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LEAVING, STAYING OR COMING BACK? AN ANALYSIS OF THE MIGRATION DYNAMICS DURING THE NORTHERN MALI CONFLICT

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Leaving, staying or coming back?

An analysis of the migration dynamics during the Northern Mali conflict♠

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Abstract

This paper uses a unique dataset to analyse the migration dynamics of refugees, returnees and internally displaced people during the Northern Mali conflict. Individuals were interviewed monthly using mobile phones. Our results cast light on the determinants of past and future migration patterns in these groups, their welfare, and household dissolution patterns. In addition to this, we test how employment status, security, and expectations affect the willingness to go back home. The general findings suggest that especially internally displaced people are likely to integrate in the host country and do not show a strong willingness to go back. We find that individuals who were employed were less willing to go back to the North. High educated individuals were less likely to have already returned, while the opposite is true for those whose ethnicity is Songhai, as well as for those who are from Kidal. We also find that higher educated individuals performed better when displaced and in case they decided to return, they were able to find a job more easily.

Keywords: forced migration, Mali, refugee, internally displaced people.

JEL: J15; O15; R23.

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1. Introduction

The Northern Mali conflict started in January 2012. It was caused by several secessionist groups and led to a coup d'état in March 2012 and to the occupation of the three regions of the North – Gao, Kidal and Timbuktu – by rebels and Islamist factions. These territories were regained following a military intervention by a coalition composed of the Malian Army, French troops and the ECOWAS-led African-led International Support Missions to Mali (AFISMA) in June 2013 (David, 2013) A Peace Accord was finally signed in May and June 2015 between the government and different actors involved in the rebellion. Nevertheless, in spite of the Accord, the regions of Gao, Kidal and Timbuktu remain in a state of prolonged crisis, with high levels of insecurity and weak governance.

According to the UN Refugee Agency (UNHCR, 2016c), in June 2016 the number of Malian refugees was almost 135,000, while there were more than 36,000 Internally Displaced People (IDPs) and around 23,000 returnees (about 49,000 according to the Mali government (UNHCR, 2016b)). Among these refugees, more than 60,500 were in Niger, 41,000 in Mauritania and 32,000 in Burkina Faso. Including returnees, the population of concern has reached the staggering figure of 570,000 (UNHCR, 2016a). Despite these figures and the (scarce) media coverage (WorldPost, 2016), the UN operations in the regions has been constantly underfunded (UNHCR, 2016d).

The scope of this paper is to analyze some important characteristics of refugees, IDPs and returnees. Furthermore, we aim at investigating the willingness to return back to their place of origin for refugees and IDPs after the conflict in Mali. By making use of a unique dataset interviewing the head of household (or another member) up to twelve consecutive waves, we managed to gather information on their welfare and their subjective well-being, as well as their willingness to return. Using mobile phone for interviews has allowed us to obtain information about individuals who are usually neglected in traditional surveys since they are difficult to reach given their high mobility, precarious living conditions and their proximity to conflict zones. Therefore, we managed to follow individuals subject to forced migration *while* they were experiencing such a crisis, thus avoiding issues common in the literature on violent conflicts (Brück, Justino, Verwimp, Avdeenko, & Tedesco, 2016). Furthermore, the attrition rate was exceptionally low even if respondents changed locations and were difficult to contact in person. We should also stress that the high-frequency panel structure is well-suited for these kind of situation where respondents live in a highly-volatile environment.

Our goal is to provide as much information as possible on the conditions of these people after the displacement has taken place, either in a refugee camp or in another place (in Mali or outside the country). The place where respondents lived after the conflict might lead to a different willingness to come back and also a different safety perception, the two factors not necessarily going hand in hand. For example, refugee camps are settings where everything is pre-determined, i.e., the amount of food, the infrastructure, as well as where children go to school. However, we could argue that more educated people could also be more inclined to search for better opportunities, and thus less likely to stay in refugee camps.

This paper is structured as follows. In this section we have given some background information about the Northern Mali crisis and we have motivated our paper. We have also highlighted the peculiarity of our dataset since it allowed us to shed light on individuals who are usually impossible to be tracked and, hence, disregarded in other studies. Section 2 reviews the current literature on forced migration. Sections 3 and 4 describe the data used in the empirical section and provide several descriptive statistics. Particular attention has been devoted to describe the demographic characteristics of these migrants and their welfare.

Section 5 represents the core of our analysis. We have started by showing in which dimensions respondents who had returned to the regions in the North differ from those who stayed in the South or abroad in refugee camps (Section 5.1). We have then moved to simultaneously comparing returnees, refugees and IDPs (Section 5.2). Subsequently, focusing on refugees and IDPs, we have analyzed which variables were associated with the willingness to go back to the Northern Mali (Section 5.3). We have then jointly considered those who did not want to go back, those who were considering such option, and those who had already returned (Section 5.4). Finally, we have used a fixed-effect estimation strategy to verify how employment, security and expectations drove future migration decisions (Section 5.5). Section 6 concludes, while the Appendix includes the summary statistics and the description of all the variables used in the empirical section.

2. Literature Review

Despite its growing importance, forced migration has not received much attention by economists until recently. A review of the most recent literature on the economic impacts of forced migration has been provided by (Ruiz & Vargas-Silva, 2013), while (Verwimp & Maystadt, 2015) gave an overview on forced migration in Sub-Saharan Africa. Early evidence from Finland ((Serc, 2009)) and Germany ((Falck, Link, & Heblich, 2011), (Bauer, Braun, & Kvasnicka, 2013)) found often positive long-term impact of forced migrations following WWII. On the other hand, (Justino & Verwimp, 2013) found evidence of economic convergence between richer and poorer provinces and households in Rwanda following the violent conflicts in the 1990s. Furthermore, they stressed that, while rich households may be more resilient to economic shocks, such assets and wealth could make them a target during violent conflicts or political shocks.

Focusing on the effects in the short-term and medium-term, (Kondylis, 2010) found that displaced people after the war in Bosnia and Herzegovina had lower employment and participation rates than people who stayed, while (Eder, 2014) found negative impact on children's education in households who were forced to move during that war. (Fiala, 2012) showed a decrease in consumption and asset levels among displaced individuals in Northern Uganda even two years after the shock, especially among the poorest households. Looking at forced displacement in Colombia, (Ibáñez & Vélez, 2008) found substantial welfare losses, while (Ibáñez & Moya, 2010) showed that displaced households had reduced ability to smooth consumption and did not have access to risk-sharing mechanisms.

Several papers have also looked at the impacts on host communities regarding labour markets ((Whitaker, 2002), (Braun & Omar Mahmoud, 2014), (Maystadt & Verwimp, 2014), (Ruiz & Vargas-Silva, 2015), (Calderón-Mejía & Ibáñez, 2015), (Borjas & Monras, 2016)), education and health ((Baez, 2011)), as well as prices ((J. Alix-Garcia & Saah, 2010), (Jennifer Alix-Garcia, Bartlett, & Saah, 2012)).

