Financial Security and Socioeconomic Integration: Evidence from Refugees and Host Communities in Mozambique

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Abstract

This paper examines how financial security can shape socioeconomic integration. We study this relationship in the context of refugees and low-income host communities in the developing world. We engage 467 refugees and host community members in Northern Mozambique in a field experiment and find that increasing the financial security of both refugees and host community members increases the level of trust both within and across groups, strengthens feelings of belonging and promotes social cohesion up to two years later. Consistent with our causal interpretation of the relationship, as financial security deteriorates due to a natural disaster, social cohesion also weakens. These findings underscore the importance of targeting social protection more inclusively among competing groups in low-income settings but they also suggest that the associated gains in social cohesion can be fragile and easily reversed when individuals are subsequently exposed to negative financial shocks.

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1 Introduction

By early 2022, over 100 million people had been forcibly displaced from their homes (UNHCR 2022). Approximately 43% of those displaced are refugees, often fleeing conflict and climate shocks, with the vast majority seeking refuge across the developing world (85%). These figures have almost tripled since 2010 and are only expected to increase with worsening conflict and climate change, particularly in Sub-Saharan Africa. Importantly, less than 0.1% of refugees manage to get resettled each year. As a result, over 70% of refugees are estimated to be in a situation of protracted displacement (UNHCR 2021), as they try to socially and economically integrate into host communities across the sub-continent. This poses dramatic and immediate economic, political and social challenges to the low-income, fragile states that host them.

While refugees face specific vulnerabilities, including the loss of assets and psychological trauma (World Bank, 2017), they are often hosted by communities who are also impoverished and marginalized themselves, where resources for survival are scarce (Jacobsen, 2002; Verwimp and Maystadt, 2015; Sanghi et al., 2016; World Bank 2017). Refugees normally account for less than 1 percent of the host country's population[1] but as recipients of humanitarian support, their presence is highly salient to their hosts, particularly in more deprived rural areas. The perceived unfairness of this type of allocation in an environment defined by scarce resources and limited public services can compromise social cohesion, undermine the socioeconomic integration of refugees and hinder the development and growth of host economies (Jacobsen, 2002; Alesina and Ferrara, 2000; Easterly et al., 2006). At an extreme, the lack of socioeconomic integration of refugees into host communities is likely to undo much of the long-term intended benefits of the humanitarian transfers themselves (Jacobsen, 2002).

An extensive literature has discussed group-level determinants of social cohesion ranging from ethnic homogeneity to expectations of reciprocity (Alesina and Ferrara, 2000), both of which are hard to change in a refugee-host setting. More recently, a small but growing empirical literature has focused on whether increasing contact between majority and minority groups can

[1]There are a few exceptions, including Turkey, Chad, Djibouti and South Sudan, where refugees account for between 2 and 3.5 percent of the population.

reduce prejudice and strengthen social ties (Allport, 1954; Betts et al., 2022) but the empirical evidence is mixed with increased contact sometimes leading to better (Hopkins, 2010; Rao, 2019), and sometimes worse (Pettigrew and Tropp, 2006; Paluck et al., 2018; Quillian, 1996) attitudes of hosts towards outsiders.[2] This paper focuses on an alternative mechanism: the role of financial security in driving socioeconomic integration. In settings characterized by a high-level of competition for scarce resources among different groups, one's own level of financial security is likely to play a key role in shaping perceptions of fairness in the allocation of resources across groups and in trust, both of which underpin social cohesion (Jacobsen, 2002). Improved social cohesion can then foster feelings of belonging and life satisfaction that are critical for one's overall socioeconomic integration into a community. In fact, a plausible hypothesis is that a person's absolute and relative level of financial security mediates the impact of increased interactions with out-groups on social cohesion. If so, this could potentially explain some of the diverging findings on the contact hypothesis in the literature to date.

To establish a causal relationship between financial security and socioeconomic integration in fragmented societies, we leverage the introduction of an employment and income support program designed and implemented by the United Nations Refugee Agency (UNHCR), which allocated humanitarian aid equally across a randomly selected subset of ultra-poor refugees and ultra-poor host community members living in Northern Mozambique, in the province of Nampula. In our setting, refugees live in a managed yet open refugee camp, with freedom of movement, near several relatively small agglomerations of host communities that pre-dated the establishment of the camp. Refugees and host communities interact mostly in product and labor markets as well as by sharing education and health facilities inside the refugee camp.

We measure socioeconomic integration and financial security at baseline, almost one year before the introduction of the program. Our measure of financial security is based on each participant's level of income, their ability to access money in an emergency and the share of income they saved in the previous month. We then measure socioeconomic integration in two key domains: social cohesion (trust; zero-sum thinking in the allocation of resources across in-groups and out-

[2]Moreover, interventions aimed at improving social cohesion through more interactions tend to generate weak effects (Paluck et al., 2018; etc)

groups; interactions with out-groups) together with feelings of belonging to the host country and job satisfaction. We measure these same variables in three subsequent survey waves in the course of 2 years, which allows us to examine how financial security and social integration evolved over time.

We find that increasing the level of financial security of host community members and of refugees significantly increases the socioeconomic integration of refugees and improves overall social cohesion. Financial security is associated with increased mutual trust and reduced zero-sum thinking in the allocation of resources as hosts are less likely to believe that the government should prioritize the needs of nationals over those of foreigners and that jobs, when scarce, should be allocated to nationals instead of to foreigners. Improved financial security is also associated with increased feelings of belonging and job satisfaction. These effects are particularly pronounced for host community members living closer to refugees and, consistent with our interpretation on the importance of the financial channel, for those with a lower level of income at baseline.

We find no evidence of alternative mechanisms at play such as the possibility of transfers occurring between refugees and hosts, in-migration or out-migration from treatment or control households, or by an improvement in the level of mental health of refugees and hosts as a result of participating in the livelihoods support program. We also find no evidence that the increase in trust and reduced zero-sum thinking is driven by an increase in political or civic participation at the community level.

We then turn to the persistence and the resilience of the effects. One view is that there is histeresis: as financial concerns are eased, social contact is increased, trust is forged and positive-sum mindsets are shaped leading to hard to reverse improvements in social integration. An alternative hypothesis is that the gains in trust and integration are easily reversed once financial concerns return. Nearly two years after our intervention, a cyclone hit the province of Nampula. Almost half of the households both in the refugee camp and among the host communities experienced significant damage to their dwellings and land. This exogenous shock to financial security enables us to test whether households that experienced the largest deteri-

oration in financial security also experienced a change in their levels of social integration. We instrument household and crop destruction with several exogenous determinants of exposure to the climate event such as distance from the cyclone path, elevation, latitude and longitude and rainfall. This approach reveals that among the households experiencing the largest damage, social cohesion decreased by roughly 1 standard deviation of the control group's baseline distribution, which is a deterioration equivalent to more then double the overall improvement on social cohesion from treatment.

These findings suggest that financial security is an important building block for social cohesion among diverse groups. More specifically, they imply that the redistribution of humanitarian resources from refugees only to include ultra-poor members of the host community may be an important strategy to promote social cohesion, alleviate tensions and consequently pave the way for the economic and social integration of refugees into environments defined by a significant scarcity of resources. At baseline, host community members who interacted the most with refugees did not report higher levels of social cohesion but the treated host members that experienced an increase in financial security have more interactions with refugees and higher levels of trust at endline. This suggests that financial security can be an important mediator of the impact of contact on social cohesion. Our findings also suggest that in normal circumstances, these shifts in social integration can persist up to at least two years. However, we also find that if financial security deteriorates due to a natural disaster, so will social cohesion.

Our findings contribute to several literatures. First, our work adds to a growing literature on the determinants of social cohesion and trust. The evidence on the impact of social protection on social cohesion is both limited and inconclusive in both refugee and non-refugee settings (Lehmann and Masterson, 2014; Attanasio et al., 2015; Evans et al., 2019; Valli et al. 2019). We show that financial security can be an important driver of social cohesion, particularly in heterogeneous societies characterized by a severe competition for scarce resources across different groups. We document how combining support for refugees *and* host community members can have a long-lasting positive effect on social cohesion. On the other hand, a key mechanism for strengthening social ties in the existing literature is increasing interactions and exposure

between groups, often engineered by humanitarian programs (e.g. monthly meetings and exchanges) or explicit messages and training events to promote tolerance and social capital. We depart from this literature to show a more general setting in which there are no explicit interventions to foster social cohesion. Finally, we present evidence on how being financially secure reduces zero-sum thinking. This is in line with recent literature highlighting the importance of experiences in shaping psychological traits that correlate with day to day preferences and beliefs (Chinoy et al., 2022).

