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World Food
Programme

Cash Transfer Models and Debt in the Kalobeyei Settlement



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Our front cover shows businessman Hamza Hassan recording the day's transactions in his shop in Kalobeyei. He kindly provided permission for us to use his image, and told us:

"I am thankful to the donors, but the assistance is very small, KES 1,400 per month, which is less than 14 USD, which means most people have to take credit. And many businesses lose money because refugees cannot repay or they leave for other countries. When you divide 14 USD by 30 days, it is just 0.46 USD a day. Life is very hard; some community members come to me with their children suffering from starvation, and so we just give them food with the promise that they will pay when they receive the UN cash-based assistance...Covid-19 is also devastating the refugee community because they cannot afford to stockpile food in their homes in case of lockdown in the camps." Credit: Capital Juba Studio

Fresh food market in Kalobeyei

Executive Summary

- The use of cash transfer programmes in humanitarian contexts is growing. In comparison to in-kind assistance, cash transfers are widely praised for enhancing autonomy, reducing costs, and boosting local markets. Reflecting this trend, the Good Humanitarian Donorship initiative adopted a principle in 2018 on the use of cash transfers, suggesting that organisations “systematically consider the use of cash transfers alongside other modalities according to context, in order to meet the humanitarian needs of people in the most effective and efficient manner”.
- There are various modalities of cash transfer, from food vouchers to mobile money, and cash. Rigorous evidence on the relative merits of these models is scarce. There is a need to fill this research gap: given the extreme vulnerability of humanitarian beneficiaries, even small differences in impact can make a huge difference to welfare outcomes. Humanitarian organisations also need to use their limited resources as effectively as possible to maximise their impact. Put simply, the specific modality of cash assistance matters.
- We use first-hand data from 896 refugee households living in the recently created Kalobeyei settlement in Kenya, making use of a ‘natural experiment’ to study the relative effects of restricted versus unrestricted cash transfers to refugees. Until mid-2019, all households in Kalobeyei received cash assistance based on a model called Bamba Chakula, a form of mobile money transfer, which restricts recipient spending to food items (excluding alcohol and tobacco) purchased from specific shops. In June 2019, Bamba Chakula transfers were replaced by unrestricted cash transfers, paid directly into bank accounts, for about 1,050 households living in one geographically bounded part of one of the three settlement villages, the southern part of Kalobeyei Village 3. Meanwhile, the settlement’s remaining 7,000 households continued to benefit from Bamba Chakula.
- In order to assess the relative impact of unrestricted cash, we therefore collected data from a randomly selected ‘treatment group’ of unrestricted cash recipients and a ‘control group’ of Bamba Chakula recipients living in the same village. We supplemented this quantitative data collection with focus group discussions and conducted over 50 semi-structured and open-ended interviews with a range of stakeholders, including refugees, shopkeepers, and humanitarian workers.
- Our regression analysis reveals that the switch to unrestricted cash transfers had robustly positive effects on household asset accumulation and subjective well-being. Households receiving unrestricted cash transfers also appear to be less likely to engage in the highly inefficient practice of reselling food in order to access non-food items. We find little impact on food security and total food expenditures. However, there is some evidence that unrestricted transfers may lead to higher expenditure on alcohol and tobacco. Although this is worrying, it relates to only a limited proportion of households (14%) and a small proportion of their budget (3.7%).
- The results of the pilot experiment of unrestricted cash transfers are therefore broadly positive. However, only a limited share of households reported benefiting from the switch: less than one-third of respondents reported preferring unrestricted cash assistance compared to Bamba Chakula, while two-thirds reported that they have no preference between the two models.



A Bamba Chakula shop in Kalobeyei

- Refugees who prefer unrestricted cash transfers reported a series of benefits. First, recipients can use their assistance on non-food necessities like shoes, clothing, utensils, and wood or charcoal. Under the Bamba Chakula programme, people could only purchase non-food items by selling their food for cash, which is discouraged by WFP, and forces them to sell at below-market prices. Second, unrestricted cash offers recipients a broader market of retailers from whom to purchase goods. Whereas Bamba Chakula can only be used at a limited number of retailers who have been selected by WFP, the cash can in theory be used in any shop. Third, recipients of unrestricted cash benefit from a ‘cash-in-hand’ discount: goods purchased with cash tend to be cheaper than those purchased with Bamba Chakula.
- However, the majority of refugees do not benefit from these advantages because of indebtedness. A staggering 89% of sampled households are indebted towards their retailers. Under Bamba Chakula, credit was initially provided by many retailers as a form of social support to assist food insecure clients. In Kalobeyei, adult employment rates are very low (5.9%) and remittances are rare (8.3%), meaning that food assistance is the only source of livelihood for most households. Savings are almost non-existent. In the absence of social safety nets, refugees who have insufficient income or are facing some kind of economic shock generally have no other option but to take food on credit. Unfortunately, unforeseen shocks are common in Kalobeyei: in the 12 months preceding the survey, 48% of sampled households reported being a victim of theft or robbery, and 28% had at least one adult admitted to the hospital. Recurrent delays in the transfer of food and non-food assistance have also fostered indebtedness and, as all households are affected

at the same time (systemic risk), informal safety nets are usually unable to cope with such delays. When there is nothing left to eat and neighbours cannot assist, households turn to their retailers to bridge the gap. In exchange, retailers will keep their Bamba Chakula SIM card or ATM card as a form of collateral.

- Many of the intended benefits of the switch to unrestricted cash have gone unrealised because of indebtedness. The debt relationships that were created under the Bamba Chakula model have endured under the unrestricted cash model. This has prevented recipients from accessing cash as intended. Indebted households have low negotiating power, face high prices, and are prevented from selecting between competing retailers. Indebted households are more likely to be food insecure, more likely to be dissatisfied with their lives, and less likely to have savings. Facing both the uncertainty of food insecurity and the social pressures exerted by their creditors, many indebted refugees are left with feelings of anxiety, helplessness, and fear. In turn, the growing debts owed to shopkeepers also complicates relationships between retailers and wholesalers. Debt also subjects women to the coercive strategies of some male shop owners, putting them at risk of sexual harassment and gender-based violence.
- Recognising the role of credit and debt in consumer-retailer relationships in Kalobeyei has major implications for future cash assistance programmes. We discuss the pros and cons of various policy options for addressing the problem of indebtedness, including debt repayment schemes or debt relief, social safety nets, more frequent transfers, training, and monitoring.



The distribution of cash-based assistance is verified using biometric data

1. Introduction

Cash-based programming is rapidly becoming the mainstream approach for the distribution of humanitarian aid. Cash transfers are praised for having positive, wide-ranging, and persistent effects on nutrition, asset holding, education, health, and psychological well-being, for boosting local economies, and for being cheaper to implement than in-kind assistance. However, the literature on how best to transfer money to achieve certain goals is scarce and mostly inconclusive. When it comes to food assistance, in particular, limited evidence exists on whether cash transfers should be restricted to essential items in order to maximise impact on food security and limit the consumption of temptation goods. Our report addresses this gap in the literature. We use first-hand data on 896 refugee households living in the Kalobeyei settlement in Kenya and exploit a natural experiment to study the relative effects of restricted versus unrestricted cash transfers to refugees.

Cash assistance is becoming the new paradigm for development and humanitarian assistance. In 2015, as many as 130 low- and middle-income countries had at least one unconditional cash transfer (UCT) programme and 63 countries had at least one conditional cash transfer programme, up from just two countries in 1997 (Honorati et al., 2015). This paradigm shift results from the accumulation of evidence on the positive, wide-ranging, and persistent effects of cash transfers on beneficiaries (Arnold et al., 2011; Bastagli et al., 2016; Haushofer and Shapiro, 2018). Compared to in-kind assistance, cash assistance also tends to be cheaper to implement and an efficient way to boost local economies and local businesses (see e.g. Angelucci and De Giorgi, 2009; Cunha et al., 2018; Haushofer and Shapiro, 2018; D'Aoust et al., 2018; Delius and Sterck, 2020). Embodying this paradigm shift, the World Food Programme (WFP) distributed 1.76 billion USD in different forms of cash-based transfers to 24.5 million people in 2018, a three-fold increase compared to 2015. WFP promotes cash transfers to “empower people with choice to address their essential needs in local markets, while also helping to boost these markets”.¹

A recurring question in the literature on cash transfers is whether the use of transfers should be regulated through conditionalities or restrictions in order to maximise target effects and reduce unintended outcomes (de Janvry and Sadoulet, 2006; Currie and Gahvari, 2008; Cunha, 2014). This issue has important implications for WFP’s efforts to meet the basic food and nutritional needs of refugees and displaced populations, while also enhancing their self-reliance. In order to best achieve these objectives, should WFP promote restricted cash transfers or vouchers that can only be spent

on food? Or should WFP provide unrestricted cash and let recipients decide what is best for themselves?

This report addresses these questions by studying the comparative effect of two modalities of food assistance in the recently created Kalobeyei settlement, located close to the Kakuma refugee camp in Kenya. Since the creation of the settlement in May 2016, food assistance to refugees has been delivered through restricted cash transfers under the Bamba Chakula (which means “get your food” in Swahili) programme. After registration, each household was given a Safaricom SIM card that can be used to purchase food items at contracted shops. Every month, households receive electronic transfers amounting to KES 1,400 per person (equivalent to 14 USD). The Bamba Chakula programme is therefore restricted in two ways: recipients can only use it to purchase food items – excluding alcohol and tobacco – and it can only be accepted by contracted shops.

