Why Do People Favor Informal Giving?
The Effect of Social Pressure, Efficiency Concerns and Social Norms: Evidence from Zakat in Yemen

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Abstract

Social ties play a crucial role on informal giving, which includes giving to friends, family, or neighbors, but the actual reasons why individuals are more generous towards socially close people are still to be investigated. Using data from Zakat, a religious obligation of Islam in Yemen, this thesis aims to identify how social pressure, efficiency concerns and social norms impact the probability and the amount of donating Zakat to family, friends, and neighbors. We confirm the importance of this group of recipients, with around half of the givers donating, on average, 42% of their Zakat to family, friends, and neighbors. While wealth is the most important economic resource to make households more prone to give to socially close people, income seems the most important resource when it comes to the amount given. We found that the wish to control the use of their gift is the only relevant channel for the probability of giving to this group of people, as when the efficiency concerns index increases by one unit, the probability of a household to give Zakat to family, friends and neighbors increases by 10.3 percentual points. None of the channels considered impact the amount of Zakat given to family, friends, and neighbors. Additionally, we find that givers give less Zakat than the social norm demands and that, while social pressure increases the probability of giving Zakat to institutions, the opposite happens for social norms and efficiency concerns. None of these channels impact the amount of Zakat given to institutions.

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Resumo

Os vínculos sociais são cruciais para as doações informais, que incluem doações à família, amigos e vizinhos, apesar das verdadeiras razões pelas quais os indivíduos são mais generosos com pessoas mais próximas estarem a ser investigadas. Usando dados sobre o Zakat, uma obrigação religiosa do Islamismo no Yemen, esta tese pretende verificar se a pressão social, as preocupações com eficiência e as normas sociais afetam a probabilidade de dar Zakat à família, amigos e vizinhos e o montante dado. Confirmamos a importância deste grupo de beneficiários, verificando que 51% dos doadores os escolhem e lhes dão, em média, 42% do total do Zakat doado. Enquanto a riqueza é o recurso económico mais importante para a decisão de dar Zakat às pessoas com relações de maior proximidade, o rendimento parece ser mais importante para decidir quanto dar. Concluímos que o desejo de controlar o uso da doação é o único fator relevante para a probabilidade de doar a este grupo de pessoas, visto que quando o índice de preocupações com a eficiência da doação aumenta uma unidade, a probabilidade do agregado familiar dar Zakat a familiares, amigos e vizinhos aumenta 10.3 pontos percentuais. Nenhum destes fatores é importante para o montante que lhes é dado. Também constatamos que os doadores dão menos Zakat do que deveriam. Enquanto a pressão social aumenta a probabilidade de dar Zakat às instituições, a norma social e as preocupações com eficiência têm o efeito contrário. Nenhum destes fatores afeta o montante doado a instituições.

Palavras-chave: altruísmo, doações de caridade, vínculos sociais, doações informais, pressão social, controlo do uso das doações pelo doador, normas sociais, Zakat.

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1. Introduction

Social ties play a crucial role in informal giving, which stands for direct transfers between givers and receivers that do not involve institutions (e.g. Binzel and Fehr, 2013; Candelo, Eckel, and Johnson, 2018). In fact, people are generally more prone to give to those who they are socially closed to, even if it is inefficient, in the sense that some strangers might need more their help and do not receive it (Silva, Wodon, and Alloush, 2012). Understanding how people choose to give their resources is fundamental for charities and governments to attract funds. It is of uttermost importance in developing countries, where informal transfers help to alleviate economic distress and substitute for missing or imperfect formal programs to tackle these problems. However, the reasons why social ties are so relevant for informal giving, especially when looking at field data, are still to be investigated.

The present thesis exploits unique field data on donation behaviors to understand why individuals give to those who are socially closed. We consider three potential channels identified in the literature: (i) social pressure, (ii) the wish to control transferred gifts (efficiency concerns) and, (iii) social norms.

To address our research question, we use data from Zakat, a religious obligation of Islam, in Yemen. According to Zakat, those whose possessions and wealth are above a given threshold should give 2.5% of their wealth to the poor and needy, collectors of Zakat, pilgrims debtors and volunteers of the holy war (Liberto, 2021; Zakat | Islamic tax, 2014). After briefly studying the impact of sociodemographic characteristics of the givers of Zakat in their probability of giving and the size of their gift, we focus on a specific group of givers of Zakat: the ones that give at least a part of their Zakat to family, friends and neighbors, those who are socially closer to the giver. Later, we analyze the effect of the three different channels on the probability of giving Zakat to this group and the amount given. To do so, we exploit survey questions to proxy a measurement of each mechanism. For social pressure, we use questions related to peer pressure, participation in organizations and the level of integration in the community. For the wish to control transferred resources, we use questions related with reaching the poorest people (efficiency) and trust in the receiver. For the social norm, we use questions about religiosity.

Results show that family, friends, and neighbors are predominant Zakat recipients: 51% of all givers give at least a part of their Zakat to them and donate, on average, 42% of the total amount of Zakat they pay. Givers who donate to friends, family and neighbors also give higher

overall amounts of Zakat than givers than only give to other recipients. Among givers, wealth is the most important economic resource to make households more prone to give to socially close people. Parallelly, income seems the most important resource when it comes to the amount given. When it comes to the probability of giving Zakat to family, friends and neighbors, efficiency concerns are the only channel statistically relevant: when the efficiency concerns index increases by one unit, the probability of giving Zakat to family, friends and neighbors of the household increases 10.3 percentual points (p.p.). None of the channels considered impact the amount of Zakat given to family, friends, and neighbors.

This thesis contributes to several strands of the literature. Firstly, we contribute to the field of behavioral economics, especially for the literature on charitable giving, by looking for the channels that affect informal giving and concerns of givers when donating. We find that people seek control over the use of their gift, even when it is no longer in their hands. This is relevant, for instance, for charities: by allowing donors to target their gift to a specific goal, donors will be more likely to donate. However, there is a shortcoming: they must be careful to avoid having too much funding for a certain cause and almost none for others. We also reinforce the importance of efficiency concerns when the decision to whom to donate is made. Behind the wish of controlling the use of their resources is the intention that their money is spent in the more efficient way possible, with those who need it the most, and trust in the intermediary or receiver makes the donor more confident that this will be the case.

Secondly, also in the field of behavioral economics, we contribute to the external validity of some results already present in the literature, mainly on social distance, social pressure, targeting and social norms on donation. In this field, most evidence was obtained in lab settings, by putting the individuals facing a hypothetical situation or playing games, with low stakes and mainly performed by university students. Instead, we have access to a rich dataset that naturally occurs about a real-life and high stakes decision, increasing the external validity of our results.

These results have several policy implications. As we mentioned for charities, if taxpayers have a say on what they want the money of their taxes spent on (health, education, security, etc.), they may be more truthful in their taxes declarations and more revenue could be collected, with the caveat that all sectors should receive enough to operate. Furthermore, in countries where informal giving prevails, being aware of the biases that make people more prone to give to socially close people, even if they are not the neediest, might lead to the

implementation of public policies to correct charitable funding misallocation. The fact that efficiency concerns play such an important role in decision making for informal giving suggests that the institutions in these countries should try to be more transparent and invest in the collection of good data so that the citizens trust them to be trustworthy to do the redistribution.

The remainder of this thesis is organized as follows. Section 2 presents the literature review of related research on this topic. Section 3 presents some background information on Zakat. Section 4 describes the data. Section 5 describes the estimation and identification strategy. Section 6 reports the results, including the characteristics of givers, the importance of family, friends, and neighbors as recipients of Zakat and the impact of the channels considered on the probability of giving Zakat to family, friends and neighbors and on the amount given. Section 7 includes some robustness checks. Section 8 discusses and concludes.

2. Literature Review

The foundations of economic sciences posit that individuals are selfish: they do what is in their best interest and assume that others will act in the same way (Henrich *et al*., 2005). Since the influential work of Becker (1974) on social interactions and altruism, later complemented by Andreoni (1989) with the introduction of the concept of "*warm glow*", among others, economic theory also consider that humans can display altruistic motives and give to others without expecting anything in return.

Empirical evidence confirmed that people often deviate from the "*selfishness axiom*" (Henrich et al., 2005, 797) and that different people display different levels of altruism, depending on their own characteristics. For instance, evidence show that women tend to be "*more responsive to the need for charitable giving*" (Andreoni and Vesterlund, 2001, 293-294). Andreoni and Verterlund (2001, 295) found that the level of altruism displayed by genders depends on the price of altruism: whilst men are more altruist when the price is lower and are more susceptible to extremes, as they can be "*either perfectly selfish or perfect selfless*", women "*prefer to share evenly*" and are more generous even when altruism is more costly. The wealth and income of an individual also play a role on the level of altruism displayed. Meer and Priday (2020) have recently approached this question, with data from the *Panel Study in Income Dynamics*, a survey used to collect data on wealth, income, individual and household characteristics and charitable giving in the United States. They found that Americans with more income and wealth are more likely to donate and give significantly more to charities. In

addition, the recipients of the charitable giving also may change with income and wealth: while people with less economic resources tend to direct their charitable giving to religious organizations, richer people tend to direct it to non-religious causes, like arts, health, or education. Although this relationship was already known for income, they also verified it for wealth in the United States. Age plays a role in charitable giving: as "*age and education variables tend to have positive and significant coefficients*" (Andreoni, Brown, and Rischall, 2003,117). While more education contributes to the increase of earnings of an individual and his/her ability to donate, from the upside-down U-shaped earnings profiles we expect that people's earnings increase with age, as they have more education and experience. The sign of age might be different for older people because their earnings tend to decrease as their knowledge starts becoming obsolete, they struggle to learn new things and to work as hard as before, and the deterioration of their health status might lead to higher medical expenses. Less earnings and more costs weaken their ability to give to charity.

The degree of altruism shown by an individual to others also varies with the recipient. In fact, when social distance, understood as "*the perceived degree of closeness or kinship between individuals*" (Meer and Rigbi, 2013, 271), increases, people tend to be less generous, as shown by lab and field experiments with dictator and ultimatum games (Hoffman, McCabe, and Smith 1996; Bohnet and Frey 1999). Bechler *et al.*(2015) conducted an experiment using participants from MTurk, who would have to mentally order 100 people from the closest one to them to someone whom they might not know so well and were, then, invited to play dictator and ultimatum games where they would hypothetically give part of their endowment for people whose ranks were 2, 20 and 100. They found that the proportion of the endowment offered decreased with social distance: for the dictator game, dictators would give, on average, 31% of their endowment for a person with rank 2, which decreased to 7% for a person with rank 100 and, for the ultimatum game, for the same ranks, the proportion would decrease from 40% to 19%. Charness and Gneezy (2008) used the same games in an experiment with university students and manipulated social distance: in the control group, the identity of the other participant was anonymous and, in the treatment group, participants would be given the family name of the other player, to analyze the impact of different levels of social distance. They found that, while in dictator games knowing the family name of the other player made the dictator give, on average, more 50%, in the ultimatum game there was no significant difference between groups. Several studies also show that individuals are more generous towards the most important members of their social network. Candelo *et al.* (2018) ran a lab-in-the-field

experiment in 11 Mexican villages where participants would play dictator games with a family member, a person from the same village and a stranger from outside their village. They verified that giving depends on the social distance between dictator and receiver, with participants giving more to family members than to members of their community and strangers, for whom giving was identical. Social distance also plays a role even inside of the family, with participants generosity decreasing in the following order: from parents to spouses, to children to other members. Binzel and Fehr (2013), through a lab-in-the-field experiment in Cairo, found that, when the participants in their study played the dictator game with a stranger while remaining anonymous, they would give away, on average, around 36% of their endowment, but this value could grow up to around 46% if they were playing with a friend without anonymity, treating better friends than strangers. According to evolutionary theories, it is expected that individuals are more altruistic towards kin than nonkin. Even when there is no clear return for altruism, individuals tend to help survival and reproduction of their relatives. Stewart-Williams (2007) conducted a study with university students where they had to answer a survey about the help they gave to family, friends and acquaintances and confirmed that, when the help provided becomes more costly, the subjects will help relatively more the kin than nonkin and demand to receive more help in return from nonkin. In addition, "*Generally, people act more favorably towards persons who share with them an important attribute of their identity compared to persons who differ significantly on that attribute.*" (Ben-Ner et al., 2009, 156) and according to what they have in common or not, people tend to attribute others to an in-group (individuals sharing the same characteristics) or out-group (individuals with different characteristics). This attribution, according to the literature, depends on categories such as family and kinship, gender, occupation, nationality, race, or religion. Ben-Ner *et al.* (2009) conducted a survey on university students to investigate the role of in-group bias along multiple dimensions (gender, family, body type, religion, etc.) in several contexts: (1) giving money in a dictator game, (2) sharing an office, (3) commuting, and (4) work. Authors found that, for almost all categories and scenarios, individuals attributed to the in-group were better treated than those belonging to the out-group. The most important identity categories for this separation were, by order, family and kinship, political views, religion, sports-team loyalty, and music preference. Gender was not relevant for this distinction.

Even though "*Prosocial behavior among socially close persons is pervasive in both developing and developed countries.*" (Binzel and Fehr, 2013, 241), evidence on why

individuals might prefer informal giving is still scarce. Three main mechanisms can be identified to explain bias toward socially close individuals in giving.

Differential levels of social pressure are a first potential reason why individuals prefer to donate to friends and family. Evidence shows an ambiguous effect of social pressure on donation behaviors. Landry *et al.*(2010), studied the reasons why people give to charities for the first time and what affects commitment to charitable causes over time in a field experiment. Authors found that door-to-door fundraising, comparing to mail requests, increases the probability of donating, but people tend to give less. One interpretation is that individuals feel pressured to give because their decision is visible to the solicitor and want to keep a good social image (Landry *et al.*, 2010). DellaVigna *et al.*(2012) reached a similar conclusion in door-to-door fundraising where individuals received a flyer in advance warning them when they would receive a knock on their door from a charity solicitor. In one condition, households had the option to check a box saying "*Do not disturb*". Authors found that both altruism and social pressure are important determinants of giving: fewer households do open the door when warned and the option of avoiding the ask by checking the box reduces giving by 30%. The latter effect is mainly driven by individuals who usually give low donations because they feel pressured to give and would avoid giving otherwise (DellaVigna, List, and Malmendier, 2012). Another question is what happens when the solicitor for the charity has social ties with the potential donor. Social pressure might be stronger when originated by those who are close to us. Meer (2011), using data from donations to a university from former alumni, found that the probability of donating increases when the giver has social ties with the solicitor, as well as the overall amount of the gift, and this effect is even stronger if the giver and the solicitor are similar in terms of race, participation in similar organizations or academic achievement. Castillo *et al.* (2015) ran a field experiment where donors of an online giving community were invited to request to their Facebook friends to also donate to the same charity. This request could be made to all friends or aimed at a sole friend, and, in this case, the request could be made on the friend's Facebook wall or by private message. They found that social pressure, since friends would observe one's action and see if he would donate or not, seemed the most effective way to elicit donations, at least on the extensive margin: the percent of solicitations that result in a new donation after asking a friend in public is twice as big as when the request is general, to all friends.

