relied on stratification at the district level; the number of schools randomly selected to participate in the survey in each district depended on the number of pupils attending primary school in that district.<sup>16</sup> For each school, three

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<sup>16</sup> The sample was drawn from the list of all public primary schools in Albania. There are 2691 public basic level schools in Albania, of which 12 percent are located in urban areas. Out of the 2691 primary schools, we defined as "eligible" those schools with five or more pupils in grade three, and ten or more pupils in grade seven. Only 1623 of the 2691 primary schools in the complete list met this eligibility criterion. However, only 9 percent of all Albanian public primary school



and seven students were randomly selected from grades three and six respectively. One teacher of the third graders and four teachers of the seventh graders were randomly selected to participate in the survey together with the parents of the selected pupils. Therefore, in each school we collected data from ten parents and five teachers, leading to total sample sizes of 1800 parents and 900 teachers.<sup>17</sup>

Besides demographics, we collected information about parents' involvement in the school accountability system, i.e. whether they participated in the latest elections of parent class representatives. We also elicited data on the degree to which each parent was informed about the existence of local accountability institutions, and their involvement in other aspects of their children's education, such as the number of meetings with the head teacher in the previous semester and how often they helped their children with homework. In designing the School Stakeholder Survey, we purposely replicated some relevant LSMS questions concerning education and social capital, with the aim to be able to check the extent to which our sample of parents is representative of the Albanian adult population. With respect to social capital, we collected information about: 1) membership in voluntary organizations; 2) participation in any community activity in the past year; 3) number of relatives and close friends among the surveyed parents (a measure of social ties in the community); 4) beliefs about community members' willingness to cooperate with each other in case of a water shortage; 5) a measure of generalized trust.

As part of the survey, all parents and teachers were also involved in three behavioral games. In this paper we focus only on parents' behavior in a dichotomous public goods game.<sup>18</sup> After the games, we collected information about the existing social ties between the experimental participants.

### **3.2 The public goods experiment**

In order to generate a direct measure of individuals' propensities to coordinate and cooperate with others to solve collective action problems, we conducted a public goods experiment. Laboratory experiments facilitate the measurement of individuals' values, beliefs and preferences that cannot be captured in survey data. Experimentally generated measures of individual preferences for cooperation in the context of a public goods game have been shown to correlate with individuals' behavior in

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pupils attend ineligible schools. The list of eligible schools was then divided into 36 strata according to district and either six, four or two schools was randomly sampled from each, the number depending on the number of pupils attending primary school in the district. Since the district of Tirana contained twice the percentage of pupils as well as twice the number of independent eligible schools, it was divided into two strata, Tirana Municipality and Tirana District, leading to a total of 37 strata. In all but two counties, the majority of surveyed schools were located in villages or hamlets with less than 3000 inhabitants. The average number of pupils per school is 327, although this number falls to 200 if we exclude the urban schools.

<sup>17</sup> The MoES assisted in the implementation of the survey by demanding the full cooperation of school directors and teachers in the sampled schools.

<sup>18</sup> For a full description of the Albania School Stakeholder survey and behavioral experiments, see Serra, Barr and Packard (2011).

natural life in a number of contexts. Fehr and Leibbrandt (2011) found that Brazilian fishermen who behaved more selfishly in a public goods game were more likely to over-exploit common fishing grounds. Carpenter and Seki (2011) found that Japanese fishermen's behavior in a public goods game predicted their productivity when pooling their catches with other fishermen.<sup>19</sup>

Public goods games have also been used following randomized interventions to identify changes in individuals' attitudes and preferences. For instance, Fearon, Humphrey and Weinstein (2011) employed a public goods game to assess the impact of a community driven development initiative in Liberia on individuals' ability to overcome collective action problems. Similarly, Attanasio et al. (2009) employed a public goods game to compare individuals' propensities to cooperate with each other in two communities in Colombia, one that had received conditional cash transfers for over two years, and one that had not.

We adapted the binary public goods game of Cardenas et al. (2009) to the Albanian context. All surveyed parents and teachers participated in the experiment on their school premises. Thus, each experimental session included 15 subjects. Each participant was given a voucher and had to decide whether to invest their voucher either in a group account or a private account. If an individual invested in the group account, he/she would get 100 LEK plus 100 LEK multiplied by the number of other participants investing in the group account:<sup>20</sup>

$$E_i^G = 100 + 100N_j^G \quad \text{with } j \neq i$$

where  $E_i^G$  indicates the earnings of individual  $i$  from investing in the group account, and  $N_j^G$  indicates the total number of other participants who invested in the group account. If an individual invested in the private account, he/she would get 500 LEK plus 100 LEK multiplied by the number of other participants investing in the group account:

$$E_i^P = 500 + 100N_j^G \quad \text{with } j \neq i$$

It follows that the marginal per capita return ratio (MPCR) from investing in the group account was set equal to 0.20, and the experimental parameters were such that at least 5 investors in the group account were needed for each investor to earn at least as much as he/she would earn by investing in the private account and all the other participants doing likewise.

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<sup>19</sup> A number of other studies find significant correlations between behavior in laboratory experiments other than the public goods game and behaviour outside the lab. See for instance: Carpenter and Myers (2010); Karlan, 2005; Barr and Serneels, 2009; Serra et al., 2011. For a comprehensive review of studies that find correlations between behavior in laboratory experiments and out-of-the-lab behavior see Camerer (2011).

<sup>20</sup> At the time of the experiment, 1000 LEK corresponded to the daily wage of the average Albanian.

- Figure 2 here -

Figure 2 shows the social dilemma of our experimental participants graphically. The two lines depict the earnings of investors in the group and the private account as a function of the number of participants investing in the group account. The dominant strategy is to invest in the private account, since it yields higher earnings no matter what the others do. Consequently, the Nash equilibrium is that everyone invests in the private account and earns 500 LEK. In stark contrast, in the social optimum everyone invests in the group account and earns 1500 LEK.

Each experimental session was conducted using a large classroom with all fifteen subjects seated at well-spaced desks. A white board was used to explain all possible configurations of individual payoffs conditional on the investment decisions of the other participants.<sup>21</sup> Vouchers were then distributed among participants. Each voucher bore a letter P (for Private Account) and the letter G (for Group Account). Participants were asked to circle the letter corresponding to the account in which they wished to invest their voucher. The game was played only once, and there was no communication among participants. The same experimental protocol was followed in all schools, with the exception of one feature of the design. In half of the schools the investment in the group account was explained by using an example relating to the education sector and in the other half it was explained by using an example relating to farming.<sup>22</sup>

## **4 A first look at the data**

### **4.1 Parent characteristics**

Table 1 summarizes the characteristics of the 1800 parents randomly selected to participate in the 2009 School Stakeholder Survey and the characteristics of the Albanians selected to participate in the 2008 Albanian Living Standards Measurement Survey.<sup>23</sup>

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<sup>21</sup> The field researchers were instructed to spend as much time as needed explaining the rules of the experiment and proceed to the decision-making phase of the experiment only when all the subjects showed a clear understanding of the rules of the games.

<sup>22</sup> See the instructions in Appendix for a full description of the examples employed in both versions of the public goods experiment. As we discuss in the next section, the specific example used does not seem to affect the correlation between individuals' behavior in the public goods game and their voting behavior.

<sup>23</sup> Table A1 in Appendix reports the specific questions used in the two surveys to generate measures of social capital and of parental involvement with their children's education.