A different branch of the literature has investigated outcomes in refugee camps. Using data about displaced people in Northern Uganda, (Lehrer, 2010) argued that labour market participation was lower in older refugee camps for men, while no such impact was found among women. Similarly, (Bozzoli, Brueck, & Muhumuza, 2015) looked at the activity choices of internally displaced people and returnees in Northern Uganda. They found that IDPs were more likely to work in the agricultural and trading sectors. (Crea, Calvo, & Loughry, 2015) compared health and wellbeing of refugees between camps and cities in Sub-Saharan Africa: they found higher self-reported welfare in urban areas.

Last but not least, there is a fast expanding literature on the ongoing European refugee crisis. This has been analysed from a political perspective ((Carrera, Blockmans, Gros, & Guild, 2015), (Fernández-Huertas Moraga & Rapoport, 2015), (Gilbert, 2015), (Dustmann, Fasani, Frattini, Minale, & Schonberg, 2016)), and in term of public attitudes in term of asylum seekers (Bansak, Hainmueller, & Hangartner, 2016); as well as by focusing on the refugees' well-being (Waisman & Larsen, 2016) and location choices (Damm, 2009).

3. Data

The data used in this paper have been collected through the Listening to Displaced People Survey (LDPS).[4] The baseline face-to-face interviews were executed between June and August 2014. On the other hand, the following twelve monthly interviews – from August 2014 until August 2015 - were conducted using mobile phones[5]. The original sample was 501 (51% Male, 49% Female) and was divided between internally displaced people (IDPs) located in the capital city Bamako[6], refugees living in the refugee camps in Mauritania and Niger, as well as returnees living in the regional capitals Gao, Timbuktu and Kidal in Northern Mali. This survey did not provide information on individuals who were never displaced. The attrition rate was very low, always around 1-2% per wave.

We need to stress that the locations were not randomly selected. Indeed, Bamako was selected because it hosted a large number of IDPs. Furthermore, the main cities in the north of Mali were chosen to obtain a large sample of returnees given the funds available. Finally, a refugee camp was located in Niger since bureaucratic issues did not allow the inclusion of a camp in Burkina Faso. Nevertheless, households were selected randomly within each location. It should also be noted that the respondent was selected randomly between the household members above the age of 18 in order to obtain a balanced sample of males and females. As a consequence, the respondent may not be the household head or spouse. Additional information on the data methodology can be found in (Etang-Ndip, Hoogeveen, & Lendorfer, 2015).

[4] All data from this survey can be downloaded from http://www.gisse.org/pages/enquete-continue-sur-les-deplaces-refugies/enquete-sur-les-deplaces-et-les-refusgies.html.

[5] More precisely, the subsequent interviews were conducted in August 2014, September/October 2014 and then from November 2014 every month. More information on high frequency panel data using mobile phone interviews can be found in (J. Hoogeveen, Croke, Dabalen, Demombynes, & Giugale., 2014) and (Dabalen et al., 2016).

[6] It should be noted that the definition of IDPs used in this survey is different from the one adopted from the UNHCR. This agency considers as IDPs also people displaced in the northern part of the country.

4. Descriptive statistics

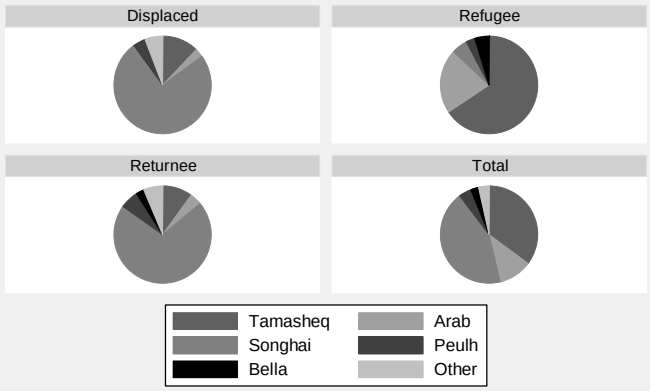
The aim of this section is to describe the characteristics of the different groups included in the survey, and to illustrate their living conditions, as well as their future migration plan. A preliminary analysis of these data has already been done by (Etang-Ndip et al., 2015). Most of the surveyed people were displaced in April 2012, when Gao, Kidal and Timbuktu were occupied by the rebels. A second wave occurred in June 2012 and a third one in January 2013.

4.1 Demographic characteristics

Looking at the composition of our sample between refugees, returnees and IDPs, it is possible to claim that few households moved between 2014 and 2015. In fact, the transition probability from being internally displaced to having returned to Northern Mali over the 12 waves is 2.4%. Moreover, the same probability for refugees is only 0.3%. However, it should be pointed out that some respondents changed migration status several times over the period considered in the survey. Moreover, having returned to Northern Mali did not always lead to a stable condition: the transition probabilities from returnee to IDP and refugee is 1.1% and 0.2% respectively.

As we can see from Figure 1, the majority of the sample is Songhai and Kel Tamasheq (almost everybody identified themselves as Muslim). However, ethnic groups have reacted differently to the crisis. While most of the Arabs and Kel Tamasheq have left the country, most of the Songhai people have decided to go south, in Bamako, or have already returned to the Northern Mali. Furthermore, as pointed out in (Etang-Ndip et al., 2015), IDPs and Returnees have a similar ethnic composition because 94% of returnees were IDPs. Fewer people in the sample have returned from refugee camps in the neighboring countries[7].

Figure 1: Ethnic composition

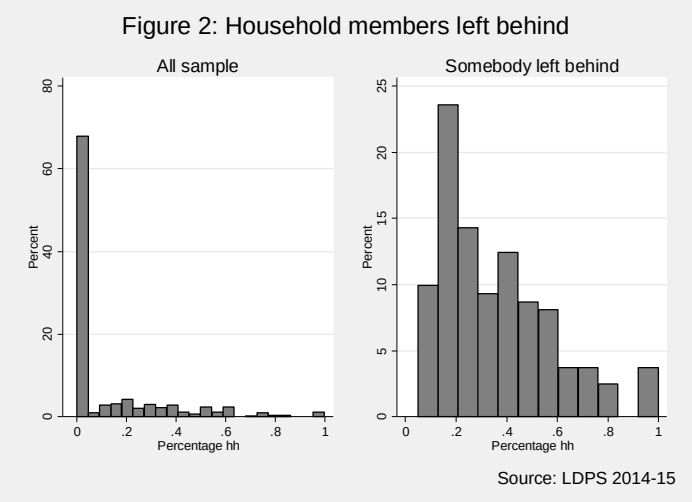


Analytic weights used

Source: LDPS 2014-15

[7] As these authors explain, there are very few refugees among the returnees in the LDPS because 92% of the refugees used to live in town and villages near the regional capitals in Northern Mali, thus have not been included in the survey since it covers only returnees in Gao, Timbuktu and Kidal.

As it is clear from the left panel in Figure 2, the vast majority of the interviewed people did not leave any household member behind. However, there were some individuals who decided or were forced to migrate without other members of the household. Indeed, the right panel in Figure 2 shows that some households were split in two and that some migrants left without anybody.



We can further deepen our analysis by breaking apart the previous data by status. Indeed, almost everybody (86%) among the refugees did not leave anybody behind, while the same figure for IDPs and returnees was around 57%. Furthermore, the household head or the spouse remained in the North during the crisis more frequently for returnees, while the same was very uncommon among refugees.