The second mechanism is the will to control the use of the resources transferred. An individual which is concerned about how his resources will be used might be more generous

towards socially close people because they can easily check how the amount donated is consequently used. Some theories attempt to explain why individuals would like to keep some control over the uses of their gifts. The paternalistic model considers that the utility of the giver increases if the recipient uses the gift for the consumption of merit goods, while it decreases if he/she consumes vice goods (Batista, Silverman, and Yang, 2015). In the public goods model, the receiver can either consume private or public goods, but the utility of the giver will increase if they choose public goods, so the giver would still like to influence the use of the gift (Batista, Silverman, and Yang, 2015). Many researchers have explored the impact of directed giving, "*allowing donors to target their gifts to specific organizations or functions*" (Eckel, Herberich, and Meer, 2017, 66), on both the probability of giving and the size of the gift. Eckel *et al.* (2017) conducted a field experiment in a public university where alumni were invited to donate. While the control group could only donate to the university in general, the treatment group could direct part of their gift to their academic college. This option had no significant impact on the probability of donating, but alumni from the treatment group were more generous (conditional on giving). Li *et al.*(2015) ran a lab experiment where participants could donate to public and private organizations and found that targeting increases both the probability of giving and the amount given. Small and Lowenstein (2003) found evidence for the *"identifiable victim effect"*, where people would rather donate to identifiable victims than to statistical victims, using both lab and field experiments. Batista *et al.* (2015) tried to explain the popularity of in-kind gifts when gifts in cash would allow the receiver to maximize his utility. The authors conducted a lab-in-the-field experiment in Mozambique where clients of a local bank would play dictator games with "*the closest person to them outside their household*" (Batista, Silverman, and Yang 2015, 2). They found evidence that givers seek control for both the size and the composition of their gift: when the option is available to them, dictators give a big share of the gift in-kind and they give more 14% than they would if they could only give cash (Batista, Silverman, and Yang, 2015). As the donor worries with the efficiency of the use of their gift, in this thesis we call this mechanism efficiency concerns.

Social norms, understood as the set of informal rules we expect others to follow, and others expect us to follow, also influence inkin bias in giving. In developing countries for instance, the "*sharing norms*", according to which those who are successful and have more resources feel pressured to share their earnings with those around them, act as a safety net for the community members (Brown, Leeves, and Prayaga, 2014). Sharing norms are stronger the most powerful are the social ties of the donor with the community, especially if pressure to

share resources comes from inkin relations of the "lucky" ones. These norms can lead to adverse effects on the level of effort exerted and savings of the fortunate ones (Brown, Leeves, and Prayaga, 2014). The type of the social norm considered is also important. For example, religious social norms may be stronger than other social norms. By violating a social norm, an individual may fear the punishment of others. Religious social norms are in the realms of morality and conscience, and the repercussions of violating such a norm may also present higher personal costs, depending on the fault committed and on their religion dictates (Thornton and Helms, 2013; Dyreng, Mayew, and Williams, 2012). Individuals generally follow social norms as sharing norms or religious norms to avoid punishment. Since their actions are more frequently visible to socially close people, they might prefer informal giving to show compliance. The visibility of their actions matters: for charitable giving, several studies show that people donate more when they have the option of reporting their contribution to others instead of being anonymous, as people seek to set an example or be considered leaders (Andreoni and Petrie, 2004).

3. Background on Zakat

Data on informal giving is not easily found, as it should comprise information on direct transfers with no formal intermediaries and, being a private affair, only the individuals involved know about it. Previous literature on the subject has relied heavily on lab experiments, where individuals would play games such as the dictator game or the ultimatum game or be confronted with hypothetical situations and act upon them. Frequently, these participants would be university students, which may lack representativity of the population in general, and low stakes were involved.

Instead, this thesis exploits survey data from Yemen on one of the Five Pillars of Islam, Zakat, also known as the giving of alms, which is a religious obligation for those whose possessions and wealth are above a certain threshold to donate a certain percentage of their wealth, usually at least 2.5% (Liberto, 2021). The value of the "tax" depends on the categories of property (food grains; fruit; cattle, camels, sheep, goats; gold and silver and movable goods) and is paid once or twice per year. Among the receivers of Zakat are the poor and needy, the collectors of Zakat, debtors, pilgrims and volunteers of the holy war (Britannica, 2014).

The collection and distribution of Zakat change from country to country: it may be a private affair or involve governments or non-governmental organizations. In Yemen, Zakat is not a mandatory tax and is mainly privately managed, with households calculating how much

they should donate and giving mainly cash directly to the recipient they chose or to a Mosque or Sheriff, as the intervention of Government or NGOs is not as frequent (Silva, Wodon, and Alloush, 2012).

Data from Yemen is a good fit for our research question, as giving Zakat in Yemen is voluntary and managed privately, allowing donors to freely decide to whom they would like to give it, either to family, friends and neighbors, other acquaintances (informal giving), or institutions (formal giving). Moreover, as Zakat is a religious and sharing social norm, we may also investigate the impact of exposure to this social norm on donation behavior and see if, in this context, donors are more likely to give, if they give more or even if they comply and give 2.5% of their wealth.

Previous research on Zakat in the capital of Yemen, Sanaa, shows that it is a crucial source of financial assistance for the poor, which locals trust (Silva, Wodon, and Alloush, 2012). However, the same authors also confirm some of the criticisms of Zakat: it suffers both from coverage gaps, with 68% of the poor in Sanaa not receiving Zakat, and from leakages, with 39% of the total amount of Zakat going to non-poor households (Silva, Alloush, and Wodon, 2012). Silva et *al*.(2012) also found that the social connections of the household are important and affect the likelihood of receiving Zakat, with around 82% of the donors claiming to be related to the recipients (family member, neighbors, same tribe or household, etc.).

4.   Data and Descriptive Statistics

This thesis uses data collected between May and June of 2010 through a survey, the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank. It covered socio-economic characteristics of the participants, giving of Zakat, social networks, formal and informal safety nets in place, the incidence of shocks, risk coping mechanisms, household decision making, assets, religiosity, among other topics (see Appendix G for the part of the survey used in this thesis). One section of the survey is dedicated to Zakat and provides information on givers, receivers, and perceptions of the participants about it. The questions were about who gives and receives Zakat, when does the transfer occur, the type of transfer (in-kind or cash), why do they give Zakat to a specific recipient, the relationship between givers and receivers, etc. The survey covers both formal and informal giving, as the potential recipients of Zakat were the mosque, non-governmental organizations (NGO), relatives, friends and neighbors, the neighborhood leader, an elder member of the family for further distribution, a non-relative that works in the household or others. The sample is representative of the capital

of Yemen, Sanaa, and comprises 795 households or about 5500 individuals(Silva, Wodon, and Alloush, 2012).

Most of the sections of the survey whose data was considered for this analysis were answered, by design, only by the head of the household, who would represent his/her household. Consequently, all the observations from other members of the same household had the same answers for these sections, which does not add more information on the subject. For a matter of simplicity, all the observations of other members of the households except the head were discarded, as they did not add more information, and the unit of the analysis is the household. We also excluded from our analysis inconsistent answers. We consider as inconsistent answers (1) households who declared giving to Zakat but stated that the amount donated was zero (33 observations) and (2) households who declared that they gave Zakat to family, friends, and neighbors, but stated that the amount donated to this people was zero (1 observation). These observations were excluded. Therefore, our sample is composed of 748 households in the sample which, considering the frequency weights included in the data, correspond to 6749 households in the whole population.

Table 1 shows the description of the variables used in Section 6.1. Other variables will be introduced at the beginning of each section for the sake of understanding. While the rest of them are quite straightforward, it is important to explain how some of the variables below were created.

Following Silva et *al.*(2012), wealth in quintiles is an index created with Principal Component Analysis using variables related to the conditions of the dwelling where the household lives, the quality of the materials used to build it and how well equipped it is. How well the household lives is used as a proxy to the wealth of the household, as wealthier households are expected to live in better conditions. More details available in Appendix A.

Income from the previous year was obtained by summing the income obtained from all its sources in the last twelve months before the household answered the survey and then converted to quintiles. These sources included: agriculture and livestock, salaries or wages, pensions or retirement payments, cash assistance, remittances from family and friends, rentals, money obtained by selling assets, Zakat and other income.

For the variables Give Zakat and Total Zakat Given, we consider as potential recipients all the receivers considered in the survey: the mosque, non-governmental organizations (NGO),

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relatives, friends and neighbors, the neighborhood leader, an elder member of the family for further distribution, a non-relative that works in the household and others.

Table 2 presents descriptive statistics. As the data was collected in the capital of Yemen, the households are located mainly in urban areas (98%) and their heads are predominantly male (88%), aged around 43 years old and employed (78%). Of all the households, 36% gave Zakat in the last year and 14% received it. Around 54% of the households did not give or receive Zakat and 4% give and receive. On average, givers have higher wealth and income than receivers (t-test p-value=0.000). Givers and receivers are a distinct group of households who both gave and received Zakat. Their wealth and income are between the groups of households that only give or only receive Zakat but are closer to receivers. It is as if they are rich enough to pay Zakat, but poor enough that they still receive it.

Table 1 – Variable definitions

Variable	Description
Male	Binary variable that takes the value 1 if the head of the household is male; 0 if female.
Age	Age of the head of the household.
Age squared	Age of the head of the household squared.
Urban	Binary variable that takes the value 1 if the household is located at an urban area; 0 if rural.
Work situation	Variable that takes values from 1 to 4 depending on the situation towards work of the head of the household, respectively employed, unemployed, old/retired, or other.
Employed	Binary variable that takes the value 1 if the head of the household is employed; 0 otherwise.
Wealth in quintiles	Wealth quintile of the household.
Income	Income of the household in euros, in past 12 months.
Income in quintiles	Income quintile of the household.
Give Zakat	Binary variable that takes the value 1 if the household gave Zakat in the past 12 months; 0 otherwise.
Total Zakat Given	Total amount of Zakat given by the household, in euros, in the past 12 months.
Log Total Zakat given	Log of the total amount of Zakat given by the household, in euros.
Receive Zakat	Binary variable that takes the value 1 if the household received Zakat in the past 12 months; 0 otherwise.

Note: This thesis focuses on the giver's side, how they decide to whom to give Zakat and how much to give. We only focus on the relationship between givers and receivers and the amount given by each household, not on the amount received.

Table 2 – Descriptive Statistics

VARIABLES	All Households			All Givers			Givers and Receivers			All Receivers			Others (do not give or receive)		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.
Male	6,749	0.88	0.32	2,443	0.89	0.32	265	0.72	0.45	936	0.76	0.43	3,635	0.90	0.30
Age	6,749	42.91	12.72	2,443	44.52	12.70	265	43.83	11.85	936	44.51	13.41	3,635	41.47	12.32
Urban	6,749	0.98		2,443	0.97		265	1		936	0.99		3,635	0.99	
Employed	6,732	0.78		2,434	0.79		265	0.72		936	0.67		3,627	0.79	
Wealth in quintiles	6,749	3.03	1.42	2,443	3.67	1.31	265	3.02	1.42	936	2.19	1.19	3,635	2.82	1.37
Income (€)	6,540	4,314	12,951	2,360	6,942	18,948	256	3,058	2,145	916	2,164	1,884	3,520	3,021	7,940
Income in quintiles	6,540	3	1.43	2,360	3.64	1.28	256	3.12	1.41	916	2.48	1.32	3,520	2.72	1.40
Give Zakat	6,749	0.36		2,443	1		265	1		936	0.28				
Total Zakat Given	6,732	160	1,753	2,426	444.06	2,898	265	30.04	35.07	936	8.50	23.03			
Receive Zakat	6,749	0.14		2,443	0.11		265	1		936	1				

Note: This table presents descriptive statistics for sociodemographic characteristics and gifts of Zakat. From the sample, only the heads of the household were included. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

5. Empirical framework: Estimation and Identification Strategy

To better understand why people are more generous towards socially close people, we study the probability of a household giving Zakat to this group of people and the size of the gift. We consider the closest people of the social network to be family, friends, and neighbors. Only direct transfers between a giver and a member from family, friends and neighbors are considered as giving to socially close people. When donors give to an intermediary such as a mosque, a neighborhood leader or an elder person in the family that is responsible for further distribution, we do not know to whom these intermediaries redistributed this Zakat to. Therefore, even if any of these intermediaries ended up giving Zakat to a relative, friend or neighbor of the original giver, this transfer is not considered in our analysis.

As the same variables may have different effects on the probability of giving Zakat (extensive margin) and on the amount of Zakat given (intensive margin), we use different models to estimate each effect. To analyze the probability of giving Zakat, we use a logit model with robust standard errors and frequency weights. To analyze the amount of Zakat given, we use an Ordinary Least Squares regression with robust standard errors and frequency weights, conditional on giving Zakat. We use the logarithm of the amount given as dependent variable as both the distribution of the total amount of Zakat given to all recipients or to family, friends or neighbors have distributions skewed to the right.

In all the models considered, we control for sociodemographic characteristics: the gender, age, age squared and work situations of the head of the household and the income and wealth quintiles of the household. Gender is added as a dummy variable while work situation, wealth in quintiles and income in quintiles are included as a vector of indicator variables, whose omitted category is, respectively, employed, first wealth quintile and first income quintile.

In Section 6.1, we study the effect of sociodemographic characteristics on the probability of giving Zakat and the amount given (regardless of the type of recipient). We use Model 1 to estimate the probability of giving Zakat and include the whole sample. We use Model 2 to study the amount given, conditional on giving. The explanatory variables are the control variables.

(1) $GiveZakat_i = \alpha_0 + \alpha_1 male_i + \alpha_2 age_i + \alpha_3 age_i^2 + \alpha_4 worksituation_i + \alpha_5 wealthquintile_i + \alpha_6 incomequintile_i + \varepsilon_i$

(2) $LogTotalZakatGiven_i = \beta_0 + \beta_1 male_i + \beta_2 age_i + \beta_3 age_i^2 + \beta_4 worksituation_i + \beta_5 wealthquintile_i + \beta_6 incomequintile_i + \varepsilon_i$

In Section 6.2, we show the importance of giving Zakat to family, friends, and neighbors on the amount of Zakat given. To achieve this, we use a model similar to Model 2, but add the variable GiveZakatFFN.

(3) $LogTotalZakatGiven_i = \beta_0 + \beta_1 male_i + \beta_2 age_i + \beta_3 age_i^2 + \beta_4 worksituation_i + \beta_5 wealthquintile_i + \beta_6 incomequintile_i + \beta_7 GiveZakatFFN + \varepsilon_i$

In Section 6.3, we study the effect of sociodemographic characteristics on the probability of giving Zakat to family, friends or neighbors and the amount given to them. The models used are the same as 1 and 2, but the outcome variables concern informal giving.