- Table 1 here -

Demographics such as years of schooling (for the LSMS data we took the years of education of the adult population) and age are strikingly similar across the two samples, with educational attainment averaging approximately 11 years and an average age of 40 years in the school-level survey and 44 in the household survey. While the LSMS provides a measure of yearly household income, the School Stakeholder Survey does not. Therefore, following Filmer and Pritchett (2001), we constructed an index of household socio-economic status based on parents' answers to 14 questions about ownership of consumer durables, such as washing machines, refrigerators, ovens, cars, and mobile phones. We conducted a principal factor analysis on the answers to the 14 questions;<sup>24</sup> Table 1 reports the resulting first factor, which we refer to as a household wealth indicator.

The second panel of Table 1 reports a number of survey-based measures of social capital. With the exception of membership in formal organizations and generalized trust, our measures of social capital are comparable to those obtained by the 2008 LSMS. Note that only 13% of the parents in our sample think that "most people could be trusted", and on average, only 6% of the surveyed parents are relatives or close friends of each other, although there seems to be quite a large variation in social ties in the different schools. The third panel of Table 2 shows that 76% of the parents help with homework at least once a week (higher than the 54% generated by the LSMS data), and on average parents had 4 meetings with the head teacher in the previous semester, or 8 meetings in a year, as shown by the LSMS data.

## 4.2 Parents' Information and Participation

In the two bottom panels of Table 1, we report measures of the extent to which parents are informed about the existence of local-accountability-related institutions, and the proportion of parents who participated in the most recent election of parent class representatives, which represents the first step toward participatory accountability. 28% of the surveyed parents do not know about the existence of parent class representatives, and 42% are unaware of the existence of the school board. The only comparable question in the LSMS education module refers to parents' information about the existence of parent-teacher associations or "other means for parents to be involved in school activities". The

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<sup>24</sup> Principal factor analysis is a technique used to summarize information contained in a large number of correlated variables into a smaller number of mutually uncorrelated components. The first factor or component is the linear index of all the observed variables that captures the most common variation among them. The first factor or component in our analysis captures 53% of the common variation among the 14 asset variables. One of the assets included in the wealth index is the ownership of a television, which is likely to be particularly important to convey information about the national elections; we found that 98% of the parents own one.

percentage of informed parents (68%) is very close to the percentage of parents informed about the class parent representatives (72%).

As for our measure of parents' participation in the local accountability system, we found that 50% of the surveyed parents participated in the last elections of parent class representatives. Table 2 reports the geographical distribution of parental participation, which ranges from 33% in the Shkoder county to 63% in the Vlore county. Further disaggregation to the district level shows an even greater variation in the proportion of participating parents, ranging from 18% in the Shkoder district to 95% in the Delvine region (See Table 2 in Appendix). The county-level and district-level differences in participation are significant at the 1 per cent level.

- Table 2 here -

### **4.3 Cooperative behavior in the public goods experiment**

Three quarters of the parents invested in the group account rather than the private account in the public goods game. There are only two public goods experiments that are comparable to ours. Cardenas et al. (2009) find that the percentage of contributors to the group account in 6 Latin American capitals ranged between 12.3% in Bogota' to 47.3% in Caracas. In two different neighborhoods in Colombia, Attanasio et al. (2009) find that 6.6% and 33% of the participants invested in the group account.<sup>25</sup> However, the public goods games used in both of these studies involved much smaller MPCRs, 0.10 in Cardenas et al. and 0.08 in Attanasio et al., and require a larger number of contributors to the group account in order for each contributor to earn at least as much as he/she would earn by investing in the private account if all the other participants did likewise, 10 in Cardenas et al. and 13 in Attanasio et al. Therefore, by design, our experiment was likely to generate a higher rate of contribution to the group account.<sup>26</sup> Henrich et al. (2005) show that, in a standard public goods games conducted in 5 small-scale societies, the percentage of "free-riders", i.e. participants who contributed nothing into a public account, ranged from 0 to 5%; however the public good games employed had a much higher MPCR (0.40 or 0.50) and smaller groups (4 or 5 people).<sup>27</sup>

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<sup>25</sup> The authors relate these different percentages to the fact that in the previous two years the latter neighbourhood had been receiving a conditional cash transfer that had a community engagement component.

<sup>26</sup> In choosing the parameters for our game, we were guided by the particular characteristics and historical background of Albania. In the fear of finding a too low level of contributions to the group account, we designed the game so that coordination among participants would not be as difficult as in previously employed versions of the dichotomous public goods experiment.

<sup>27</sup> Cardenas and Carpenter (2008) review studies employing public goods experiments in the field, and report that average contribution range from 33% of endowment in Chile (Heinrich and Smith, 2004) to 81% in Peru (Karlan, 2005).

- Table 3 here -

Table 3 shows the percentages of parents investing in the group account in the 12 counties, ranging from 61% in Fier to 88% in Gjirokaster. A Chi-squared test shows that the between-county differences are statistically significant at the 1 per cent level. At the district level, the variation in the percentage of cooperating parents is even more striking, ranging from 47% in the district of Lushnje to 95% in the district of Delvine (see Table A2 in Appendix). The differences in cooperating behavior across districts are statistically significant at the 1 per cent level.<sup>28</sup> A linear probability model employing only the district dummies as explanatory variables shows that the 36 districts account for 6 per cent of the variation in individual cooperativeness in the game, and for 25 per cent of the variation in cooperativeness across schools.

One important community characteristic that has been shown to affect individual contributions to public goods (Habyarimana et al. 2007), and participation in community activities (Alesina and La Ferrara, 2000) is ethnic fragmentation. Albania is ethnically homogenous; however, as discussed in Section 2.2, there seems to be significant cultural and linguistic differences between the north and the south of the country. The more isolated north, which used to rely on a patriarchal tribal system oriented around the institutions of clan and blood feuds, is characterized by a lower percentages of cooperating parents as compared to the south (73% vs. 76%) although the difference is not statistically significant ( $p = 0.22$ ). Comparing cooperation in the four main geographical areas of Tirana, the Coast, the Centre and the Mountain shows that parental cooperation in the game is significantly lower in the coastal area. One reason might be the recent flow of migrants from the Mountain to the Coastal area, and the consequently growing linguistic and cultural fragmentation in the region. Finally, while Albania is a prevalently Muslim country, a significant number of followers of other religions (Orthodox and Catholic Christianity) exist.<sup>29</sup> Based on the LSMS data, we constructed a district-level proxy for religious heterogeneity, i.e., a dummy equal to 1 if in the district there is no religion whose followers constitute more than 90 per cent of the population, and 0 otherwise. About 60 per cent of the districts are religiously heterogeneous, and the percentage of cooperating parents in these districts is 73 per cent, against 78 per cent in the homogenous districts; the difference is significant at the 5 per cent level.

In Table 4, we conduct probit regressions on individuals' decisions to invest in the group account in the game. We report marginal effects for continuous explanatory variables and the effect of a

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<sup>28</sup> The public good game was played also by 5 teachers. The behavior of teachers is remarkably similar to that of parents, with 76% of teachers investing in the group account, and variations among counties and districts being highly statistically significant. Given the focus of the paper on participatory accountability, here we focus only on the behavior of parents.

<sup>29</sup> In three districts the majority of the population is Catholic, and in one region the majority is Orthodox.

change from 0 to 1 for dichotomous explanatory variables. In column 1 we control for demographics, and in column 2 we add individual measures of social capital. Given the significant differences in behavior across districts, in column we add community characteristics generated by the school survey and the LSMS. Finally, in column 5 we add dummies for the Coastal, the Mountain, the Central and Tirana geographical areas.

- Table 4 here -

The estimates in Table 4 show that wealthier individuals are more likely to invest in the group account, whereas no significant differences based on age, gender and education exist. Among the social capital measures, the number of relatives in the session increases cooperation in the game. This is not surprising, as the number of relatives among other participants is likely to affect one's beliefs about others' willingness to cooperate. This is consistent with altruism,<sup>30</sup> amplified by conditional cooperation,<sup>31</sup> being stronger within families. The fact that the presence of "friends" in the session does not have a similar effect confirms that Albania is a close-knit, family oriented society.