Second, we contribute to a growing literature on the contact hypothesis (Allport, 1954). This theory argues that under certain conditions, namely common goals, similar socioeconomic status, cooperation and institutional support, increasing contact between majority and minority groups can strengthen social ties and tolerance. Our findings suggest that improving the absolute level of income and financial security of both players can be important for contact to improve social cohesion, even in more general settings not characterized by a commonality of goals or by explicit opportunities for cooperation.

Third, we add to a growing body of evidence on the impact of income and employment support bundles in poverty alleviation among ultra-poor populations (Bandiera et al., 2017; Banerjee et al., 2015). The evidence to date suggests that these one-off interventions can be a powerful tool for long-term poverty reduction by allowing the ultra-poor to build productive assets, to save and to optimize occupational choice. To our knowledge, this is the first paper to evaluate the impact of a similar program among refugees and host communities. Analyzing a more heterogeneous group of ultra-poor recipients can expand and sharpen our understanding of why and how this approach can help reduce poverty. Importantly, we also show that the impact of these programs on social integration can weaken across time if populations are affected by natural disasters that compromise their financial security.

The rest of the paper is organized as follows: section 2 discusses the setting, the data and the empirical strategy, section 3 presents the core results, section 4 discusses the main mechanisms at play and section 5 concludes.

2 Financial Security and Socioeconomic Integration

By 2050, it is projected that over 1.2 billion people will have been forcibly displaced from their homes, driven out by a combination of conflict and climate shocks. Given that 70% of refugees are currently in a situation of protracted displacement and are seldom repatriated home, the socioeconomic integration of refugees into host communities across the developing world remains a critical policy goal. Refugees and hosts often interact in a variety of settings ranging from product to labor markets. The level of social cohesion across these groups is likely to play an important role in the socioeconomic integration of refugees, since it critically underpins most social and economic interactions between groups (Arrow, 1974, Zak and Knack, 1998; UNHCR and the World Bank 2015).

A growing literature has explored group-level and individual determinants of social cohesion ranging from ethnic homogeneity to feelings of reciprocity and altruism (Alesina and Ferrara, 2000). One potentially important driver of social cohesion that has been less studied in the literature is the importance of one's financial security in framing relationships with others. And yet, financial security can affect social integration through many different avenues. For one, financial security can foster social cohesion by releasing time, bandwidth and income constraints, enabling individuals to participate more in activities that strengthen social ties and build social capital (Pavanello et al., 2016). Second, it can also decrease perceptions of marginalization and poverty (Roelen, 2017), which are often isolating and can lead to a voluntary or involuntary detachment from others. Third, improving one's financial security can shift attention away from the competition for scarce resources, rendering individuals more tolerant, more welcoming and less zero-sum in their attitudes to others, particularly with reference to out-groups (Michal et al., 2014). Finally, financial security can mitigate inequality aversion if an increase in income increases tolerance for inequality (Lambert et al., 2003; Bernhard et al., 2006). On the other hand, it is possible that social protection breeds more resentment: those who experience the benefits of the program may feel that these should be directed exclusively to other refugees while host beneficiaries might react in a similar way relative to their in-groups. This could strengthen in-group cooperation at the expense of across-group solidarity (Richerson et al.,

2003; Bowles, 2008). Alternatively, it could be that any increased interaction in labor and product markets between different groups that results from increased financial security leads to more, not less inequality aversion by making social or cultural differences between groups more salient. The impact of strengthening financial security on social integration is therefore ambiguous.

2.1 Setting

Mozambique currently hosts over 28,000 refugees despite being one of the poorest countries in the world.[3] We examine the role of financial security on social cohesion and trust among refugees and host communities in the context of a managed refugee camp located in Northern Mozambique, 35 km from the city of Nampula, the third largest city in Mozambique with a population of approximately 743,125. The refugee camp of Maratane was created in 2001 and it hosts almost 12,000 refugees, representing almost half (42%) of the forcibly displaced individuals seeking refuge in Mozambique. The camp is presently co-managed by UNHCR and the Government of Mozambique. The majority of refugees in Maratane hail from the DRC (42%) and Burundi (32%), with the remainder originating from Somalia (11%), Rwanda (14%) and Ethiopia, Uganda and Congo (1%). The average (median) refugee has been in the camp for 9.5 years (8 years), with a standard deviation of 5 years. The earlier refugees have lived in the camp for 18 years while the most recent arrivals have been in the camp for 1 year at the time of the start of our study.

Host communities live in areas either bordering the camp or within a radius of 7 kms in scattered and small agglomerations. In total, about 16,390 host community members directly depend on the camp for social services provided by UNHCR and the government. The refugee camp houses their closest market, as well as health and education facilities. Importantly, these agglomerations pre-date the opening of the camp.

[3]The share of world GDP sits at merely 0.03% for Mozambique

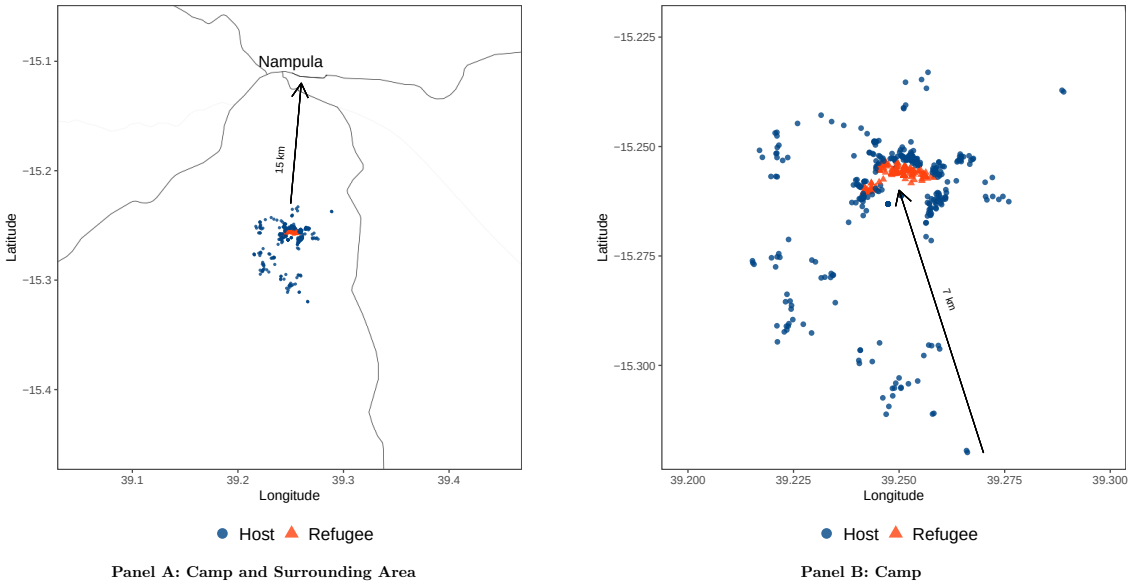

Figure 1: Distribution of Households The figure shows the locations of households in the community, by host and refugee status. The Maratane refugee camp is located approximately 15 km from the centre of the city of Nampula. Host community members live between 0.3 and 7km away from the camp.

2.2 Sample and Data

We select a sample of 467 refugees and host community members drawn from a group of potentially eligible participants of UNHCR's livelihoods program. Eligible participants are identified through the administration of a simple poverty card, which gathers information on 10 socioeconomic indicators to identify poor and extremely poor individuals. The poverty scorecard classification is based on data from the most recent National Poverty Assessment in Mozambique (the 2014/15 Household Budget Survey) and it is used by the Government of Mozambique to enroll citizens into different social safety net programs.

We stratify our sample by refugees and host community members and randomly assign 166 participants to the treatment group and 301 participants to a control group.[4] We then implement a survey in 4 waves to monitor changes in financial security and in measures of social integration across time.[5] All surveys captured information on household demographics, together with the key outcome variables of financial security and social integration (trust, interactions across

[4] Table A.1 in the Online Appendix shows that these groups are balanced between treatment and control, both for refugees and hosts.

[5] The baseline survey and first midline survey were conducted in person while the last two surveys were conducted over the phone.

groups and zero-sum thinking in the allocation of resources between in-groups and out-groups, feelings of belonging to Mozambique and job satisfaction).[6]

We measure social cohesion with the following indicators: i) a composite measure of trust in neighbors[7]; ii) zero-sum attitudes in the allocation of resources with respect to out-groups; iii) the share of interactions with out-groups and iv) the share of friends among out-groups. To obtain a more comprehensive measure of socioeconomic integration we add to this measure of social cohesion a variable capturing feelings of belonging to Mozambique and general job satisfaction. Following the procedure set out in (Banerjee et al., 2015), the index of social integration is constructed by first equally weighting the average z-scores of each indicator (obtained by subtracting the control group mean for each round and dividing it by the control standard deviation) and then by standardising these again with reference to the control group.