(4) $GiveZakatFFN_i = \alpha_0 + \alpha_1 male_i + \alpha_2 age_i + \alpha_3 age_i^2 + \alpha_4 worksituation_i + \alpha_5 wealthquintile_i + \alpha_6 incomequintile_i + \varepsilon_i$

(5) $LogTotalZakatGivenFFN_i = \beta_0 + \beta_1 male_i + \beta_2 age_i + \beta_3 age_i^2 + \beta_4 worksituation_i + \beta_5 wealthquintile_i + \beta_6 incomequintile_i + \varepsilon_i$

In Section 6.4.1, we study the impact of the three channels we are investigating, that is social pressure, efficiency and social norms play on the probability of giving informally. With that in mind, we add the channels to Model 4, once at a time and then all (Model 6). Each channel aggregates several variables.

(6) $GiveZakatFFN_i = \alpha_0 + \alpha_1 male_i + \alpha_2 age_i + \alpha_3 age_i^2 + \alpha_4 worksituation_i + \alpha_5 wealthquintile_i + \alpha_6 incomequintile_i + \alpha_7 socialpressure_i + \alpha_8 efficiencyandtrust_i + \alpha_9 socialnorm_i + \varepsilon_i$

In Section 6.4.2, we analyze the effect of social pressure, efficiency concerns and social norms on the amount of Zakat given to family, friends, and neighbors. This time, we add the channels to Model 5. Measures used as proxies for each channel are described in Section 6.4.

$$(7) \quad LogTotalZakatGivenFFN_i = \beta_0 + \beta_1 male_i + \beta_2 age_i + \beta_3 age_i^2 +$$
$$\beta_4 worksituation_i + \beta_5 wealthquintile_i + \beta_6 incomequintile_i +$$
$$\beta_7 socialpressure_i + \beta_8 efficiencyandtrust_i + \beta_9 socialnorm_i + \varepsilon_i$$

6. Results and discussion

The following sections present the main results to better understand the importance of family, friends and neighbors in the giving of Zakat and the determinants behind it.

6.1 Zakat: to give or not to give? Who gives Zakat and how much do they give?

Before analyzing the impact of different variables on the probability of giving Zakat to family, friends and neighbors and the amount given to them, it is worth understanding why households give Zakat.

Table 3 presents the average marginal effects obtained after using a logit model to see the effect of sociodemographic characteristics on the probability of a household giving Zakat. There is no significant difference between genders and age is insignificantly different from zero. The observations from households whose heads were unemployed were omitted as none of them gives Zakat, which perfectly predicts failure. If the household head was retired or old, it decreased the probability of giving Zakat by 12.9 p.p., in comparison with employed heads. Similar results are found in the literature: although, usually, age has a positive effect on donation (Andreoni, Brown, and Rischall, 2003), the sign might change for elder people, as, even if we expect them to have more wealth, they might also face more health problems and expenses and have lower mobility, which make them less prone to give or even be asked to give. When it comes to wealth and income, these results are aligned with the ones from Meer and Priday (2020), according to whom households with higher resources should present a higher probability of giving to charity. Indeed, all income quintiles are statistically significant for a 1% significance level and households from the second to the fifth quintile have higher probability of giving Zakat than households from the first income quintile. For the top quintile, the difference is almost 30 p.p.. For wealth, only households from the third to the fifth quintile present a higher probability of giving Zakat than the first wealth quintile. Both for income and wealth, the difference in probability between quintiles increases with the number of the quintile.

Table 3 – Average Marginal Effects
Logit, dependent variable= give Zakat (binary)

VARIABLES	(1) Give Zakat
Male	0.00382
	(0.0217)
Age	0.000
	(0.00240)
Age squared	0.000
	(0.000)
Head of the household is unemployed, omitted	-
Head of the household is too old/retired	-0.129***
	(0.0205)
Head of the household has different work situation	0.00511
	(0.0210)
Second income quintile	0.0839***
	(0.0178)
Third income quintile	0.153***
	(0.0178)
Fourth income quintile	0.266***
	(0.0184)
Fifth income quintile	0.297***
	(0.0191)
Second wealth quintile	0.0190
	(0.0181)
Third wealth quintile	0.143***
	(0.0189)
Fourth wealth quintile	0.177***
	(0.0186)
Fifth wealth quintile	0.330***
	(0.0198)
Observations	6,486

Note: This table shows the average marginal effects obtained after estimating Model (1) using logit (Pseudo R^2= 0.1377). The dependent variable is a binary variable equal to one if the household gave Zakat in the last year; 0 otherwise. Standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

Table 4 shows the results of using an OLS regression to model the log of the total amount of Zakat given as the outcome of interest, conditional on giving. Contrary to our findings on the extensive margins, there are statistically significant differences between the amounts given by households whose head is a woman or a man. All things being equal,

households with male head give, on average, 92.9% more Zakat than households where women lead. One explanation for this is that households with male heads have more wealth and income than households with female heads and male heads have higher levels of education. Age has a negative impact on the amount of Zakat given for households with younger heads, while households with older heads are more generous, as probably they have more accumulated wealth. If the head of the household is retired or has other work situation, they give more than households whose head is employed, respectively, 68% and 51%. Retired individuals are, then, less likely to give but give more. As it happened for the probability of giving Zakat and in the literature, as the household has more resources, they are more generous in giving Zakat. When it comes to income, households from the third to the fifth quintiles give more Zakat on average than those in the first quintile. Households in the fifth quintile, where, as expected, the difference is bigger, give about 423% more than households in the first quintile. For wealth, households from the third to the fifth quintile give more than the households in the first quintile. The biggest difference is for households in the fifth quintile, who give, on average, more 275% than households from the first quintile. The only exception happens for households in the second quintile, for wealth and income, which are not statistically significant from the ones in the first quintile.

Table 4 – Primary Regression Results
(OLS, dependent variable= Log of total amount of Zakat given in euros, conditional on giving)

VARIABLES	(2) Log Total Zakat (€)
Male	0.657***
	(0.0985)
Age	-0.0635***
	(0.0164)
Age squared	0.000597***
	(0.000178)
Head of the household is too old/retired	0.520***
	(0.144)
Head of the household has different work situation	0.411***
	(0.0916)
Second income quintile	0.175
	(0.121)
Third income quintile	0.602***
	(0.113)
Fourth income quintile	0.814***
	(0.112)
Fifth income quintile	1.655***
	(0.117)
Second wealth quintile	-0.190
	(0.140)
Third wealth quintile	0.348***
	(0.127)
Fourth wealth quintile	0.910***
	(0.127)
Fifth wealth quintile	1.321***
	(0.126)
Constant	3.071***
	(0.397)
Observations	2,343
R-squared	0.270

Note: This table presents OLS estimates for Model (2). The dependent variable is the log amount of Zakat given by the household, in euros. Only households who gave Zakat were included. Robust standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

6.2 To whom do they give Zakat? The importance of family, friends, and neighbors.

As we have seen in the literature review, individuals are more altruist towards socially close people (Candelo, Eckel, and Johnson, 2018; Binzel and Fehr, 2013; Stewart-Williams 2007; Ben-Ner *et al.*, 2009).

This pattern is also present in our data: Silva *et al.* (2012), using the present data, found that connectivity plays a very important role and increases the probability of receiving Zakat, with 82% of the givers claiming that the recipient of Zakat is related to him/her or to their household.

In this thesis, we focus our attention on a specific group of recipients: family, friends and neighbors, the ones that are most socially close to the givers. In Table 5, we introduce new variables related to giving to this group of people, and their descriptive statistics are in Table 6.

In Table 6, we can verify that family, friends, and neighbors are a very important group of recipients of Zakat. From all the households that give Zakat, 51% give at least a part of it to this group and, on average, they give them 42% of the total amount of Zakat paid. These values are higher when we look to givers and receivers, who rely more on close people.

Table 5 – Description of variables related with giving to family, friends and neighbors

Variable	Description
Give Zakat FFN	Binary variable that takes the value 1 if the household gave, at least, a part of their Zakat to family, friends, or neighbors, in the past 12 months; 0 otherwise.
Log Total Zakat Given FFN	Log of the total amount of Zakat given by the household to family, friends, or neighbors, in euros, in the past 12 months.
Share of Zakat given to FFN	Share of the total amount of Zakat given to family, friends and neighbors.

Table 6 – Descriptive statistics for variables related with giving to family, friends and neighbors

VARIABLES	All Givers			Givers and Receivers		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.
Give Zakat to FFN	2,199	0.51		249	0.61	
Total Zakat Given to FFN	2,189	122.21	794.15	249	16.69	21.59
Share of Zakat given to FFN	2,189	.42		249	.53	
Total Zakat given to other recipients	2,377	340.68	2484.56	265	14.36	24.61

Note: This table presents descriptive statistics for giving Zakat for family, friends, and neighbors. Only households that give Zakat were included. The difference in the number of observations appears because variables on giving Zakat to family, friends and neighbors have more missing variables than the variable for all other recipients. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

In Table 7, we present the OLS estimates of the effect of the control variables and the variable Give Zakat to FFN on the log of the total amount of Zakat given. This model is like the one presented in Table 4, but also considers giving Zakat to this group as an explanatory variable. According to it, households that give a part of their Zakat to family, friends and neighbors are more generous, as they give, on average, more 124% of Zakat than households that only give it to other recipients. This result is in line to what the literature would predict: individuals are more altruistic towards socially close people. In fact, they are more generous in their gift if they can allocate at least a part of their donation to this group of people.

Table 7 – Primary Regression Results
(OLS, dependent variable= Log of total amount of Zakat given in euros, conditional on giving)

VARIABLES	(3) Log Total Zakat (€)
Male	0.657***
	(0.108)
Age	-0.0487**
	(0.0224)
Age squared	0.000452*
	(0.000234)
Head of the household is too old/retired	0.328**
	(0.152)
Head of the household has different work situation	0.175*
	(0.0985)
Second income quintile	0.129
	(0.119)
Third income quintile	0.421***
	(0.118)
Fourth income quintile	0.696***
	(0.112)
Fifth income quintile	1.590***
	(0.121)
Second wealth quintile	-0.467***
	(0.129)
Third wealth quintile	0.237*
	(0.125)
Fourth wealth quintile	0.668***
	(0.128)
Fifth wealth quintile	1.081***
	(0.129)
Give Zakat to FFN	0.807***
	(0.0714)
Constant	2.674***
	(0.529)
Observations	2,123
R-squared	0.340

*Not*e: This table presents OLS estimates for Model (3). The dependent variable is the log amount of Zakat given by the household, in euros. Only households who gave Zakat were included. The difference in the number of observations from Table 4 comes from the missing values of the variable Give Zakat to FFN. Robust standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

6.3 Who are the citizens more likely to give to family, friends, and neighbors? How much do they give?

This section investigates why donors give Zakat to family, friends, and neighbors rather than other recipients. With this goal, we replicate the models from Section 6.1 but with dependent variables related to giving to this particular group and only looking to givers.

In Table 8, we can find the average marginal effects obtained after running a logit model where sociodemographic characteristics explain the probability of giving Zakat to family, friends, and neighbors. The gender of the head has no significant effect on the probability to give to family, friends and neighbors compared with giving to other recipients. Age has a negative impact on the probability of giving Zakat to socially close people for households with younger heads, while households with older heads are more prone to give to socially close people instead of other recipients, as probably they have more accumulated wealth. Households whose head is either retired or has other work situation have higher probability of giving Zakat to this group than when the head of the household is employed. The difference is, respectively, 26.4 p.p. and 18 p.p..

Although households with more resources still have higher probability of giving Zakat to family, friends, and neighbors, income does not play such an important role. Only households from the third and the fifth quintile have higher probability of giving Zakat to this group of recipients than households in the first income quintile, respectively, 29 p.p. and 12 p.p. higher. When it comes to wealth, all quintiles are statistically significant for a 1% significance level and have a positive sign, which means that households from the second to the fifth wealth quintile have higher probability of giving Zakat to socially close people than households in the first wealth quintile. For the fifth quintile, probability increases by 36.3 p.p..

Table 8 – Average Marginal Effects
Logit, dependent variable= Give Zakat to FFN (binary)

VARIABLES	(4) Give Zakat FFN
Male	0.0258
	(0.0446)
Age	-0.0210***
	(0.00641)
Age squared	0.000171**
	(0.0000)
Head of the household is too old/retired	0.264***
	(0.0425)
Head of the household has different work situation	0.180***
	(0.0386)
Second income quintile	0.0451
	(0.0474)
Third income quintile	0.292***
	(0.0422)
Fourth income quintile	0.0532
	(0.0427)
Fifth income quintile	0.119***
	(0.0420)
Second wealth quintile	0.176***
	(0.0427)
Third wealth quintile	0.261***
	(0.0361)
Fourth wealth quintile	0.394***
	(0.0351)
Fifth wealth quintile	0.363***
	(0.0328)
Observations	2,123

Note: This table shows average marginal effects obtained after estimating Model (4) using logit (Pseudo R^2= 0.0928). The dependent variable is a binary variable equal to one if the household gave Zakat to family, friends, or neighbors in the last year; 0 otherwise. Only households that gave Zakat were included. Standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

Table 9 presents the OLS estimates for the impact of sociodemographic characteristics on the log amount of Zakat allocated to family, friends, or neighbors. Households whose head is male give to this group of people, on average, more 63% than households whose head is female. One plausible explanation is that households with male heads have more economic resources than female-led households, as we have seen before. Age is no longer statistically significant. Households whose head is not employed, unemployed or retired give lower amounts of Zakat to this group than when the head is employed, less 26,5%. Contrary to what happened with the probability of giving Zakat to this group, all income quintiles are statistically significant for 1% significance level and households from the second to the fifth wealth quintile give more Zakat to these people than households in the first income quintile. The biggest difference is between the first and fifth quintile, as it would be expected: 327%. Wealth also affects the amount of Zakat allocated to this group differently than the probability of giving them Zakat: while the amounts of Zakat given by the fourth and fifth quintile are not statistically different from the ones given by the households in the first quintile, households in the second and third quintile give less Zakat to the socially closest people than those in the first quintile. The decrease is higher between the second and the first quintile: less 65.4%. Households with more wealth seem to give the same or less.

To conclude, when it comes to giving Zakat to family, friends or neighbors, wealth seems the most important economic resource to make households more prone to give to them, while income seems the most important resource when it comes to the amount given.

Table 9 – Primary Regression Results
OLS, dependent variable= Log of Total amount of Zakat given to family, friends, and neighbors in euros conditional on giving

VARIABLES	(5) Log Total Zakat FFN (€)
Male	0.486***
	(0.109)
Age	-0.00362
	(0.0193)
Age squared	0.000119
	(0.000209)
Head of the household is too old/retired	0.0381
	(0.165)
Head of the household has different work situation	-0.308***
	(0.104)
Second income quintile	0.890***
	(0.171)
Third income quintile	0.744***
	(0.159)
Fourth income quintile	1.026***
	(0.160)
Fifth income quintile	1.452***
	(0.168)
Second wealth quintile	-1.062***
	(0.167)
Third wealth quintile	-0.662***
	(0.188)
Fourth wealth quintile	-0.213
	(0.166)
Fifth wealth quintile	-0.119
	(0.168)
Constant	2.868***
	(0.464)
Observations	1,082
R-squared	0.197

Note: This table presents OLS estimates for Model (5). The dependent variable is the log amount of Zakat given by the household to family, friends, and neighbors, in euros. Only households who gave Zakat to FFN were included. Robust standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

6.4 Channel Analysis

This section approaches the effects of different determinants of prosocial giving in the probability of giving Zakat to family, friends or neighbors and the amount allocated to them.