Since June 2019, WFP has been piloting a new unrestricted modality of cash transfers for 1,050 households living in Kalobeyei. The value of the transfer remains KES 1,400 per month per person. But rather than using Safaricom accounts, the money is transferred to Equity Bank accounts, and households are provided with an ATM card to withdraw the money from Equity agents or to purchase goods at any shop that accepts Mastercard payments. The system is therefore unrestricted, in the sense that refugees can purchase any type of commodity at any shop. All recipients of ATM cards in the pilot programme are former Bamba Chakula recipients.

Should WFP provide unrestricted cash and let recipients decide what is best for themselves?

¹ <https://www.wfp.org/cash-transfers>

We used a mixed-methods approach to study the effect of the switch from Bamba Chakula to unrestricted cash transfers. At the time of our survey, the pilot programme of unrestricted cash transfers was implemented in only half of Village 3 (neighbourhoods 1 to 27).² Households living in the other neighbourhoods of Village 3, as well as in Villages 1 and 2, were still receiving food assistance through Bamba Chakula. To assess the impact of the new, unrestricted modality of food assistance, we exploit the fact that the allocation of refugees within Village 3 was quasi-random, effectively creating a 'natural experiment', in order to compare households living in neighbourhoods 1 to 27 with households living elsewhere in Village 3. We use first-hand quantitative data from a representative sample of 896 households living in Village 3 of Kalobeyei. We complemented our quantitative research by convening focus group discussions and conducting over 50 semi-structured and open-ended interviews with a broad range of stakeholders, including refugees, shopkeepers, and humanitarian workers.

Results from regression analysis suggest that the switch towards unrestricted cash transfers has robust, positive effects on assets and on subjective assessment of well-being. We also find that households benefiting from unrestricted cash transfers are less likely to resell food in order to access non-food items. While extremely common, the practice of reselling food is sub-optimal; it is usually practiced by the most vulnerable households at unfavourable terms. We find no evidence of effects on total non-food expenditure, but find suggestive evidence that unrestricted transfers increase the consumption of alcohol and tobacco for a small percentage of households.

Despite these broadly positive results, quantitative and qualitative evidence shows that a large majority of refugees (66%) are indifferent between the two modalities of food assistance. We also find that very few beneficiaries of unrestricted cash transfers actually receive cash in hand from Equity agents. Consequently, despite the switch to unrestricted cash transfers, reselling food to access cash remains prevalent. These rather surprising results can be explained by the high prevalence of debt.

A staggering 89% of refugee households in our sample are indebted towards their retailers. They have been using future cash transfers as collateral to purchase food on credit. What initially rose as a form of social support from credit-granting shopkeepers willing to assist food insecure clients has morphed into a cycle of deepening debt and dependency. We identify five factors that have contributed to high indebtedness levels in Kalobeyei: (1) the lack of economic opportunities, (2) the frequent occurrence of idiosyncratic shocks such as thefts, accidents, and diseases, (3) the low level of food and non-food assistance, (4) the Bamba Chakula restrictions on the purchase of non-food items, and (5) the recurrent delays in the transfer of assistance.

The enormous scale of the indebtedness problem in Kalobeyei undermines the effectiveness of both cash transfer programmes. 97% of indebted households do not keep their Bamba Chakula or Equity cards themselves, which

in turn means that they cannot practice consumer choice by changing shops. This limits competition and allows shopkeepers to charge higher prices, both to offset the risk of granting credit and to increase their profits.

The pervasiveness of indebtedness also explains why most refugees report that unrestricted and restricted cash transfers are broadly equivalent. Even with unrestricted transfers, shopkeepers (who hold on to ATM cards) rarely give cash to their indebted clients, which means that indebted refugees have to continue reselling purchased goods at below-market prices in order to access cash. As a result, indebtedness is strongly associated with food insecurity and lower subjective well-being. Shopkeepers may also be in a precarious situation as the goods they give on credit leave them indebted to wholesalers. On a positive note, the few households who are receiving unrestricted cash and are not indebted tend to prefer unrestricted cash transfers, which give them more freedom to purchase what they prefer and access better valued commodities. The implication is that unrestricted cash can lead to welfare improvements, but its positive effects rely upon recognising and responding to the role of credit and debt in consumer-retailer relationships.

We conclude by discussing the policy implications of our findings. We focus in particular on how to address the problem of indebtedness, exploring policy options such as debt relief, training, monitoring, information dissemination, and provision of social safety nets. Regardless of which options are adopted, we urge providers of cash-based assistance to fully take into account credit and debt dynamics, and their implications for transitions between different modalities of assistance.

The report is organised as follows. Section 2 reviews the literature on cash transfers and describes the restricted and unrestricted cash transfer programmes implemented by WFP in Kalobeyei. Section 3 presents the research methodology. Section 4 describes the context of the Kalobeyei settlement. Section 5 presents the results of the impact evaluation. Section 6 characterises the problem of indebtedness and explores its causes and consequences on households, businesses, and markets. Section 7 concludes with implications and suggestions for policy.



Temporary shelter in the Kalobeyei Settlement

Credit: RSC

² The Kalobeyei settlement is divided into three villages, which are further subdivided into neighbourhoods. Village 3 is divided into 43 neighbourhoods.

2. Cash Assistance in Kalobeyei and in the Literature

There are currently two modalities of food assistance in Kalobeyei. Bamba Chakula is a cash transfer programme that is ‘restricted’ to food items and to certain shops. Since June 2019, WFP has been piloting a new ‘unrestricted’ cash transfer programme that relies on ATM cards. After withdrawing cash at an ATM or at a contracted agent, beneficiaries of this new programme can spend their money on any type of commodity at any shop. In this section, we describe the two modalities of food assistance co-existing in Kalobeyei, summarise the extensive literature on the impact of cash-based programming, and derive several testable hypotheses on the impacts of the switch from restricted to unrestricted cash transfers.

Cash Assistance in Kalobeyei

In October 2019, the Kalobeyei settlement was hosting about 36,000 refugees, mainly originating from South Sudan (74%), Ethiopia (13%), and Burundi (7%). The settlement was created in May 2016 with a double objective. First, the nearby camp of Kakuma reached its maximum capacity, so space was needed to accommodate the continuous influx of South Sudanese and Burundian refugees fleeing violence. Second, the Turkana County Government and UNHCR,

recognising the limits of the humanitarian approach promoted in Kakuma, were willing “to pilot a new approach by developing a settlement promoting the self-reliance of refugees and the host population by enhancing livelihood opportunities and promoting inclusive service delivery” (UNHCR, 2018).

Every month, WFP injects about 500,000 USD into the local economy, which generates positive impacts on refugee beneficiaries and on businesses.

The development of Kalobeyei is guided by the Kalobeyei Integrated Socio-Economic Development Programme (KISED), which aims “to allow refugees and the host population to maximise their potential in an enabling environment [...] in which inclusive service delivery and local capacities are strengthened, legal frameworks and policies are improved, a conducive environment for investment and job creation is promoted and communities’ resilience is strengthened.”

The Kalobeyei model is an attempt to align humanitarian objectives with market-based development. For this reason, cash-based programming has been the preferred modality of assistance since its creation. Three cash-transfer programmes have been implemented at scale. First, WFP uses cash-based programming to distribute food assistance to the 36,000 refugees living in the settlement. Every month, WFP injects

about 500,000 USD into the local economy, which generates positive impacts on refugee beneficiaries (MacPherson and Sterck, 2019) and on businesses (Delius and Sterck, 2020). Second, the cash-for-shelter programme implemented by UNHCR provides households with cash to ensure safe and dignified housing. As of August 2019, this programme had distributed about two million USD to construct more than 1,600 permanent shelters. Third, UNHCR provides cash transfers to cover refugees’ needs of sanitary items, including soap, sanitary towels, and underwear. Other important programmes implemented in Kalobeyei include the promotion of agriculture and the distribution of poultry to vulnerable households, school uniforms, school materials and free cash-based meals at school, and energy bars to combat acute malnutrition (Table 2.1).

The present research focuses on the cash transfer programmes implemented by WFP as part of its food assistance strategy. Every month, WFP makes one cash transfer per household which is worth KES 1,400 (14 USD) per household member.³ At the time of the survey, there were two modalities for cash-based food assistance in the Kalobeyei settlement.

First, Bamba Chakula is a programme of mobile money transfers which is restricted to food items (excluding alcohol and tobacco) and to specific shops that have a contract with WFP. Bamba Chakula – which means “get your food” in Swahili – was launched in 2015. It was first applied in both Dadaab and Kakuma to cover a relatively small proportion of overall food assistance; however, in Kalobeyei it has comprised the majority of food assistance for refugees since 2016. The programme entails monthly money transfers on SIM cards. Beneficiaries can use their SIM card to purchase food items from registered traders. The initial intention of WFP was for Bamba Chakula to be as close to a conventional cash-based strategy as possible. However, legal restrictions

³ This amount was defined in 2016 to allow the purchase of the same food basket as the in-kind rations that were distributed in the neighbouring camp of Kakuma. With this amount, refugees should in theory be able to cover their entire macronutrient needs (2,100kcal per person per day). Before January 2019, cash transfers were supplemented by an in-kind transfer of enriched corn-soy blend (CSB) to avoid malnutrition. The CSB distribution was however discontinued at the time of our survey.



A Bamba Chakula trader in Kakuma

Credit: WFP/Martin Trimm

In June 2019, the Bamba Chakula transfers were replaced by unrestricted cash transfers, distributed to the bank accounts of around 1,050 households living in the southern part of Kalobeyei Village 3.

were imposed by Kenyan authorities due to concerns that cash transfers to refugees could be diverted to finance terrorist activities. For this reason, Bamba Chakula transfers can only be spent on food items sold by contracted retailers. Bamba Chakula retailers were chosen from among existing refugee and host community food retailers through a series of competitive selection processes between 2015 and 2018. At the time of our research, about 7,000 households in Kalobeyei were receiving food assistance through Bamba Chakula.