Table 4 columns 3 and 5 indicate that religious heterogeneity significantly reduces parents' cooperativeness in the game. However, the religious heterogeneity dummy becomes insignificant ( $p = 0.101$ ) when including the northern region dummy in the specification. This is because there is more religious heterogeneity in the north than in the south. Column 5, where we exclude the northern dummy, confirms that parents seem to behave less cooperatively in the coastal region.

## 5 Results

In this section, we first present results from individual-level regression analysis concerning the relationship between individuals' cooperativeness and the short and the long routes to accountability, and then turn to district-level analysis.

### 5.1 Individual-level analysis

#### *The short route to accountability*

We estimate individual-level probit regressions where the dependent variable is a dummy equal to 1 if the parent participated in the latest elections of parent class representatives, and zero otherwise.

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<sup>30</sup> See Andreoni (1990).

<sup>31</sup> See Fischbacher et al. (2001).

Table 5 reports marginal effects for continuous explanatory variables and the effect of a change from 0 to 1 for dichotomous explanatory variables. In all regressions, we employ district fixed effects and we control for the four geographical areas identifying different economic realities within the Albanian territory. Finally, in all regressions we cluster the standard errors at the school level. The district dummies and the geographical area dummies are particularly important given the significant differences in behavior in the public goods game across districts identified in the previous section.

- Table 5 here -

In column 1 of Table 5 we do not include any controls beside the geographical area dummies. In column 2 we control for standard demographics, the urban or rural location of the surveyed school, and the distance of the parent's house from the school. In column 3 we add survey-based measures of social capital. Finally, in column 4 we add measures of parents' involvement with their children's education.

The estimates in all columns show a strong and robust correlation between parents' decisions to invest in the group account in the public goods game and their participation in the elections of parent class representatives. Among the other determinants of participation, Table 5 shows that both years of schooling and household wealth increase the likelihood that a parent participates in the elections, whereas the rural location of the school lowers such likelihood. With respect to the survey-based measures of social capital, it seems that, as expected, parents who participated in community activities and parents that are better connected with other parents are more likely to participate in the elections. In contrast, parents who think that "most people can be trusted" are less likely to participate in the school accountability system. This might be because they trust that others will make the right decisions, and/or because they trust that teachers and school director act in the best interest of the pupils and therefore they do not recognize the benefits of parents' involvement in the accountability process. The extent of parents' involvement in their children's education, as measured by the number of meetings with the head teacher in the previous semester, also matters.

One important factor, which we left out from the specifications employed in Table 5, is the extent to which parents are informed about the elections of parent class representatives. From the survey, we know whether parents are aware of the existence of both parent class representatives and school boards. Since being unaware of the existence of parent class representatives precludes participation in their election, we cannot control for this variable in our probit models. We address this problem in two ways. First, we estimate a linear probability model including parents' information about parent class



representatives. Second, we restrict the sample to parents who are informed about the existence of parent class representatives.

- Table 6 here -

Columns 1 and 2 of Table 6 show that, while, as expected, information is a determining factor of parents' participation, parents' willingness to cooperate with others in the public goods experiment remains a predictor of participation in the election of parent class representatives. This result is robust to restricting the sample to the informed parents. The estimated coefficient becomes smaller as compared to the estimates displayed in column 4 of Table 6, but it retains statistical significance at the 10% level, with a p-value of 0.057.<sup>32</sup> The smaller and less significant coefficient within the informed sample, suggests that those who invested in the group account were also more likely to select into the informed group.

#### *The long route to accountability*

In this subsection, we turn our attention to the long route to accountability, i.e., citizens' willingness and ability to hold public officials accountable through the instrument of the vote in parliamentary elections. We asked parents whether they voted in the most recent (2009) parliamentary election and we also collected data on district-level voter turnout from official records. Here, we investigate whether parents who invested in the group account in the public goods game are more likely to have voted.<sup>33</sup> According to our School Stakeholder Survey, 93% of the parents voted in the 2009 parliamentary elections, whereas official records show that turnout was only 51%. Given this discrepancy, we investigate whether parents' behavior in the game correlates with turning out to vote both at the individual level using self-reported turnout and at the district level using official turnout figures. The district level analysis is reported in the next subsection of the paper.

In Table 7, we report estimated coefficients from individual-level probit regressions where the dependent variable is a dummy equal to one if the parent stated that he/she voted in the 2009 parliamentary elections and zero otherwise. We employ the specifications used when analyzing the short route to accountability, in Tables 5 and 6. The only differences is that, owing to limited within

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<sup>32</sup> Table A3 in Appendix shows that the frame used in the example employed to explain the public goods game does not affect the predictive power of the behavior in the game.

<sup>33</sup> Our investigation here relates to the literature on voting. While the first theoretical investigations suggested that voting is an irrational act because the expected benefit of voting – i.e. the probability that one's vote is pivotal times the differential benefit generated by the preferred electoral outcome – is lower than the cost of voting (Downs, 1957), later studies (see Palfrey and Rosenthal, 1983, 1985) argued that the decision to go to vote has the characteristics of a 'participation game'. Given that the electoral outcome itself is non-excludable and non-rival and the act of voting involves a private cost, turning out to vote also has the characteristics of a collective action problem (Palfrey and Rosenthal, 1983, 1985).

district variation in self-reported votes, we are unable to employ district fixed effects without losing a substantial number of observations. This is why in columns 2 to 4 of Table 7 we employ county fixed effects instead. We acknowledge that our set of controls is likely to be missing important explanatory variables, such as the extent of individual information about the parliamentary elections and the candidates, as well as the degree of exposure to electoral campaigns. The county fixed effects allow us to at least partially address geographical differences in information, campaigns and political alliances.

- Table 7 here -

Our experimental measure of cooperativeness is highly statistically significant and robust to changes in the empirical specification. The estimates indicate that parents who invested in the group account in the game are about 4% more likely to have voted in the most recent parliamentary elections. Older and wealthier parents are also more likely to have voted. Expectations of general cooperative tendencies within one's communities seem to increase the likelihood of political participation, whereas general trust in others seems to have the opposite effect on turnout. This is similar to the results obtained for participation at the school level. The measures of parental involvement with their children's education do not seem to affect the decision to vote; this suggests that participating in parliamentary elections represents a (maybe too) long route to holding teachers and school directors accountable.

## 5.2 District-level analysis

In this section we investigate whether both parental participation in school accountability and participation in the 2009 parliamentary elections are higher in districts characterized by a higher fraction of individuals willing or able to cooperate with each other in collective action situations.

### *The short route to accountability*

We aggregate parents' decisions to invest in the group account in the public good game and parents' decision to participate in the election of parent class representatives at the district level, and investigate their correlation while controlling for district characteristics generated by the 2008 LSMS Albanian household survey.<sup>34</sup> The sample size is therefore reduced to 36 observations (i.e. the number of Albanian districts).

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<sup>34</sup> The 2008 LSMS is the third household survey conducted by the Albanian National Statistics Office with the technical assistance of the World Bank. The LSMS sampling relies on a stratification scheme based on four regions: Coastal Area,

- Table 8 here -

Table 8 reports estimates from OLS regressions where the dependent variable is the proportion of parents who participated in the school accountability system in a district, and the explanatory variable of interest is the proportion of parents who behaved cooperatively in the game. We control for the average income and average years of schooling in the district (column 2), district-level measures of social capital (column 3), and other district characteristics (column 4) discussed in previous section, i.e. religious heterogeneity, a northern region dummy, four geographical area dummies, whether or not the district is prevalently Muslim, and the standard deviation of income within the district. In all regressions we employ county fixed effects.