These migration patterns have caused deep changes in the composition of the households. In fact, while 184 of the surveyed individuals were household heads before the conflict and managed to maintain such role even during the crisis, 47 individuals completely changed households (Table D1). This happened also to some other individuals, e.g. spouses or offspring, thus suggesting that some individuals decided to merge with other households, then losing their original role.

Table D1: Role inside the household before and after the crisis

			Role After				
Role before	**Head**	**Spouse**	**Son/ Daughter**	**Father/ Mother**	**Brother/ Sister**	**Other**	**Total**
Head	184	2	8	5	19	47	265
Spouse	2	56	1	4	21	27	111
Son/Daughter	2	0	15	0	3	29	49
Father/Mother	1	1	1	24	3	10	40
Brother/Sister	6	0	0	0	13	5	24
Other	1	1	0	0	0	10	12
Total	196	60	25	33	59	128	501

4.2 Security, employment, and welfare

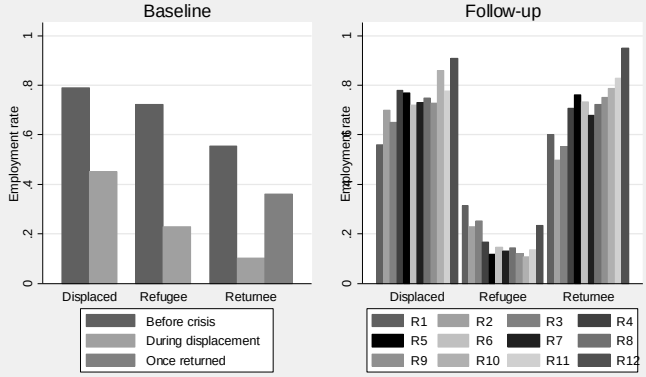
One of the main goals of this analysis is to understand the willingness to come back among refugees and IDPs. Almost 44% (unweighted percentage) of the people in the sample had already returned by August 2014. Moreover, while both refugees and IDPS expressed interest in returning to their original location, this desire was more common among refugees: 93% of the refugees wanted to go back, while 81% of IDPs showed the same intention. Among those who did not want to go back, the main reason was because of the insecurity in the North, followed by "life is easier here", lack of means, or business reasons.

As expected, returnees had decided to come back mainly because Northern Mali was their home (23%). Moreover, 10% of them were driven by the liberation of the area, and 9% because they were looking for a job. Family was also mentioned as a secondary reason for having returned. In addition to this, it is interesting to note that, in August 2014, 93% of these individuals would have suggested others to return. However, among the main challenges that they faced once returned, many of them mentioned poverty, scarce food, lack of infrastructure and jobs, absence of drinkable water, and insecurity. 14% of them did not face any such challenges.

It is quite surprising – and reassuring – to find out that, except in the initial survey, across all subsequent waves almost everybody claimed to feel safe at home both during the day and at night, as well as when they had gone out alone during the day. Furthermore, the percentage of people in the sample who had been robbed ranged between 0.6% and 6.9% over time; while between 0.2% and 3.8% had been victims of physical violence outside the household. Finally, less than 4% owned a weapon. However, several individuals experienced some human losses during the crisis. Indeed, while very few refugees reported some victims in their households, most of them declared that there had been victims in their tribe or neighbourhood. On the other hand, IDPs have been the ones with the highest percentage of deaths within their households, while on average returnees seems to have been less hit by this kind of violence.

Before the crisis, the main occupation for the interviewed people was in commerce, while very few were farmers or shepherds. However, while most of the civil servants were able to keep their jobs, those working in the commerce were badly affected by the crisis. In addition to this, as shown in the left panel of Figure 3, IDPs had the highest employment rate before the crisis, while only around half of the returnees used to work. Moreover, all groups lost jobs during the displacement. Nevertheless, most of the returnees managed to work again once back, and in the last waves (right panel or Figure 3) they have reached high employment rates, similar to the IDP's ones. On the other hand, employment rate among the refugees has remained low and it has

Figure 3: Employment rate by group

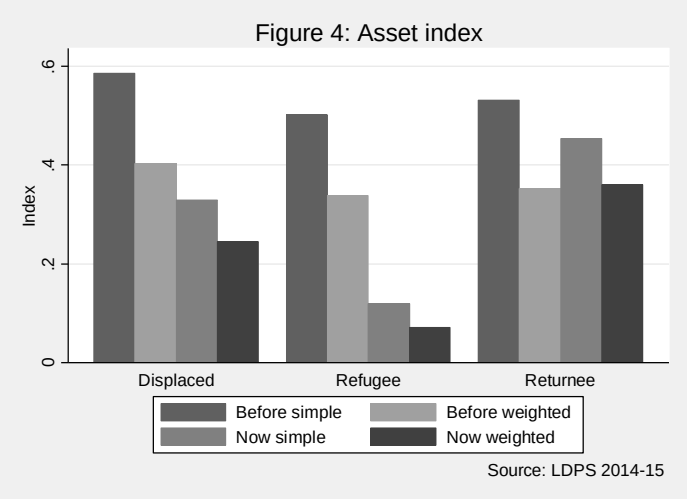


Analytic weights used

Source: LDPS 2014-15

actually deteriorated over time. This may be one of the main reasons behind the high willingness to return among this group.

As already pointed out in (Etang-Ndip et al., 2015), average asset ownership of the people in the sample was higher than the average inhabitant of the North. However, it can be noted that all three respondent groups reported big losses of livestock. In order to deepen our analysis, using the information on some asset ownership before the conflict and in August 2014, we have computed a simple and weighted asset indices as shown in Figure 4[8]. It is interesting to note that before the crisis IDPs were on average better off, while the conflict deeply affected the refugees. On the other hand, returnees managed to catch up easily and their weighted asset index in August 2014 was roughly at the pre-crisis level[9]. In addition to this, both IDPs and returnees seem to have universal access to health and education services, electricity, water and housing. On the other hand, refugee camps were ill-equipped to face health-related issues and few households living there had access to electricity.



Another indicator of welfare is nutrition. Using a multivariate analysis, (Etang-Ndip et al., 2015) did not find that the duration of displacement significantly affects the number of meals. Despite this, the data show a drop in the number of meals during the initial part of the crisis. However, there was a rapid growth in the subsequent months, even if the growth path for IDPs had been slightly more volatile. Therefore, all three groups had on average almost 3 meals per day in the spring of 2015.

Foreign and domestic aid can play a crucial role in helping people not only to survive during a major crisis or conflict, but also to successfully transit from one period to another. Due probably also to the fact that they were easy to target, almost all refugees obtained some aid. On the other hand, while more than half of the IDPs received assistance, several people among the returnees did not receive any aid.

What we can conclude from this preliminary analysis is that there seems to be a higher willingness to return among refugees. The indicators described above suggest that lack of jobs and access to basic services may play a role. The next section will employ multivariate analysis to further understand these phenomena.

[8] A detailed description of how we computed these asset indices is available in the Appendix.

[9] Nevertheless, it should be stress that this index gives only a partial picture of their wealth. Indeed, we cannot say a priori if the refugees completely lost almost all their assets, or they just sold it before leaving since most of them were heavy to carry or useless in a refugee camp. If the latter case is true, the drop described above would simply indicate a shift from durable assets to liquid wealth (cash).