In June 2019, the Bamba Chakula transfers were replaced by unrestricted cash transfers, distributed to the bank accounts of around 1,050 households living in the southern part of

Bamba Chakula is a programme of mobile money transfers which is restricted to food items (excluding alcohol and tobacco) and to specific shops that have a contract with WFP.

Kalobeyei Village 3. The cash transfers are ‘unrestricted’, in the sense that they can be spent on any type of goods or services, and anywhere in Kalobeyei (or elsewhere). This programme is run in collaboration with Equity Bank, who issued ATM cards and bank accounts for beneficiary households. ATM cards were given to heads of household. To withdraw money, a fingerprint or a correct PIN can be provided. At the time of our survey, 48 Equity Bank agents were operating in Kalobeyei, and

an ATM machine was available in Kakuma town. The cash can be used to purchase anything, including non-food items, soap, clothes, alcohol, and tobacco.

Our research aims to assess the relative impact of this pilot programme of unrestricted cash transfers compared to Bamba Chakula transfers.

Theory and Empirical Evidence

In their systematic review of the literature, Bastagli et al. (2016) identify 201 studies exploring the impact of 56 different cash transfer programmes. This review concludes that conditional and unconditional cash transfers tend to have positive impacts on beneficiaries’ nutrition, assets, education, health, and psychological well-being. Higher transfer levels are associated with larger impacts.

The cash transfer literature also identifies positive and negative externalities on non-beneficiaries. In Mexico, Angelucci and

De Giorgi (2009) show that non-beneficiary households living in the same villages as beneficiaries can benefit from cash transfers through the creation of insurance and credit markets. They find that households that were ineligible for the Progresa programme of conditional cash transfers were still indirectly benefiting from the programme by receiving more gifts and loans and by reducing their savings. Also in Mexico, Cunha et al. (2019) find that in-kind transfers lead to price reductions while cash transfers lead to a positive increase in prices, especially in remote villages. Similarly, D’Aoust et al. (2018) find that cash transfers to demobilised combatants in Burundi generated positive spillovers and raised prices in the villages where combatants returned. In Kakuma and Kalobeyei, Delius and Sterck (2020) show that businesspersons contracted by WFP to sell food against Bamba Chakula money experience large increases in sales and profit, and their households have better diets and more assets. By contrast, Haushofer et al. (2016) find that cash transfers can temporarily decrease life satisfaction among non-beneficiaries.

The issue of whether access to cash transfers should be made conditional, or access to particular commodities restricted, in order to meet particular policy objectives has also emerged as an important question. In the context of food assistance in humanitarian contexts, should cash transfers be restricted to food items to best achieve food security and reduce the consumption of so-called “temptation goods” and non-essential commodities? Is paternalism justified to counteract temptation, impatience, myopia, or bounded rationality, and to ensure that scarce humanitarian resources are allocated efficiently (de Janvry and Sadoulet, 2006; Currie and Gahvari, 2008; Cunha, 2014)? The empirical literature suggests that conditionalities can marginally increase positive impacts (Bastagli et al., 2016). The use of conditionalities seems particularly effective as a means to increase school enrolment and attendance (Saavedra and Garcia, 2012; Baird et al., 2014), and to encourage preventive healthcare (Akresh et al., 2012; Benedetti and Ibararán, 2015; Attanasio et al., 2015).

When it comes to food assistance, evidence on the differential effect of in-kind transfers, food vouchers, or unrestricted cash is scarce and somewhat conflicting. Hidrobo et al. (2014) uses data from a randomised controlled trial among Colombian refugees in Ecuador to assess the relative effect of equivalently valued in-kind transfers, food vouchers, and

	Programme	Demographic Coverage	Geographical Coverage	Timing/Rollout as of October 2019
Cash Programmes	WFP's food assistance through Bamba Chakula and Equity Bank transfers	All households, KES 1,400 per household member	Bamba Chakula: Village 1, Village 2, Village 3 N28-43 Equity Bank: Village 3 N1-27	Roll out of Equity Bank transfers started in June 2019 (before that, all households were receiving Bamba Chakula transfers)
	UNHCR Cash for Shelter: Large, unrestricted lump sum for building a house	All households with at least one adult (18+)	Village 1 and parts of Village 2	Village 3 have received ATM cards, but not the transfer
	UNHCR Core Relief Items ("soap money" or Sabuni): Monthly unrestricted cash transfers, for purchase of soap and sanitary products	All households with at least one adult (18+) Households with no adult receive in-kind products instead	All villages	Payments are irregular. Households did not receive CRI transfers between June-July 2019 and November 2019
Food/Nutritional Supplement	Supercereal ("CSB+")	All households	All villages	Not distributed since March 2019 due to shortage
	Supercereal Plus ("CSB++"/"uji")	Households with children aged 6-23 months, or pregnant or lactating women	All villages	Monthly
	Plumpy'Nut and Plumpy'Sup	Children at risk of severe or moderate acute malnutrition (SAM or MAM)	All villages	6.2% of households in our sample received Plumpy'Nut or Plumpy'Sup bars the month preceding the survey
	School meals ("Githeri")	All school-going children	At school	Most households (96%) benefit from this programme as most children go to school
Self-Reliance /Farming/ Economic Activity	Hydroponics	Refugees and members from the host community who apply	All villages	Still at pilot stage
	Kitchen Gardens	Everyone can apply	Village 1 and parts of Village 2	30% of households in Village 3 have kitchen gardens
	Commercial vegetable production	Refugees and members from the host community who apply	Village 1 up and running, Village 2 and 3 under construction	Programme not yet started in Village 3, however those living close to the building site started farming around it
	Poultry	Vulnerable households	All villages	13% of households in Village 3 benefited from this programme
Business Support	Business trainings (e.g. DCA, DRC, Swiss Contact, AAHI, LWF, WFP)	All traders	All villages	
	Small loan programmes (e.g. Swiss Contact, AAHI)	All traders	All villages	

Table 2.1 Assistance in Kalobeyei

cash transfers. All three modalities of food assistance led to significantly better nutritional outcomes compared to a control group. While in-kind food assistance had the largest impact on calorie intake (food rations were designed to be particularly nutritious), food vouchers led to a significantly larger increase in dietary diversity compared to other modalities. Overall, Hidrobo et al. (2014) find that in-kind food transfers are always the least cost-effective modality while vouchers are usually the most cost-effective modality. Aker (2017) uses data from a randomised controlled trial in the Democratic Republic of Congo to assess the relative effect of equivalently valued cash and voucher transfers. The author finds no significant differences in food consumption and in other measures of well-being, in part because voucher households were reselling part of the food they purchased using vouchers in order to obtain cash. Given the absence of notable effect, Aker (2017) concludes that cash assistance is the most effective modality of food assistance.

One argument frequently rehearsed against unrestricted cash assistance is that it may encourage the purchase of alcohol, tobacco products, and other temptation goods. Evans and Popova (2017) review 19 quantitative studies on the impact of cash transfers on temptation goods and conclude that the concerns about the use of cash transfers for alcohol and tobacco consumption are mostly unfounded. Their meta-analysis shows that on average, cash transfers have a significant negative effect on total expenditures on temptation goods equivalent to -0.18 standard deviations.

Our research contributes to this literature by assessing the relative effect of two equivalently valued modalities of cash transfer: Bamba Chakula transfers, which are restricted to food items exclusive of alcohol and tobacco, and transfers on Equity Bank accounts, which are unrestricted. In line with the literature, we hypothesise that the switch to unrestricted cash transfers has the following effects.

- **Reduction in the resale of food items.** With Bamba Chakula, households that wish to purchase non-food items, alcohol, or tobacco have to first buy food and then resell it at unfavourable prices in order to obtain cash. With unrestricted cash transfers, beneficiaries can directly purchase non-food items with cash.
- **Increase in assets and expenditures on non-food items and temptation goods.** Bamba Chakula does not allow the direct purchase of assets, non-food items, alcohol, and tobacco. The switch to unrestricted cash transfers should induce a substitution effect towards these goods.
- **Undetermined effect on food expenditures and food insecurity.** With the switch to unrestricted cash transfers, we expect a substitution effect away from food expenditures, as non-food items, alcohol, and tobacco products become easier and cheaper to buy. But we also expect a positive income effect, as households do not have to resell food items at discounted prices in order to purchase non-food items, alcohol, and tobacco. The sum of these opposite effects could be positive or negative.
- **Increased tensions within households.** With Bamba Chakula money, women are usually responsible for expenditure choices because the money can only be spent

on food, and they are likely to have primary responsibility for food preparation. With unrestricted cash transfers, there is a concern that men in some households might take control of ATM cards to purchase non-essential items, including alcohol and tobacco. Therefore, the switch to unrestricted cash transfers may induce gender-related changes in intra-household decision-making and exacerbate tensions within households relating to the allocation of money.

- **Undetermined effect on subjective well-being.** The effect of the transition to unrestricted cash on subjective well-being could be positive or negative. On the one hand, people are expected to enjoy the enhanced freedom and increased purchasing power that come with unrestricted cash transfers. On the other hand, subjective well-being could decrease if the switch substantially increases intra-household conflict. The sum of these opposite effects may therefore be positive or negative.

Our mixed-methods approach also allows us to study the association between cash transfers and indebtedness. Angelucci (2015) finds suggestive evidence that the beneficiaries of the Progresca programme of cash transfers in Mexico used future transfers as a collateral to borrow money to finance Mexico-US migration. Through a similar mechanism, cash transfers could also increase indebtedness in Kalobeyei, as borrowing is often the only option refugees have to respond to shocks in the absence of social safety nets. We will study how indebtedness shapes markets and mediates the effect of the switch to unrestricted cash.

When it comes to food assistance, evidence on the differential effect of in-kind transfers, food vouchers, or unrestricted cash is scarce and somewhat conflicting.