Similarly, we measure financial security by aggregating the following variables in a single index: i) % of income saved last month; ii) Ease of paying a surprise bill of 6000 meticais (approximately 94 USD); iii) monthly take home pay [8] and iv) whether the respondent is employed. Table A.1 in the Online Appendix shows baseline balance for these key outcome variables as well as demographic characteristics across treatment and control, within the refugee and host strata.

2.3 Baseline Levels of Financial Security and Social Cohesion

At baseline, we find that levels of trust and patterns of interactions between in-groups and out-groups are low for both refugees and host community members.[9] In a first approach to the data, we begin by examining which factors correlate with baseline levels of social cohesion among both groups. Table 1 reveals a strong correlation between levels of financial security

[6] Attrition across the different waves was low and balanced across treatment and control groups for both refugees and host community members as shown in Table A.2 in the Online Appendix.

[7] We measure trust through a measure of generalized trust alongside specific questions about trust in in-groups and in out-groups. Refugees were asked about the degree to which they trust other refugees (in-group) and Mozambicans living around the camp (out-group) separately, and analogously, host community members were asked about the degree to which they trust their neighbours (in-group) and Refugees living in Maratane camp separately (out-group)

[8] Monthly pay is converted from Meticais to USD at a rate of 1 Meticais = 0.16 USD

[9] On a scale of 1 to 5, on average, refugees and hosts would report 3 or less on whether they would trust their neighbour with their keys or their children or even to shop for them.

and social integration, defined as baseline levels of trust, the frequency of interactions between in-groups and out-groups and the level of zero-sum thinking in the allocation of scarce resources with respect to out-groups. Interestingly, higher levels of financial security are associated with more zero-sum thinking in the allocation of resources between refugees and hosts.

We then examine whether proximity to the camp, and presumably higher exposure to members of different groups is correlated with social cohesion at baseline. The effect of distance is mixed: when it comes to interactions across groups, being close matters – both groups report a higher number of interactions per week when they live closer to out-groups, but this does not translate into having a higher share of out-group friends. As a consequence, more interactions and proximity does not appear to translate, on its own, into more trust and reduced zero-sum thinking in the competition for resources. This suggests that proximity can help interactions but it doesn't necessarily build social ties and social capital amongst different groups on its own. Distance on the other hand does not affect zero-sum thinking. This suggests that a zero-sum mindset is more likely to be shaped by one's financial situation than by the nature and frequency of interactions between groups (Chinoy et al., 2022).

Table 1: Correlation Between Financial Security and Social Cohesion, Baseline

	Estimates for Financial Security					*Estimates for Distance*				
	Trust	Outgroup Intercts.	Prop Out-Group Friends	Gov. Support Nation-als [1-5]	Moz More Right Work [1-5]	Trust	Outgroup Intercts.	Prop Out-Group Friends	Gov. Support Nation-als [1-5]	Moz More Right Work [1-5]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Panel A: Full Sample									
Financial Security Index	0.22***	0.25***	0.00	0.11**	0.13***	.	.	.	.	.
	[0.03]	[0.06]	[0.01]	[0.04]	[0.04]	.	.	.	.	.
Distance to Out-Group	.	.	.	.	.	0.07***	-0.19***	0.01	-0.07	0.00
	.	.	.	.	.	[0.02]	[0.06]	[0.01]	[0.04]	[0.04]
Mean Dependent	-0.00	2.13	0.18	3.22	3.26	2.95	2.13	0.18	3.22	3.26
Observations	467	467	467	467	467	467	467	467	467	467
Adj. R-squared	0.08	0.04	0.06	0.14	0.14	0.01	0.02	0.07	0.13	0.13
	Panel B: Only Refugees									
Financial Security Index	0.20***	0.29***	-0.01	0.05	0.09	.	.	.	.	.
	[0.05]	[0.08]	[0.01]	[0.06]	[0.07]	.	.	.	.	.
Distance to Out-Group	.	.	.	.	.	0.54	-4.68***	-0.78***	-1.58*	-1.56*
	.	.	.	.	.	[0.81]	[1.51]	[0.19]	[0.92]	[0.91]
Mean Dependent	-0.07	2.39	0.26	2.56	2.57	2.88	2.39	0.26	2.56	2.57
Observations	144	144	144	144	144	144	144	144	144	144
Adj. R-squared	0.09	0.08	-0.00	-0.00	0.01	-0.00	0.06	0.07	0.01	0.01
	Panel C: Only Hosts									
Financial Security Index	0.23***	0.22**	0.01	0.16***	0.16***	.	.	.	.	.
	[0.04]	[0.08]	[0.01]	[0.05]	[0.05]	.	.	.	.	.
Distance to Out-Group	.	.	.	.	.	0.07***	-0.18***	0.01	-0.07	0.01
	.	.	.	.	.	[0.02]	[0.06]	[0.01]	[0.04]	[0.04]
Mean Dependent	0.03	2.02	0.14	3.51	3.57	2.98	2.02	0.14	3.51	3.57
Observations	323	323	323	323	323	323	323	323	323	323
Adj. R-squared	0.07	0.02	0.00	0.02	0.02	0.02	0.02	0.00	0.00	-0.00
Controls	N	N	N	N	N	N	N	N	N	N

The table shows OLS unconditional estimates of various measures of Social Cohesion variables on Financial Security. Trust PCA is the first component of 3 proxies for trust (comfort in leaving a set of keys with neighbours [1-4], comfort in having neighbour watch over kids [1-4], comfort in giving your neighbour money to pick up groceries [1-4]). Column 2 measures the number of times the respondent interacted with a member of the opposite group in the past 7 days, and column 3 shows what proportion of total friends are from the outgroup. Columns 4-5 measure the extent to which the respondent feels that Mozambicians should be supported first in times of crisis (1-5) and that Mozambicians should be prioratized for work when jobs are scare (1-5), repectively. Financial Security Index is an index of 4 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay, and whether the respondent is employed), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Distance to Out-Group measures how far (kms) the respondent lives from the closesnt out-group member. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

2.4 Financial Security and Trust in Out-groups: Global Patterns

We investigate whether the pattern we observe in our communities in Nampula reflects a broader, global trend. We pool data for 59 countries and over 83,932 respondents to the World

Values Survey, and examine the correlation between a measure of perceived financial security[10] and a measure of financial satisfaction.[11]

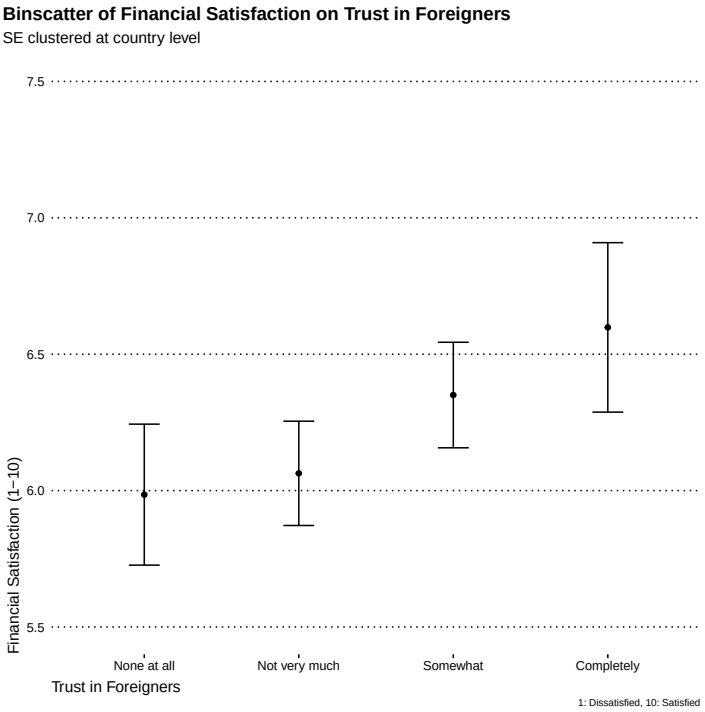

Figure 2: Financial Security and Trust in Foreigners: World Value Survey (2017-2022)

Figure 2 shows that on average, respondents that feel more secure financially are more likely to trust foreigners. This suggests that the patterns observed in Nampula may be similar to what is observed in other settings.

3 Strengthening Financial Security

UNHCR in partnership with the government of Mozambique, implemented a livelihoods program as a sequenced package of social and economic assistance to build participants' economic self-reliance and financial security, moving them out of extreme poverty.