Table 8 indicates that more “cooperative” districts are characterized by a higher parental participation in the school accountability system, although, as expected given the restricted degrees of freedom, the level of significance of the correlation is lower than in the individual-level regressions.

#### *The long route to accountability*

In Table 9 we employ district-level official records of turnout in the 2009 parliamentary elections as our dependent variable. We use the same empirical specifications as in Table 8.

- Table 9 here –

The estimates show a highly significant correlation between district-level cooperativeness in the public goods game, and voter turnout in the parliamentary elections. The correlation is robust to the inclusion of the district-level controls generated by the 2008 LSMS survey. The estimated coefficient indicates that a one standard deviation increase in the proportion of cooperating parents in a district is associated, *ceteris paribus*, with a 2 percentage point increase in participation in the elections.

Table 9 also indicates that turnout is higher in districts where more citizens belong to social organizations, and in the northern region, which as previously discussed is traditionally allied to the Democratic party that won the 2009 elections. Consistent with the literature, the estimates also suggest that participation in parliamentary elections is lower in districts characterized by religious heterogeneity.

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Central Area, Mountain Area, and Tirana; and included 450 Primary Sampling Units (PSUs) and 8 households in each PSU, for a total of 3600 households. The sampling is designed to be representative of Albania as a whole. The survey provides information about household characteristics, including demographics, education, as well as measures of social capital. Finally, we also collected data, from official records, on district-level voter turnout in the 2009 parliamentary elections.

## 6 Conclusions

There is growing consensus that parents' participation in school accountability systems is a necessary condition to ensure accountability of teachers and school directors, especially in contexts where top-down accountability is missing or inefficient. The current debate on how to induce effective parental participation has highlighted the importance of the adoption of participatory mechanisms by schools, and the diffusion of information among parents about the existence of such mechanisms. However, the evidence on the effectiveness of introducing participatory mechanisms and informing parents is mixed, and the reason why similar interventions produce contrasting results in different settings is unclear. As pointed out by Bardhan (2005), the identification of average treatment effects does not make it possible to identify "the mechanisms through which certain outcomes are generated (the "why" and the "how") and the social dynamics that are involved". An understanding of these mechanisms is necessary if we wish to make predictions about where interventions designed to enhance participation will work and where they will fail.

We argued that the decision to participate is a social dilemma; therefore, the effectiveness of any intervention aimed at increasing participation is likely to be conditional upon individuals' willingness and ability to overcome collective action problems. Economic experiments employing the public goods game have generated a considerable body of evidence that individuals vary markedly in their willingness to cooperate and that a significant portion of the variation occurs at the society-level. This suggests that the strength of the relationship between a given intervention and participatory outcomes is likely to be moderated by a variety of individual-level attributes and community-level formal and informal institutions affecting people's willingness to cooperate with others in collective action situations.<sup>35</sup>

In this paper, we investigated whether both at the individual- and community-level willingness to cooperate with others for the common good is associated with willingness to participate both in the short route and the long route to accountability. We conducted a comprehensive survey of 1800 randomly selected parents of children enrolled in 180 nationally representative Albanian schools. In order to isolate the effect of individuals' willingness to cooperate with others in collective action scenarios, we involved all the surveyed parents and teachers in a simple public goods game. At the individual-level, we tested whether parents who behaved cooperatively in the game were more likely to have participated in the most recent elections of parent class (i.e., the short route to accountability) and in the most recent parliamentary elections (i.e., the long route). At the community-level, we tested whether districts characterized by more cooperative parents have higher participation in school

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<sup>35</sup> See Preacher et al. (2007) for a discussion of "moderated mediation effects." See Bjorkman and Svensson (2011) for an example of how social heterogeneity within a country can lead to heterogeneous treatment effects.

accountability and higher voter turnout (based on official records), while controlling for district characteristics generated by the most recent LSMS household survey.

Our empirical results show that cooperative parents are significantly more likely to participate in the elections of parent class representatives. This relationship remains significant after controlling for a range of variables including the degree to which parents are informed about the presence of local accountability institutions and district fixed effects. We also found that parents who behaved cooperatively in the public good game were more likely to self-report voting in the latest national elections. The district-level analysis indicates that districts characterized by a higher proportion of cooperative parents have a higher degree of participation in school accountability and a higher turnout in the 2009 elections, according to official records. So, both across individuals within districts and across districts participation in accountability systems, short and long, is associated with a willingness to cooperate.

Our contribution to the literature is twofold. First, we provide evidence of important yet heretofore overlooked behavioral mechanisms that could prevent or limit the effectiveness of accountability institutions. Second, we provide evidence of the external validity of the public good game.

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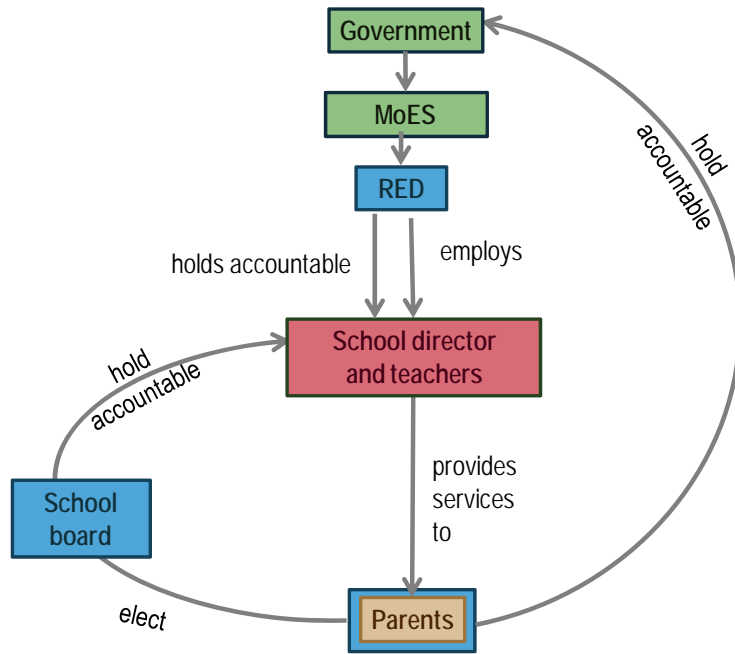
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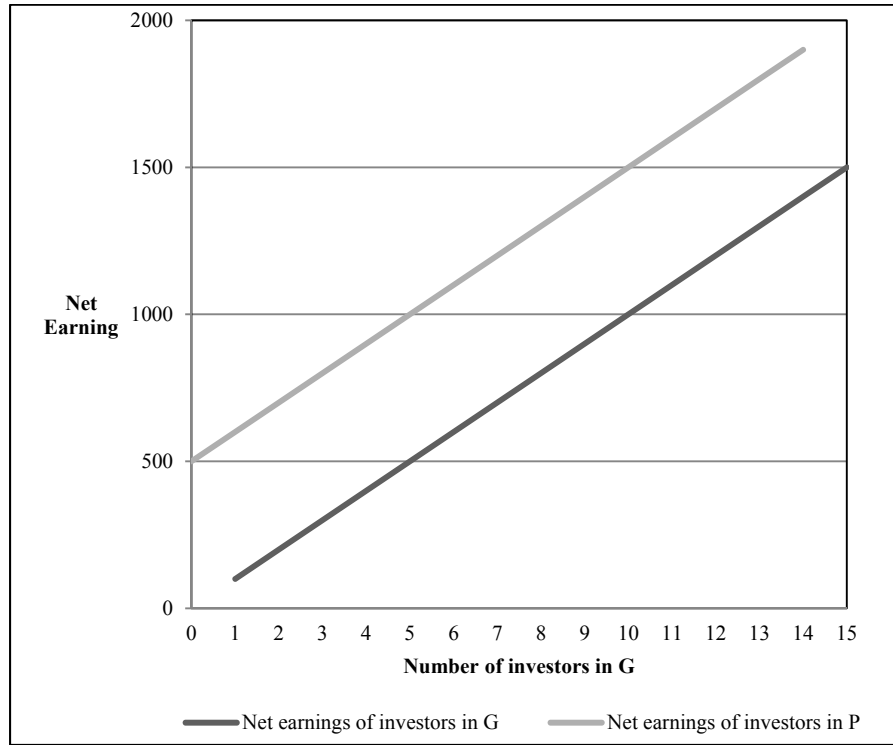
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**Figure 1**  
**Accountability Relationships in the Education Sector**