The channels that are considered are social pressure, the wish to control the use of the gift (efficiency concerns), and social norms. All the channels result from the aggregation of several dummy variables, by summing them to create an index.

For the social pressure channel, the first variable considered is Obligation, to cover the cases when the pressure is so extreme that people have no or little choice than donate Zakat in a certain way. The other variables considered are for milder levels of social pressure. Peer pressure is used for when the giver sees everyone around them behaving in a certain way and feels pressure to do the same. We also included variables for the participation of elements of the household in organizations as we considered that if they belong to a specific organization, it is because they agree with its values and are likely to be influenced by other members to act in a certain way, to feel welcomed there and meet expectations. We also included a variable for a special type of organization, friends and neighbors organizations, as it may be more influential when it comes to giving to family, friends and neighbors than belonging to different organizations, as there they get to know better the needs of fellow participants and their actions are more visible. The distance from their dwelling and the market was included because, even if the household for some reason does not interact so much with other people or is less participative in organizations, the market is the place where everybody meets and discuss. So, if they live closer to the market, they are more likely to be more aware of what others think and what others want them to do. The distance to the mosque may also be relevant, as people who live closer are more likely to be more integrated in the community as the mosque is a meeting point, which makes their actions more visible, and feel more pressured to give Zakat and be more generous towards a particular recipient.

The second channel is for concerns about the use of the gift, even after it has been transferred. One of these concerns might be that the gift is well spent and reaches those who really need it. Therefore, we included the variable for efficiency concerns, where one of the main factors considered when deciding to whom to give Zakat was if it reached the poorest. Furthermore, if the giver wants to be sure that the person needs it or that they spend it in a way they deem appropriate, they might be more willing to give it to someone they trust, and even give more. Thus, we also considered the variable trust, for whether they trust more people

socially close to them or institutions. To avoid confusion with the control variables, although this channel is about controlling the use of the gift, we name it after one of the variables that constitute it, efficiency concerns.

As Zakat is a religious social norm, we expect more religious households to have higher probability of giving Zakat and being more generous. To measure how religious the household is, we consider if anyone in the household belongs to a religious organization, the importance of religion in life and for children for the head of the household and his/her frequency of praying and reading holy texts. We also include a variable for households who give Zakat mainly because it is an Islamic obligation.

The variables, their description and descriptive statistics can be found in Tables 10 (Appendix B) and 11. Table 11 also presents descriptive statistics for each channel.

Most of the variables from the social norm channel were not dummy variables. In this case, those variables were dichotomized in the following way: they took the value 0 if the value of the observation was below the mean of the original variable and 1 if they were above or equal. As the mean and the median are very close for all these variables and due to the way the dichotomized variables were constructed, the same variables would be obtained if we used the median instead. For example, for the importance of God, the new variable is 1 if the value of the observation is above 4.59 (the median is 5), which includes all the respondents who gave religion the highest level of importance, 0 otherwise. Regarding whether the head of the household belongs to a religious organization, the variable takes the value 1 if the head is an active member, 0 if he/she was never a member or if once belonged, but not anymore. As we can see in Table 11, even if the participation rate of the heads of the households in religious organizations is very low (4%), most of the heads is more religious than the average.

Table 11 – Descriptive statistics for channels

Channels	VARIABLES	N	Mean	Std. Dev.	Min.	Max.
Social pressure	Obligation	2,393	0.02		0	1
	Peer pressure	2,393	0.13		0	1
	Belong at least to one association	2,417	0.13		0	1
	Belong to a friends and neighbors association	2,369	0.08		0	1
	Lives close to the market (≤10minutes)	2,382	0.36		0	1
	Lives close to the mosque (≤10minutes)	2,397	0.91		0	1
Efficiency concerns	Efficiency concerns	2,393	0.64		0	1
	Trust more close people than institutions	2,398	0.64		0	1
Social norm	Member of a religious organization	2,373	1.20	0.490	1	3
	Importance of God/ Religion	2,406	4.59	1.100	1	5
	Importance of faith for children	2,396	0.99		0	1
	Frequency of Praying	2,414	4.77	0.819	1	5
	Frequency of Reading religious texts	2,357	4.16	1.101	1	5
	Zakat as Islamic Obligation	2,393	0.46		0	1
After dichotomization						
Social norm	Member of a religious organization	2,373	0.04		0	1
	Importance of God/ Religion	2,406	0.85		0	1
	Frequency of Praying	2,414	0.90		0	1
	Frequency of Reading religious texts	2,357	0.75		0	1
Channels after the aggregation of the variables						
Social pressure channel		2,283	1.60	0.83	0	5
Efficiency concerns channel		2,348	1.29	0.68	0	2
Social norm channel		2,241	4.02	0.98	0	6

Note: This table presents descriptive statistics for the variables that we aggregated for each channel. For variables that were not dummies, we include their descriptive statistics after dichotomization. Descriptive statistics for the channels after the aggregation of the variables is also included. The difference in the number of observations is due to missing values. If a observation had a missing value for one of the variables of a channel, it would also have a missing for the channel itself. Only households that give Zakat were included. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

From the literature, we could make some predictions about the results. For instance, it is expected that social pressure has a positive effect on the extensive margin, stronger if the household was pressured by socially close people and if giving Zakat is a visible action but

would have a negative impact on the intensive margin, as pressured households would give to avoid the disapproval of others but would give less (Landry *et al*., 2008; DellaVigna *et al*., 2009; Meer, 2011; Castillo *et al.,* 2015). We also expect that if the giver is concerned with the use of the transferred resources, they will have higher probability of giving and be more generous towards closer people, according to the literature about gift targeting and controlling its size and composition (Li *et al.,* 2013; Batista, Silverman, and Yang, 2015; Eckel and Herberich, 2017). When it comes to social norms and considering that Zakat is a religious and sharing social norm, we may expect more religious households to be more likely to give and be more generous in their donations towards socially close people, as giving to socially close people is an easier way of complying, as they meet this people frequently, and more visible, as these people know who the donor is and forfeiting their religious duty may yield personal costs. The pressure to share economic success is also stronger when the donor has inkin relationships in the community (Brown, Leeves, and Prayaga, 2014). We should also keep in mind that households with lower levels of income and wealth may have higher propensity to direct their charitable donations to religious organizations, while richer ones may prefer to donate to arts, health, education and other charities not directly related with religion (Meer and Priday, 2020). Moreover, according to Zakat, the more wealth the household has, the higher the probability of having the duty of paying Zakat (being above the Nisab threshold) and, in absolute terms, the higher the amount that is due.

Before proceeding, it is worth noting that from the heads of the households that give Zakat to family, friends, and neighbors, around 73% are employed and the rest are either retired or have another work situation. This proportion suggests that individuals do not give to socially close people because they are mainly unemployed or retired and do not have the opportunity to give to the Zakat office or other institutions.

Once again, we analyze separately the impact of the social pressure, efficiency concerns and social norms in the probability of giving and in the amount given, as they are expected to be different. We only include households that give Zakat in this part of the analysis.

6.4.1 How do the determinants of giving impact the probability of giving to family, friends, and neighbors?

Table 12 presents the average marginal effects obtained after using a logit model to see the impact of each channel on the probability of giving Zakat to family, friends, and neighbors. The first three columns present the effect of each channel when considered alone with the

control variables as explanatory variables and the last column presents the model where all channels and control variables are explanatory variables.

The efficiency concerns channel is the only channel statistically significant, for a 1% significance level, for both the model where it is alone with the controls and the model with all the channels and has a positive sign in both cases. In the model with all the channels, when the efficiency concerns index increases by a unit, the probability of giving Zakat to family, friends and neighbors of the household increased by 10.3 p.p..

Social pressure and social norms, contrary to our hypothesis that both would increase the probability of giving Zakat to family, friends, and neighbors, are not statistically different from zero. This happens both in the model where each is the only channel included and in the model with all channels. Indeed, assuming that only givers should pay Zakat, they do not seem very compliant with the social norm and give the 2.5% share of their wealth, as can be seen in Appendix C.

To conclude, when it comes to the probability of giving Zakat to family, friends and neighbors, efficiency concerns is the only relevant channel and increases the probability of donating to this group.

Table 12 – Average Marginal Effects
Logit, dependent variable= Give Zakat to FFN (binary)

VARIABLES	Dependent variable: Give Zakat to family, friends, and neighbors			
Social pressure	0.000624			-0.00231
	(0.0120)			(0.0116)
Efficiency concerns		0.0860***		0.103***
		(0.0144)		(0.0148)
Social norm			-0.00455	0.00438
			(0.0111)	(0.0107)
Observations	2,000	2,064	1,969	1,889
Controls	YES	YES	YES	YES

Note: This table shows average marginal effects obtained after estimating Model (6) using logit. The first three columns have as explanatory variables the controls and a channel at a time. The last column model includes all channels and the control variables as independent variables. The dependent variable is a binary variable equal to one if the household gave Zakat to family, friends, or neighbors in the last year; 0 otherwise. The control variables are Male, Age, Age squared, Work situation, Wealth and Income in quintiles. Only households that gave Zakat were included. The difference in the number of observations is caused by missing values. Standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms, conducted by the World Bank* in 2010.

6.4.2 How do the determinants of giving impact the amount of Zakat given to family, friends, and neighbors?

In this subsection, we analyze the impact of social pressure, efficiency concerns and social norms on the amount of Zakat that households give to family, friends, and neighbors. Table 13 presents the OLS estimates of the effect that channels have on the log amount of Zakat given to this group, where the first three columns consider as explanatory variables the control variables and each channel at a time and the last column includes all channels and the control variables.

Social pressure is not statistically different from zero both in the model when considered alone and with all other channels. This result is different from what the literature would predict, our hypothesis that social pressure would not be effective on the intensive margin, because households that only give something to avoid disappointing others would give less. In this case, it seems that if they give, the size of their gift is not different from the one made by households that were not pressured or less pressured.

The efficiency concerns channel is never statistically significant in our models where the dependent variable is the log amount of Zakat given to family, friends, and neighbors. The literature would predict that it would be statistically significant and have a positive sign, which does not happen in this case.

The social norm channel is only statistically significant for a 10% significance level when considered alone with the control variables but is not significantly different from zero in the model with all channels. This result differs from our hypothesis as, according to the literature, we would expect more religious households to be more generous in their donations. Either they give more, but to a different recipient or they do not comply with the social norm.

To conclude, when it comes to the amount of Zakat given to family, friends, and neighbors conditional on giving, none of these channels plays a significant role.

In the next section, we run some robustness checks to see if these results still hold when we correct for sample selection.

Table 13 – Primary Regression Results
OLS, dependent variable = Log of Total amount of Zakat given to family, friends, and neighbors in euros conditional on giving

VARIABLES	Dependent variable: Log of Zakat given to family, friends, and neighbors			
Social pressure	0.0688			0.0694
	(0.0625)			(0.0629)
Efficiency concerns		0.103		0.0734
		(0.0715)		(0.0743)
Social norm			0.0931*	0.0246
			(0.0483)	(0.0482)
Constant	3.330***	3.483***	3.688***	4.013***
	(0.471)	(0.473)	(0.563)	(0.567)
Observations	1,014	1,039	1,010	978
R-squared	0.176	0.194	0.174	0.176
Controls	YES	YES	YES	YES

Note: This table presents OLS estimates for Model (7). The dependent variable is the log amount of Zakat given by the household to family, friends, and neighbors, in euros. The first three columns have as explanatory variables the controls and a channel at a time. The last column model includes all channels and the control variables as independent variables. The control variables are Male, Age, Age squared, Work situation, Wealth and Income in quintiles. Only households who gave Zakat to FFN were included. Robust standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

7. Robustness checks

When analyzing the amounts of Zakat given by the households, we have been conducting this analysis conditional on giving, which means that we lose all the observations from households who do not give Zakat. The amount of Zakat given is only observed if and only if the household gave Zakat. We are censoring our data from below, which means that the results we obtained before only using Ordinary Least Squares may be biased, as we might have a problem of sample selection: we are oversampling households that give Zakat.

To overcome sample selection bias, we use the Heckman model with two steps. In the first step, we re-estimate Model (6) using Probit and, in the second step, Model (7) is re-estimated using OLS. The same explanatory variables are used in both steps.

Table 14 presents the OLS estimates obtained after correcting for sample selection bias. This confirms our results: none of the channels considered has a statistically significant effect when it comes to the amount of Zakat given to family, friends, or neighbors while efficiency concerns matter for the decision to give them Zakat.

Table 14 – Heckman two-step model estimates

VARIABLES	Probit Give Zakat to FFN	OLS Log of the Amount of Zakat given to FFN
Social pressure	-0.00726	0.0884
	(0.0379)	(0.111)
Efficiency concerns	0.298***	-0.537
	(0.0451)	(0.459)
Social norm	0.0122	0.0215
	(0.0348)	(0.118)
Constant	-0.875*	8.279**
	(0.488)	(3.348)
Observations	1,889	1,889
Controls	YES	YES

Note: This table presents estimates for the Heckman model with two steps. The Inverse Mills Ratio is -3.32. The first column presents the estimates for the Probit model, using Model (6) while the second column presents the OLS estimates, using Model (7). The control variables are Male, Age, Age squared, Work situation, Wealth and Income in quintiles. Only households who gave Zakat were included. The need for this correction is because in Table 13 we analyzed the amount given to FFN conditional on giving to FFN. Standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

Similar results would be obtained using the maximum likelihood estimator with robust standard errors instead of the two-step procedure. Further robustness checks for Tables 4 and 9 can be found in Appendix D.

8. Discussion and concluding remarks

In this thesis, we examine why social ties matter for informal giving. Using data from Zakat in Yemen, we analyze the impact of social pressure, efficiency concerns and social norms on the probability of giving Zakat to family, friends, and neighbors and in the amount given. We find only one mechanism to be at play: when the efficiency concerns index increases by one unit, the probability of giving Zakat to family, friends, and neighbors of the households increases by 10.3 p.p.. None of the channels considered however explains the amount given to

family, friends, and neighbors. While wealth is the most important economic resource to make households more prone to give to socially close people, income seems the most important resource when it comes to the amount given. Thus, being wealthy is a sufficient condition to give family, friends, and neighbors, but not to give much: generosity depends on the level of income. We confirm that family, friends, and neighbors are important receivers of Zakat, as around half of the households give Zakat to them and they give, on average, 42% of their Zakat. We also find that givers of Zakat do not seem very compliant with this social norm, as households from higher wealth quintiles have lower probability of paying 2.5% of their wealth than households from lower quintiles, even if the value of Zakat owed depends on their wealth.