[10]This measure is obtained from answers to the question: "How satisfied are you with the financial situation of your household?", with a range between being completely dissatisfied (1) to being completely satisfied (10). The graph is very similar when we use a measure of perceived income rank.

[11]This is measured by the response to the following question: "I'd like to ask you how much you trust people from various groups. Could you tell me [...] whether you trust people from a different nationality". The respondents can select an option from completely, somewhat, not very much to not at all".

The main intervention aimed to improve the financial security of participants by including cash transfers, language and financial literacy classes, vocational training and employment support for either wage or self-employment. Importantly, there were no specific interventions aimed at promoting social capital or solidarity between refugees and host community members. [12] The program was administered for approximately 12 months, starting in 2019.

First, we confirm that the livelihoods program was a shifter of financial security among treated refugees and hosts. Our core difference-in-differences specification in this analysis is:

$$Y_{it} = \delta G_i + \beta P_t + \Gamma(G_i * P_t) + W_t + R_i + X_{it} + \epsilon_{it} \tag{1}$$

where Y_{it} represents the outcome of interest for person i in time period t, G_i is treatment status, P_t is an indicator variable for post treatment time period (pooling waves 2, 3, and 4 of the survey), W_t are wave fixed effects, R_i is an indicator variable for whether the respondent is a refugee or not, and X_{it} represents a vector of baseline control variables which include: age; gender; years of education; household size; a measure of the quality of housing at baseline [13] whether the respondent speaks the official language in the country (Portuguese); how long the respondent has been living in Mozambique, and distance to the centre of the refugee (Maratane) camp [14]. Our main parameter of interest, Γ, measures the average treatment of the livelihoods program on financial security.[15]

Table 2 confirms that the livelihoods program improved overall financial security and general well-being among both refugees and host community members, up to two years after the start of the intervention.

[12] Valli et al. 2019 examines the impact of social protection on social cohesion through a program that directly fosters solidarity and interactions between refugees and hosts.

[13] This represents the principal component of the following indicators: i) number of rooms in the house; ii) whether the house has working electricity; iii) whether the house has a toilet that flushes; iv) quality of roof material used in construction; v) quality of floor material used in construction; vi) quality of wall material used in construction.

[14] Our final endline was disrupted in the field due to an untoward bureaucratic delay in getting authorization to access the camp renewed. This means that by chance, some households were surveyed earlier than others. As a result, we include in our baseline specification a control for whether the survey was delayed by two months or not in July 2022.

[15] No one in our sample declined treatment.

Table 2: Treatment Effect on Financial Security

	Food Security Index	HH Income (6m)	Take Home Pay (1m)	Pct Inc. Saved [0-1]	Pay Surprise Bill [0-3]	Financial Security Index
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A: Full Sample					
Treated X Post	0.72***	0.79***	0.61***	1.89***	1.24***	1.68***
	[0.13]	[0.15]	[0.17]	[0.17]	[0.12]	[0.16]
Control 25th Ptile (B)	-0.43	-0.61	-0.75	-0.32	-0.62	-0.73
Control 75th Ptile (B)	0.23	0.20	0.49	-0.12	0.67	0.57
Control Inner Range (B)	0.66	0.81	1.24	0.20	1.29	1.30
Observations	1,750	1,750	1,233	1,750	1,718	1,750
Adj. R-squared	0.12	0.05	0.05	0.41	0.21	0.36
	Panel B: Only Refugees					
Treated X Post	1.10***	0.64***	1.03***	1.59***	1.19***	1.59***
	[0.20]	[0.22]	[0.25]	[0.33]	[0.21]	[0.28]
Control 25th Ptile (B)	-0.85	-0.48	-0.68	-0.12	-0.58	-1.04
Control 75th Ptile (B)	0.30	0.03	0.49	-0.12	0.84	0.58
Control Inner Range (B)	1.15	0.51	1.17	0.00	1.42	1.62
Observations	512	512	307	512	496	512
Adj. R-squared	0.26	0.05	0.11	0.30	0.27	0.33
	Panel C: Only Hosts					
Treated X Post	0.38**	0.92***	0.41*	2.16***	1.30***	1.75***
	[0.16]	[0.22]	[0.23]	[0.17]	[0.15]	[0.18]
Control 25th Ptile (B)	-0.43	-0.61	-0.88	-0.32	-0.62	-0.72
Control 75th Ptile (B)	0.23	0.20	0.50	-0.32	0.67	0.57
Control Inner Range (B)	0.66	0.81	1.38	0.00	1.29	1.29
Observations	1,238	1,238	926	1,238	1,222	1,238
Adj. R-squared	0.05	0.06	0.04	0.48	0.17	0.35
Controls	Y	Y	Y	Y	Y	Y
Survey Fixed Effects	Y	Y	Y	Y	Y	Y

The table measures the 3 period average treatment effect on financial security outcomes. Food Security Index is an index of 6 proxies for food security security (if the respondent has been worried about where their next meal will come from in the past 30 days, if the respondent has skipped meals in the past 30 days, if the respondent has been unable to east nutrishiously in the past 30 days, if the respondent has gone a full day withu eating in the past 30 days), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. HH Income (6m) measured the total household income in the past 6 months, as measured but the sum of all income sources. Take Home pay (1m) is the repondent's reported take home monthly pay in the past month. Pct Income Saved is the % of income saved in the past month. Pay Suprise Bill [0-3] measures the extent to which the repondent feels they can pay a surprise bill of 6000 mtc, ranging for not at all (0) to very easily (3). Financial Security Index is an index of 3 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. All models control for age, gender, years of education, hh size, pca variable for housing amenities, whether the respondent speaks Portuguese, years since arrival in Mozambique, distance to the center of Maratane camp, and an indicator for July 2022 batch. All dependent variables are standardized to the control group's distribution, and so treatment effects are measured in standard deviations of the control group. All models include survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

Both groups experienced an increase in food security of 0.4 standard deviations for hosts and 1.1 standard deviations for refugees compared to their respective control groups at baseline. Similarly, both refugees and host community members are more likely to be in employment, to report higher monthly household income and higher monthly take home pay up to 2 years after the initial intervention took place.

3.1 Financial Security and Social Integration

To measure the impact of financial security on social integration, we start by focusing on three key proxies of social cohesion: (a) trust; (b) friendships and interactions with out-groups and (c) the extent of zero-sum thinking in the allocation of resources between the two groups.

Table 3 shows that particularly for host community members, improving financial security is associated with an increase in trust, both for in-groups and for out-groups, an increase in the intensive and extensive margins of interaction with out-groups and a reduction in zero-sum thinking when it comes to the allocation of scarce resources between the groups such as jobs and economic support from the government.

We then consider a broader measure of socioeconomic integration, including an indicator for whether the respondent feels like s/he belongs to Mozambique and a measure of job satisfaction. Table 3 shows that increased financial security is associated with more feelings of belonging and higher job satisfaction.

Table 3: Treatment Effect on Social Capital

	Trust In-Group [1-10]	Trust Out-Group [1-10]	Prop Out-Group Friends [0-1]	Gov. Support Nationals [1-5]	Moz More Right Work [1-5]	Moz Is Home [1-10]	Job Satisfct. [1-5]	Social Cohesion Index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Panel A: Full Sample							
Treated X Post	0.22***	0.35***	0.20*	-0.39***	-0.27**	0.17	0.39***	0.44***
	[0.07]	[0.08]	[0.10]	[0.12]	[0.12]	[0.19]	[0.07]	[0.11]
Control 25th Ptile (B)	-0.61	-0.72	-0.74	-1.21	-1.22	-0.51	-0.62	-0.72
Control 75th Ptile (B)	0.82	0.68	0.56	0.51	0.47	0.98	0.32	0.70
Control Inner Range (B)	1.43	1.40	1.30	1.72	1.69	1.49	0.94	1.42
Observations	1,041	1,038	1,750	1,342	1,343	508	1,283	1,750
Adj. R-squared	0.02	0.03	0.03	0.02	0.01	0.03	0.07	0.11
	Panel B: Only Refugees							
Treated X Post	0.10	0.30**	0.14	-0.38*	-0.16	0.17	0.70***	0.39**
	[0.11]	[0.12]	[0.19]	[0.22]	[0.21]	[0.19]	[0.11]	[0.19]
Control 25th Ptile (B)	-0.97	-0.98	-1.07	-0.54	-0.60	-0.51	-0.69	-0.74
Control 75th Ptile (B)	0.38	0.70	0.09	0.51	0.47	0.98	0.23	0.77
Control Inner Range (B)	1.35	1.68	1.16	1.05	1.07	1.49	0.92	1.51
Observations	368	368	512	398	400	508	368	512
Adj. R-squared	0.02	0.04	0.11	0.04	0.03	0.03	0.18	0.22
	Panel C: Only Hosts							
Treated X Post	0.29***	0.23**	0.22*	-0.43***	-0.37**	.	0.24***	0.48***
	[0.11]	[0.11]	[0.13]	[0.16]	[0.16]	.	[0.08]	[0.13]
Control 25th Ptile (B)	-0.42	-0.72	-0.74	-1.21	-1.22	.	-0.62	-0.71
Control 75th Ptile (B)	0.98	0.52	0.56	0.46	1.23	.	0.32	0.68
Control Inner Range (B)	1.40	1.24	1.30	1.67	2.45	.	0.94	1.39
Observations	673	670	1,238	944	943	.	915	1,238
Adj. R-squared	0.02	0.05	0.01	0.01	-0.00	.	0.02	0.05
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Survey Fixed Effects	Y	Y	Y	Y	Y	Y	Y	Y