3. Methods

We exploit a natural experiment to evaluate the effect of the switch from Bamba Chakula to unrestricted cash transfers in Village 3 of Kalobeyei. Using first-hand data on a representative sample of 896 South Sudanese households living in Kalobeyei Village 3, we provide evidence suggesting that the allocation of refugees within Village 3 was quasi-random. We evaluate the effect of the switch to unrestricted cash transfers by comparing households living in the southern section of Village 3, who benefit from unrestricted cash transfers on Equity Bank accounts, to households living in the northern section of Village 3, who benefit from mobile money transfers that can only be spent on food items. We consider a series of indicators, including food security, food and non-food expenditures, spending on temptation goods, assets, subjective well-being, employment, and intra-household decision-making. As part of the qualitative survey, we have undertaken 50 semi-structured interviews and several focus group discussions with refugees, shopkeepers, Equity Bank agents, as well as with various people working for international organisations and NGOs.

Quantitative Methods⁴

Given the absence of randomised assignment to treatment, we are relying on quasi-experimental methods to identify the impact of the switch to unrestricted cash transfers. Our research focuses on South Sudanese refugees living in Village 3 (Figure 3.1). The treatment group consists of households living in neighbourhoods 1 to 27 (the southern part of Village 3), as they have been benefiting from unrestricted cash transfers on Equity Bank cards since July 2019. The control group consists of households living in neighbourhoods 28 to 43 (the northern part of Village 3), as they were still receiving food assistance through Bamba Chakula at the time of our research. The main market in Village 3 is located on the main road that separates the treatment and control areas.

We use two strategies to minimise bias resulting from pre-existing differences between the treatment and the control groups. First, we exploit quasi-random variation in the allocation of refugees between the treatment and control groups. The Kalobeyei settlement was opened in May 2016. The bulk of people living in Kalobeyei registered between the 14th of May 2016 and the 22nd of June 2017. After the 22nd of June 2017, the settlement was considered full, and most refugees who arrived after that date settled in Kakuma. Figure 3.2 shows which parts of Kalobeyei refugees are living in based on their registration date. It shows that the southern part (treatment area) and northern part (control area) of

Village 3 were created at more or less the same time. This suggests that the allocation of refugees between these two parts was quasi-random and could be considered as a natural experiment. If this hypothesis is correct, current differences in outcomes between households in the treatment and control groups can be attributed to their differential access to programmes since they arrived in the settlement rather than other pre-existing differences. We test this hypothesis in Tables A.1 and A.2 using two common statistical techniques for assessing the importance of pre-existing differences between treatment and control groups. First, we examine the size of normalised differences between treatment and control groups for a series of variables that are not expected to have changed since refugees' registration (e.g. household size, demographic characteristics, education, and origin). The results of this comparison are shown in a so-called "balance table" (Table A.1). This table confirms that the normalised differences of all variables are less than 0.25, an indicator that the balance is acceptable (Imbens, 2015). Second, we use an omnibus F-test following a regression of the treatment dummy on these variables (Table A.2). The p-value of the F-statistic is 0.65, showing that the treatment and control groups have similar backgrounds. This further confirms that our treatment and control groups are well balanced (i.e. similar) and that contemporary differences between the treatment and control groups are likely to be due to programmatic or geographic differences.

⁴ The research protocol for the quantitative part of the research was pre-registered on the 3ie website, together with a pre-analysis plan detailing the methods for data analysis.



Figure 3.1 Plan of Kakuma and Kalobeyei

Second, we use control variables to control for differences between the control and treatment groups that are not attributable to the switch to unrestricted cash transfers. Given the long time that elapsed between refugees' registration and the intervention we evaluate, we cannot rule out that refugees living in different parts of Village 3 accessed

different programmes or services since they arrived in the settlement and, as a consequence, had different outcomes before the switch to unrestricted cash. Failing to control for these pre-existing differences would yield biased estimates of the impact of the switch to unrestricted cash transfers. However, Table 2.1 shows that, except for WFP's food assistance, programmes have been exactly the same in both the treatment and control areas. Nevertheless, when using regression analysis to compare

Our main analysis relies on first-hand data collected on a representative sample of South Sudanese households living in Kalobeyei Village 3.

refugee households living in the treatment and control areas, we pay particular attention to controlling for participation in programmes offered by NGOs and international organisations in Village 3 and for other sources of demographic and geographical variation. We also control for enumerator, week of arrival, and interview date fixed effects.

Our main analysis relies on first-hand data collected on a representative sample of South Sudanese households living in Kalobeyei Village 3. Data collection took place in October

and November 2019. Village 3 of Kalobeyei is divided into 189 compounds. We randomly selected 134 compounds⁵ and interviewed all South Sudanese adults living there. Our final sample consists of 896 South Sudanese households, and totals 1,529 adults. We randomly selected the order of the compounds we visited and randomly assigned enumerators

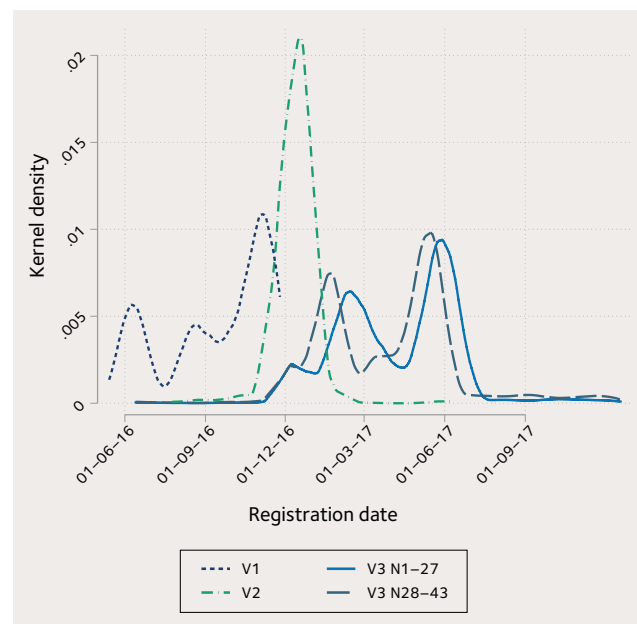


Figure 3.2 Arrival date and density of arrivals (UNHCR/NCK data)

⁵ For logistical reasons, we grouped a handful of small neighbouring compounds together before randomisation.

to compounds. Interviews were undertaken in local languages by 38 experienced enumerators who were trained for one week.

We use regression analysis with an extensive list of control variables⁶ and fixed effects⁷ to assess the impact of the switch to unrestricted cash transfers. Our treatment dummy is equal to one if the household has the Equity ATM card for

WFP unrestricted cash transfers and zero otherwise.⁸ Our main outcome variables include resale of food assistance dummy, non-food expenditures, expenditures on temptation goods (sodas, alcohol, restaurants, tobacco and leisure), asset index, food expenditures, calorie intake, food insecurity

(based on the HFIA scale), dietary diversity (IDDS score), within-household conflict, subjective well-being, and an

employment dummy.⁹ In line with our sampling strategy, we cluster standard errors at the level of the compound.

Qualitative Methods

Semi-structured qualitative interviews were carried out with individuals in 40 households in Village 3. Research assistants were recruited to accommodate the major language groups represented in the settlement, with a focus on languages from South Sudan (see Table A.3). The interview locations were selected to include an equal number of Bamba Chakula recipients and Equity cash recipients.

Semi-structured interviews were also carried out with ten shopkeepers from both the refugee and host populations, as shown in Table A.4 below. Open-ended interviews were also carried out with other shopkeepers in Village 3, as well as with three wholesale suppliers in Kakuma Town and a number of key informants in humanitarian organisations and government offices (these are not indicated in the table).

Semi-structured qualitative interviews were carried out with individuals in 40 households in Village 3.



Kitchen garden in Kalobeyei

⁶ The 44 control variables are described in the pre-analysis plan. The list includes demographic controls (household size, number of adults, size of ration cards, age, gender, and marital status, state of origin dummies, ethnicity dummy, level of education, vocational training dummy, language skills dummies, parents' education), socio-economic controls (employment dummy, work experience in Kakuma/Kalobeyei, employment before displacement, years of work experience, total household income, agriculture involvement), network controls (number of relatives in Kakuma and Kalobeyei, remittances, knowledge of neighbourhood leader), shocks (e.g. health shocks, theft), distance (to markets, to Kakuma, to Jomo Kenyatta road), participation to programs of NGOs and International organisations (soap money, free meals at school, super c-real+, Plumpy'Sup dummy, energy saving stove dummy, free school uniform and material dummy, transfer to vulnerable people dummy, VSLA participation dummy, credit from NGO dummy, received poultry from NGO dummy).

⁷ All regressions include enumerator, month of arrival, and interview date fixed effects.

⁸ Because some people have relocated from the place indicated on their manifest, we sometimes encountered Equity recipients in the part of the settlement receiving Bamba Chakula, and vice versa.

⁹ The construction of indicators is described in the pre-analysis plan.

4. Socio-Economic Context in Kalobeyei

South Sudanese refugee households living in Kalobeyei Village 3 are extremely poor. Employment and business opportunities are scarce. Only 5.9% of adults in our sample work for an income, and 28% practice kitchen garden agriculture. Few households receive remittances and few have savings. Consequently, most households rely entirely on food assistance to survive. A staggering 73% of households are food insecure, and dietary diversity is low: only 3.5% eat fruit and 17% eat meat on a regular basis. Perhaps not surprisingly, 53% of respondents reported being dissatisfied with their lives in Kalobeyei.