5. Multivariate analysis

5.1 Returned (Y/N)

We start our analysis by showing the characteristics of the respondents who had already decided to return to their place of origin before the first wave of the survey (August 2014). In this first multivariate analysis, we aggregated IDPs and refugees as comparison groups. Column 1 Table 1 shows the estimated probit marginal effects using the whole sample, while in Column 2 only respondents who were the household head or spouse were considered[10].

First, it is interesting to note that asset-rich households were much more likely to return to Northern Mali (up to 46 percentage points). The same can be said about households belonging to the Songhai ethnic group. Moreover, we found an even larger increase in the likelihood of going back among respondents who were originally from Kidal. We should also mention the positive coefficient associated to the regressor "Police issues": individuals who experienced some difficulties with the national security forces or with strangers during the displacement were more likely to return to the regions in Northern Mali. When asked to give additional details about these issues, most of the respondents (53%) complained that there were too many controls, while 15% of them stressed the lack of respect during these controls (15%).

On the other hand, having received aid was associated with a lower probability of returning home. In addition to this, more numerous households were less likely to go back to Northern Mali. The same can be said about the households whose respondent worked during the displacement. Similarly, households in which the respondent had achieved secondary educational levels, or higher, were less likely to return in Northern Mali. We may wonder whether this last result was due to these individuals being more informed about the situation in Mali, and/or whether their educational level gave them more flexibility, thus, they were able to adapt and integrate in the new environment, which led them to not wanting to go back. The former hypothesis can be sustained by considering that, among these highly educated individuals, almost all of them received some news from their place of origin, while 15% of the lower educated respondents did not received any information. Furthermore, highly educated individuals received this news mainly through mobile phone and had access to the Internet more frequently, while the other respondents depended more on the radio and word of mouth, a potentially unreliable source.

It is also important to note that the age of the respondent was not relevant in this context, which was expected given that respondents were selected randomly among the household members. Nevertheless, the same result held also when we considered only household heads and spouses (Column 2). Along the same line, gender and marital status did not seem to matter here[11]. Quite surprisingly, safety was not pivotal: whether the respondents felt safe at home alone did not significantly affect their migration decisions. Nevertheless, whether some members of the household or the tribe died during the crisis negatively affected respondents' decision to go back. Last but not least, there is evidence suggesting that members left behind act as a pivot in shaping

[10] Following (Joshua D Angrist, 2001) and (J. D. Angrist & Pischke, 2009), we have also estimated the same models using OLS. Results are qualitatively similar. When not reported, tables are available upon request. A detailed description of the variables used in this section is available in the Appendix. We should also stress that we are not making any causality claim in this section, but we rather want to describe respondents' characteristics and their migration decisions.

[11] We should stress that almost all spouses were female, while 69% of the interviewed household heads were male.

the decision to go back home. In particular, whether the household head's spouse was left behind, rather than household head, is associated with a higher probability of returning to Northern Mali.

Given the small sample size, we had to use a parsimonious specification. Nevertheless, it is worth noting that, despite the few covariates, we managed to explain around half of the variation in this migration decision (the R^2 in the OLS estimation was similar). The pseudo-R^2 was even 0.54 in the model with only respondents who were household heads or their spouses. Furthermore, we tried to also include additional regressors, but their coefficients were not statistically significant. In particular, whether the respondent was literate did not appear as a key variable in these specifications. Similarly, unlike formal aid, having received informal aid from other family members or friends before or during the crisis was not correlated with the decision to go back. Finally, we also did not find any difference between public employees and other workers, as well as any effect of the household gender ratio on this migration decisions.

Table 1: Returned (Y/N) - Probit Baseline (August 2014)

	(1) All	(2) Head&Spouse
Female (d)	0.041	0.027
	(0.064)	(0.027)
Age	-0.001	0.001
	(0.002)	(0.001)
Higher Education (d)	-0.146**	-0.034*
	(0.069)	(0.017)
Married (d)	-0.031	0.002
	(0.069)	(0.032)
Songhai ethnicity (d)	0.131**	0.020
	(0.065)	(0.027)
Kidal region of origin (d)	0.552***	0.250
	(0.077)	(0.164)
HH size (August 2014)	-0.034***	-0.008**
	(0.009)	(0.004)
Member tribe dead in crisis (d)	-0.243***	-0.020
	(0.062)	(0.022)
HH members dead in crisis (d)	-0.172	-0.030**
	(0.105)	(0.015)
HH members behind (d)	0.141**	0.020
	(0.067)	(0.032)
HH head left behind (d)	0.186	-0.034**
	(0.135)	(0.015)
HH spouse left behind (d)	0.461***	0.307
	(0.112)	(0.301)
Northern Mali safe (d)	-0.047	-0.034**
	(0.077)	(0.017)
Safe at home (d)	-0.016	-0.037
	(0.072)	(0.033)
Police issues (d)	0.327***	0.116**
	(0.065)	(0.054)
>1 transfers before settling (d)	0.270**	0.108
	(0.126)	(0.110)
Asset index above median (d)	0.463***	0.280***
	(0.054)	(0.075)
Have received aid (d)	-0.367***	-0.164**
	(0.064)	(0.078)
Work during displacement (d)	-0.304***	-0.032*
	(0.062)	(0.019)
Observations	470	233
Pseudo R^2	0.50863	0.54966

Marginal effects; Standard errors in parentheses. Robust SE. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
"Asset index above median" is computed using information about asset ownership in August 2014.
Source: LDPS 2014-15
(d) for discrete change of dummy variable from 0 to 1

5.2 Returnees, Refugees, IDPs

A natural continuation in our econometric analysis is to focus on refugees and IDPs. In particular, we have used a Heckman probit model to take the selection process into account (Table 2). In other words, in the first step (Column 1) the selection equation was a probit model where the dependent variable was equal to one if the respondent had not yet returned to Northern Mali in August 2014, zero otherwise (note that this is specular to Column 1 Table 1). In the second step, the dependent variable of the probit equation was one if the respondent was a refugee, zero if he or she was belonging to IDPs (Column 2). Given the estimated coefficients, we have computed the marginal effects on the probability of being a refugee conditional on not having returned (Column 3). Finally, we have repeated the same exercise by restricting the sample to respondents who were the household heads or their spouses. The corresponding marginal effects on the conditional probabilities have been reported in Column 4.

First, looking at the demographics characteristics of the respondents, we can note that being female, highly educated, Songhai, or originally from Kidal was associated with a lower probability of being a refugee. The same was true for larger households, for those who left some members behind, and for those who experienced losses during the crisis. As before, feeling safe alone at home did not seem to drive these migration decisions. On the other hand, having migrated more than once during the crisis, having low wealth, and working were less frequently associated with refugees than IDPs. In line with the descriptive statistics, humanitarian aid was instead recorded more frequently in the former group.