The table measures the 3 period average treatment effect on social capital outcomes. Trust ingroup [1-10] asks the respondent how trusting they are of members of their ingroup (ie; refugees for a refugee respondent, hosts for a host repondent). Trust outgroup [1-10] asks the respondent how trusting they are of members of their outgroup (ie; hosts for a refugee respondent, refugees for a host repondent). Prop outgroup friends [0-1] as the respondent what proportion of their friends belong to the outgroup. Gov. Support Nationals [1-5] and Moz More Right Work [1-5] measure the extent to which the respondent feels that Mozambicians should be supported first in times of crisis, and should be prioratized for work when jobs are scare, repectively. Moz is Home [1-10] asks the repondent about the degree to which they feel Moazmbique is there home. Job Satisfaction [1-5] asks the repondent how happy they are with their current or most recent job situation. Social Cohesion Index is an index of 5 proxies for social cohesion in columns 1-7, constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. All models control for age, gender, years of education, hh size, pca variable for housing amenities, whether the respondent speaks Portuguese, years since arrival in Mozambique, distance to the center of Maratane camp, and an indicator for July 2022 batch. All dependent variables are standardized to the control group's distribution, and so treatment effects are measured in standard deviations of the control group. All models include survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

We find that treated hosts experienced a 0.48 standard deviation increase in overall social cohesion, which is equivalent to covering 31% of the control group's inner quartile range at baseline. Similarly treated refugees saw gains in social cohesion to the extent of 0.39 standard deviations, which is equivalent to covering 26% of the control group's inner quartile range from

baseline. We also find that while all treated participants experience an improvement in social integration, the treatment effects are largest for those with higher levels of financial security at baseline.[16]

4 Mechanisms

4.1 Heterogeneity

To further examine the mechanisms of impact, we explore two key margins of heterogeneity in treatment effects. First, we investigate whether the treatment effect varies by baseline levels of exposure of hosts to refugees. To do so, we consider the distance between a host agglomeration and the refugee camp as a proxy for the level of exposure to refugees. We find that treatment effects are larger for host community members that are closer to refugees, as shown in Figure A.6. This suggests that strengthening financial security coupled with increased opportunities for interactions can improve social cohesion and integration. Second, we examine whether treatment effects vary by baseline levels of financial security. Consistent with our interpretation of the main results, we find that those with the lowest levels of financial security at baseline experience the largest gains in trust up to two years after the main intervention took place. We find no heterogeneity in treatment effects based on the gender of the program participants, their age, or on their length of establishment in Mozambique.

4.2 Alternative Mechanisms

We find no evidence consistent with alternative mechanisms such as transfers taking place between refugees and hosts which could lead to increased feelings of reciprocity and solidarity. We find no evidence that the livelihoods support provided by UNHCR encouraged in-migration of either refugees or hosts, which could have altered levels of financial security: no respondents report someone joining the household in the previous 2 years in which the livelihoods program operated. We also find no evidence that the improvement in social cohesion, job satisfaction and feelings of belonging are driven by increased participation in community events.

[16] See Figure A.1 in the Online Appendix.

4.3 A Natural Experiment: Negative Shock to Financial Security

In March 2022, a strong category 3 tropical cyclone hit the Nampula region. The cyclone path landed 5 kms from the refugee camp, wreaking havoc on houses and crops. Those directly affected experienced severe damage to their houses and assets, compromising their financial security. This allows us to investigate how a deterioration of financial security caused by an exogenous event affected reported levels of social cohesion and integration.

We obtain a self-reported measure of housing destruction in our endline survey, which took place two months after the cyclone hit. We then normalize this measure by the quality of housing reported at baseline.[17] Given the potential endogeneity of this variable, we rely on an instrumental variable approach to come closer to a causal estimation of the impact of changes in financial security on social integration. Our key instruments are core geographic characteristics –latitude and longitude, elevation, precipitation, distance to cyclone path and distance to nearest river–, all of which are plausibly exogenous and strongly correlated with exposure to excessive rain, flooding and destruction by strong winds. [18]

Table A.4 shows the first stage of this IV approach, revealing a strong positive correlation between the relative location of each household and the extent of damage caused by the cyclone. The coefficient is positive and statistically significant with an Kleibergen-Paap test well above the conventional level of 10. Table A.5 also shows the reduced-form effect with our instruments being associated with lower levels of financial security. Finally, the two stage least squares estimator in Panel C shows that financial security and social integration continue to move in tandem. Figure A.2 more clearly reveals that those experiencing the largest drops in financial security due to the natural disaster also experienced the largest drops in social cohesion. These results suggest that improvements in social integration can be quickly reversed as financial

[17] the housing PCA represents the principal component of the following indicators: i) number of rooms in the house; ii) whether the house has working electricity; iii) whether the house has a toilet that flushes; iv) quality of roof material used in construction; v) quality of floor material used in construction; vi) quality of wall material used in construction.

[18] Latitude and longitude are recorded by ennumerators during the baseline survey. Precipitation, elevation, and distance to the nearest river are extracted from Google Earth Engine Catalog databases "UCSB-CHG/CHIRPS/DAILY" (precipitation), "CGIAR/SRTM90_V4" (elevation) and "WWF/HydroSHEDS/v1/FreeFlowingRivers_FeatureView" (river distance), respectively. The path of Hurricane Gombe is mapped from zoom earth at https://zoom.earth/storms/gombe-2022/map=daily.

conditions deteriorate.

5 Conclusion

This paper shows that strengthening the financial security of refugees and host communities leads to higher levels of social integration of refugees. A 1 standard deviation increase in financial security (equivalent to moving from the 25th percentile to the 63rd percentile of financial security) would result in a 0.83 standard deviation improvement in social cohesion (equivalent to moving from the 25th percentile to the 54th percentile of social cohesion). As participants' financial security improves, hosts become more trusting, they increase the number of interactions with refugees and they become less zero-sum when it comes to preferences about the allocation of scarce resources such as jobs and government support between hosts and foreigners. This is consistent with a growing literature emphasising the role of experiences on preferences about redistribution (Chinoy et al., 2022; Malmendier and Nagel, 2016). However, this improvement in social integration is fragile: a deterioration of financial security due to exposure to a climate shock is associated with a substantial decline in social integration. These findings suggest that policies geared at improvement the financial security of both refugees and the communities that host them can succeed in strengthening social cohesion, but that these effects are vulnerable to changes in the environment of ultra-poor populations: a deterioration in financial security can quickly weaken social cohesion again.