**Figure 2**  
**The Social Dilemma**



**Table 1**  
**Individual Characteristics**

	School Stakeholder Survey		2008 LSMS	
	Mean	SD	Mean	SD
<b>Demographics</b>				
Average years of education	10.98	3.25	10.73	3.36
Average age	40.17	6.39	44.22	17.58
Wealth indicator	0.00	0.92	n.a.	n.a.
Household yearly income (in 000LEK)	n.a.	n.a.	385	1,894
<b>Survey-based measures of social capital</b>				
Belongs to an organization (church, political group, sport etc.)	0.02	0.15	0.24	0.75
Participated in any community activity in the past year	0.15	0.35	0.11	0.31
Thinks village members would cooperate in the case of water shortage	0.72	0.45	0.64	0.48
Think that “most people can be trusted”	0.13	0.34	0.27	0.17
% of relatives or friends among other parents	0.06	0.90	n.a.	n.a.
<b>Involvement with the pupil’s education:</b>				
Help with homework at least once a week	0.76	0.43	0.54	0.50
Number of meetings with head teacher in the previous semester	4.52	3.3	n.a.	n.a.
Number of visits to the child's school in the previous year	n.a.	n.a.	8.73	3.39
<b>Information about participatory accountability institutions:</b>				
Knows about the existence of parent class representatives	0.72	0.45	n.a.	n.a.
Knows about the existence of the school board	0.58	0.49	n.a.	n.a.
Knows about the existence of participatory accountability institutions at the school level	n.a.	n.a.	0.68	0.47
<b>Participation in the last elections of parent class representatives</b>	0.50	0.50	n.a.	n.a.

**Table 2**  
**Parental participation in the “short-route” by county**

<b>Participation in the elections of parent class representatives in 2009</b>	
<b>Total</b>	<b>0.50</b>
<b>County</b>	
Vlore	0.63
Berat	0.58
Diber	0.58
Fier	0.57
Kukes	0.56
Lezhe	0.50
Tirane	0.50
Durres	0.48
Gjirokaster	0.47
Korce	0.46
Elbasan	0.42
Shkoder	0.33
Data source:	<i>School Stakeholder Survey</i>

**Table 3**  
**Parents’ investment in the group account by county**

<b>% of parents investing in the group account</b>	
<b>Full sample</b>	<b>0.75</b>
<b>Counties</b>	
Gjirokaster	0.88
Korce	0.87
Kukes	0.84
Vlore	0.79
Diber	0.76
Elbasan	0.76
Tirane	0.74
Shkoder	0.71
Berat	0.69
Durres	0.69
Lezhe	0.68
Fier	0.61
Data source:	<i>School Stakeholder Survey</i>

**Table 4**  
**Determinants of cooperativeness in the public good game**

	<b>Dependent variable:</b> Dummy equal to 1 if parent invested in the group account, 0 otherwise					
	Probit (1)	Probit (2)	Probit (3)	Probit (4)	Probit (5)	Probit (6)
Age	-0.000 (0.927)	-0.000 (0.807)	-0.000 (0.813)	-0.000 (0.866)	-0.000 (0.813)	-0.001 (0.692)
Female	-0.012 (0.584)	-0.010 (0.659)	-0.003 (0.886)	-0.006 (0.793)	-0.000 (0.991)	-0.003 (0.886)
Wealth index	0.019 (0.219)	0.022 (0.152)	0.028* (0.053)	0.026* (0.083)	0.030** (0.037)	0.022 (0.110)
Years of schooling	0.003 (0.375)	0.004 (0.304)	0.003 (0.356)	0.004 (0.304)	0.004 (0.324)	0.002 (0.564)
Member of a social organization		-0.040 (0.611)	-0.046 (0.565)	-0.047 (0.555)	-0.048 (0.550)	-0.035 (0.648)
Participated in community activities		-0.033 (0.293)	-0.035 (0.266)	-0.033 (0.287)	-0.035 (0.267)	-0.038 (0.236)
Generalized trust		0.021 (0.541)	0.020 (0.557)	0.021 (0.542)	0.024 (0.473)	-0.002 (0.962)
Thinks village members would work together		-0.002 (0.827)	-0.003 (0.790)	-0.004 (0.727)	-0.003 (0.750)	-0.000 (0.987)
N. of good friends among parents		0.007 (0.509)	0.004 (0.680)	0.006 (0.552)	0.001 (0.883)	-0.003 (0.726)
N. of relatives among parents		0.062** (0.026)	0.060** (0.029)	0.062** (0.023)	0.053** (0.047)	0.047 (0.101)
Rural area			-0.029 (0.411)	-0.031 (0.384)	-0.018 (0.611)	-0.021 (0.537)
Standard deviation of wealth (school-level)			-0.096 (0.121)	-0.096 (0.126)	-0.079 (0.204)	-0.075 (0.213)
Religious heterogeneity (district-level)			-0.055* (0.078)	-0.052 (0.101)	-0.062* (0.081)	
Northern region				-0.029 (0.410)		
Coastal area					0.081** (0.029)	
Tirana area					0.074 (0.171)	
Mountain area					0.038 (0.439)	
District fixed effects	No	No	No	No	No	Yes
<i>Joint significance of geographical areas (p-value)</i>	-	-	-	-	0.142	-
<i>Joint significance of district f.e.(p-value)</i>	-	-	-	-	-	0.000
Observations	1,800	1,800	1,800	1,800	1,800	

Note: Robust standard errors have been clustered at the school level. P values in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. We report marginal effects of continuous variables and the effect of a change from 0 to 1 for dichotomous variables. In all regressions we control for the four geographical areas dummy variables; Tirana is the excluded geographical area.

**Table 5**

**Cooperativeness and the short route to accountability (individual-level)**

	<b>Dependent variable:</b>			
	Dummy equal to 1 if parent participated in the elections of the class parent representatives, 0 otherwise			
	Probit (1)	Probit (2)	Probit (3)	Probit (4)
<b>Invested in group account in the game</b>	0.09*** (0.005)	0.078** (0.023)	0.084** (0.013)	0.083** (0.014)
Age		0.003 (0.144)	0.003 (0.163)	0.003 (0.147)
Female		0.047 (0.132)	0.068** (0.025)	0.063** (0.037)
Wealth index		0.054*** (0.001)	0.047*** (0.004)	0.044*** (0.008)
Years of schooling		0.031*** (0.000)	0.028*** (0.000)	0.027*** (0.000)
Rural location		-0.071* (0.067)	-0.084** (0.033)	-0.079** (0.045)
Distance from school (Km)		-0.002 (0.801)	-0.001 (0.885)	-0.002 (0.807)
Member of a social organization			0.182** (0.021)	0.173** (0.035)
Participated in community activities			0.131*** (0.001)	0.127*** (0.001)
Thinks village members would work together			0.049* (0.096)	0.046 (0.111)
Generalized trust			-0.127*** (0.003)	-0.133*** (0.002)
% of relatives and friends among other parents			0.161 (0.103)	0.171* (0.083)
Help pupil with homework				0.008 (0.813)
Number of meetings with head teacher				0.015*** (0.001)
District fixed effects	YES	YES	YES	YES
<i>Joint significance of district f.e.(p-value)</i>	0.000	0.000	0.000	0.000
Geographical areas dummies	YES	YES	YES	YES
<i>Joint significance of geographical areas (p-value)</i>	0.720	0.479	0.974	0.966
Observations	1,800	1,800	1,800	1,800

Note: Robust standard errors have been clustered at the school level. P values in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. We report marginal effects of continuous variables and the effect of a change from 0 to 1 for dichotomous variables. In all regressions we control for the four geographical areas dummy variables; Tirana is the excluded geographical area.