In this section, we use our data to describe the socio-economic lives of South Sudanese refugees living in Kalobeyei Village 3. Most households in Village 3 arrived between March and June 2017 (Figure 3.2). South Sudanese households make up over 71% of Village 3. Other nationalities include Burundians (14%) and Ethiopians (7%). When relevant, we will also use the data we collected in 2017 and 2018 among South Sudanese, Ethiopian, and Burundian refugees living in all villages of Kalobeyei to show that the issues we identify apply more broadly to the whole of Kalobeyei.

Demography

South Sudanese households living in Kalobeyei Village 3 are extremely vulnerable. The population is very young: 74% of the population is underage, and, among adults, 63% are between 18 and 30 years-old. A large majority of adults are

With an average of five children in a household, households are generally burdened with a high dependency ratio.

female (62%). The higher proportion of women in the population can be explained by the large number of widows (11% among women versus 0.48% among men), and by the fact that husbands are frequently remaining in South-Sudan to work, keep assets, or live with their other wives. Nearly half of our sample are single-adult households, of which 87% are female-headed (see Figure 4.1). With an average

of five children in a household, households are generally burdened with a high dependency ratio.

Most South Sudanese adults in Village 3 have rural backgrounds: 86% are from families that were involved in agriculture before fleeing South Sudan. Average levels of education among adults are low. 47% of adults never attended school (65% of women) and only 5% completed secondary school (1.7% of women). In terms of language skills, only 6.7% speak Swahili well or very well, but 32% speak English well or very well.

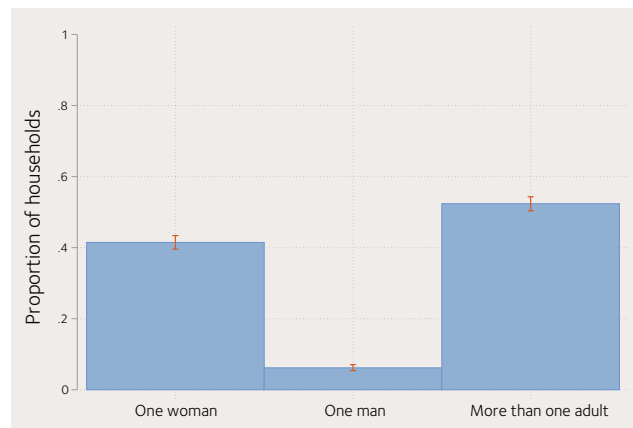


Figure 4.1 Household structure by number of adults

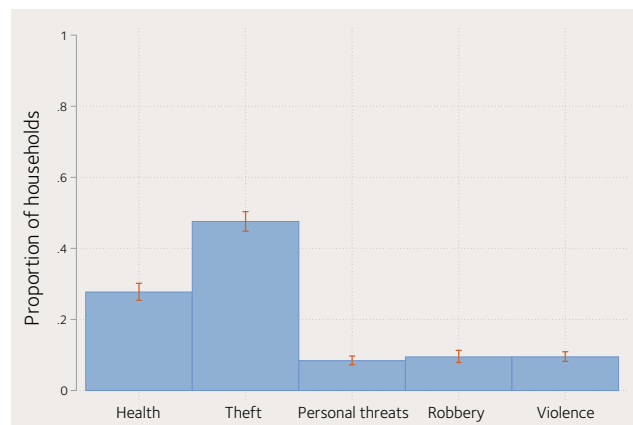


Figure 4.2 Shocks faced by households

Health problems are frequent among South Sudanese refugees: 18% of respondents reported severe difficulties standing up for 30 minutes or walking one kilometre (23% of women), and 23% had poor mental health according to the PSQ-9 scale (27% of women). In the year before the survey, 28% of the households have suffered from at least one health shock, which includes having a sudden illness or being admitted to hospital (see Figure 4.2).

Living Standards

Food insecurity is widespread in Kalobeyei. We measure food insecurity using the Household Food Insecurity Access Prevalence (HFIAP), which aggregates respondents' perceptions of food vulnerability and the frequency with which shortages occurred (Coates et al., 2007). The HFIAP ranges from one for food secure households to four for severely food insecure households. Our data shows that 73%

Our data shows that 73% of South Sudanese households can be classified as severely food insecure in Village 3.

of South Sudanese households can be classified as severely food insecure in Village 3. Similarly high percentages were also observed in all villages of Kalobeyei in 2017 and 2018 (Betts et al., 2019).

The diets of refugees are not very diversified. We consider

the Individual Dietary Diversity Score (IDDS), which is a measure of the variety of food intake. The IDDS is calculated by counting the number of 12 different food types which have been consumed at any time within the seven days preceding the survey, resulting in a score ranging from 0 to 12. The FAO presents guidelines for its use and interpretation, without setting out specific categorical thresholds for acceptable levels of dietary diversity (Food and Agriculture Organisation, 2010). We measure an average IDDS of 5.5, which is quite similar to the average IDDS we measured for the South Sudanese in Kalobeyei in 2017 (5.2) and in 2018 (5.9). These scores are quite low: only 17% of the respondents ate meat and 3.4% ate fruits the week before the survey date. On a positive note, 70% of respondents reported eating fish at least once the week before the survey. Still, 78% of the South Sudanese households surveyed reported not being able to eat their preferred foods because of a lack of resources.

We are depending on Bamba Chakula. There is nothing good. Every day I eat cowpeas (Ades in Arabic) and beans. If you want to change your diet, you have to buy dagga (tiny preserved fish). The dagga is expensive. One kilo is 600 Kenyan shillings. This will finish the money. And the dagga is not even a good replacement for another diet. (Lopit woman, Equity recipient)

The diet here is poor. There are no green vegetables. It is better in South Sudan, we can plant vegetables. Here, we depend on beans, cowpeas and lochidi (fish) as the only diet. In South Sudan, we get our diet from what we plant. But in Kalobeyei, our diet is whatever the UNHCR provides to us. Here, we eat a meal per day, but in South Sudan, we eat three times per day, because the diet we get comes from what we plant. For example, in South Sudan there is maize, bananas and fruits such as pumpkin, lemon, potatoes, mango, and guava. But here, there is nothing. (Lotuko man, Equity recipient)

This problem is not faced by the South Sudanese community alone. Many Burundians described the low availability and high cost of fruits and green vegetables as a major difference from Burundi, as well as the lack of cassava, which is an important staple in Burundi. Some Somali-Ethiopian

respondents also recalled differences between their diets in Kalobeyei and the food available at home or in the Dadaab camps:

We used to drink fresh milk and eat meat. These are not here. But there, there was Somali livestock and plenty of milk. Those who have malaria sickness drink milk and recover. We don't find those things here.

South Sudanese households in Village 3 own very few assets. Actually, 31% own no assets at all, and for those who do, most of them own one or two chairs and nothing else (Figure 4.3). About two-thirds of households own at least a chair, and 28% have a table or a bed. Similarly, individuals hardly own any personal items (see Figure 4.4). The only exception is mobile phones, which are owned by nearly 42% of the households. Less than 2% of households have access to electricity.

Given this grim picture, it is not surprising that over half of the survey respondents are dissatisfied with their life as a whole (53%). Dissatisfaction rates among South Sudanese in Kalobeyei were very similar in 2017 (53%) and in 2018 (48.9%).

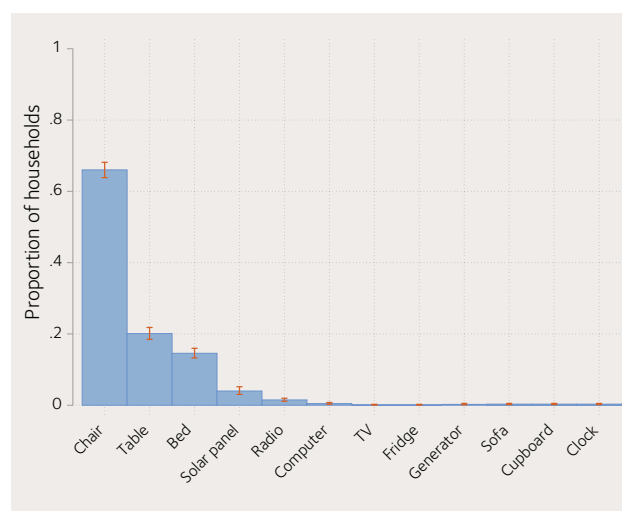


Figure 4.3 Household asset ownership

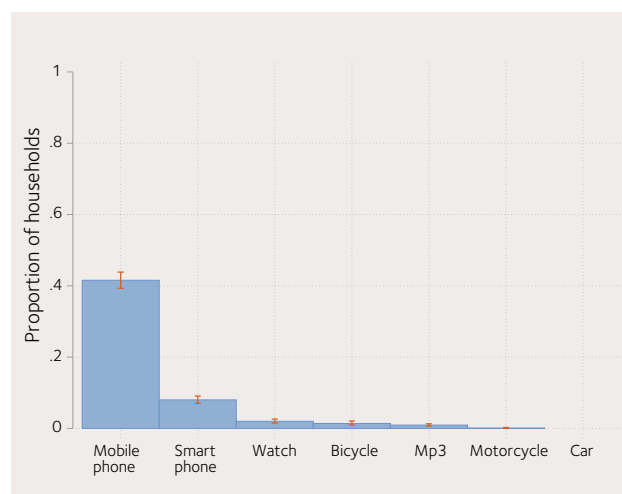


Figure 4.4 Personal asset ownership

5. Effects of Cash Assistance Modality on Households

We use regression analysis to assess the impact of the switch from Bamba Chakula to unrestricted cash in part of Kalobeyei, Village 3. In line with theory, we find that households benefiting from unrestricted cash transfers are significantly less likely to resell food in order to access non-food items. While the effect is large, about eight percentage points, the proportion of households reselling food in the treatment group remains surprisingly high. We identify robust positive effects on assets and on subjective well-being, but no significant effects on food security and total food expenditures. We find suggestive evidence that unrestricted transfers increase the consumption of alcohol and tobacco for a small percentage of households. A large majority of households appear to be indifferent between the two modalities of food assistance.