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Online Appendix

Financial Security and Social Cohesion: Evidence from the integration of refugees into host communities

(Not for Publication)

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A Descriptives

Table A.1: Sample Balance, Control vs Treatment

	Full Sample			*Refugees*			*Hosts*		
	C	T	Δ p-val	C	T	Δ p-val	C	T	Δ p-val
Age	34.74	35.87	0.34	36.59	37.04	0.84	34.23	34.83	0.69
Male	0.54	0.55	0.94	0.52	0.65	0.09	0.55	0.45	0.11
Single	0.31	0.37	0.17	0.55	0.53	0.81	0.24	0.23	0.84
Speaks Portuguese	0.48	0.57	0.04	0.41	0.47	0.44	0.49	0.66	0.01
HH Size	4.71	5.89	0.00	4.32	4.87	0.34	4.82	6.78	0.00
Religious	0.95	0.96	0.41	0.97	0.95	0.53	0.94	0.98	0.18
Housing PCA	0.02	-0.03	0.70	1.30	0.79	0.04	-0.34	-0.76	0.00
Years of Education	2.59	3.37	0.01	5.35	5.45	0.86	1.82	1.52	0.20
Years in Mozambique	28.82	22.92	0.00	9.56	9.47	0.92	34.23	34.83	0.69
Take Home Monthly Pay	288.60	297.96	0.91	928.60	583.54	0.21	127.77	140.25	0.60
% Income Saved Last Month	0.05	0.09	0.06	0.01	0.04	0.08	0.06	0.13	0.02
Ease Paying Suprise Bill [0-3]	1.47	1.42	0.51	1.41	1.45	0.76	1.48	1.39	0.33
Financial Security Index	0.00	0.25	0.04	0.00	0.34	0.20	0.00	0.18	0.20
Trust in Neighbours PCA	0.01	-0.02	0.87	-0.04	-0.24	0.47	0.02	0.18	0.40
Mozambicans Prioritized Work	3.29	3.20	0.50	2.56	2.58	0.92	3.49	3.76	0.09
Mozambicans Prioritized In Crisis	3.24	3.17	0.57	2.52	2.59	0.66	3.45	3.69	0.10
Out-Group Interactions	1.90	2.56	0.00	1.80	2.88	0.00	1.93	2.27	0.12
Prop. of Out-Group Friends [0-1]	0.16	0.20	0.06	0.23	0.28	0.24	0.14	0.13	0.61
Social Cohesion Index	-0.00	0.12	0.22	-0.00	0.39	0.03	-0.00	-0.11	0.37
N	301.00	166.00		66.00	78.00		235.00	88.00	

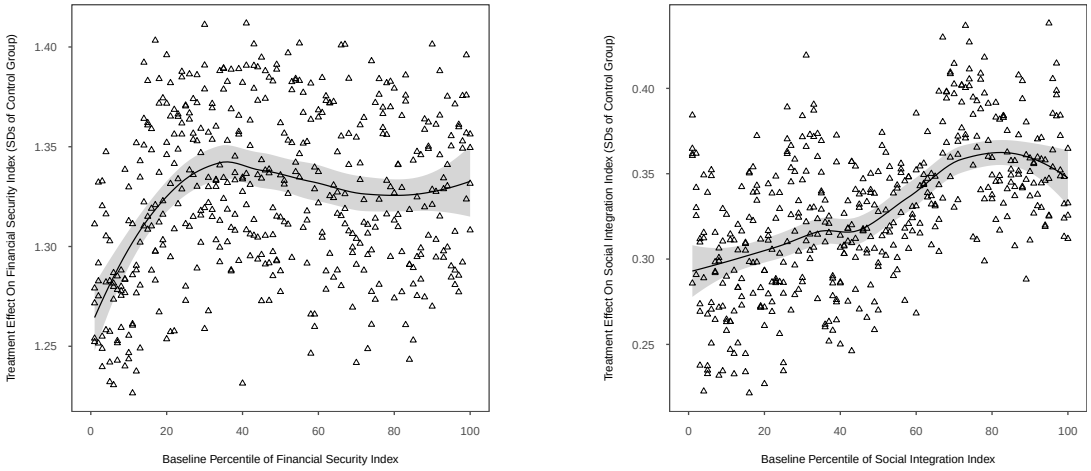
The table shows baseline differences between treatment and control on basic demographic variables as well as key outcomes variables of interest. Housing PCA is the first component of 6 proxies for housing quality (number of rooms, has electricity, has a toilet that flushes, quality of materials used to contruct the roof, quality of materials used to construct the floor, and quality of materials used to construct the roof). Ease Paying Suprise Bill [0-3] measures the extent to which the repondent feels they can pay a surprise bill of 6000 mtc, ranging for not at all (0) to very easily (3). Financial Security Index is an index of 3 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Trust in Neighbours PCA is the first component of 3 proxies for trust (comfort in leaving a set of keys with neighbours [1-4], comfort in having neighbour watch over kids [1-4], comfort in giving your neighbour money to pick up groceries [1-4]). Mozambicans Prioritized Work and Mozambicans Prioritized In Crisis measure the extent to which the respondent feels that Mozambicians should be prioratized for work (1-5) and supported first in times of crisis (1-5), repectively. Out-Group interactions measures the number of reported weekly interactions with members of the opposite group (refugees for hosts, hosts for refugees). Proportion of Out-Group Friends [0-1] measures the proportion of friends the repondent reports beging from the opposite group (refugees for hosts, hosts for refugees).

Table A.2: Sample Balance, Attritors vs Respondents

	Full Sample			*Refugees*			*Hosts*		
	A = 0	A = 1	Δ p-val	A = 0	A = 1	Δ p-val	A = 0	A = 1	Δ p-val
Treatment	0.36	0.36	0.99	0.60	0.36	0.01	0.26	0.35	0.25
Refugee	0.27	0.49	0.00	1.00	1.00	.	0.00	0.00	.
Age	35.40	33.78	0.30	37.61	34.50	0.21	34.56	33.08	0.48
Male	0.53	0.66	0.04	0.57	0.64	0.50	0.51	0.68	0.05
Single	0.32	0.37	0.40	0.53	0.56	0.77	0.24	0.19	0.48
Speaks Portuguese	0.52	0.45	0.28	0.45	0.42	0.70	0.55	0.49	0.50
HH Size	5.22	4.64	0.10	4.81	4.06	0.26	5.37	5.22	0.69
Religious	0.95	0.96	0.79	0.94	1.00	0.15	0.95	0.92	0.35
Housing PCA	-0.05	0.29	0.04	0.88	1.44	0.04	-0.41	-0.83	0.01
Years of Education	2.83	3.07	0.53	5.57	4.89	0.28	1.80	1.30	0.13
Years in Mozambique	27.71	21.40	0.00	9.56	9.39	0.87	34.56	33.08	0.48
Take Home Monthly Pay	290.51	297.28	0.95	893.58	448.56	0.15	127.45	164.16	0.29
% Income Saved Last Month	0.07	0.05	0.42	0.03	0.01	0.47	0.08	0.08	0.96
Ease Paying Suprise Bill [0-3]	1.44	1.49	0.59	1.38	1.58	0.17	1.46	1.41	0.66
Financial Security Index	0.08	0.12	0.82	0.19	0.14	0.87	0.04	0.10	0.78
Trust in Neighbours PCA	-0.03	0.19	0.27	-0.21	0.06	0.40	0.03	0.31	0.29
Mozambicans Prioritized Work	3.30	3.03	0.09	2.57	2.56	0.92	3.58	3.49	0.68
Mozambicans Prioritized In Crisis	3.27	2.95	0.04	2.59	2.44	0.44	3.52	3.43	0.67
Out-Group Interactions	2.18	1.89	0.19	2.44	2.22	0.46	2.08	1.57	0.10
Prop. of Out-Group Friends [0-1]	0.17	0.20	0.22	0.26	0.25	0.87	0.14	0.16	0.57
Social Cohesion Index	0.04	0.08	0.77	0.21	0.20	0.96	-0.03	-0.05	0.92
N	394.00	73.00		108.00	36.00		286.00	37.00	

The table shows baseline differences between respondents and attritors on basic demographic variables as well as key outcomes variables of interest. Housing PCA is the first component of 6 proxies for housing quality (number of rooms, has electricity, has a toilet that flushes, quality of materials used to contruct the roof, quality of materials used to construct the floor, and quality of materials used to construct the roof). Ease Paying Suprise Bill [0-3] measures the extent to which the repondent feels they can pay a surprise bill of 6000 mtc, ranging for not at all (0) to very easily (3). Financial Security Index is an index of 3 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Trust in Neighbours PCA is the first component of 3 proxies for trust (comfort in leaving a set of keys with neighbours [1-4], comfort in having neighbour watch over kids [1-4], comfort in giving your neighbour money to pick up groceries [1-4]). Mozambicans Prioritized Work and Mozambicans Prioritized In Crisis measure the extent to which the respondent feels that Mozambicians should be prioratized for work (1-5) and supported first in times of crisis (1-5), repectively. Out-Group interactions measures the number of reported weekly interactions with members of the opposite group (refugees for hosts, hosts for refugees). Proportion of Out-Group Friends [0-1] measures the proportion of friends the repondent reports beging from the opposite group (refugees for hosts, hosts for refugees).