**Table 6**  
**Cooperativeness and the short route to accountability**  
**Controlling for information**

	<b>Dependent variable:</b> Dummy equal to 1 if the parent voted in the elections of class parent representatives, 0 otherwise	
	Linear probability model (1)	Probit (2)
<b>Invested in group account in the game</b>	0.04* (0.065)	0.07* (0.059)
Age	0.00 (0.395)	0.00 (0.390)
Female	0.03 (0.136)	0.03 (0.280)
Wealth index	0.01 (0.281)	0.02 (0.312)
Years of schooling	0.02*** (0.000)	0.02*** (0.000)
Rural location	-0.02 (0.415)	-0.02 (0.485)
Distance from school (Km)	-0.00 (0.591)	-0.00 (0.662)
Member of a social organization	0.06 (0.275)	0.09 (0.252)
Participated in community activities	0.06** (0.033)	0.07* (0.061)
Thinks village members would work together	0.05** (0.033)	0.08** (0.026)
Generalized trust in others	-0.02 (0.493)	-0.04 (0.428)
% of relatives and friends among other parents	0.05 (0.482)	0.07 (0.435)
Help pupil with homework	-0.00 (0.994)	0.00 (0.972)
Number of meetings with head teacher	0.01** (0.045)	0.01* (0.071)
Informed about parent class representatives	0.63*** (0.000)	
Constant	-0.20* (0.057)	
District fixed effects	YES	YES
<i>Joint significance of district f.e.(p-value)</i>	<i>0.000</i>	<i>0.000</i>
Geographical areas dummies	YES	YES
<i>Joint significance of geographical areas(p-value)</i>	<i>0.942</i>	<i>0.577</i>
Observations	1,800	1,302

Note: Robust standard errors have been clustered at the school level. P values in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. In Column 2, we report marginal effects of continuous variables and the effect of a change from 0 to 1 for dichotomous variables. In all regressions we control for the four geographical areas dummy variables; Tirana is the excluded geographical area.

**Table 7**  
**Cooperativeness and the long-route to accountability (self-reported)**

	<b>Dependent variable:</b> Dummy equal to 1 if parent participated in the 2009 national elections, 0 otherwise			
	Probit (1)	Probit (2)	Probit (3)	Probit (4)
<b>Invested in group account in the game</b>	0.05*** (0.001)	0.042*** (0.001)	0.042*** (0.000)	0.042*** (0.000)
Age		0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)
Female		0.009 (0.434)	0.012 (0.259)	0.012 (0.261)
Wealth index		0.017** (0.024)	0.015** (0.027)	0.015** (0.029)
Years of schooling		0.003 (0.135)	0.002 (0.226)	0.002 (0.308)
Rural location		0.014 (0.283)	0.015 (0.264)	0.015 (0.229)
Distance from school (Km)		-0.004 (0.275)	-0.003 (0.312)	-0.003 (0.302)
Belongs to an organization			--	--
Participated in community activities			0.018 (0.244)	0.017 (0.269)
Thinks village members would work together			0.013*** (0.010)	0.012** (0.015)
Generalized trust			-0.027* (0.091)	-0.027* (0.077)
% of relatives and friends among other parents			0.005 (0.167)	0.005 (0.158)
Help pupil with homework				0.018 (0.139)
Number of meetings with head teacher				0.002 (0.158)
District fixed effects	YES	NO	NO	NO
<i>Joint significance of district f.e. (p-value)</i>	0.000	-	-	-
Geographical areas dummies	YES	YES	YES	YES
<i>Joint significance of geographical areas dummies (p-value)</i>	0.001	0.434	0.510	0.488
Region fixed effects	NO	YES	YES	YES
<i>Joint significance of county f.e. (p-value)</i>	-	0.000	0.000	0.000
Observations	1,480	1,800	1,800	1,800

Note: Robust standard errors have been clustered at the district level. P-values in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. We report marginal effects of continuous variables and the effect of a change from 0 to 1 for dichotomous variables. In all regressions we control for three geographical areas dummy variables: coastal, center and mountain areas; Tirana is the excluded geographical area.

**Table 8**  
**Cooperativeness and the short-route of accountability (district-level)**

	<b>Dependent Variable</b>			
	District-level percentage of parents who participated in the school accountability system in a district (School Survey)			
	OLS (1)	OLS (2)	OLS (3)	OLS (4)
<b>% parents investing in the group account in the district</b>	0.57*	0.58*	0.75**	0.68*
	(0.056)	(0.074)	(0.033)	(0.089)
In of household income (LSMS)		-0.01 (0.897)	-0.02 (0.756)	-0.16 (0.364)
Average years of schooling of the adult population (LSMS)		-0.01 (0.874)	-0.02 (0.639)	-0.01 (0.734)
% people who belong to a social organization (LSMS)			-0.02 (0.925)	0.03 (0.884)
% people who participate in community activities (LSMS)			0.13 (0.484)	0.02 (0.927)
Average perception of village members' willingness to work together (LSMS)			-0.14**	-0.15**
			(0.030)	(0.041)
% of people "trusting others" (LSMS)			0.06 (0.760)	0.16 (0.498)
Religious heterogeneity (LSMS)				0.00 (0.331)
Standard Deviation of household income (LSMS)				-0.04 (0.673)
Prevalently Muslim				-0.03 (0.720)
Northern region				0.04 (0.785)
Constant	0.38 (0.228)	0.54 (0.502)	1.07 (0.179)	2.96 (0.186)
County fixed effects	YES	YES	YES	YES
<i>Joint significance of county f.e. (p-value)</i>	<i>0.181</i>	<i>0.304</i>	<i>0.312</i>	<i>0.374</i>
Geographical areas dummies	YES	YES	YES	YES
<i>Joint significance of geographical areas (p-value)</i>	<i>0.112</i>	<i>0.164</i>	<i>0.049</i>	<i>0.080</i>
Observations	36	36	36	36

P values in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. In all OLS regressions, we control for the geographical areas dummy variables: coastal, center and mountain areas; Tirana is the excluded geographical area.

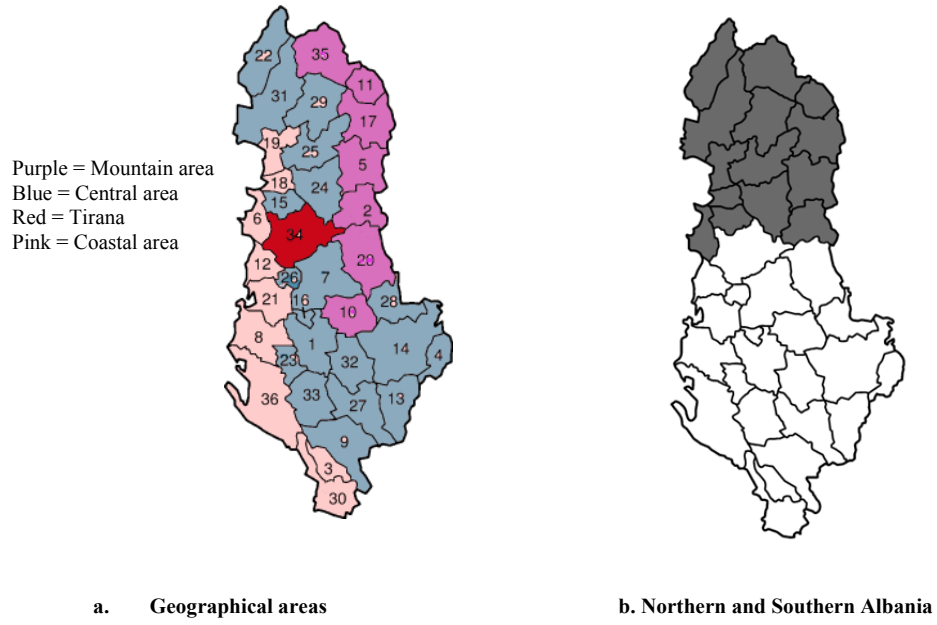
**Table 9**  
**Cooperativeness and the long-route of accountability (official records)**