Bamba Chakula is restricted to food items exclusive of alcohol and tobacco. Consequently, households who are willing to purchase non-food items, alcohol, or tobacco using Bamba Chakula money first have to buy food and then resell it to obtain cash (usually at a lower price). According to our data, this practice is extremely frequent: 70% of Bamba Chakula recipients resold some food against cash in the month preceding the survey. To illustrate the value that households lose through this practice, Figure 5.1 shows some examples of common transactions after a household has

bought a 45 kg sack of maize. With a median buying price of KES 49 per kilo and a median selling price of KES 40 per kilo, an average household loses KES 9 per kilo that they resell (-18%). Aside from reselling their food for cash, households also exchange their food for other food items that are not available in Bamba Chakula shops. By exchanging 5 kg of maize for a basin of charcoal which is only KES 200 in value, an average household loses KES 45 (-18%). Three quarters of the households reported exchanging food items for other goods or services.

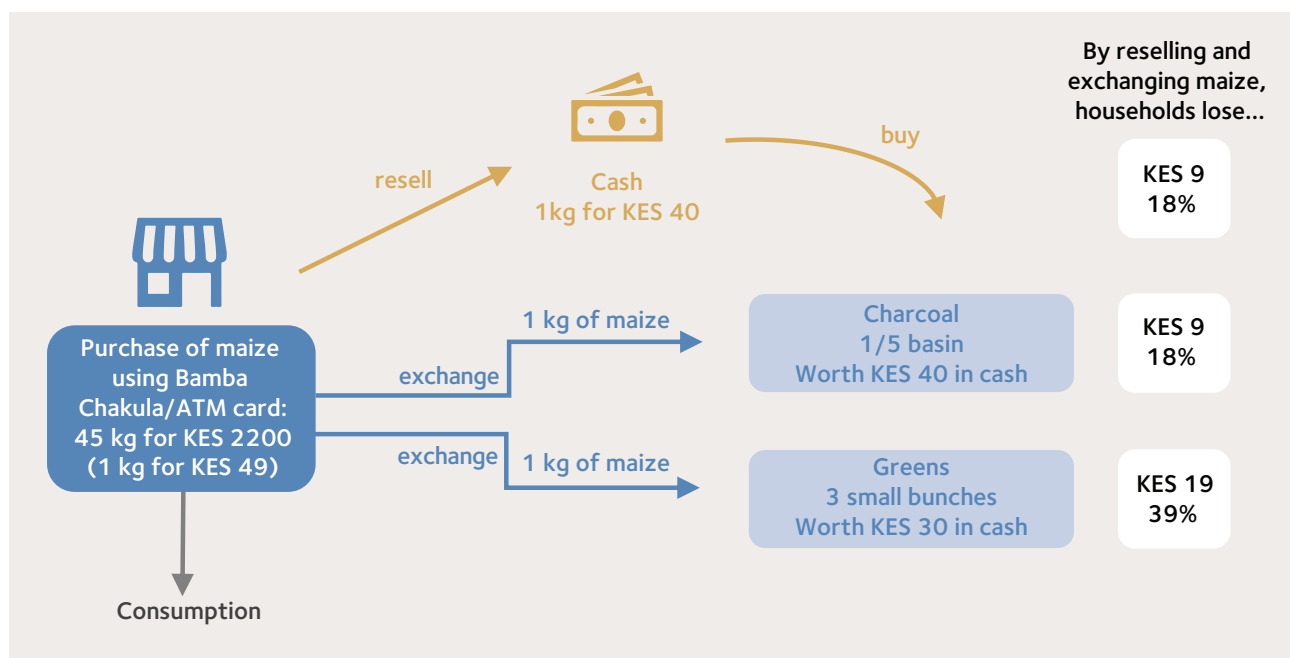


Figure 5.1 Reselling and exchanging maize for other goods

The main expected impact of the switch to unrestricted cash transfers is to allow the direct purchase of non-food items without first having to engage in the costly practice of buying and reselling food. In summary, we expect two main effects from the switch to unrestricted cash transfers: (1) a reduction in the resale of food items previously bought or received and (2) an increase in assets and expenditures on non-food items, alcohol, and tobacco.

We test these hypotheses in Table 5.1 using regression analysis. In line with our expectations, we find that the switch to unrestricted cash transfers reduced the practice of reselling food against cash by eight percentage points (column 1,

In line with our expectations, we find that the switch to unrestricted cash transfers reduced the practice of reselling food against cash by eight percentage points.

Table 5.1). While this effect is large, the switch to unrestricted cash transfers does not eliminate the practice, far from it. As many as 61% of households from the treatment group reported reselling food against cash. We explain this rather surprising result in the next section.

In line with theory, we find that the switch to unrestricted cash transfers has led to a significant increase in assets owned by households (column 2, Table 5.1). The effect size is approximately equivalent to having one more chair per

household. But even in the treatment group, asset holding remains extremely low.

The effect on non-food expenditure is not statistically significant (column 3, Table 5.1). However, and this could be a point of concern, we find suggestive evidence that the switch to unrestricted cash transfers has led to an increase in spending on temptation goods (column 4, Table 5.1). This effect is mostly driven by significant increases in the proportion of households reporting expenditures on alcohol (eight percentage point increase) and on tobacco (four percentage point increase) (see Figure 5.2). While these results are worrying, it concerns only a limited proportion of households (14%) and a small proportion of their budget (3.7%).

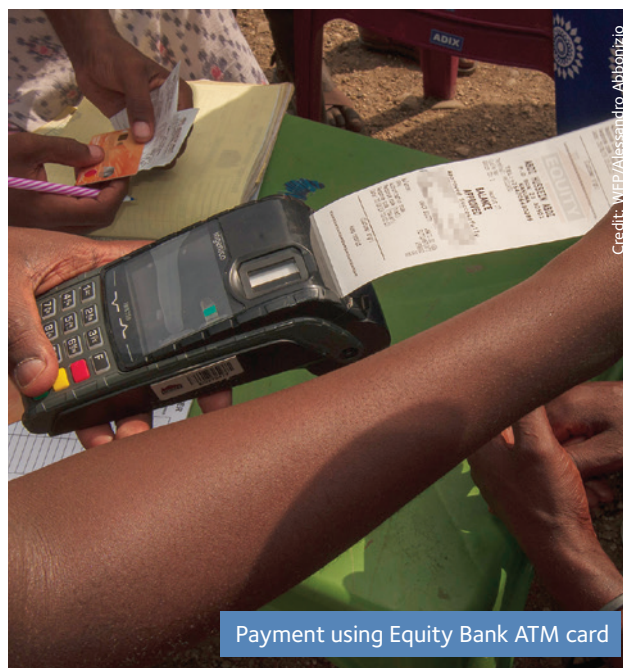
The total effect of the switch on food expenditures is theoretically undetermined. On the one hand, as non-food items, alcohol, and tobacco products are easier and cheaper to buy, we expect a substitution effect away from food expenditures. On the other hand, we expect a positive income effect, as households do not have to resell food items at discounted prices to purchase non-food items, alcohol, and tobacco. The sum of these opposite effects could be positive or negative. We explore the effect of the switch on various indicators of the quantity and quality of food intake in Table 5.2. We find a small positive effect on calories intake (column 3), but no significant effects on food expenditures (column 1), on food insecurity as measured by the HFIAP (column 2), and on dietary diversity as measured by the IDDS (column 4). These results suggest that the substitution and income effects are of similar magnitude.

The fact that unrestricted cash transfers can be used for any type of good, including temptation goods, could generate tensions within households relating to the use of money. Women are often responsible for Bamba Chakula allocation choices because they are usually the ones purchasing and preparing food. With unrestricted cash transfers, there is a concern that men in some households may instead see control of the Equity cards as their prerogative. It is possible, against the background of these gender-related norms, that the switch may therefore generate greater intra-household conflict. To test this hypothesis, we restrict the sample to households with more than one adult. Only 26% of households in our sample have a husband and wife, and 52% of households have more than one adult. First, we test whether unrestricted cash transfers reduce the proportion of women in charge of spending food assistance (Table 5.3, column 1).

In line with theory, we find that the switch to unrestricted cash transfers has led to a significant increase in assets owned by households.

Second, we test whether unrestricted cash transfers are associated with more disagreements within the households (Table 5.3, column 2).¹⁰ For both regressions, coefficients are small, suggesting that transfer modalities do not affect much household decision making and do not increase tensions within households. In fact, disagreements within households seem rare: 89% households reported no disagreements at all. These results are in line with qualitative observations. While most participants in our focus group discussions knew of a household where spouses had fought over mismanagement of food assistance, this was seen as a problem affecting a small number of households in which men had developed an alcohol addiction.

Under the Bamba Chakula programme, only contracted retailers are permitted to sell goods in exchange for Bamba Chakula credit. By contrast, unrestricted cash transfers can be



Payment using Equity Bank ATM card

¹⁰ We aggregate data on disagreements about six types of decision: children's schooling, children's health, buying food, buying large or expensive things (e.g. furniture, mobile phone), who should keep the Equity ATM bank card or the Bamba Chakula SIM, and whether to resell food or not.

used in any shop. Consequently, the unrestricted programme might encourage more entrepreneurs to enter into the market and compete, which may boost economic activity. We explore the effect of unrestricted cash transfers on employment in Table 5.3, column 3. We consider a dummy equal to one for refugees who are employed or self-employed, and zero otherwise. The effect is small and not statistically significant, suggesting that the switch did not have a big impact on the local economy.