It would also be interesting to look at formal giving to see if the channels at play in informal giving are still relevant. By formal giving, we are considering giving to institutions, in particular, to the mosque, to an NGO or cooperative or to the government. It is worth mentioning that these institutions and family, friends and neighbors do not exhaust all the set of potential receivers and giver can give Zakat to several recipients. It may happen that a giver gives formally and informally. In Appendix E, we replicate the analysis we did for the effect of the channels on the probability of giving Zakat to family, friends and neighbors and the amount given, but this time for institutions using, respectively, a logit model and a Heckman Two-step model to account for sample selection. We conclude that the three channels are statistically significant and have different impacts on the probability of giving Zakat to institutions. When the social pressure index increases by one unit, the probability of giving Zakat to institutions increases 6.6 p.p.. The wish to control the use of the gift has a negative impact on the probability of giving Zakat to institutions, as for each additional unit of the efficiency concerns index, the probability of giving Zakat to institutions decreases 10.8 p.p., contrary to what happened for socially close people. This result is in line with the idea that people who care about the outcome of their gift would rather informally give. If households seek control after transferring gifts, they will not keep it after donating to institutions. Also, social norms are now statistically significant but had an unexpected negative sign. We hypothesize that it is the result of both the lack of trust that citizens have in institutions as NGOs and the government to conduct redistribution and from the lack of compliance with the social norm found in Appendix C. Before, only the efficiency concerns channel mattered.

There are some limitations to our results, for internal and external validity.

A first limitation related to the internal validity of our results is that we used proxies for the channels of interest with which we are unable to establish clear causal impacts. For instance, for social pressure, there was no question in the survey on whether the household was subject to social pressure when choosing the recipient of Zakat or how much to give. Instead, we use variables that consider how well the household is integrated in the community, as the more integrated they are, the more likely they are to be influenced by the ones around them and be pressured to act in a certain way and the more visibility their actions get. We might also have other measurement errors in the control variables. For instance, for the variable wealth in quintiles we are following the approach of Silva *et al*. (2012) for the same data and used the quality of the dwelling as a proxy to the true value of the wealth of the household, as wealth in euros, even if available, is very susceptible to misreporting and subjective valuations. Secondly, we also do not have an exogenous shock that changes the level of social pressure, efficiency concerns, and social norms to see how that affects the probability of giving Zakat and the amount given to socially close people, which would be useful to identify the causal relationship. Thirdly, we use cross-sectional survey data which are inherently limited by standard biases (missing data, recall bias). As almost all variables have a considerable share of missing values, we are conducting a complete case analysis, which means that if one observation has a missing value for one of the variables included in the model, it is dropped (Appendix E). This reduces the size of the sample used to run a specific model and may bias the results. Lastly, we may have an omitted variable bias. A channel that was not considered due to lack of data was reciprocity, as households may prefer to give to closer people as their action is more visible and they interact with this people more frequently, so they may expect future benefits from their gift, as better treatment, or reciprocated help. Reciprocity is expected to have a positive effect in both the probability of giving Zakat to family, friends, and neighbors, but also to the amount given. Reciprocity may also intensify the strength of the other channels. For instance, the households may feel pressured to behave in a certain way if they fear future punishments for not being generous enough or not giving to a particular group of receivers, which is both valid for the social pressure and social norms channels. Another channel that was not included is preferences, as people may treat inkin better because they share similarities and prefer giving Zakat to them. With omitted variable bias, our OLS estimates may be biased upward.

When it comes to external validity, the results we obtain might be culture-dependent, as Zakat is a religious social norm from Islam and even changes from country to country. We are also looking at a developing country, where informal giving is more relevant than in developed

countries, so the importance of the channels may also be country dependent. Trust and efficiency concerns might be less relevant in countries with more transparent and trustworthy institutions, and where the fear of corruption, abuse of power or appropriation of funds is less frequent.

A way to overcome some of the limitations above is to replicate the present study in other places around the globe and for other types of informal giving, to see if the results are context-dependent and other channels can be included. It would also be interesting to repeat the survey, in Yemen, for different years to replicate the results over years. Future research should also deepen the investigation on determinants of not giving. As we mentioned before, more than half of the households do not give Zakat while, at least some of them, have enough wealth to do it. It would be interesting to know if they owe Zakat and, in case they do, if they never give it or suffered some shock and did not give in this specific year. Furthermore, it would also be important to identify which channels affect the amount of Zakat given to family, friends, and neighbors, as none of the channels considered was significant.

Our main result is that people are more willing to donate to socially close people because they can somehow control how their resources are used, even after transferring them. They want to trust the recipient and be sure that they really need the gift, which has policy implications. This must be considered in two settings: when paying taxes, people might be more truthful in their declarations if they are given the choice to direct their taxes to be used in a more specific sector, if it is assured that all sectors receive funding. Secondly, especially in developing countries, it is important to recognize the importance of social ties in informal giving to avoid leaving people with fewer connections more exposed to poverty and distress.

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10. Appendices

10.1 Appendix A – Wealth in quintiles definition

Wealth in quintiles is an index created with Principal Component Analysis using variables related to the conditions of the dwelling where the household lives, the quality of the materials used to build it and how well equipped it is.

More specifically, the variables used were: a dummy variable that takes the value 1 if the floor of the dwelling of the household is made of tile or marble and 0 if it is made of cheaper and more fragile materials; a dummy variable that takes the value 1 if the dwelling has a bathroom, 0 otherwise; a dummy variable that takes the value 1 if the dwelling has water supply, 0 otherwise; a dummy variable that takes the value 1 if the roof of the dwelling is made of more resistant materials as concrete and wood, and 0 if it was made using weaker materials, as mud, hay, etc.; a dummy variable that takes the value 1 if the sewage disposal system is the public network, 0 if other disposal systems are used; a dummy variable that takes the value 1 if the dwelling has a flushed toilet, 0 if it has no toilet or no flush or other less equipped facility; a dummy variable that takes the value 1 if the household owns a private car, 0 otherwise; a dummy variable that takes the value 1 if the household owns a fridge, 0 if it doesn't; a dummy variable that takes the value 1 if the household owns a washing machine, 0 if it doesn't; a dummy variable that takes the value 1 if the household owns a color tv, 0 if it doesn't; a dummy variable that takes the value 1 if the household owns a mobile telephone, 0 if it doesn't; a dummy variable that takes the value 1 if the household owns a sewing machine, 0 if it doesn't; a dummy variable that takes the value 1 if the household owns an electric fan, 0 if it doesn't; a dummy variable that takes the value 1 if the household owns a personal computer, 0 if it doesn't and a dummy variable that takes the value 1 if the household owns any jewelry, 0 if it doesn't.

According to Kaiser's rule, when running Principal Component Analysis, we should keep factors/components whose eigenvalues are above 1 and need to be sure that there is enough correlation between the original variables so we could use principal component analysis. In this case, we had five components with eigenvalues higher than 1, but there is an elbow in the scree plot between the first and the second component (the eigenvalue of the first component is 3.09179 and the eigenvalue of the second component is 1.43942), so we only keep the first component. To check if the variables have enough in common to use Principal Component Analysis, we used the Kaiser-Meyer-Olkin measure of sample adequacy and checked if its value was above 0.5, which was verified: the value was 0.7585.

After obtaining the index, we decided to analyze wealth using quintiles.

10.2 Appendix B – Definition of Variables and Channels

Table 10 – Description of the variables that compose each channel

Channels	Variables	Description
Social Pressure	Obligation	Takes the value 1 if one of the main reasons to give Zakat was, for households that gave Zakat to organizations and people "*I was forced to do it this way*" or, for households that gave to the government, "*My employer asked me to give Zakat to the Zakat Office*"; 0 otherwise.
	Peer Pressure	Takes the value 1 if one of the main reasons to give Zakat was, for households that gave Zakat to organizations and people "*My friends/neighbors are doing it like that*" or, for households that gave to the government, "*Everybody is giving Zakat to the Zakat Office*"; 0 otherwise.
	Belongs at least to one organization	Takes the value 1 when, at least, one member of the household belongs to, at least, one association (government, local council, NGO's, political parties, community associations, trade cooperatives, credit associations, relatives not in household, friends, or neighbors); 0 otherwise.
	Belongs to a friends and neighbors association	Takes the value 1 when, at least, one member of the household belongs to a friends and neighbors' association; 0 otherwise.
	Lives close to the market (≤10minutes)	Takes the value 1 if the household is less than 11 minutes way from the mosque; 0 otherwise.
	Lives close to the mosque (≤10minutes)	Takes the value 1 if the household is less than 11 minutes way from the market; 0 otherwise.
Efficiency concerns	Efficiency concerns	Takes the value 1 if one of the main reasons to give Zakat was efficiency concerns; 0 otherwise. For households that gave Zakat to organizations and people, it is 1 if one of the main reasons was: "*I trust it reaches those that are really poor*". For households that gave to the government, it is one if one of the main reasons was "*The Zakat office has the best track record of identifying who is really poor*".
	Trust more close people than institutions	Takes the value 1 if the household trusts more family, friends and neighbors than other institutions (the government, NGO's and religious organizations); it is 0 if it equally trusts/ trusts less family, friends and neighbors than other institutions.
Social Norm	Member of religious organization	Takes the value 1 if the head of the household is not a member of a religious organizations; 2 if he/she is an inactive member; 3 if he/she is an active member.
	Importance of God/ Religion	Takes values from 1 to 5 depending on the importance of religion in life perceived by the head of the household (5 is very important).
	Importance of faith for children	Takes the value 1 if the head of the household thinks faith is an important quality for children to learn from home; 0 otherwise.
	Frequency of Praying	Takes values from 1 to 5 depending on the frequency of pray, where 1 is "*Don't pray*" and 5 is "*Pray everyday or almost everyday*".
	Frequency of Reading religious texts	Takes values from 1 to 5 depending on the frequency of reading religious scripts, where 1 is "*Don't read*" and 5 is "*Read everyday or almost everyday*".
	Zakat as Islamic Obligation	Takes the value 1 if one of the main reasons presented to give Zakat was that it is an Islamic obligation; 0 otherwise.

10.3 Appendix C – Compliance with the social norm

As we have seen in the channel analysis, the social norm does not seem to be a relevant channel either for the probability of giving Zakat to family, friends, and neighbors or to the amount of Zakat given to them. This may happen due to two possible reasons: either it has no effect when it comes to giving to family, friends, and neighbors in particular or households do not comply with the social norm.

Zakat is paid by households whose wealth and possessions are above a certain threshold. Those households have more than they need for their basic needs and should pay 2.5% of their wealth. The calculation of this threshold is complex. It depends on the types of wealth one owns, it is usually measured in gold or silver, varies from time to time and from place to place (Silva, Levin, and Morgandi, 2012). To simplify, we assume that the households that give Zakat are the only ones who should be paying Zakat.

To know the value of the wealth, now we use the household wealth in euros, which is calculated differently from wealth in quintiles. Using the OECD definition, household wealth is the difference between assets (non-financial and financial) and liabilities (OECD 2013). For non-financial assets, it was included the dwelling where the household lives if they own it, consumer durables, as vehicles, fridges, washing machines, etc., and other buildings owned. The financial assets included in the calculation were money deposits, shares and bonds. The liabilities considered were loans without interest, as most households do not pay interest as they borrow from family, friends and neighbors and the data on the interest paid is very inconsistent. As this measure of wealth suffers from valuation issues, as the heads of the household are the ones who say how much they think their assets are worth if they were to sell them and answers from this section of the survey present misreporting and inconsistencies, we used an alternative measure for the rest of our analysis. Considering all sample (6671 households due to missing values), the average wealth of the household is 59,807 € and the standard deviation of this variable is 656.

To check the compliance with the social norm, we use Model (8) and estimate it using logit. The dependent variable is the variable Comply, which takes the value 1 if the amount of Zakat paid by the household in the previous year was equal to or higher than 2.5% of their wealth, 0 if it was less. We only include givers in our model due to our assumption and we also exclude givers who did not state how much Zakat they gave (left the question about the amount blank).

(8) $Comply_i = \alpha_0 + \alpha_1 male_i + \alpha_2 age_i + \alpha_3 age_i^2 + \alpha_4 worksituation_i +$

     $\alpha_5 wealthquintile_i + \alpha_6 incomequintile_i + \varepsilon_i$

Table 15 presents the average marginal effects of this model. Households whose head is male have a probability of complying with the social norm 6.11 p.p. lower than households whose head is female. This may match the behavior of women in the literature, in dictator games, as they were found to be more equalitarian and more likely to reward or punish according to the treatment they receive than males (Andreoni and Vesterlund, 2001). While the households whose head is retired have a probability 41 p.p. higher of complying than households whose head is employed, the opposite happens for households whose head has a different work situation, which have a probability of complying with the social norm 15.4 p.p. lower than the benchmark. When it comes to the economic resources of the household, households from the second to the fifth income quintile have higher probability of paying at least 2.5% of their wealth than households from the first income quintile. For the wealth, the opposite happens: households from the second to the fifth income quintile have lower probability of complying with the social norm than households from the first quintile. Households in the fifth wealth quintile have a probability of complying 40.6 p.p. lower than households in the first quintile.

If, instead, we added to Model (8) the variable Give Zakat to FFN as a regressor, this variable would not be statistically significant, which means givers that give to family, friends, and neighbors are not more compliant that givers that only give to other recipients.

To sum up, while households from higher-income quintiles have higher probability of complying with the social norm, households from higher wealth quintiles have lower probability of following the social norm than households from lower quintiles. This is of particular importance as the value of Zakat depends on wealth.

Table 15 – Average Marginal Effects
Logit, dependent variable= Comply with social norm (binary)

VARIABLES	Comply with social norm
Male	-0.0611*
	(0.0371)
Age	0.00841
	(0.00522)
Age squared	-0.000170***
	(0.000)
Head of the household is too old/retired	0.412***
	(0.0452)
Head of the household has different work situation	-0.154***
	(0.0253)
Second income quintile	0.160***
	(0.0396)
Third income quintile	0.0864***
	(0.0331)
Fourth income quintile	0.0836**
	(0.0342)
Fifth income quintile	0.0735**
	(0.0348)
Second wealth quintile	-0.218***
	(0.0454)
Third wealth quintile	-0.321***
	(0.0434)
Fourth wealth quintile	-0.359***
	(0.0432)
Fifth wealth quintile	-0.406***
	(0.0416)
Observations	2,343

Note: This table shows average marginal effects obtained after estimating Model (8) using logit. The dependent variable is a binary variable equal to if the amount of Zakat paid by the household in the previous year was equal to or higher than 2.5% of their wealth, 0 if it was less. Only households that gave Zakat were included. Standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

10.4 Appendix D - Further Robustness Checks

As mentioned in Section 7, when analyzing the impact of sociodemographic characteristics of givers on the amount of Zakat given, we did it conditional on giving, which means we discarded all observations from non-givers and that we confirmed that we have a sample selection bias in our results.

In this appendix, we use the Heckman model with two steps to correct for sample selection bias for the results presented in Tables 4 and 9, where we saw the effect of the sociodemographic characteristics of givers in the amount of Zakat given, respectively, to all receivers and to family, friends, and neighbors. Those results were obtained after excluding the observations of non-givers.