Table 2: Returned, Refugee, IDPs - Heckman Probit Baseline (August 2014)

	(1) Not Returned	(2) Refugee/IDPs	(3) Mfx All	(4) Mfx Head&Spouse
Female	-0.105	-0.674**	-0.082**	-0.069**
	(0.166)	(0.303)	(0.037)	(0.032)
Age	0.003	0.013	0.002	0.002
	(0.006)	(0.010)	(0.001)	(0.001)
Higher Education	0.403**	-0.550	-0.091**	-0.078*
	(0.199)	(0.344)	(0.042)	(0.040)
Married	0.108	-0.392	-0.056	-0.032
	(0.182)	(0.286)	(0.041)	(0.036)
Songhai ethnicity	-0.374**	-1.759***	-0.209***	-0.215***
	(0.173)	(0.356)	(0.035)	(0.028)
Kidal region of origin	-1.642***	-1.347***	-0.094*	-0.111**
	(0.359)	(0.419)	(0.057)	(0.047)
HH size (August 2014)	0.090***	-0.145***	-0.023***	-0.016***
	(0.023)	(0.042)	(0.005)	(0.005)
Member tribe dead in crisis	0.696***	0.138	-0.016	-0.010
	(0.183)	(0.323)	(0.043)	(0.033)
HH members dead in crisis	0.498	-1.778***	-0.255***	-0.276***
	(0.352)	(0.513)	(0.062)	(0.064)
HH members behind	-0.346**	-0.980***	-0.110**	-0.085**
	(0.173)	(0.310)	(0.044)	(0.041)
HH head left behind	-0.456	0.113	0.037	0.192***
	(0.343)	(0.749)	(0.098)	(0.046)
HH spouse left behind	-1.310***	-1.287	-0.102	-0.179***
	(0.429)	(0.880)	(0.115)	(0.059)
Northern Mali safe	0.136	0.325	0.035	0.041
	(0.205)	(0.408)	(0.052)	(0.042)
Safe at home	0.044	0.047	0.004	-0.047
	(0.186)	(0.334)	(0.043)	(0.043)
Police issues	-0.870***	-0.867**	-0.069	-0.105*
	(0.174)	(0.381)	(0.052)	(0.054)
>1 transfers before settling	-0.695**	-2.596***	-0.302***	-0.245***
	(0.339)	(0.562)	(0.062)	(0.057)
Asset index above median	-1.285***	-1.349***	-0.111***	-0.062*
	(0.172)	(0.270)	(0.032)	(0.035)
Have received aid	0.967***	2.838***	0.320***	0.298***
	(0.177)	(0.507)	(0.040)	(0.039)
Work during displacement	0.918***	-0.976***	-0.171***	-0.140***
	(0.231)	(0.377)	(0.046)	(0.031)
Constant	-0.353	1.198		
	(0.381)	(0.896)		
Ath(rho)		0.795**		
		(0.346)		
Observations	470	470	470	233

Standard errors in parentheses. Robust SE. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

"Asset index above median" is computed using information about asset ownership in August 2014.

Full Maximum-Likelihood Estimation

Marginal effect on Pr(depvar=1 | depvar_selection=1)

Source: LDPS 2014-15

5.3 Want to go back (Y/N)

Keeping our attention to refugees and IDPs, we wanted to deepen our understanding about their future migration plans. In particular, we would have liked to discover which characteristics were associated with the desire to go back to Northern Mali. In order to do so, we have estimated a probit model using the same regressors as in the previous sections. The dependent variable was set equal to one when the respondent was considering the possibility to eventually going back to the North, zero otherwise. The estimated marginal effects have been reported in Table 3 for all respondents (Column 1-2), as well as for only the household heads or their spouses (Column 3-4).

The strongest predictor of this future plan was refugee status: individuals living abroad in refugee camps were up to 25 percentage points more willing to go back than IDPs. Joining this result with those on unemployment presented in the descriptive statistics, we may wonder whether this desire to go back home may have resulted from a more general malaise experienced by these respondents forced to migrate and halted in a limbo not fully integrated with the local community and labor market. An alternative explanation may be found by taking into account that most of the individuals in the sample who went back before the baseline interview (August 2014) were previously displaced within Mali, thus many among the IDPs who wanted to return had already done so.

Given this result, we have expanded our analysis by estimating the same model for refugees and IDPs separately. Despite the small sample size, it is interesting to note that educated IDPs were less likely to declare that they want to go return. The same held for IDPs who were working. On the other hand, the opposite held for female and younger respondents. Younger *refugees* on the other hand were *less* likely to be willing to go back.

Among the other regressors, very few of them were statistically significant, probably because of the small sample size. The only covariates which were significant in some specifications were ethnicity, household size, receiving aid, and employment. In addition to this, as expected, those who believed that the regions in Northern Mali were secure were more likely to plan to return. While this “pull” factor is significant, “push” factors, i.e., whether the individual felt safe at home alone or whether he or she had trouble with the local security forces, did not appear to be pivotal in this decision.

Finally, it is important to point out that there is a positive relation between stated and actual preferences. Indeed, those who declared that they were planning to go back to Northern Mali were more likely to actually having returned in the subsequent waves. However, the magnitude is small, probably because of the short time span considered.

Table 3: Want to go back (Y/N) - Only refugees and IDPs - Probit Baseline

	(1) All	(2) All	(3) Head&Spouse	(4) Head&Spouse
Female (d)	0.050	0.058	-0.008	-0.002
	(0.039)	(0.039)	(0.045)	(0.044)
Age	0.001	0.001	0.000	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)
Higher Education (d)	-0.080	-0.060	-0.090	-0.064
	(0.063)	(0.062)	(0.082)	(0.078)
Married (d)	0.048	0.051	-0.014	-0.012
	(0.049)	(0.049)	(0.052)	(0.050)
Songhai ethnicity (d)	0.039	0.091**	-0.008	0.074
	(0.040)	(0.039)	(0.053)	(0.045)
HH size (August 2014)	-0.008*	-0.004	-0.004	0.001
	(0.004)	(0.005)	(0.006)	(0.005)
Member tribe dead in crisis (d)	0.060	0.051	0.043	0.029
	(0.043)	(0.041)	(0.045)	(0.044)
HH members dead in crisis (d)	-0.057	-0.002	-0.084	-0.008
	(0.096)	(0.070)	(0.127)	(0.082)
HH members behind (d)	-0.012	0.012	-0.019	0.003
	(0.049)	(0.043)	(0.060)	(0.052)
HH head left behind (d)	0.043	0.035	-0.088	-0.125
	(0.062)	(0.067)	(0.137)	(0.158)
Northern Mali safe (d)	-0.145*	-0.146*	-0.153	-0.163*
	(0.085)	(0.084)	(0.097)	(0.099)
Safe at home (d)	0.015	0.005	-0.001	-0.008
	(0.046)	(0.044)	(0.051)	(0.047)
Police issues (d)	-0.030	-0.013	-0.068	-0.048
	(0.053)	(0.049)	(0.070)	(0.065)
Asset index above median (d)	-0.013	0.018	0.021	0.041
	(0.045)	(0.042)	(0.046)	(0.039)
Have received aid (d)	-0.019	-0.058	-0.041	-0.079**
	(0.048)	(0.039)	(0.047)	(0.034)
Work during displacement (d)	-0.097**	-0.063	-0.092	-0.058
	(0.049)	(0.047)	(0.060)	(0.056)
Refugee (d)		0.186**		0.259*
		(0.090)		(0.136)
Observations	243	243	180	180
Pseudo R^2	0.11899	0.14438	0.09456	0.13529

Marginal effects; Standard errors in parentheses. Robust SE. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
"Asset index above median" is computed using information about asset ownership in August 2014.
Source: LDPS 2014-15
(d) for discrete change of dummy variable from 0 to 1

5.4 Do not want to go back, want to go back, returned

A more comprehensive analysis than the previous one should have taken into account all respondents, i.e., it should have also included those who had returned. This has been done here by using an ordered probit model. Indeed, respondents' options could be naturally ranked from not wanting to go back to Northern Mali, to planning to eventually return there, up to having already returned in the North. In other words, in this section we have tried to jointly analyze the migration decisions discussed in the previous sections in order to look at them from a different, unified, perspective. Therefore, we have estimated this specification using the same regressors as in the previous sections (Table 4). Column 1 contains the estimated coefficients. From these, we have computed the marginal effects on the probability of not wanting to go back (Column 2), on the probability of wanting to go back one day (Column 3), and on the probability of having already returned (Column 4).