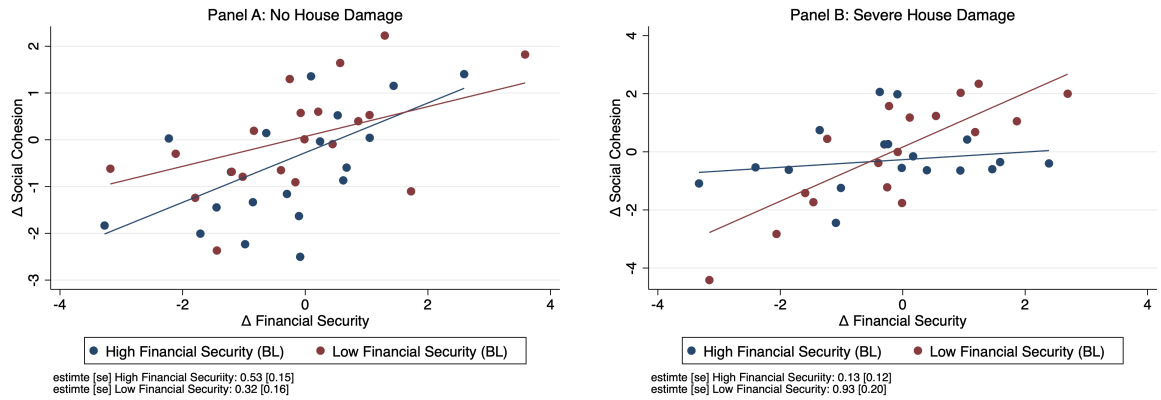
Figure A.1: Treatment Heterogeneity



Panel A: Financial Security **Social Integration**

Treatment effects for Financial Security and Social Integration at different quantiles of their baseline values.

Figure A.2: Correlation Between Social Cohesion and Financial Security, By House Destruction



The figure binned scatter plots relating changes in financial security and changes in social cohesion between survey waves 3 and 4. Panel A includes respondents who report no house damage due to Hurricane Gombe, while Panel B includes only participants who reported severe house damage. The slope of the regression line is shown below the figure.

Table A.3: Treatment Effect on Index Variables

	Mental Health PCA	Food Security PCA	Financil Security PCA	Social Cohesion PCA
	(1)	(2)	(3)	(4)
	Panel A: Full Sample			
Treated X Post	0.04	0.67***	1.70***	0.28**
	[0.15]	[0.18]	[0.17]	[0.12]
Control Group Mean (B)	0.22	-0.35	-0.60	-0.16
Observations	1,746	1,702	884	630
Adj. R-squared	0.03	0.10	0.47	0.01
	Panel B: Only Refugees			
Treated X Post	-0.27	1.20***	1.65***	0.31*
	[0.24]	[0.28]	[0.35]	[0.16]
Control Group Mean (B)	0.31	-0.37	-0.65	-0.17
Observations	509	483	212	254
Adj. R-squared	0.06	0.26	0.53	0.01
	Panel C: Only Hosts			
Treated X Post	0.31	0.21	1.68***	0.16
	[0.20]	[0.23]	[0.19]	[0.20]
Control Group Mean (B)	0.20	-0.35	-0.59	-0.16
Observations	1,237	1,219	672	376
Adj. R-squared	0.01	0.05	0.41	-0.00
Controls	Y	Y	Y	Y
Survey Fixed Effects	Y	Y	Y	Y

The table measures the 3 period average treatment effect on mental health, food security, financial security and social cohesion. Mental Health PCA is the first component of a PCA variable of 4 proxies for mental health (depression, anxiety, loneliness and self esteem). Food Security PCA is the first component of a PCA variable measuring 6 proxies for food security security (if the respondent has been worried about where their next meal will come from in the past 30 days, if the respondent has skipped meals in the past 30 days, if the respondent has been unable to east nutrishiously in the past 30 days, if the respondent has gone a full day withu eating in the past 30 days). Financial Security PCA is the first component of a PCA variable which measures 3 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay). Social Cohesion PCA is the first component of a PCA variable which measures 7 proxies for social cohesion (trust in-group, trust out-group, the extent to which the respondent feels that Mozambicians should be prioratized for work, the extent to which the respondent feels that Mozambicians should be supported first in times of crisis, proportion of out-group friends, the extent to which the respondent feels as though Mozambique is home, and overall job satisfaction). All models control for age, gender, years of education, hh size, pca variable for housing amenities, whether the respondent speaks Portuguese, years since arrival in Mozambique, distance to the center of Maratane camp, and an indicator for July 2022 batch. All dependent variables are standardized to the control group, and so treatment effects are measured in standard deviations of the control group. All models include survey fixed effects. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.

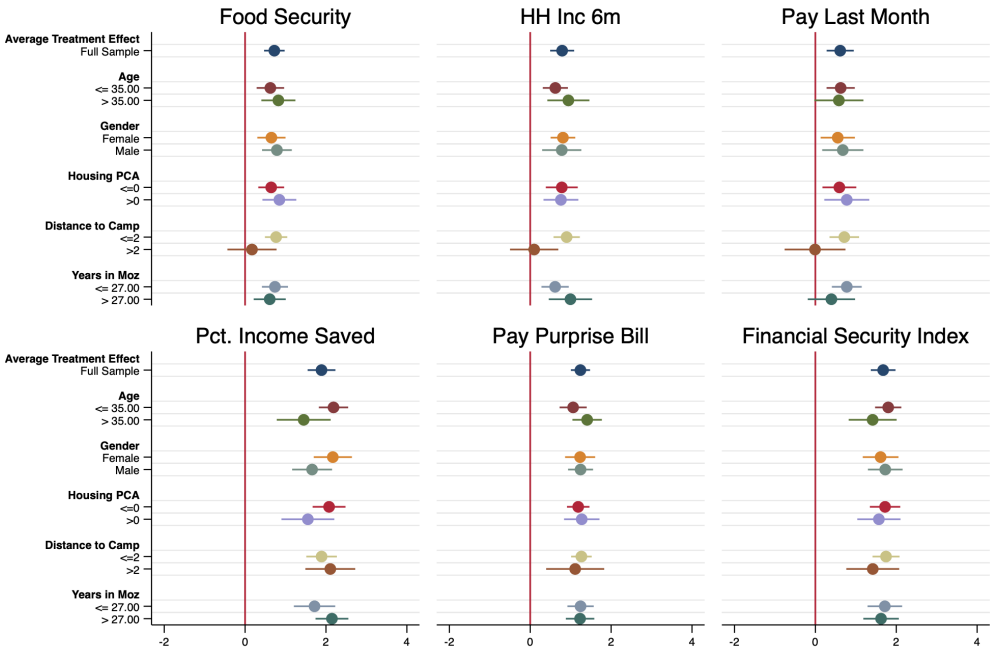


Figure A.3: Treatment Heterogeneity For Financial Security, Full Sample Treatment effects split by baseline demographics

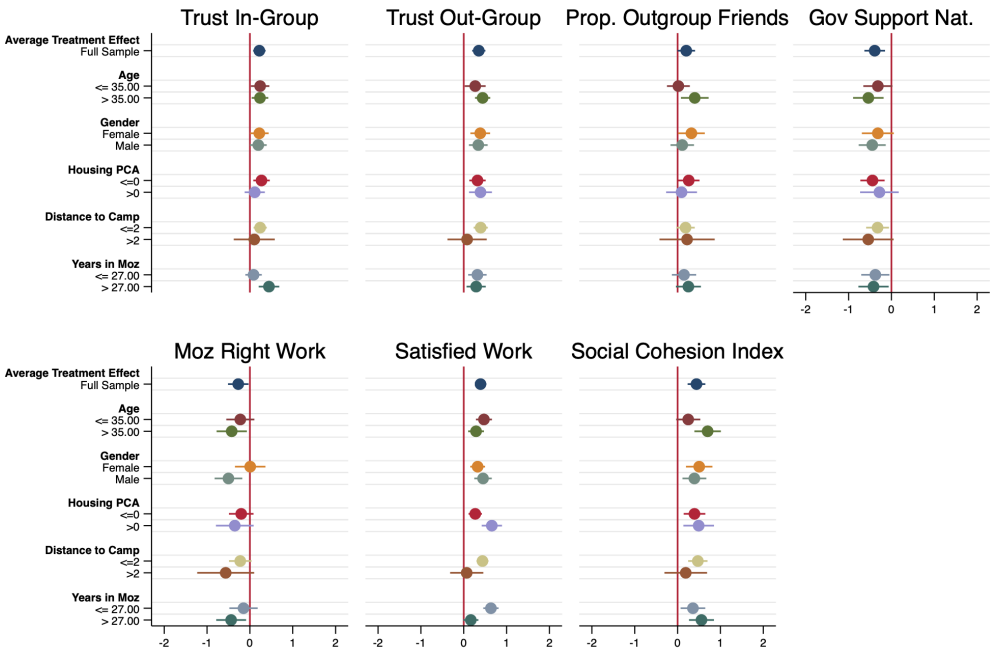


Figure A.4: Treatment Heterogeneity For Social Cohesion, Full Sample Treatment effects split by baseline demographics