In theory, the effect of the switch on subjective well-being is undetermined. On the one hand, people are expected to enjoy the enhanced freedom and increased purchasing

power that come with unrestricted cash transfers. On the other hand, subjective well-being could decrease if the switch substantially increases conflicts within households. We find a robust positive effect of the switch on subjective well-being (Table 5.3, column 4), which is not surprising given the absence of effect on within-household conflict. The size of the effect is roughly equivalent to 14% of a standard deviation in the control group.

Overall, regression analysis suggests that unrestricted cash transfers have positive effects. On average, beneficiaries have more assets, are more satisfied with their lives, and are less likely to resell food items to get cash.

	(1) Resale of food ration	(2) Asset index	(3) IHS (Non-food expenditure)	(4) IHS (Temptation goods)
Households with Equity ATM card	-0.0799*** (0.0220)	0.0267*** (0.00930)	-0.0651 (0.0935)	0.344*** (0.107)
No. of observations	893	895	896	896
R ²	0.360	0.417	0.468	0.339

Table 5.1 Effects on non-food expenditure and ownership of assets

Note: Resale of food ration variable is valued as one if the household has sold food bought using monthly transfers in the past 30 days, and zero otherwise. Non-food expenditure is a total of expenditures converted into KES per month. This total value is then transformed using IHS. Non-food expenditure items include spending on firewood, charcoal, soap, healthcare, education, clothes, tailoring services, milling of grains, transport, airtime, cosmetics, barber, ceremonies, and temptation goods. Spending on temptation goods is a summation of monthly spending on soda, tobacco, eating out, alcohol, and video halls. This total value is also transformed using IHS. The asset index is a summary index constructed following Anderson (2008). The assets which are taken into account are shown in Figure 4.4 and Figure 4.5. R² captures how well the model explains the variation in the outcome variable.

	(1) IHS (Food expenditure)	(2) Severe food insecurity	(3) Log (Calories intake per adult equivalent)	(4) Individual Diet Diversity
Households with Equity ATM card	0.0161 (0.0311)	-0.0197 (0.0210)	0.0588** (0.0293)	-0.0149 (0.0610)
No. of observations	889	889	885	1529
R ²	0.392	0.387	0.280	0.359

Table 5.2 Effects on food consumption and expenditure

Note: Food expenditure in a household is calculated by aggregating the value of a list of food items consumed in the past seven days divided by the number of household members. The total value is transformed using inverse hyperbolic sine (IHS). Food insecurity variable is constructed under the HFIAS score (Coates et al., 2007). The variable is valued as one if the household is categorised as 'severely food insecure' and zero otherwise. Calories intake per adult equivalent is calculated by converting the list of food items consumed by the household in the past seven days into calories. Data on calories is obtained from the U.S. Department of Agriculture. We then calculate adult equivalents by following the method proposed by Deaton and Zaidi (2002) and log-transform this aggregated value. Individual diversity is measured using Individual Diversity Score (Kennedy et al., 2011).

	(1) Card user as woman	(2) No. of disagreements in household	(3) Income activity	(4) Subjective wellbeing
Households with Equity ATM card	0.0129 (0.0163)	0.0219 (0.0459)	-0.000363 (0.00546)	0.179*** (0.0515)
No. of observations	471	447	1538	1522
R ²	0.512	0.478	0.384	0.444

Table 5.3 Effects on household decision making, employment and subjective well-being

Note: Number of disagreements in a household is measured by summing the total number of decisions (list of six decisions) over which household members have disagreements. Maximum number of disagreements is six. Income activity variable takes a value of one if the individual has an income-generating activity (both self-employed and as incentive worker) in the past 30 days, and zero otherwise. Individual wellbeing is measured using a 5-point Likert scale to answer the question 'All things considered, how satisfied are you with your life as a whole these days?.'

Given these results, it may seem surprising that 59% of households benefiting from unrestricted cash transfers think that “Equity ATM cards and Bamba Chakula lines are the same”. Only 39% prefer unrestricted cash transfers, while 1% prefer Bamba Chakula. During qualitative interviews, a majority of respondents also reported being indifferent between both modalities. Anne, a Lopit woman from Eastern Equatoria, questioned why WFP had bothered introducing a new programme:

I have an ATM card. The ATM programme is provided by the UN. ATM is like Bamba Chakula. It is the same money. I use it for collecting food from the shop. There are no differences between the Bamba Chakula and ATM. I am even asking myself why the UN replaced Bamba Chakula by ATM?

The minority preferring unrestricted cash transfers brought up several reasons to justify their preference. First, recipients of unrestricted cash can access non-food items more easily. Under the Bamba Chakula programme, people could only purchase goods like shoes, clothing, utensils, and cooking fuel by selling their food for cash, and they were often forced to sell their food at a loss. But in the Equity programme, they can receive cash directly and purchase the commodities they want.

Second, recipients of unrestricted cash benefit from the ‘cash-in-hand’ discount (*pesa ya mkono*). Using 2017 and 2018 data on prices, MacPherson and Sterck (2019) and Delius and Sterck (2020) show that prices are on average 13 to 33% cheaper with cash than with Bamba Chakula money. As one refugee shopkeeper in Village 3 explained:

If an item costs KES 1,800 but someone like you comes here, they see that we need cash. We will give them our price of KES 1,800, but reduce it a little bit to KES 1,750. We cut 50 shillings for the cash.

Shopkeepers prefer to receive cash, which they can immediately use to pay off their debts to wholesalers. They therefore offer a price reduction for customers who pay in cash. Some people have been able to take advantage of the access to cash provided under the Equity programme. As one Somali-Ethiopian woman explained:

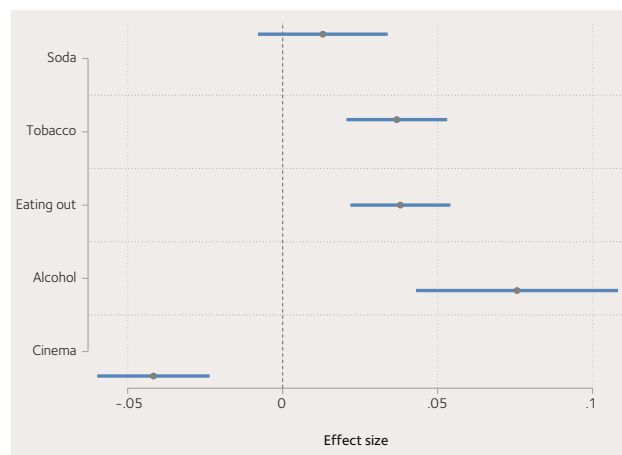


Figure 5.2 Effect size of temptation goods (extensive margin)

Note: For each individual item (soda, tobacco, eating out, alcohol, and cinema), the variable takes a value of one if any individual in the household has spent on this item in the past seven days, and zero otherwise. Each point shows the point estimate of treatment effect and the line represents the 95 percent confidence interval.



Woman holding cash and Equity ATM card

Credit: WFP/Alessandro Abbonzio

I have the cash in hand and I can look for cheap foodstuff. In the other programme (Bamba Chakula), I would have to take debt and the items might be very expensive. But with the Equity programme, I have the card in my hand. I can withdraw the money and I can buy from the cheapest place.

Finally, unrestricted cash provides access to a broader market of retailers from whom to purchase goods. Whereas Bamba Chakula can only be received by contracted retailers with a WFP contract, cash can be used anywhere. Those who possess cash are also less tied to a particular retailer and can therefore shop from a range of shops according to price, food availability and other personal considerations. As one Lotuko man, who is still receiving Bamba Chakula, explained:

For the Equity programme, you are given cash, and you can look for cheap prices for food from different shopkeepers. But in terms of Bamba Chakula, you are just given food in advance. Some of us are not happy to take that food at those prices – it is too expensive.

A Burundian woman explained that unrestricted cash allows her to shop around:

Equity is the best because we get cash and buy from the shop that we prefer, where the prices are not high and where we can find everything that we want. Sometimes you may find rice here but the chapatti flour is at another shop due to one reason or another. Or, when I want to buy a banana for my child, I can do this. But when we were using Bamba Chakula, we were forced to take what was available in the shop. We had no other option and had to buy food that we didn't want.

These three benefits of unrestricted cash transfers presuppose that beneficiaries withdraw cash using their ATM card before doing their shopping. Surprisingly however, our data shows that 89% of households on unrestricted cash transfers never withdrew cash. Instead, they receive food items while retailers deduct the payment from their account. The fact that very few households access 'cash-in-hand' partly explains why most households are indifferent between Bamba Chakula and unrestricted cash transfers. The minority of households who have withdrawn cash using their ATM card are 18 percentage points more likely to think that unrestricted cash transfers are better than Bamba Chakula.

This section showed that, on average, unrestricted cash transfers have positive effects. Beneficiaries of unrestricted cash transfers are less likely to resell food items to get cash, have more assets, and are more satisfied with their lives. This section also highlighted three surprising facts. First, 61% of households receiving unrestricted cash transfers still resell food to obtain cash. Second, most households are indifferent between Bamba Chakula and unrestricted cash transfers. Third, 89% of households never withdrew cash using their ATM card. In the next section, we show that these surprising facts all have the same underlying explanation: the high prevalence of indebtedness in Kalobeyei.

Given these results, it may seem surprising that 59% of households benefiting from unrestricted cash transfers think that "Equity ATM cards and Bamba Chakula lines are the same". Only 39% prefer unrestricted cash transfers, while 1% prefer Bamba Chakula.