When looking at the amount of given Zakat to all potential receivers, in the first step we re-run Model (1) using Probit and, in the second step, we use OLS to estimate Model (2). The estimates obtained can be found in Table 16.

While the variables Male, Age, Age Squared and Work Situation are still statistically significant and maintained the same signs, no wealth or income quintile is statistically significant. Contrary to what happened in Table 4 and what was predicted by the literature, the results with the correction appear to suggest that economic ability do not play a relevant role in the generosity of the households when giving Zakat.

When looking at the amount of given Zakat to family, friends, and neighbors, in the first step we re-run Model (4) using Probit and, in the second step, we re-estimate Model (5) using OLS. The estimates obtained can be found in Table 17.

Comparing these results with the ones presented in Table 9, the variables whose results changed were Work Situation and Wealth in quintiles. Now, households whose head has a different work situation do not differ significantly from households whose heads are employed, while in Table 9 they gave more. When it comes to wealth, no quintile is statistically significant. Before, households in the second and third quintile would be less generous towards socially close people than households in the first quintile.

This confirms our result that, for the amount of Zakat given to family, friends and neighbors, the most important economic resource seems to be income.

Table 16 – Heckman two-step model estimates for Table 4

VARIABLES	Probit Give Zakat	OLS Log of the Amount of Zakat given
Male	0.0261	0.587***
	(0.0681)	(0.226)
Age	0.00236	-0.0704**
	(0.00805)	(0.0283)
Age squared	2.17e-05	0.000571*
	(8.72e-05)	(0.000309)
Head of the household is unemployed, omitted	-5.530	
	(0)	
Head of the household is too old/retired	-0.486***	1.591**
	(0.0810)	(0.758)
Head of the household has different work situation	0.0281	0.347*
	(0.0609)	(0.200)
Second income quintile	0.0675	-0.386
	(0.0611)	(0.256)
Third income quintile	0.434***	-0.747
	(0.0595)	(0.736)
Fourth income quintile	0.537***	-0.431
	(0.0589)	(0.888)
Fifth income quintile	0.952***	-0.852
	(0.0598)	(1.416)
Second wealth quintile	0.254***	-0.530
	(0.0601)	(0.504)
Third wealth quintile	0.464***	-0.609
	(0.0572)	(0.807)
Fourth wealth quintile	0.795***	-1.123
	(0.0587)	(1.267)
Fifth wealth quintile	0.877***	-0.435
	(0.0588)	(1.365)
Lambda	-3.381	
	(2.170)	
Constant	-1.441***	9.326**
	(0.198)	(4.082)
Observations	6,515	6,515

Note: This table presents estimates for the Heckman model with two steps. The Inverse Mills Ratio was -3.38. The first column presents the estimates for the Probit model, using Model (1) while the second column presents the OLS estimates of the second step, using Model (2). Standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

Table 17 – Heckman two-step model estimates for Table 9

VARIABLES	Probit Give Zakat to FFN	OLS Log of the Amount of Zakat given to FFN
Male	0.0999	0.583***
	(0.110)	(0.214)
Age	-0.0583***	-0.0699
	(0.0166)	(0.0742)
Age squared	0.000480***	0.000665
	(0.000181)	(0.000642)
Head of the household is too old/retired	0.795***	0.892
	(0.154)	(0.921)
Head of the household has different work situation	0.541***	0.267
	(0.0958)	(0.622)
Second income quintile	0.562***	-0.330
	(0.141)	(0.815)
Third income quintile	0.800***	0.358
	(0.131)	(1.095)
Fourth income quintile	1.153***	1.187
	(0.129)	(1.482)
Fifth income quintile	1.071***	1.204
	(0.126)	(1.402)
Second wealth quintile	0.113	1.024***
	(0.129)	(0.291)
Third wealth quintile	0.802***	1.635*
	(0.121)	(0.951)
Fourth wealth quintile	0.126	1.183***
	(0.116)	(0.284)
Fifth wealth quintile	0.305***	1.821***
	(0.115)	(0.447)
Lambda		1.919
		(1.972)
Constant	0.193	1.449
	(0.405)	(1.618)
Observations	2,123	2,123

Note: This table presents estimates for the Heckman model with two steps. The Inverse Mills Ratio was 1.92. The first column presents the estimates for the Probit model, using Model (4) while the second column presents the OLS estimates of the second step, using model (5). Only households who gave Zakat were included. In Table 9, only households that gave to FFN were considered. Standard errors are displayed in parentheses. *** stands for $p<0.01$, stands for ** $p<0.05$ and * stands for $p<0.1$. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

10.5 Appendix E – On Formal Giving

It would also be interesting to look at formal giving to see if the channels at play in informal giving are still relevant. By formal giving, we are considering giving to institutions, in particular, to the mosque, to an NGO or cooperative or to the government. It is worth mentioning that these institutions and family, friends and neighbors do not exhaust all the set of potential receivers and keeping in mind that each giver can give Zakat to different receivers. It is possible that a giver donates both formally and informally.

For this analysis, we use Models (9) and (10), which are similar to Models (6) and (7), but now the dependent variables are related to giving Zakat to institutions. Once again, we separate the analysis of the impact of the channels in the probability of giving Zakat to institutions and the amount given.

$$(9) \quad GiveZakatInstitutions_i = \alpha_0 + \alpha_1 male_i + \alpha_2 age_i + \alpha_3 age_i^2 + \alpha_4 worksituation_i + \alpha_5 wealthquintile_i + \alpha_6 incomequintile_i + \alpha_7 socialpressure_i + \alpha_8 efficiencyandtrust_i + \alpha_9 socialnorm_i + \varepsilon_i$$

$$(10) \quad LogZakatInstitutions_i = \beta_0 + \beta_1 male_i + \beta_2 age_i + \beta_3 age_i^2 + \beta_4 worksituation_i + \beta_5 wealthquintile_i + \beta_6 incomequintile_i + \beta_7 socialpressure_i + \beta_8 efficiencyandtrust_i + \beta_9 socialnorm_i + \varepsilon_i$$

Table 18 presents the description of the new variables for giving Zakat to institutions and their descriptive statistics can be found in Table 19. Around 48% of the givers give, at least, a part of their Zakat to institutions, on average, 269.15€.

Table 18 – Description of the variables related with giving to institutions

Variable	Description
Give Zakat to institutions	Binary variable that takes the value 1 if the household gave, at least, a part of their Zakat to institutions, in the past 12 months; 0 otherwise.
Log Total Zakat Given to institutions	Log of the total amount of Zakat given by the household to institutions, in euros, in the past 12 months.

Table 19 – Descriptive statistics for variables related with giving to institutions

VARIABLES	All Givers		
	N	Mean	Std. Dev.
Give Zakat to Institutions	2,443	0.48	
Total Zakat Given to Institutions	2,350	269.15	2286.31

Note: This table presents descriptive statistics for giving Zakat to the mosque, to an NGO or cooperative or to the government. Only households that give Zakat were included. The difference in the number of observations from Table 6 appears because variables on giving Zakat to family, friends and neighbors have more missing variables than variables for institutions. These institutions and family, friends and neighbors do not exhaust all the set of potential receivers and a giver may have several receivers. A giver may even donate both formally and informally. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

In Table 20, we can find the average marginal effects obtained after running a logit model to see the effect of each channel on the probability of giving Zakat to institutions. The first three columns present the effect of each channel when considered alone with the control variables as explanatory variables and the last column presents the model where all channels and control variables are explanatory variables.

Contrary to what happened for family, friends, and neighbors, all the channels are statistically significant for a 1% significance level, both in models where each channel is included separately and for the model for all the channels.

Social pressure has a positive effect on the probability of giving Zakat to institutions, as expected in the literature. For the model with the three channels, when the social pressure index increases by one unit, the probability of giving Zakat to institutions of the household increases 6.6 p.p.

Contrary to what happened for giving to socially close people, the efficiency concerns channel is statistically significant but has a negative sign. This result is predictable, as households who show concerns for the uses of their gift, even after transferring it, and seek control over its use have a lower probability of giving Zakat to institutions, where they cannot control how their gift is spent or to whom it is further distributed. In the model with all the channels, their probability of giving to institutions decreases by 10.8 p.p. when the efficiency concerns index increases by one unit.

When it comes to social norms, now this channel is statistically significant, which did not happen for giving to family, friends, and neighbors. If the social norm index increases by one unit, the probability of giving Zakat to institutions decreases by 3.6 p.p., in the model with all the channels. The negative effect of this channel may come either from the fact that, in Yemen, households do not trust a lot in institutions as the government and NGOs to redistribute Zakat or from the fact that people are not very compliant with the social norm, assuming that givers of Zakat are the only ones who should give it, as we have seen in Appendix C.

Again, it is worth explaining why these results do not mirror the ones obtained in Table 13, for the effect of the channels on the probability of giving Zakat to family, friends, and neighbors. Firstly, receivers are not mutually exclusive. Givers donate to several receivers and there are givers that donate both formally and informally. Secondly, with family, friends, and neighbors and these institutions we did not cover all potential recipients. For instance, we did not consider giving to a neighborhood leader, to a elder member of the family for further distribution, among others.

Table 20 – Average Marginal Effects
Logit, dependent variable= Give Zakat to institutions (binary)

VARIABLES	Dependent variable: Give Zakat to institutions			
Social pressure	0.0623***			0.0661***
	(0.0137)			(0.0131)
Efficiency concerns		-0.0939***		-0.108***
		(0.0146)		(0.0150)
Social norm			-0.0341***	-0.0355***
			(0.0111)	(0.0111)
Observations	2,220	2,274	2,179	2,099
Controls	YES	YES	YES	YES

Note: This table shows average marginal effects obtained after estimating Model (9) using logit. The first three columns have as explanatory variables the controls and a channel at a time. The last column model includes all channels and the control variables as independent variables. The dependent variable is a binary variable equal to one if the household gave Zakat to institutions in the last year; 0 otherwise. The control variables are Male, Age, Age squared, Work situation, Wealth in quintiles and Income in quintiles. Only households that gave Zakat were included. The difference in the number of observations from Table 12 is caused by missing values for the variables concerning family, friends, and neighbors. The results do not mirror the ones from Table 13 because these institutions and family, friends and neighbors do not exhaust all the set of potential receivers and it is possible that a giver gives both formally and informally. Standard errors are displayed in parentheses. *** stands for p<0.01, stands for ** p<0.05 and * stands for p<0.1. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms, conducted by the World Bank* in 2010.

Once again, when analyzing the impact of the channels on the log amount of Zakat given to institutions, conditional on giving, we have the problem of sample selection. To tackle this problem, we use the Heckman model with two steps. In the first step, we re-estimate Model (9) with Probit and Model (10) is used in the second step, estimated using OLS. The explanatory variables are the same in both steps.

Table 21 presents the two-step Heckman model estimates. Once again, none of the channels considered has an effect on the amount of Zakat given to the institutions considered.

Table 21 – Heckman two-step model estimates

VARIABLES	Probit Give Zakat to Institutions	OLS Log of the Amount of Zakat given to Instituions
Social pressure	0.199***	1.626
	(0.0350)	(1.320)
Efficiency concerns	-0.299***	-1.764
	(0.0431)	(1.875)
Social norm	-0.0894***	-0.751
	(0.0322)	(0.647)
Constant	-0.124	-5.821
	(0.415)	(9.532)
Observations	2,034	2,034
Controls	YES	YES

Note: This table presents estimates for the Heckman model with two steps. The Inverse Mills Ratio was 11.277. The first column presents the estimates for the Probit model, using Model (9) while the second column presents the OLS estimates of the second step, using Model (10). The control variables are Male, Age, Age squared, Work situation, Wealth in quintiles and Income in quintiles. Only households who gave Zakat were included. The difference in the number of observations from Table 14 appears because variables on giving Zakat to family, friends and neighbors have more missing variables than variables for institutions. These institutions and family, friends and neighbors do not exhaust all the set of potential receivers and a giver may donate Zakat to different receivers. Standard errors are displayed in parentheses. *** stands for p<0.01, stands for ** p<0.05 and * stands for p<0.1. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

10.6 Appendix F – Missing values

Table 22 - Missing Values for each variable

Variable	Number of Missing Observations	Total	Percent Missing (%)
Male	0	6749	0.00
Age	0	6749	0.01
Wealth in quintiles	0	6749	0.02
Income in quintiles	209	6749	3.10
Work situation	17	6749	0.25
Log Total Zakat Given	17	2,443	0.70
Give Zakat FFN	244	2,443	9.99
Log Total Zakat Given FFN	0	1122	0.0
Obligation	50	2,443	2.05
Peer Pressure	50	2,443	2.05
Lives close to mosque	46	2,443	1.88
Lives close to market	61	2,443	2.50
Belongs at least to one organization	26	2,443	1.06
Belongs to a friends and neighbors organization	74	2,443	3.03
Efficiency concerns	50	2,443	2.05
Trust more close people than institutions	45	2,443	1.84
Member or religious organization	70	2,443	2.87
Frequency of Praying	29	2,443	1.19
importance of God/Religion	37	2,443	1.51
Frequency of reading religious texts	86	2,443	3.52
Importance of faith for children	47	2,443	1.92
Zakat as Islamic Obligation	50	2,443	2.05
Social Pressure Channel	160	2,443	6.55
Efficiency Concerns Channel	95	2,443	3.89
Social Norm Channel	202	2,443	8.27

Note: This table presents the proportion of missing values for each variable considered. For the variables Male, Age, Wealth in quintiles, Income in quintiles, and Work Situation we considered all the households, as these variables were used for models with all givers. For the rest of the variables, we only excluded non-givers of Zakat. The only exception is the variable Log of Total Zakat Given to FFN, for which we only included givers of Zakat to family, friends and neighbors, otherwise as non-givers gave zero, would appear also as missing. For the channels, if one observation had at least a missing value for one of the aggregated variables, the respective channel also has a missing value. The source of the data is the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010.

10.7 Appendix G – Excerpts of the survey

In the following pages, we include the excerpts of the *Yemen Survey on Social Networks and Solidarity Mechanisms*, conducted by the World Bank in 2010 used in this thesis.