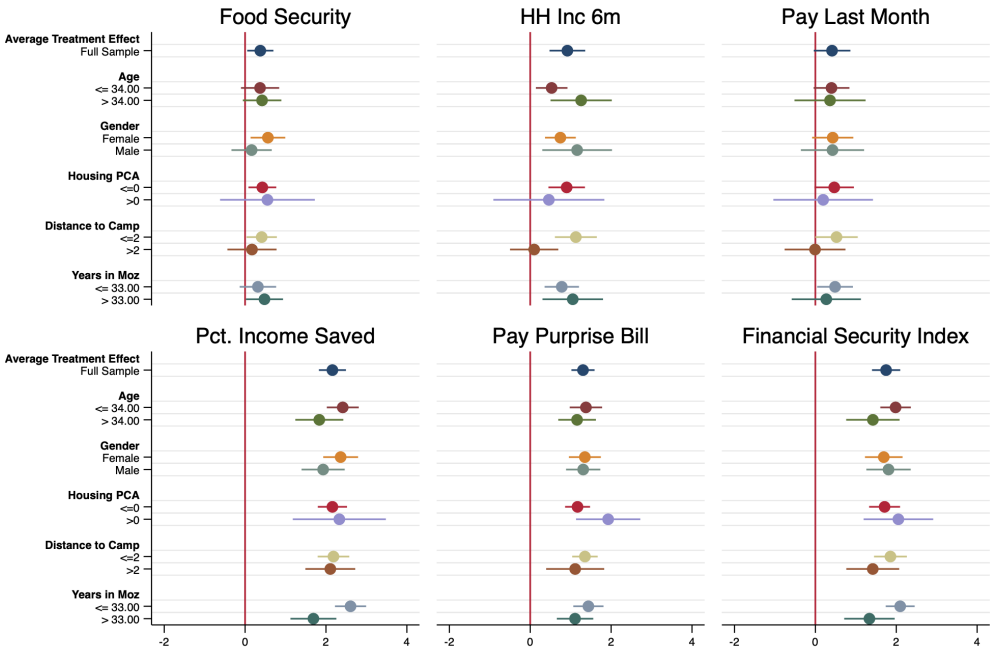


Figure A.5: Treatment Heterogeneity For Financial Security, Hosts Treatment effects split by baseline demographics

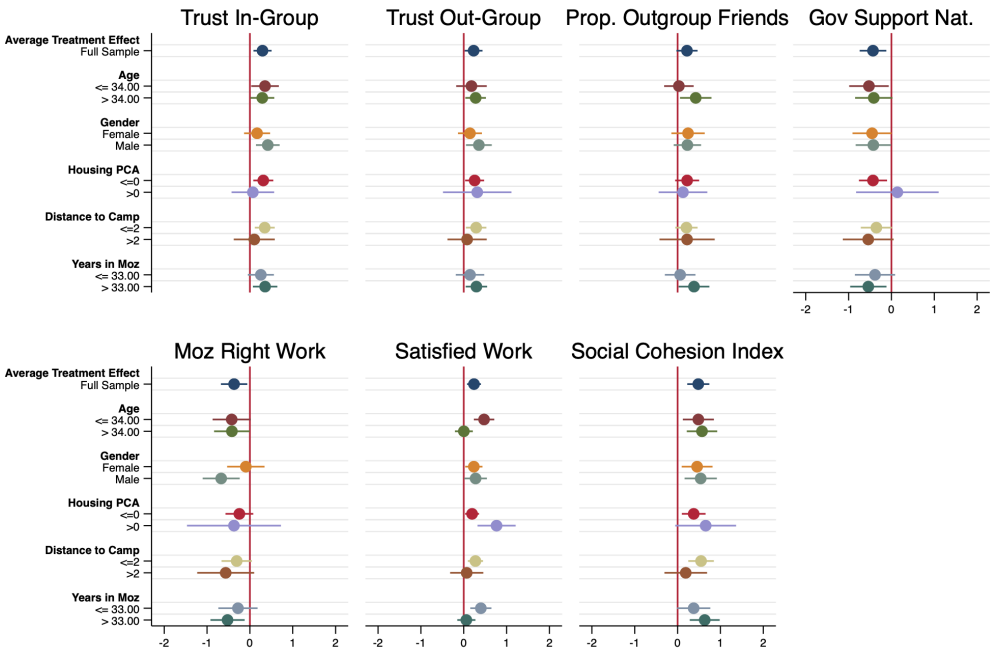


Figure A.6: Treatment Heterogeneity For Social Cohesion, Hosts Treatment effects split by baseline demographics

Table A.4: Geographic Components Effect on House Damage, Hosts Only

	House Damage	House Damage	House Damage	House Damage	House Damage
	(1)	(2)	(3)	(4)	(5)
Latitude	5.73**	6.00*	6.15*	7.40*	25.76**
	[2.29]	[3.13]	[3.15]	[4.44]	[10.80]
Longitude	9.32***	9.87**	9.64**	9.72**	9.98**
	[2.55]	[4.14]	[4.27]	[4.28]	[4.20]
Elevation	.	-0.00	-0.00	-0.00	-0.00
	.	[0.00]	[0.00]	[0.00]	[0.00]
Distance to River	.	.	0.01	0.02	0.02
	.	.	[0.06]	[0.07]	[0.07]
Precipitation	.	.	.	0.01	0.01
	.	.	.	[0.02]	[0.02]
Distance to Cyclone Path	.	.	.	.	0.17*
	.	.	.	.	[0.09]
Observations	162	162	162	162	162
Adj. R-squared	0.07	0.07	0.06	0.06	0.06
F-Stat	33.35	29.43	26.34	23.85	35.43
Controls	Y	Y	Y	Y	Y

House Damage is an indicator variable that takes a value of 1 if the respondent reports that there house has been damaged during Hurricane Gombe. The basic set of controls include: age, gender, years of education, hh size, pca variable for housing amenities, years since arrival in Mozambique

Table A.5: Financial Security and Social Cohesion, 2SLS, Hosts Only

	Δ Social Cohesion Index	Δ Social Cohesion Index	Δ Social Cohesion Index	Δ Social Cohesion Index	Δ Social Cohesion Index
	(1)	(2)	(3)	(4)	(5)
	Panel A: OLS				
Δ Financial Security Index	0.55***	0.55***	0.55***	0.55***	0.55***
	[0.10]	[0.10]	[0.10]	[0.10]	[0.10]
Observations	162	162	162	162	162
Adj. R-squared	0.17	0.17	0.17	0.17	0.17
F-Stat	20.00	20.00	20.00	20.00	20.00
	Panel B: Reduced Form				
$\widehat{HouseDamage}$	-1.10*	-1.17*	-1.18*	-1.08*	-1.13*
	[0.62]	[0.61]	[0.61]	[0.61]	[0.60]
Observations	162	162	162	162	162
Adj. R-squared	0.03	0.04	0.04	0.03	0.04
F-Stat	4.20	4.43	4.45	4.24	4.43
	Panel C: 2SLS				
Δ Financial Security Index	0.80**	0.82**	0.83**	0.80**	0.83**
	[0.41]	[0.41]	[0.41]	[0.41]	[0.41]
Observations	162	162	162	162	162
Adj. R-squared	0.14	0.13	0.13	0.14	0.13
F-Stat	4.42	4.52	4.53	4.45	4.57
Weak ID First (F-Stat)	4.40	4.44	4.43	4.35	4.34
Zero-Stage Instruments					
Lat	Y	Y	Y	Y	Y
Lon	Y	Y	Y	Y	Y
Elevation	N	Y	Y	Y	Y
Distance to River	N	N	Y	Y	Y
Precipitation	N	N	N	Y	Y
Distance to Cyclone Path	N	N	N	N	Y

The table shows OLS [Panel A], Reduced Form [Panel B] and 2SLS [Panel C] estimates for the impact of financial security on social cohesion. Financial Security Index is an index of 3 proxies for financial security (ease of paying a surprise bill, % of income saved last month, take home monthly pay), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. Social Cohesion Index is an index of 7 proxies for social cohesion (trust in-group, trust out-group, the extent to which the respondent feels that Mozambicians should be prioratized for work, the extent to which the respondent feels that Mozambicians should be supported first in times of crisis, proportion of out-group friends, the extent to which the respondent feels as though Mozambique is home, and overall job satisfaction), constructed by first equally weighting the average z-scores of each indicator that composes each dimension, and then by standardising these again with reference to the control group. House Damage is an indicator variable for wether the respondent reports that their home has been damages/destroyed following Hurricane Gombe. *, **, and *** indicate statistical significance at the 90%, 95%, and 99%, confidence level, respectively.