	<b>Dependent Variable</b>			
	District-level percentage of citizens who voted in the 2009 parliamentary elections (official records)			
	OLS (1)	OLS (2)	OLS (3)	OLS (4)
<b>% parents investing in the group account in the district</b>	0.11 (0.133)	0.16** (0.033)	0.16** (0.033)	0.17** (0.016)
ln of household income (LSMS)		-0.03** (0.033)	-0.04*** (0.007)	-0.02 (0.533)
Average years of schooling of the adult population (LSMS)		-0.00 (0.882)	0.00 (0.619)	0.00 (0.663)
% people who belong to a social organization (LSMS)			0.08** (0.046)	0.06* (0.082)
% people who participate in community activities (LSMS)			0.04 (0.324)	-0.00 (0.933)
Average perception of village members' willingness to work together (LSMS)			-0.02* (0.090)	-0.03** (0.024)
% of people "trusting others" (LSMS)			0.01 (0.766)	0.02 (0.517)
Standard Deviation of household income (LSMS)				-0.00 (0.857)
Prevalently Muslim				-0.02 (0.177)
Religious heterogeneity (LSMS)				-0.04** (0.014)
Northern region				0.06** (0.027)
Constant	0.47*** (0.000)	0.83*** (0.000)	0.90*** (0.000)	0.76** (0.046)
County fixed effects	YES	YES	YES	YES
<i>Joint significance of county f.e. (p-value)</i>	<i>0.000</i>	<i>0.001</i>	<i>0.002</i>	<i>0.002</i>
Geographical areas dummies	YES	YES	YES	YES
<i>Joint significance of geographical areas (p-value)</i>	<i>0.030</i>	<i>0.012</i>	<i>0.005</i>	<i>0.001</i>
Observations	36	36	36	36

P values in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. In all OLS regressions, we control for three geographical areas dummy variables: coastal, center and mountain areas; Tirana is the excluded geographical area.

# APPENDIX

Figure 1A



**Table A1**

Survey Question	2009 School Stakeholder Survey	2008 LSMS
<b>Measures of social capital</b>		
Do you belong to any social clubs, community-based organizations, economic organizations (such as microfinance groups), churches, mosques, or other social group in the community?	✓	✓
In the past year, did you or any in your household participate in any communal activities, in which people came together to do some work for the benefit of the community?	✓	✓
If there was a water supply problem, how likely is that people will cooperate to try to solve the problem? (1-5 Likert scale)	✓	✓
In general, do you believe that most people can be trusted, or do you think that you can't be too careful?	✓	✓
<b>Measures of parental involvement in education</b>		
In the last 2 weeks, how often have you or another adult in the household helped your child/children with homework?	✓	✓
How many times, in the last semester (January-May 2009), did you participate in these meetings to talk about [name]'s performance with his/her head teacher?	✓	✗
In the past year how many times have you visited the school to have meetings with school principal, teachers, or the school board?	✗	✓
Did you participate in this most recent election of Parents' Representatives in [child's name]'s class?	✓	✗

**Table A2****Parental participation in schools and cooperation in the game by district**

<b>District</b>	<b>% participating parents</b>	<b>% cooperating parents</b>	<b>District</b>	<b>% participating parents</b>	<b>% cooperating parents</b>
Delvine	75%	95%	Pogradec	53%	88%
Mat	70%	88%	Bulqize	50%	58%
Has	68%	85%	Gjirokaster	48%	90%
Fier	67%	67%	Mirdite	48%	68%
Kukes	67%	80%	Puke	48%	73%
Kurbin	67%	70%	Tepelene	48%	98%
Tirane	66%	76%	Kolonje	45%	90%
Kruje	62%	70%	Permet	45%	78%
Mallakaster	60%	75%	Lushnje	43%	47%
Sarande	60%	63%	Lezhe	35%	67%
Gramsh	58%	68%	M.Madhe	33%	83%
Kucove	58%	63%	Tropoje	33%	88%
Skrapar	58%	75%	Durres	33%	68%
Berat	58%	68%	Kavaje	33%	70%
Librazhd	58%	78%	Korce	32%	78%
Devoll	55%	95%	Peqin	28%	80%
Diber	55%	80%	Elbasan	25%	77%
Vlore	55%	85%	Shkoder	18%	62%

**Table A3**  
**Framing effects**

	<b>Dependent variable:</b>	
	Dummy equal to 1 if the parent voted in the elections of the class parent representatives, 0 otherwise	
	Probit (1)	Probit (2)
Invested in group account in the game	0.10** (0.019)	0.09* (0.050)
Farming example in the game	-0.03 (0.565)	0.02 (0.777)
Farming example x invested in the group account	-0.04 (0.535)	-0.05 (0.453)
Age	0.00 (0.117)	0.00 (0.421)
Female	0.06* (0.051)	0.03 (0.277)
Wealth index	0.05** (0.013)	0.02 (0.233)
Years of schooling	0.03*** (0.000)	0.02*** (0.000)
Rural location	-0.09*** (0.009)	-0.02 (0.580)
Distance from school (Km)	-0.00 (0.678)	-0.00 (0.676)
Member of a social organization	0.12*** (0.003)	0.08** (0.037)
Participation in community activities	0.02 (0.133)	0.02 (0.125)
Think that community members would work together	-0.08* (0.060)	-0.04 (0.392)
General trust in others	0.01 (0.291)	0.01 (0.408)
Number of relatives and friends among parents	-0.00 (0.912)	0.00 (0.949)
Help pupil with homework	0.01*** (0.001)	0.01* (0.067)
Number of meetings with head teacher	0.10** (0.019)	0.09* (0.050)
District fixed effects	YES	YES
<i>Joint significance of district f.e. (p-value)</i>	<i>0.000</i>	<i>0.000</i>
Geographical area dummies	YES	YES
<i>Joint significance of geographical areas (p-value)</i>	<i>0.901</i>	<i>0.566</i>
Observations	1,800	1,302

Note: Robust standard errors have been clustered at the school level. P values in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. In Column 2, we report marginal effects of continuous variables and the effect of a change from 0 to 1 for dichotomous variables. In all regressions we control for three geographical areas dummy variables: coastal, center and mountain areas; Tirana is the excluded geographical area.



## Experimental Instructions

### The Public good game

#### PRESENTATION TO THE GROUP

We are now ready to begin playing a game that will involve all of you. Each one of you will make his or her decision alone and in private, at the same time as everyone else. Based on the decision that you and the other participants in the game make, this game could earn you between 100 and 1900 LEK, although it is rare for people to earn 1900 LEK.

The decision that you make in this game is strictly confidential; in order to guarantee confidentiality we ask you not to communicate with each other at any time during the game. If you talk to each other we will have to stop the game and nobody will get any money from the workshop.

At the start of this game each of you will receive a voucher. The each of you has to decide whether to invest the voucher in:

- a PRIVATE Account (P)

or

- a GROUP Account (G)

If you invest your voucher in the GROUP Account you will receive 100 LEK for every voucher that you and the other participants have invested in the GROUP Account.