Social Networks and Solidarity Mechanisms
SURVEY QUESTIONNAIRE

Household Identification and Location

SURVEY FIRM: PLEASE ADD GPS LOCATION AND GPS LOCATION OF NEARING ZAKAT OFFICE

Area of Residence	Governorate	District	Village
1 –Urban 2 – Rural	(see codes)	(see codes)	(see codes)
|__|	|__|__|__|	|__|__|__|	|__|__|__|

Household Number	
Address	
HH head's First and Last name	

Interviewer Visits

	First Visit	Second Visit	Third Visit
Date	[_|_]/[_|_]/[_|_]	[_|_]/[_|_]/[_|_]	[_|_]/[_|_]/[_|_]
Time started	[_|_]:[_|_]	[_|_]:[_|_]	[_|_]:[_|_]
Time Ended	[_|_]:[_|_]	[_|_]:[_|_]	[_|_]:[_|_]
Interviewer's First and Last name			
Interviewer's ID code	[_|_|_]	[_|_|_]	[_|_|_]
Interview Result			
Next visit if planned			
Result code 1 - completed 2 –Refused 3 – Hospitalized 4 – Dead 5 – Respondent unknown 6 – Temporarily absent 7 – Moved 8 – Away at school 9 - Other (specify)			
Sampling			
Code 1 – original household selected 2 – household replaced after first household refused to answer			

	Editor	Supervisor	Data Entry Technician
First and Last Name			
ID code	[_|_]	[_|_]	[_|_]
Date	[_|_]/[_|_]/[_|_]	[_|_]/[_|_]/[_|_]	[_|_]/[_|_]/[_|_]

OTHER COMMENTS REGARDING VISITS

SECTION I – HOUSEHOLD ROSTER

A household consists of a person or groups of persons, irrespective of whether related or not, who normally live together in the same housing units or group of housing units and have common cooking and eating arrangements. The **head of household** is a person who is responsible for generating and managing the largest part of the household income. **Household members include only those persons who are currently living in the household.**

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
A01. List all household members who <u>currently live</u> in the household Listing Order 1. Head 2. Spouse 3. Children not married 4. Children married 5. Parents of the head 6. Brothers/sisters of head 7. Other relative of head 8. Non-relative 9. Domestic employees																				
A02. Sex 1. Male 2. Female	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
A03. Age (completed years) IF < 1 YEAR WRITE 0	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|
A04. Religion 1. Muslim 2. Shafii Muslim 3. Christian 4. Jewish 5. Hindu 6. Animist 7. Other	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
A05. Relation to Household Head 1. Head 2. Spouse 3. Partner 4. Own son/Daughter 5. Adopted son/daughter 6. Son/Daughter-in-law 7. Father/Mother 8. Brother/Sister 9. Parent-in-law 10. Grandson/granddaughter 11.Other relative 12. Servant / employee 13. Other non-relatives	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
A06. Marital status (only for those aged 12 and above) 1. Married 2.Separated/Divorced 3. Widowed 4.Single/Never married=>8	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
A07. For those not single: Age at first marriage (completed years)	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
A08. In which governorate was [NAME] born? SURVEY FIRM: PLEASE CREATE CODES FOR EACH GOVERNORATE. CREATE CODE FOR "BORN ABROAD"	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|
A09. In what year did [NAME] move here?																				
A10. From where did [NAME] migrate to this place? SURVEY FIRM: USE GOVERNORATE CODE FROM A08.	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|
A11. Spouse's ID code? If more than one spouse, write the ID codes of all spouses. If spouse lives away from the household. Write 98.	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|
A12. Mother's ID code? If mother is not a household member write 98. If mother is Dead, write 99.	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|	|_|_|

SECTION 3 – EMPLOYMENT (ask of members 5 years or older)

Codee		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	circle the row number of the person from 5 years and above	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l
2	Did [NAME] do any of the following activities in the past seven days? (Respond yes, if [NAME] did one or more of the activities listed below). a - Run a business for himself/herself b- help a family business c- do any kind of work on agricultural land, food garden, cattle, or animal husbandry d - catch any fish or wild animals e- do any domestic work for another household for pay f- do any other work for wage, salary, or piecework pay. 1 - Yes (continue) 2 - No	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l
3	Did you work during the last seven days with any person from outside the family, for example company, enterprise, government or any person 1- Yes >> 12 2- No	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l
4	Did you work during the last twelve months with any person outside the family? 1- Yes >> 12 2- No.	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l
5	During the last seven days, did you work for your own in any project for you or any family member: seller, shopkeeper, barber, tailor, carpenter, taxi driver? 1- Yes >> 12 2- No.	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l
6	Researcher: verify answered 2-5 if there is any Yes, write 1 and if answer to all questions is No, write 2	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l
7	Did [NAME] look for work in the last seven days? 1 - Yes 2 - No	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l
8	Was [NAME] available for work in the last seven days? 1 - Yes (move to next person) 2 – No	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l
9	Why was [NAME] not available or did not look for work during the past seven days? 1 – Student 2 – Housewife 3 – Too old/retired 4 - Sick 5 – Handicapped 6 – On vacation 7 - Awaiting reply from employer or agency 8 – Waiting to start new job 9 – There is no work and given up hope 10 – Don't know how to look 11 – Pregnant/delivery 12 – Other reasons	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l	l_l

SECTION 5A. GIVING ZAKAT

To be answered by household head or a responsible member of the household. Indicate which person is answering the questions by showing the ID code from the section 1 question A01.

Code										
1	Indicate the person who is responding to the questions from ID code from section 1 question A01									|_|_|
2	Did you or anyone in your household give Zakat to a person or organization outside of government in the last 12 months? 1-Yes (continue) 2- No >>>12	|_|_|							

		1.Mosque, Iman	2.NGO or cooperative	3.Relatives	4.Friends or neighbors	5. Sherif (neighborhood leader0	6. Elder in my family for further distribution	7.Non-relative that works in my house	8. Other
3	Which of the following person or organization [NAME] did your household give Zakat to? 1 – Yes 2 – No	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
4	When did you give to these persons or organizations [NAME]? 1- once a year during Ramadan 2- once a year during Eid 3- once a year not during Ramadan or Eid 3- several times a year including during Ramadan and Eid 4- Several times a year but not during Ramadan and Eid	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
5	How often did you give the transfer? 1 – weekly 2 – every 2 weeks 3 - monthly 4 – 3 months 5 – 6 months 6 – once a year	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
6	Describe the type of transfer 1 – cash 2 – basic food 3- buy clothes or tools etc for the needy	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
7	How much did you give Zakat to each person or organization outside of Ramadan or Eid in the last 12 months in riyal?	|____|	|____|	|____|	|____|	|____|	|____|	|____|	|____|
8	How much did you give Zakat to each person or organization DURING RAMADAN in the last 12 months in riyal?	|____|	|____|	|____|	|____|	|____|	|____|	|____|	|____|
9	How much did you give Zakat to each person or organization DURING Eid in the last 12 months in riyal?	|____|	|____|	|____|	|____|	|____|	|____|	|____|	|____|
10	Who calculated the amount to give? 1- NGO 2 – mosque 3 – Head or father of household alone 4 – Spouse of head or female household head alone 5– Head or father in consultation with spouse 6 – Head or father in consultation with other members spouse 7 – Head or father in consultation with an outside expert 8 – Other	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
11	What are the three main reasons you gave Zakat to these organizations or people? 1 – I trust it reaches those that are really poor 2- In my family, it has always been given to these people 3 – I trust that money stays inside my tribe/family 4 – I trust that way, it								

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#									
	is guaranteed that I am doing it correctly 5 – It is the easiest way 6 – My friends/neighbors are doing it like that 7 – I was forced to do it that way 8 – I don't give to those organizations 9 – It is an Islamic obligation								
	11a first reason	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
	11b second reason	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
	11c third reason >>>Move to Q13	|_|	|_|	|_|	|_|	|_|	|_|	|_|	|_|
12	In case you didn't give Zakat, what are the three main reasons you or your household did not give Zakat to these organizations or people? 1 – I do not know I have a legal obligation to pay Zakat 2 – I do not own enough to give Zakat 3 - I do not have control over what I own to pay for Zakat 4 – I don't trust those in charge of Zakat collection 5 – I don't trust those in charge of the distribution of Zakat 6 - I cannot afford to 7 – I don't know any poor people 8 - Not interested								
	12a first reason	|_|	|_|	|_|		|_|			
	12b second reason	|_|	|_|	|_|		|_|			
	12c third reason >>> 14	|_|	|_|	|_|		|_|			

		1.Mosque	2.NGO	3.Cooperative	4. Sherif
13	If you paid Zakat through the mosque, NGO, cooperatives or the Sherif, for each institution, what is the main reason you chose the institution to distribute your Zakat? 1- institutions are more capable 2- Because I trust the institution for distribution 3 – Because they distribute according to religious law or Shar'ia 4- Because they direct the money towards development projects 5 – I had no choice 6- other	|_|	|_|	|_|	|_|

		1.Relatives	2.Friends or neighbors	3.Poor people in the locality	4.Don't know the recipient
14	If you personally distributed Zakat to individuals, what is the main reason you did that? 1- the amount is so small, an intermediary agent is not required 2 – I usually give to my relatives 3 – I do not trust institutions 4 – I usually give these amounts on social occasions 5 – I have a trusted individual who distributes Zakat 6 – I don't know anything about the institution and the role they play 7 – I want to know who receives Zakat from me 8 – I can be sure it reaches the most needy 9 - other	|_|	|_|	|_|	|_|
15	Why did you choose that particular individual to give Zakat to? 1 – She/he is the poorest person I know 2 – She/he is an orphan 3 – She / he is a widow 4 – She/he is a member of my family 5 – She/he is a very religious person 6 – I know him/her very well 7 – I trust the person a lot	|_|	|_|	|_|	|_|
16	Do you know, by name and/or address, the person who receives Zakat from you? 1 – Yes 2 – No	|_|	|_|	|_|	|_|

41	In the past 12 months (including Ramadan and Eid), did you or anyone in your household give Zakat to the government (Zakat office)? 1-Yes 2- No >>>55	|__|
42	When did you or anyone in your household give Zakat to the government in the last 12 months (excluding Zakat Al-Fiter)? 1- once a year during Ramadan 2- once a year during Eid 3- once a year not during Ramadan or Eid 3- several times a year including during Ramadan and Eid 4- Several times a year but not during Ramadan and Eid	|__|
43	How often did you give Zakat to the government (excluding Zakat Al-Fiter)? 1 – weekly 2 – every 2 weeks 3 - monthly 4 – 3 months 5 – 6 months 6 – once a year	|__|
44	In what form did you give Zakat to the Zakat office? 1 – Cash 2- In kind 3 – Cash and in kind	|__|
45	How much Zakat did you give to the government DURING RAMADAN in the last 12 months? RIYAL	|_|,|_|_|_|,|_|_|_|
46	How much Zakat did you give to the government DURING EID in the last 12 months? RIYAL	|_|,|_|_|_|,|_|_|_|
47	How much Zakat did you give to the government in the last 12 months (excluding Ramadan and Eid)? RIYAL	|_|,|_|_|_|,|_|_|_|
48	Are you giving Zakat to government as a percentage of your wealth or income (excluding Zakat Al-Fiter)? 1 – wealth 2- income	|__|
49	Are you giving 2.5 % of your wealth or income to government as Zakat (excluding Zakat Al-Fiter)? 1 – exactly 2.5 % 2 – less than 2.5% 3 – more than 2.5 %	|__|
50	Who estimates the Zakat you give to the government (excluding Zakat Al-Fiter)? 1- myself or household members 2 – religious people 3 – government 4 – employer 5- other	|__|
51	Do you give a constant amount to government every year (excluding Zakat Al-Fiter)? 1-Yes 2- No	|__|

		1. Agricultural products	2. Livestock	3. Animal product (inc. honey)	4.Gold, silver, ores and minerals	5.Trade and industry	6.Savings and deposits	7.Salary and prizes	8.Cars, land, transportation	9. Real estate and rent	10. Zakat al-Fiter (Ramadan Zakat)
52	From the following list, which items did you pay government Zakat on? 1-Yes 2- No	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|
53	What is the amount you gave to government as Zakat in the last 12 months for each item on the list in riyal?	|_____|	|_____|	|_____|	|_____|	|_____|	|_____|	|_____|	|_____|	|_____|	|_____|
54	If you gave Zakat to government, what are the two main reasons you gave Zakat to the government?										|__|

	1 – Everybody is giving Zakat to the Zakat office 2 – My employer asked me to give Zakat to the Zakat office 3- It is the law to give Zakat to the Zakat office 4 – The Zakat office has the best track record of identifying who is really poor 5 – I trust the Zakat office more than any other institution/organization to administer Zakat 6 – It is an Islamic obligation 7 - Other	
	54a first reason	|__|
	54b second reason >> Move to Q56	|__|
55	In case you didn't give Zakat to the government (Zakat authority), what are the two main reasons you or your household did not give Zakat ? 1 – Nobody is giving Zakat to the Zakat office 2 – I do not own enough to give Zakat 3- I don't have to 4 – I don't believe the Zakat office is depositing all the revenues into the government accounts 5 – I don't trust the government in general 6 – Zakat can be better spent privately 7 – Zakat office employees are not trained enough to correctly calculate Zakat	
	55a first reason	|__|
	55b second reason	|__|
56	Did a member of the Zakat office visit your house or your work in the past 12 months? 1 – Yes 2 – No	|__|
57	Do you know of anyone who has been visited b y the Zakat office in the past 12 months? 1 – Yes 2 – No	|__|
58	Do you or anyone in your household know an employee in the Zakat office? 1- Yes 2 –No	|__|
59	In your opinion, has the Zakat office improved or gotten worse in the last 12 months? 1 – Improved 2 – Got worse 3 – Stayed the same	|__|
60	Please indicate which of the following statement comes closest to your opinion about the Zakat office 1 – I believe Zakat collected by the Zakat office is reaching the most needy 2 – I believe Zakat collected by the Zakat office is reaching the most needy, but other channels might be better at getting the money to the most needy 3- I believe Zakat collected by the Zakat office is not reaching the most needy.	|__|