The estimates confirmed our previous finding. Indeed, better educated individuals were less likely to have already returned, while the opposite was true for those whose ethnicity was Songhai or originally from Kidal. As already discussed, household size mattered, as well as whether some members were left behind, particularly if it concerned household head's spouse. In addition to this, thinking that Northern Mali was secure or feeling safe at home were not statistically significant, although having had issues with the local security forces was associated with having already returned. Finally, high previous mobility and high wealth were more prevalent among returnees, while the opposite was true for aid and employment[12].

Finally, as an additional robustness check, we have exploited the panel dimension of our dataset and estimated the same order probit model using all the available waves. In other words, since respondents were regularly interviewed on a monthly basis, we could use their migration status over time in order to estimate a pooled order probit model (Table 5). The dependent variable was similar to the previous one (see the Appendix for the details). Column 1 contains the estimated coefficients. From these, we have computed the marginal effects on the probability of not wanting to go back (Column 2), on the probability of wanting to go back (Column 3), and on the probability of having already returned (Column 4). The results were in line with the ones in Table 4[13].

[12] We have also estimated the same model using only respondents who were the household head or the spouse. Results are qualitatively similar. The same can be said about the OLS estimates.

[13] We have also estimated the same model using only respondents who were the household head or the spouse. Results are qualitatively similar.

Table 4: Order Probit - Don't want to go back, want to go back, returned - Baseline

	(1) Coefficients	(2) Mfx Don't	(3) Mfx Want	(4) Mfx Returned
Female	0.124	-0.012	-0.018	0.029
	(0.129)	(0.013)	(0.018)	(0.031)
Age	-0.001	0.000	0.000	-0.000
	(0.005)	(0.000)	(0.001)	(0.001)
Higher Education	-0.421**	0.040**	0.060**	-0.100**
	(0.179)	(0.018)	(0.026)	(0.043)
Married	0.017	-0.002	-0.002	0.004
	(0.142)	(0.014)	(0.020)	(0.034)
Songhai ethnicity	0.262*	-0.025*	-0.037*	0.062*
	(0.151)	(0.015)	(0.021)	(0.036)
Kidal region of origin	1.576***	-0.151***	-0.223***	0.375***
	(0.315)	(0.036)	(0.043)	(0.072)
HH size (August 2014)	-0.067***	0.006***	0.010***	-0.016***
	(0.015)	(0.002)	(0.002)	(0.004)
Member tribe dead in crisis	-0.269*	0.026*	0.038*	-0.064*
	(0.142)	(0.013)	(0.021)	(0.033)
HH members dead in crisis	-0.532	0.051	0.075	-0.126
	(0.325)	(0.032)	(0.047)	(0.077)
HH members behind	0.189	-0.018	-0.027	0.045
	(0.156)	(0.015)	(0.022)	(0.037)
HH head left behind	0.354	-0.034	-0.050	0.084
	(0.296)	(0.029)	(0.042)	(0.070)
HH spouse left behind	1.247***	-0.120***	-0.177***	0.296***
	(0.345)	(0.037)	(0.051)	(0.083)
Northern Mali safe	-0.246	0.024	0.035	-0.059
	(0.190)	(0.018)	(0.027)	(0.045)
Safe at home	0.111	-0.011	-0.016	0.026
	(0.160)	(0.016)	(0.023)	(0.038)
Police issues	0.486***	-0.047***	-0.069***	0.115***
	(0.156)	(0.015)	(0.023)	(0.037)
>1 transfers before settling	0.708**	-0.068**	-0.100**	0.168**
	(0.290)	(0.030)	(0.042)	(0.070)
Asset index above median	0.922***	-0.089***	-0.131***	0.219***
	(0.154)	(0.017)	(0.022)	(0.033)
Have received aid	-0.790***	0.076***	0.112***	-0.188***
	(0.166)	(0.0i i18)	(0.022)	(0.036)
Work during displacement	-0.742***	0.071***	0.105***	-0.176***
	(0.159)	(0.016)	(0.024)	(0.038)
Threshold 1	-2.572***			
	(0.411)			
Threshold 2	-0.117			
	(0.365)			
Observations	469	469	469	469
Pseudo R^2	0.34258			

Standard errors in parentheses. Robust SE. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

"Asset index above median" is computed using information about asset ownership in August 2014.

Source: LDPS 2014-15

Table 5: Order Probit - Don't want to go back, want to go back, returned - Pooled Panel

	(1) Coefficients	(2) Mfx Don't	(3) Mfx Want	(4) Mfx Returned
Female	0.017	-0.004	-0.000	0.004
	(0.122)	(0.026)	(0.002)	(0.028)
Age	-0.003	0.001	0.000	-0.001
	(0.004)	(0.001)	(0.000)	(0.001)
Higher Education	-0.299*	0.064*	0.004*	-0.068*
	(0.161)	(0.034)	(0.002)	(0.037)
Married	-0.102	0.022	0.001	-0.023
	(0.129)	(0.028)	(0.002)	(0.029)
Songhai ethnicity	-0.033	0.007	0.000	-0.007
	(0.131)	(0.028)	(0.002)	(0.030)
Kidal region of origin	1.303***	-0.278***	-0.018***	0.296***
	(0.318)	(0.067)	(0.005)	(0.069)
HH size (August 2014)	-0.070***	0.015***	0.001***	-0.016***
	(0.016)	(0.003)	(0.000)	(0.004)
Member tribe dead in crisis	-0.685***	0.146***	0.009**	-0.155***
	(0.125)	(0.026)	(0.004)	(0.028)
HH members dead in crisis	-0.269	0.057	0.004	-0.061
	(0.228)	(0.048)	(0.003)	(0.051)
HH members behind	0.320**	-0.068**	-0.004*	0.073**
	(0.133)	(0.028)	(0.002)	(0.030)
HH head left behind	0.397	-0.085	-0.005	0.090
	(0.304)	(0.065)	(0.004)	(0.069)
HH spouse left behind	0.752**	-0.160**	-0.010*	0.171**
	(0.349)	(0.075)	(0.006)	(0.080)
Northern Mali safe	0.174	-0.037	-0.002	0.039
	(0.160)	(0.034)	(0.002)	(0.036)
Safe at home	-0.206	0.044	0.003	-0.047
	(0.133)	(0.028)	(0.002)	(0.030)
Police issues	0.727***	-0.155***	-0.010***	0.165***
	(0.137)	(0.029)	(0.004)	(0.031)
>1 transfers before settling	0.700***	-0.149***	-0.010**	0.159***
	(0.259)	(0.056)	(0.004)	(0.059)
Asset index above median	1.080***	-0.230***	-0.015***	0.245***
	(0.143)	(0.028)	(0.005)	(0.029)
Have received aid	-0.691***	0.147***	0.010***	-0.157***
	(0.154)	(0.031)	(0.003)	(0.033)
Work during displacement	-0.640***	0.136***	0.009**	-0.145***
	(0.148)	(0.031)	(0.004)	(0.033)
Threshold 1	-2.045***			
	(0.304)			
Threshold 2	-1.171***			
	(0.296)			
Time dummies	Yes			
Observations	6005	6005	6005	6005
PseudoR^2	0.33878			