If you invest your voucher on the Private Account your earnings will be determined as follows: first you will receive a fix private return of 500 LEK; second, you will also receive 100 LEK for every voucher that the other participants have decided to invest in the GROUP Account.

You will soon receive a voucher like this one on the board, only smaller. At the bottom of the voucher you will see two big letters: a letter P and a letter G. The letter P, on the left, stands for “Private Account”; the letter G, on the right, stands for “GROUP Account”. If you want to invest your voucher in a Private Account you must to draw a circle around the letter P. If you want to invest your voucher in the GROUP Account you must draw a circle around the letter G. We will now go through some examples.

1. Suppose that you invest your voucher in the GROUP Account, which means that you circled the letter S on your voucher. *[Write the letter P on the left of the board, and the letter G on the right, in capital letters, as in the voucher. Then, circle the letter G].* And suppose that everyone invested their voucher in the GROUP Account. *[Write 15 below the letter G and 0 below the letter P].*

Then you and the each of the other participants will receive  $100 \times 15 = 1500$  LEK from this game. *[Write  $100 \times 15 = 1500$  in a box on the right of the number 15, below the letter G. Link the number 15 and the box with an arrow]*

2. Suppose that you invest your voucher in the GROUP Account, which means that you circled the letter S on your voucher. *[Point the letter G on the board, that you have circled before]* And suppose that, in total, two people invested their vouchers in Private Accounts and 13 people, you and 12 others, invested in the

GROUP Account. *[Write the number 2 below the letter P and the number 13 below the letter G].* Then you and the other participants who invested in the GROUP Account would each receive  $100 \times 13 = 1300$  LEK *[write this amount in a box on the right of the number 13, as before]* from this game, and each of the participants who invested their vouchers in the Private Account will each receive 1300 LEK from the GROUP Account PLUS 500 LEK from their Private Account, making a total of 1800 LEK. *[write this amount on the left of the number 2, in a box, as before]*

3. Suppose that you invest your voucher in a Private Account, which means that you circled the letter P on your voucher. *[Now, circle the letter P].* And suppose that, in total, 10 people, you and 9 others, invested their vouchers in Private Accounts *[write 10 under the letter P]* and 5 people invested in the GROUP Account. *[Write 5 under the letter G].* Then, each of the participants who invested their vouchers in the GROUP Account will receive  $100 \times 5 = 500$  LEK from this game *[Write this amount in a box on the right of the number 5]* and you and each of the other people who invested in a Private Account will receive 500 LEK from the GROUP Account PLUS 500 LEK from your Private Account, making a total of 1000 LEK. *[Write this amount in a box on the left of the number 10, as before]*
4. Suppose that you invest your voucher in a Private Account, which means that you circled the letter P on your voucher. And suppose that everyone invested their vouchers in Private Accounts. Then, since nobody invested in the GROUP Account, nobody gets anything from that account and everybody goes home with the 500 LEK from their Private Account.

Is it clear to everybody?

Remember that if you invest in the Group Account you get  $(100 \times \text{Number of people who invested in the Group Account})$ . If instead you invest in the Private Account you get  $(100 \times \text{Number of people who invested in the Group Account} + 500)$ .

Let's go through more examples.

Can you answer the following questions?

5. Suppose that in total, 5 people invested their vouchers in Private Accounts. How many people invested in the Group Account? (10) *[After people answer the question, write the number 5 below the letter P and the number 10 below the letter G].* Then, how much did the people who invested in the Group Account get?  $(100 \times 10 = 1000)$  *[After people answer the question, write this amount in a box on the right of the number 10, as before].* And how much did the people who invested in the Private Account get?  $(500 + 1000 = 1500)$  *[After people answer this question, write this amount on the left of the number 5, in a box, as before]*
6. Suppose that in total, 7 people invested their vouchers in Private Accounts. How many people invested in the Group Account? (8) *[After people answer the question, write the number 7 below the letter P and the number 8 below the letter G].* Then, how much did the people who invested in the Group Account get?  $(100 \times 8 = 800)$  *[After people answer the question, write this amount in a box on the right of the number 8, as before].* And how much did the people who invested in the Private Account get?  $(500 + 800 = 1300)$  *[After people answer this question, write this amount on the left of the number 7, in a box, as before]*
7. Suppose that in total, 14 people invested their vouchers in Private Accounts. How many people invested in the Group Account? (21) *[After people answer the question, write the number 14 below the letter P and the number 1 below the letter G].* Then, how much did the people who invested in the Group Account get?  $(100 \times 1 = 100)$  *[After people answer the question, write this amount in a box on the right of the number 1, as*

*before*]. And how much did the people who invested in the Private Account get? ( $500 + 100 = 600$ ) [*After people answer this question, write this amount on the left of the number 14, in a box, as before*]

Is this all clear to everybody now? Are you sure?

Remember that all the participants benefit from the vouchers invested in the GROUP Account, whereas only you benefit from the voucher invested in the Private Account.

This game is designed to simulate a type of dilemma that many of us find ourselves in at various points in our lives. For example:

[School Example]: Imagine a community with its own primary school. After finishing primary school, the children go to secondary schools elsewhere and imagine a situation where only children who perform well in the final test sat in year 9 can get a scholarship. If all the parents invest resources, including time and effort, to make sure that the primary school runs well, all the children are likely to learn while in school and do well in the exam, which means that they all have a good chance of getting into the best secondary school. However, each parent knows that even if he does not invest his resources in the school, *other* parents are likely to do so; therefore his child will benefit anyway while he will still have resources to invest privately for his child, for example by paying for private lessons. So, each parent faces an incentive to keep their resources and not invest in the school; however, if all the parents decide not to invest in the school, the school will not perform well and their child's success will depend solely on their privately investment in the child's education.

So, like in the game, the dilemma for each parent is:-

- Invest in the school and benefit all children but face the risk of being the only parent investing resources in the school, and therefore being taken advantage of by the other parents

Or

- Do not invest in the school in the hope that someone else will, bearing in mind that if all parents decide not to contribute to the school all the children will be disadvantaged]

[Farming Example]: Imagine a village where a group of farmers share a water pump. If the pump breaks all of them get less water to their land. When the pump breaks, the ideal situation is for all the farmers to spend resources, including time and effort, to repair it immediately and the more of them put together resources to repair the pump the easier and quicker the mending is. However, each farmer knows that even if he does not contribute to the mending of the pump, other farmers are likely to do so. So, each farmer faces an incentive not to contribute to the mending of the pump; however if all the farmers decide not to contribute to the mending of the pump, the pump is left broken and they all suffer.

So, like in the game, the dilemma for each farmer is:-

- Contribute to the mending of the pump and benefit all farmers, but face the risk of being the only one contributing and therefore being taken advantage of by the other farmers

Or

- Do not contribute to the mending of the pump in the hope that someone else will, bearing in mind that if all the farmers decide not to contribute, everyone will suffer

Remember that we have designed this game so that the other participants in the game will never know the decisions that each of you make. The only information that we will give to all participants at the end of the game is the total number of people who invested in the GROUP Account.

We are now going to distribute one voucher to each of you. Your color and player number is written at the top. At the bottom of the voucher you will see a letter P and a letter G, just like here on the board. If you want to invest the voucher in a Private Account, you must draw a circle around the letter P. If you want to invest the voucher in the GROUP Account, you must draw a circle around the letter G.

Are there any questions on how to play this game?

*[Distribute vouchers]*

Please check your color and player number on the voucher. If these are not right we will not be able to pay you correctly for the game.

Then circle either the P or the G. When you are done please fold the voucher. Then raise your hand and [*name of RA*] will come and collect your voucher.