SECTION 7 SOLIDARITY MECHANISMS

To be answered by household head or a responsible member of the household

Code		Government	Local or town council	Religious Organizations	NGOs or charitable organizations	Political Parties	Community Associations	Trade Union or cooperatives	Credit Associations	Relatives not in household	Friends or neighbors
1	Is any household member a member of, or participate in any of the following associations [NAME]? 1-Don't belong to>> 2 2-Inactive member >>2 3- Active member>>>3	N/A	|__|	|__|	|__|	|__|	|__|	|__|	|__|	N/A	|__|
2	Why isn't anyone in the household not a member or an inactive member in this organization [NAME] 1 - Not present in the area 2 - Not useful 3 - Time consuming 4 - Not interested 5 - Other (specify)	N/A	|__|	|__|	|__|	|__|	|__|	|__|	|__|	N/A	|__|
3	Have you or any household member benefited or received assistance from the person or organization [NAME] in the last 12 months? 1 – Yes 2 - No>>10	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|
4	Describe the type of benefit or assistance 1 – cash 2 – in-kind 3- both 4 – other type of assistance	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|
5	If you received cash or in-kind contributions, how much did you receive from each person or organization in the last 12 months in riyal?	|_____|	|_____|	|_____|	|_____|	|_____|	|_____|	|_____|	|_____|	|_____|	|_____|
6	Who in your household received assistance from the person or organization [NAME]? 1 Head or father of household 2 – Spouse of head or female household head 3 - male household member 4 - female household member 5 - everyone in household	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|
7	Why did you receive assistance from [NAME]? 1 - Drought, flood and other natural calamities 2 - Job loss 3 - poor harvest 4 - Marriage, death etc. of family members 5 – family problem 6 - At the beginning of the school year 7 - Harvesting and planting 8 Other (specify)	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|
8	What did you use the assistance for? 1- Food 2- housing 3 – education 4 – health 5 – funerals 6 – festivities 7 – investment 8 – other	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|
9	Are you satisfied with the help that you received from [NAME]? 1 – very satisfied 2 – satisfied 3 – indifferent 4 – dissatisfied 5 -very dissatisfied	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|
10	In future, in which areas do you expect the [NAME] to assist the most? 1 - Help in making new investments in business and agriculture 2 - Help by providing credit when faced with unexpected needs 3 - Managing social programs 4 - Managing local infrastructure 5 - Other(specify)	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|	|__|
11	If you needed 5,500 riyal today, who would you ask? Name three people, or organization in the order of priority.									|__|__|	

		a. Parents/ parents in law	b. Siblings	c. Other family members	d.Friends or neighbors
	1 - parents or parents in laws 2 - Siblings 3 - Other family members 4 - Friends or neighbors 5 - Government 6 - Local councils 7 - Religious organization or mosque 8. - NGO 9. - Political parties 10. - Community associations 11. - Trade union 12. - Credit association 13. - Money lender or bank 11a. First person/organization				
	11b. Second person/organization				|__|__|
	11c. Third person/organization				|__|__|
12	If you suffered from an adverse weather events (such as a flood), who would you ask for help? Name three people, or organization in the order of priority. 1 - parents or parents in laws 2 - Siblings 3 - Other family members 4 - Friends or neighbors 5 - Government 6 - Local councils 7 - Religious organization or mosque 8. - NGO 9. - Political parties 10. - Community associations 11. - Trade union 12. - Credit association 13. - Money lender or bank 12a. First person/organization				|__|__|
	12b. Second person/organization				|__|__|
	12c. Third person/organization				|__|__|
13	If the following people asked for a loan or gift of 5,500 riyal today, would you give it to him/her? 1 – Yes 2 – No	|__|	|__|	|__|	|__|
14	I am going to name a few people/organizations. For each one, please tell me how much trust you have in them. 1 – a great deal of trust 2- quite a lot of trust 3- indifferent 4 – not very much trust 5 – none at all 14a. your parents or parents in law				|__|
	14b. your siblings				|__|
	14c. Other family members				|__|
	14d. Friends or neighbors				|__|
	14e. Government				|__|
	14f. Religious leaders/ religious organization				|__|
	14g. NGO				|__|
	14h. The police				|__|
	14i. The Courts				|__|
	14j. Political parties				|__|

SECTION 10 – INCOME DURING THE PAST 12 MONTHS

To be answered by household head or a responsible member of the household.

How much was earned by the household (including all household members) during the past 12 months from the following. Write 0 if nothing was earned.

Category	Code	Did the household earn anything in the past 12 months from (source) 1 - Yes 2 - No	Amount in **RIYALS**	Which household member has the most responsibility for the sale of the agricultural produce or earning non-agricultural income? Indicate the Person ID from Section 1 Q1. If all members receive cash, indicate 99
Agriculture and related income			|__,|____,|____|	
Sale of cereals	1	|__|	|__,|____,|____|	|__|__|
Sale of fruits and vegetables	2	|__|	|__,|____,|____|	|__|__|
Sale of cotton, tobacco, quat and coffee bean	3	|__|	|__,|____,|____|	|__|__|
Other agricultural products	4	|__|	|__,|____,|____|	|__|__|
Livestock feed	5	|__|	|__,|____,|____|	|__|__|
Livestock	6	|__|	|__,|____,|____|	|__|__|
Fish	7	|__|	|__,|____,|____|	|__|__|
Auto consumption and gifts	8	|__|	|__,|____,|____|	|__|__|
Non agricultural income				
Salaries/wages. If more than one person earns a salary or wages, indicate the person below.				
First person	9a	|__|	|__,|____,|____|	|__|__|
Second person	9b	|__|	|__,|____,|____|	|__|__|
Third person	9c	|__|	|__,|____,|____|	|__|__|
Retirement payments/pension. If more than one person earns a pension, indicate the person below.		|__|	|__,|____,|____|	|__|__|
First person	10a	|__|	|__,|____,|____|	|__|__|
Second person	10b	|__|	|__,|____,|____|	|__|__|
Cash assistance from social security fund	11	|__|	|__,|____,|____|	|__|__|
Cash assistance from social welfare fund	12	|__|	|__,|____,|____|	|__|__|
Cash assistance from the General Authority for the care of Maryer families	13	|__|	|__,|____,|____|	|__|__|
Assistance from the fund of promotion of agriculture and fishing	14	|__|	|__,|____,|____|	|__|__|
Assistance from international and local programs	15	|__|	|__,|____,|____|	|__|__|
In kind support from the medicine fund for the disabled or chronically sick	16	|__|	|__,|____,|____|	|__|__|
Cash assistance from Tribes Authority affairs	17	|__|	|__,|____,|____|	|__|__|
Cash and in kind assistance from charity organizations (do not include zakat)	18	|__|	|__,|____,|____|	|__|__|
Remittances from family members and friends in Yemen	19	|__|	|__,|____,|____|	|__|__|
Remittances from family members and friends abroad	20	|__|	|__,|____,|____|	|__|__|
Net income from own business	21	|__|	|__,|____,|____|	|__|__|
Rental income from cultivated land and buildings	22	|__|	|__,|____,|____|	|__|__|
Selling own farm land	23	|__|	|__,|____,|____|	|__|__|
Selling jewelry	24	|__|	|__,|____,|____|	|__|__|
Selling vehicles and household appliances	25	|__|	|__,|____,|____|	|__|__|
Income from dowry	26	|__|	|__,|____,|____|	|__|__|
Income from inheritance	27	|__|	|__,|____,|____|	|__|__|
Income or return from bonds	28	|__|	|__,|____,|____|	|__|__|
Cash and in kind assistance from zakat	29	|__|	|__,|____,|____|	|__|__|
Other income	30	|__|	|__,|____,|____|	|__|__|

SECTION 11– HOUSEHOLD ASSETS

To be answered by household head or a responsible member of the household

Type of Household Asset	Code	1 Does your household currently own the following asset? **1=YES>>2** **2=NO>>next**	2 How many of the assets do you own?	3 If you are to sell this [ASSET], what do you think its value will be in total? RIYALS	4 Did your household own this [ASSET], five years ago? **1=YES** **2=NO**
Private car	1	|__|__|	|__|__|		|__|__|
Taxi	2	|__|__|	|__|__|		|__|__|
Autobus	3	|__|__|	|__|__|		|__|__|
Conash/wagon	4	|__|__|	|__|__|		|__|__|
Small truck	5	|__|__|	|__|__|		|__|__|
Truck	6	|__|__|	|__|__|		|__|__|
Bicycle	7	|__|__|	|__|__|		|__|__|
Motor bike	8	|__|__|	|__|__|		|__|__|
Gas stove	9	|__|__|	|__|__|		|__|__|
Mixer	10	|__|__|	|__|__|		|__|__|
Refrigerator/freezer	11	|__|__|	|__|__|		|__|__|
Washing machine	12	|__|__|	|__|__|		|__|__|
Iron	13	|__|__|	|__|__|		|__|__|
Electrical water warmer	14	|__|__|	|__|__|		|__|__|
Sun water warmer	15	|__|__|	|__|__|		|__|__|
Radio/Cassette recorder	16	|__|__|	|__|__|		|__|__|
Color TV	17	|__|__|	|__|__|		|__|__|
Black and white TV	18	|__|__|	|__|__|		|__|__|
DVD player	19	|__|__|	|__|__|		|__|__|
Satellite dish	20	|__|__|	|__|__|		|__|__|
Land telephone	21	|__|__|	|__|__|		|__|__|
Mobile telephone	22	|__|__|	|__|__|		|__|__|
Sewing machine	23	|__|__|	|__|__|		|__|__|
Power generator	24	|__|__|	|__|__|		|__|__|
Electric fan	25	|__|__|	|__|__|		|__|__|
Air conditioner	26	|__|__|	|__|__|		|__|__|
Personal computer	27	|__|__|	|__|__|		|__|__|
Motor boat	28	|__|__|	|__|__|		|__|__|
Row boat or sail boat	29	|__|__|	|__|__|		|__|__|
Animal drawn cart	30	|__|__|	|__|__|		|__|__|
Jewelry	31	|__|__|	|__|__|		|__|__|
Other buildings (excluding dwelling)	32	|__|__|	|__|__|		|__|__|

SECTION 12– HOUSEHOLD SAVINGS AND LOANS

To be answered by household head or a responsible member of the household

Code			
1	Do you or anyone in your household have some money deposits? 1 – Yes 2 – No >> 3		|__|
2	Approximately how much savings do you or your household have in money deposits? In riyal		
3	Do you or anyone in your household have some savings in shares or bonds? 1 – Yes 2 – No		|__|
4	Approximately how much savings do you or your household have in shares or bonds? In riyal		

		Loan number		
		a	b	C
5	Does the household have outstanding loans or debt to others? 1 – Yes 2 – No >> move to next section	|__|__|	|__|__|	|__|__|
6	From whom did you obtain the loan or owe money? 1 – Relatives 2 – friends or neighbors 3 – money lender 4 – microfinance organization or cooperatives 5 – bank 6 – trader 7 – land lord 8 – employer 9 – religious organization 10 – social development fund 11- other	|__|__|	|__|__|	|__|__|
7	What is the main reason for the loan or debt? 1 – consumption needs 2 – agriculture production 3 – non-agriculture activities 4 – emergencies (illness, food, fire) 5 – ceremonies (marriage, funeral) 6 – improvement of dwelling 7 – to build home 8 – purchase of consumer durables 9 – to pay other debts 10- other	|__|__|	|__|__|	|__|__|
8	When did you get the loan or debt? a. month b. year	|__|__| |__|__|	|__|__| |__|__|	|__|__| |__|__|
9	How long will it take to repay the loan/debt? In months	|__|__|	|__|__|	|__|__|
10	What is the total amount of the loan? (exclude interest) in riyal ?			
11	What is the type of loan or debt? 1 – loan/debt with interest 2 – loan/debt without interest	|__|	|__|	|__|
12	What is the interest rate?			
13	What is the monthly interest and loan payment in riyal?			
14	What form of collateral did you have to pledge to secure the loan? 1 – Land 2- house 3- vehicle 4- furniture 5- assurance from employer on salary 6- other form 7 – no collateral	|__|	|__|	|__|
15	What is the value of the collateral in riyal?			
16	If the household needed another loan, could you get it from the same source? 1 – Yes 2 – No	|__|	|__|	|__|

	SECTION 14 – HOUSING	
1	What type of dwelling do you occupy? 1 – House 2 – Apartment 3 – Villa 4 – Habitable establishment 5 – Wood or iron clad shelter 6 – Hut 7 – Tent 8 – Other (specify)	|__|
2	How many rooms does your household occupy (do not include kitchen or bathroom)? Number of rooms	|__|__|
3	What is the main construction material of the roof? 1 – Reinforced concrete 2 – Wood and concrete 3 – Wood and mud 4 – Wood 5 – Metal sheets 6 – Hay 7 – Mud and hay 8 – Metal sheet and mud	|__|
4	What is the main construction material of the wall? 1 - Cut stone 2 - Regular stone 3 - Cement block 4 - Sun dried brick 5 - Cooked burnt brick 6 – Mud 7 – Hay 8 – Fabrics 9 – Other	|__|
5	What type of floor does the dwelling have? 1 – Concrete 2 - Floor tiles 3 – Mud/soil 4 – Stone 5 – Marble 6 - Other	|__|
6	What is the main source of lighting? 1 - Public network 2 - Cooperative network 3 - Private network 4 – house generator 5 – kerosene lantern 6 – gas lamp 7 – candles 8 – other	|__|

7	What are the main sources of fuel used for cooking?
	   1- Wood 2- Coal 3 – Gas 4 – Kerosene 5 – Electricity 6 – Garbage 7 – Animal dung
	      8 Other
		|__|

8	How much time per day is spent collecting firewood or animal dung for the household? Time in minutes per day	|__|__|__|
9	How does the household mainly access its water supply? 1 – Water tap inside the house 2 - Water tap outside the house 3 – Well inside the house 4 - Well outside the house 5 – Stream 6 - Dam 7 – Collecting from the rain 8 - Other	|__|
10	How much time per day is spent collecting water for the household? Time in minutes per day	|__|__|__|
11	Is the household receiving sufficient amount of drinking water? 1- Yes 2 – No	|__|
12	Does this dwelling have a kitchen? 1- Yes 2 – No	|__|
13	Does this dwelling have a bathroom? 1- Yes 2 – No	|__|
14	What type of toilet do you have? 1 –flushed toilet 2 – non-flushed toilet 3-other used facility 4 – no toilet	|__|
15	Type of sewage disposal system. 1-Public network 2 - Closed pot 3 - Open pot 4 – None 5 – Other	|__|
16	What is your current occupancy status? 1- Own >>18 2 – Rent >>17 3 – Occupied free >>18 4 – Other>>18	|__|
17	If you rent, how much is the rent paid per month? RIYALS	|__,|__|__|__,|__|__|__|
18	Could you sell this dwelling if you wanted to? 1- Yes 2 – No	|__|

19	If you sold your dwelling today, how much would you receive for it? RIYALS	|__|,__|__|__|,__|__|__|	
20	What is the monthly rent expected if you rented the dwelling to someone else? RIYALS	|__|,__|__|__|,__|__|__|	

21	Does the dwelling have access to the following facilities?	a. 1 – Yes 2 - No	b. Time taken to reach each facility (in minutes)
	21.1 – Primary school	|_|	|_|_|_|
	21.2 – Secondary school	|_|	|_|_|_|
	21.3 – Health Center	|_|	|_|_|_|
	21.4 – Market	|_|	|_|_|_|
	21.5 – Bank or other financial institution	|_|	|_|_|_|
	21.6- Mosque	|_|	|_|_|_|
	21.7-Police Station	|_|	|_|_|_|

Answering this section is optional:

SECTION 15– RELIGIOSITY (To be answered by household head or a responsible member of the household. Indicate which person is answering the questions by showing the ID code from the section 1 question A01.

Code		
1	Could you tell me whether [NAME] is an active member, inactive member or not a member of a religious organization? 1- Don't belong 2 – Inactive member 3 – Active member	|_|
2	How much confidence [NAME] has in the religious organization? 1 – A great deal 2 – Quite a lot 3 – Not very much 4 – None at all	|_|
3	How frequently does [NAME] pray? 1 – Everyday or almost everyday 2 – Several times a week 3 – Sometimes 4 – Rarely 5 – Don't pray	|_|
4	How important is religion in [NAME] life? 5 indicates "very important" and 1 indicates "not at all important." Not at all important Very important 1 2 3 4 5	|_|
5	How often does [NAME] read the Qur'an or a religious script? 1- Everyday or almost everyday 2 – Several times a week 3 - Sometimes 4 - Rarely 5 – I don't read 6 – Can't choose 7 – Decline to answer	|_|
6	Do you think that among the various qualities children can be encouraged to learn from home, religious faith is important? 1-Yes 2 –No 3- Don't Know	|_|