Standard errors in parentheses. SE clustered at the individual level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
Asset index above median is computed using information about asset ownership in August 2014.
Source: LDPS 2014-15

5.5 Plan to go back (Y/N) – Fixed-Effect

This last empirical section represents an attempt to use the panel dimension of our dataset to estimate causal effects. In particular, for twelve consecutive waves, refugees and IDPs were asked whether they were considering going back to Northern Mali in the subsequent month. We have tried to test how employment, security and expectations affected these decisions. We have achieved this goal by estimating a fixed-effect linear probability model (LPM). The estimated coefficients are shown in Table 6. Columns 1 and 2 have been estimated using the whole sample, while only respondents who were the household heads or the spouses has been considered in Columns 3 and 4.

The main conclusion is that being employed reduced the intention to go back to the regions in Northern Mali by around 8 percentage points. This result persists across all specifications, even when we control for immigration status, i.e., whether the individual was a refugee or an IDP. Indeed, refugees were more likely to be willing to go back. Estimating the same model for refugees and IDPs separately does not change our conclusions.

In line with the previous findings, whether an individual felt safe during the day (or at night) did not affect the likelihood of planning to go back. However, another regressor indicates that security may still be pivotal: those who owned a weapon were up to 30 percentage points more likely to plan to go back. In addition to this, it is quite surprising that, if the respondent thought that the Northern Mali crisis was improving, he or she was *less* likely to plan a return to that area.

From a technical point of view, we should point out that we have used a LPM even if the dependent variable was a binary outcome. This choice has been made since in this linear model it has been straightforward to add fixed-effects. Furthermore, the coefficients could be interpreted as average partial effects. A simple logit or probit model would have not allowed the inclusion of the individual fixed-effects because of the incidental parameter problem. An alternative approach would have been to estimate a conditional logit model. However, since the distribution of the fixed effects is unknown, it would have not been possible to estimate the average partial effects in this model, but only the effect of the regressors on the log-odds ratio[14].

We should conclude by stressing that the monthly phone interviews were relatively short, so we did not have a rich panel dataset. This may have led to omitted variable biases. Indeed, there may still be time varying factors which could have affected both the probability of being employed and the respondents' intentions to go back. Nevertheless, we do believe that our model managed to control for most of the observables. Indeed, the individual fixed-effects captured all time invariant individual characteristics such as ability, education, stamina, as well as several stable household characteristics and environmental factors (e.g. attitude towards refugees or IDPs in the local community). Furthermore, the time fixed-effects controlled for events specific to a certain time period, such as weather shocks or military events.

[14] See (Wooldridge, 2010) page 639. Conclusions from the conditional logit model are qualitatively similar.

Table 6: Plan to go back (Y/N) - Only refugees and IDP - LPM with FE

	(1) All	(2) All	(3) Head and Spouse	(4) Head and Spouse
Employed	-0.082***	-0.080***	-0.075***	-0.071***
	(0.018)	(0.018)	(0.019)	(0.018)
Safe during day	-0.085	-0.099	-0.091	-0.109
	(0.153)	(0.177)	(0.178)	(0.212)
Safe at night	0.140	0.144	0.155*	0.159
	(0.085)	(0.091)	(0.091)	(0.097)
Own a weapon	0.299***	0.301***	0.225**	0.225**
	(0.084)	(0.084)	(0.107)	(0.107)
Improvement Mali crisis	-0.076***	-0.075***	-0.068***	-0.069***
	(0.014)	(0.014)	(0.014)	(0.014)
Refugee		0.409***		0.417***
		(0.040)		(0.040)
Constant	0.382***	0.126	0.389**	0.116
	(0.125)	(0.141)	(0.160)	(0.183)
Time dummies	Yes	Yes	Yes	Yes
Observations	3272	3254	2489	2479
Within R^2	0.07912	0.08002	0.07254	0.07409

Standard errors in parentheses. SE clustered at the individual level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
Source: LDPS 2014-15

6. Conclusion

This paper has analyzed the well-being and characteristics of those subject to forced migration during the recent (ongoing) crisis in Northern Mali. We have based our study on a unique micro-dataset that used new technologies in order to collect information in highly risky environments and with relative high mobility. We have provided descriptive statistics on the respondent's welfare over time, their employment status, their wealth, and their access to basic services.

In addition to this, we have compared refugees, returnees and internally displaced people. We have also looked at the differences between those who were willing to go back to Northern Mali and those who did not want to return. We have shown that individuals who were employed were less willing to go back to the North. Security and expectation about the Mali crisis also played a role in their migration decisions, although some factors (such as feeling safe during the day) may be less important than expected.

We hope that this analysis will allow researchers and policy-makers to better understand these group and design policy able to address their needs and, if deemed desirable, to incentivize people to go return to their place of origin. In particular, our analysis has shown that refugees and IDPs differ in their intention to return to Northern Mali, and that such differences are also evident across demographic groups. Therefore, policy-makers may need to vary the methods used to attract individuals back to these regions.

Finally, it is worth mentioning one variable that has stand out throughout this study: human capital. Given this result, it is extremely important to increase the extremely low school attendance rates in Mali (J. G. Hoogeveen, 2016). We could speculate here and claim that highly educated individuals appeared to perform better not only in day-to-day activities, but also when subject to drastic shocks following an armed conflict. Their potential higher stamina and adaptability should make investments in education desirable since their newly developed skills could be used to help them during the integration process with the local community abroad. Alternatively, in case they decided to return to Norther Mali, they could find a job more easily. In other words, human capital is portable and gives individuals additional options, including where to live.

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Appendix

A1. Summary statistics – Baseline sample

Variable	Obs	Mean	SD	Min	Max
Returned (Y/N)	501	0.439	0.497	0	1
Refugee (Y/N) - Heckman	281	0.644	0.480	0	1
Want to go back - Baseline	280	0.889	0.314	0	1
Returned (3 Categories) - Baseline	500	2.378	0.600	1	3
Female	501	0.489	0.500	0	1
Age	501	39	14	18	80
Higher Education	501	0.214	0.410	0	1
Married	501	0.693	0.462	0	1
Songhai ethnicity	501	0.475	0.500	0	1
Kidal region of origin	501	0.110	0.313	0	1
HH size (August 2014)	501	8	4	1	22
Member tribe dead in crisis	479	0.397	0.490	0	1
HH members dead in crisis	501	0.046	0.209	0	1
HH members behind	501	0.321	0.467	0	1
HH head left behind	495	0.085	0.279	0	1
HH spouse left behind	495	0.048	0.215	0	1
Northern Mali safe	497	0.161	0.368	0	1
Safe at home	501	0.715	0.452	0	1
Police issues	501	0.265	0.442	0	1
>1 transfers before settling	501	0.044	0.205	0	1
Asset index above median	501	0.499	0.500	0	1
Have received aid	501	0.677	0.468	0	1
Work during displacement	501	0.214	0.410	0	1

Note: this table and the one in Appendix A2 include all observations in the relevant sample. The actual number of observation used in each regression may vary since not all variables were observed for each individual.

A2. Summary statistics – Panel sample (All follow-up waves)

Variable	Obs	Mean	SD	Min	Max
Returned (3 Categories) - Panel	5,865	2.073	0.899	1	3
Plan to go back - Panel	3,277	0.336	0.473	0	1
Employed	5,946	0.546	0.498	0	1
Safe during day	5,951	0.989	0.105	0	1
Safe at night	5,951	0.961	0.194	0	1
Own a weapon	5,951	0.005	0.073	0	1
Improvement Mali crisis	5,951	0.703	0.457	0	1
Refugee	3,336	0.638	0.481	0	1

A3. Variable description

Dependent Variables

Returned (Y/N) is an indicator variable equal to one if the respondent had returned in Northern Mali in August 2014, while it is equal to zero if the respondent was a refugee or IDP at the time of the baseline interview.

Refugee (Y/N) - Heckman is an indicator variable equal to one if the respondent was a refugee in August 2014, while it is equal to zero if the respondent was internally displaced at the time of the baseline interview. This variable was missing if the respondent had already gone back to Northern Mali.

Want to go back - Baseline is an indicator variable equal to one if the respondent declared in August 2014 that he was considering eventually going back to Northern Mali, zero if he or she was not considering such a possibility.

Returned (3 Categories) - Baseline is a categorical variable equal to one if the respondent declared in August 2014 that he or she was not considering eventually going back to Northern Mali. It was set equal to two if he or she was actually considering such a possibility, while it is equal to three if he or she had already returned in Northern Mali.

Returned (3 Categories) - Panel is a categorical variable equal to one if the respondent declared in the follow-up interviews that he or she was not considering going back to Northern Mali in the subsequent month. It is set equal to two if he or she was actually considering such a possibility, while it is equal to three if he or she had already returned in Northern Mali. Note the slight difference between the baseline question (considering going back one day) and the follow-up surveys (considering going back in the subsequent month).

Plan to go back – Panel is an indicator variable equal to one if the respondent declared in the follow-up interviews that he or she was not considering going back to Northern Mali in the subsequent month, zero if he or she was not considering such a possibility.

Independent Variables (Baseline interview)

Female is an indicator variable equal to one if the respondent's gender was female, zero if the respondent's gender was male.

Age is a variable recording the respondent's age in number of years.

Literate is an indicator variable equal to one if the respondent had acquired at least some level of education, zero otherwise. Individuals who had only received an informal education (e.g. Koranic education) were also considered literate. Educational levels were self-reported.

Higher Education is an indicator variable equal to one if the respondent's highest self-reported educational level was secondary education (even if not completed) or higher, zero otherwise.

Married is an indicator variable equal to one if the respondent was married (monogamous or polygamous) or partnered, zero if he or she was single, divorced or widowed.

Ethnicity has been expressed using different indicator variables. Individuals were asked to which ethnicity or tribes they belonged to. Given their answer, we constructed five categories: *Songhai*, *Tamasheq*, *Arab*, *Peulh*, *Bella* (Tamasqueq noir), and *Other*. The last group included Malinké,

Dogon, Senufo, Bambara, Soninké / Saracolé, Khassonké, Bozo. Nobody identified himself/herself as Mianka or Bobo.

Kidal region of origin is an indicator variable equal to one if the respondent came from Kidal (55 observations), zero otherwise. The other two Malian regions in the North are Gao (206) and Tombouctou (229). 11 respondents came from different regions in the South: Bamako (2), Koulikoro (1), and Mopti (8).

HH size is a variable recording the total number of individuals in the household at the time of the initial interview. This baseline interview was conducted in August 2014.

Member tribe dead in crisis is an indicator variable equal to one if the respondent experienced some losses in his or her tribe or ethnic group during the 2012 crisis, zero otherwise. Note that some individuals (22 respondents, i.e., 4% of the sample) answered "Don't know".

HH members dead in crisis is an indicator variable equal to one if the respondent experienced some losses in his or her original household during the 2012 crisis, zero otherwise.

HH members behind is an indicator variable equal to one if some members of the respondent's original household were left behind despite the 2012 crisis, zero otherwise.

HH head left behind is an indicator variable equal to one if household head was left behind in Northern Mali, zero if he or she moved together with the respondent. Here the relevant household is the one to whom the respondent belonged before the 2012 crisis.

HH spouse left behind is an indicator variable equal to one if household head's spouse was left behind in Northern Mali, zero if he or she moved together with the respondent, or if the household head was not married. Here the relevant household is the one to whom the respondent belonged before the 2012 crisis.

Northern Mali safe is an indicator variable equal to one if the respondent deemed Northern Mali as an area "Absolutely Secure" or "Secure", zero if he or she considered it as "Not Secure" or "Completely Unsecure".

Safe at home is an indicator variable equal to one if the respondent felt "Very Safe" or "Safe" while at home alone, zero if he or she declared that she felt "Unsafe" or "Very Unsafe" in that situation.

Police issues is an indicator variable equal to one if the respondent experienced some difficulties with the national security forces or with strangers during the displacement, zero otherwise.

>1 transfers before settling is an indicator variable equal to one if the respondent moved more than once during the 2012 crisis before finding a stable zone.

Asset Index. The questionnaire asked if the interviewed individuals had the following items: bed, table, chair, fan, AC, radio, CD/DVD reader, TV, fridge, motorbike, car, phone. In order to create the *Simple Asset Index*, we assigned one point to an individual if he or she owned a certain asset, and then we took the average across all items for each individual. For the *Weighted Asset Index*, we weight each item by 1 minus the average ownership rate of such asset, we summed across items for each individual, and we normalized such summation to one by dividing for the sum across items of 1 minus the average ownership rate of each asset. We computed these two indices using information about asset ownership both before the conflict and in August 2014. *Asset Index above median* is an

indicator variable equal to one if the respondent's weighted asset index in August 2014 was above the median weighted asset index in the sample.

Have received aid is an indicator variable equal to one if the respondent's household received any formal aid (food, health assistance or another forms of aid), zero otherwise.

Work during displacement is an indicator variable equal to one if the respondent had a paid work occupation during the displacement.

Independent Variables (Panel)

Employed is an indicator variable equal to one if the respondent worked in the week before the interview, zero otherwise. Only paid work was considered.

Safe during day is an indicator variable equal to one if the respondent felt safe when he or she went out alone during the day, zero otherwise.

Safe at night is an indicator variable equal to one if the respondent felt safe at home at night, zero otherwise.

Own a gun is an indicator variable equal to one if the respondent owned a weapon for his self-defense, zero otherwise.

Improvement Mali crisis is an indicator variable equal to one if the respondent believed that the likelihood of achieving peace in Northern Mali had increased in the previous month, zero otherwise.

Refugee is an indicator variable equal to one if the respondent was a refugee at the time of the interview, zero if he or she was internally displaced.

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