A woman receives cash from an Equity agent in the Kalobeyei Village 3 market

Credit: WFP/Martin Karimi

6. Indebtedness: From a Social Safety Net to a Poverty Trap

A shocking 89% of refugee households in Village 3 are indebted towards their food retailers. Average debt levels are equivalent to two months of food assistance. The technological basis of cash transfers encourages indebtedness, because the Bamba Chakula SIM cards and Equity ATM cards can be used as a form of collateral by food retailers in order to guarantee that loans will be repaid. Five factors have contributed to the high levels of indebtedness: (1) the lack of economic opportunities, (2) the frequent occurrence of shocks, (3) the low level of food and non-food assistance, (4) the Bamba Chakula restrictions on the purchase of non-food items, and (5) the recurrent delays in the transfer of assistance. Because of indebtedness, households have low negotiating power, face high prices, and are prevented from shopping around. Indebtedness is associated with higher food insecurity, lower subjective well-being, and higher levels of stress. These negative consequences contribute to a vicious cycle of debt and dependency.

Indebtedness in Kalobeyei

A staggering 89% of refugee households in our sample are indebted towards their food retailers.¹¹ Average debt levels among South Sudanese households are high – KES 15,313 (144 USD) – which is more than two months' worth of distribution for a household of five people. Debt levels are high for both modalities of cash assistance.

Cash-based assistance in Kalobeyei has contributed to higher levels of debt than the partial in-kind food aid provided in the Kakuma camp. This is because the material technology required for receipt of cash assistance – SIM cards for Bamba Chakula and ATM cards for the Equity programme – provides a physical object that can be retained by shopkeepers as collateral. While refugee customers have few assets to offer as conventional collateral when taking credit, shopkeepers can hold customers' Bamba Chakula lines or ATM cards to ensure debt repayment. While this is not possible with the in-kind food aid provided in Kakuma, the security of holding people's cash transfer devices seems to have made shops in Kalobeyei more comfortable distributing large amounts of food on credit. In our current survey, 97% of indebted households reported that their Bamba Chakula SIM card or their ATM card was held by a shop owner, with indebted households being 32 percentage points higher than households which are not indebted (see Table 6.1). When they hand over their cards, most customers also hand over their private PIN numbers to the shop owners (97% for

indebted households and 73% for households which are not indebted). Shop owners can then make withdrawals on their customers' behalf, without negotiating prices.

The possibility to access food on credit by collateralising future cash transfers explains why most people in Kalobeyei prefer cash-based assistance to in-kind food aid, regardless of whether they are receiving restricted or unrestricted cash. 5% of the households would prefer to receive food rations like residents of Kakuma. When asked if in-kind aid is a good food assistance strategy, one South Sudanese woman in Village 3 said, "I would not accept receiving food from the distribution centre because, if the food gets finished in the house, where will you go?" In Kalobeyei settlement, taking food on credit has become commonplace for a majority of households. Data from 2018 illustrates that South Sudanese households were significantly more likely to use their Bamba Chakula SIM card as collateral in Kalobeyei (82%) compared to Kakuma (46%), where only about ~21% of food assistance for households of two or more people was provided as cash. This shows that indebtedness was already very prevalent in 2018, before the switch to unrestricted cash transfers. In fact, some refugees explained that shopkeepers collected the ATM cards of their indebted clients immediately after they were distributed. As one South Sudanese man explained:

After I received my Bamba Chakula line, I gave it to the shop owner. When the money was sent, the shop owner would withdraw the money, and I would collect the food.

¹¹ This issue of household indebtedness is not new: Oka (2014) documented the prevalence of refugees purchasing food/goods on credit from retailers using ethnographic data which he collected in the Kakuma Refugee Camp from 2008 to 2011. He attributed this issue of indebtedness to refugees' need to resell food aid to access preferred items. The estimated balances were between KES 8,000 to KES 16,000 per month for refugees who were working or were receiving remittances, and between KES 500 to KES 1,500 per month for refugees who depended solely on food aid.

I have to exchange some of this food for firewood or charcoal, and I sell part of the food for cash, which I can use for grinding or buying vegetables. Because of selling the food, I continued taking food on credit... On the day Bamba Chakula was changed to Equity, the shop owners immediately received my money. My ATM card remains with the shop owner because I had credit with him, and I continue taking food on credit from the same shop. I cannot change the shop because the shop owner has my ATM card, and he always withdraws the money directly.

are hungry, and he will be given whatever he needs. (Ethiopian-Somali woman)

If there is no food in the house, you can go to the shop and talk to the shop owner. He can give you food on credit. He cannot refuse you. (Lotuko woman, Equity recipient)

The Roots of Indebtedness

Indebtedness initially arose as a form of social support from credit-granting shopkeepers willing to assist customers in need. We have shown in Section 4 that refugee households in Kalobeyei are extremely vulnerable. Most refugees are children, food insecurity is widespread, and economic opportunities are scarce. Many refugees suffer from physical or mental health problems and socio-economic shocks are frequent. The rise in credit was a necessary response to economic precarity. Households with an employed adult are eight percentage points less likely to be indebted than households where all adults are unemployed. If support from family and friends is unavailable, people facing economic hardship may request credit from a familiar shop owner. Many refugees explained that the provision of credit is necessary for their survival and reflects an understanding of their predicament on the part of shopkeepers:

The system of credit between customers and shopkeepers is good. The shop owner is cooperating with customers. Unless the desired items are not in the shop at the time of borrowing, in which case I will go to another shop. Like now, I have debt with the shopkeeper. I borrowed for January and February [two months beyond the time of the mid-December interview]. If the food gets finished in the house, I become stressed and this makes me run to the shop to borrow again. (Lopit woman, Equity cash recipient)

There are moral imperatives at play in the settlement, and some refugee beneficiaries argue that shopkeepers cannot deny giving their customers credit:

The people are hungry and the shopkeeper can't let them go. Someone will come and say my children

Indeed, many shopkeepers explained that they cannot deny credit to their customers, who – in the case of refugee shopkeepers – are also their neighbours. So long as the shopkeeper knows where the customer lives, there is a sense of assurance that they will not evade returning their debts. Or, if they do, it is expected that the community will assist the shopkeeper in recovering what is owed. Even many Kenyan traders describe a sense of obligation to assist their regular customers:

This month (December), there are those who have already taken a lot of credit that will need to be repaid next month. This happens when the customer's money is not there, and the food has finished. Because of the good relationship I have with someone as my routine customer, I am forced to give them food on credit, and that sometimes leads to a loss in my business. (Turkana man, Bamba Chakula shopkeeper)

For many refugees, indebtedness is a coping strategy against shocks or unanticipated expenses. Major expenses incurred during weddings, funerals, and medical treatments can instigate periods of hardship that make it difficult for households to afford their basic monthly needs. In the 12 months preceding the survey, 48% of households in our survey have experienced at least one incident of theft, and 28% had at least one adult admitted to the hospital. When an individual suffers from a problem like theft, shopkeepers may take this into consideration when extending credit. One Lotuko man explained that if a family's rations are stolen from their home, they report the incident to the village chairman as well as the local security staff, who "will escort the beneficiary to the shop where they usually collect their food. They will talk to the shopkeeper for the beneficiary to be assisted."

Many refugees also reported that the modalities of food and non-food assistance also contribute to indebtedness. A frequent complaint is that food assistance is too low compared to prices. As one Burundian woman explained:

	Shopkeeper has the ATM card/ Bamba Chakula SIM		Shopkeeper knows the PIN of the ATM card/Bamba Chakula SIM	
	Without debt	With debt	Without debt	With debt
All households				
No	35%	2.8%	27%	2.9%
Yes	65%	97%	73%	97%
Households with ATM cards				
No	44%	3.1%	35%	2.8%
Yes	56%	97%	65%	97%
Households with Bamba Chakula SIM				
No	18%	2.2%	13%	3%
Yes	82%	98%	87%	97%

Table 6.1 Household indebtedness and ATM card/Bamba Chakula SIM as a collateral

We are exploited, and we are not sure that traders are giving us fair prices. UNHCR in collaboration with WFP decided to give us KES 1,400 per person, maybe calculated based on fair prices. But because traders are not respecting those prices, the money purchases less. I would address this question to UNHCR and WFP, because they are the ones who give out this money: Is this money enough according to you? When you decided the amount to give us, I am sure you based it on the price of food at that time. But are you sure the price is still the same today?

Bamba Chakula restrictions on the purchase of non-food items also contribute to precarity and hence indebtedness. This is because Bamba Chakula recipients (or indebted beneficiaries of unrestricted cash transfers) lose money when they resell food in order to get access to cash to purchase non-food items. This leaves them dependent upon credit to make up for the loss. A man from South Sudan explained:

We take food in advance [on credit] because, when we receive food from the shop, sometimes we will sell half of it in order to purchase firewood. The prices are high! We will also sell food to buy medicines for sick children. Sometimes we take cash from the shopkeeper, but it is less and will not cover what we actually eat at home. We need to buy a balanced diet, so we use the cash that we get from the shopkeeper. For example, we might sell almost five bags of wheat flour to buy green vegetables, fruits and other things [which are not available in Bamba Chakula shops].

Recurrent delays in the transfer of food and non-food assistance also push people into debt. Figures 6.1 and 6.2 show how the dates of the Bamba Chakula and Equity transfers vary from one month to the other. Refugees in Kalobeyei expect to receive the cash transfers on the 10th of each month (Figure 6.3). WFP starts preparing the transfers on the first weekday of each month and, because of various processes within WFP and between WFP and UNCHR, it takes seven to ten working days to process them. As a result, disbursements are often made between the 10th and 15th of each month and, because of technical and administrative issues, disbursements after the 15th of each month happen about 30 percent of the time. While the delays are short, in the sense that they never exceed two weeks, our data shows that even short delays can lead to difficulties. This is due to the wide prevalence of food insecurity and the scarcity of coping mechanisms. Delays are systemic shocks that affect all households at the same time. As people struggle to find food to hold them over until the transfers are received, they turn to shopkeepers. As one Somali-Ethiopian woman explained, households that are barely making ends meet on the monthly transfers can be pushed into debt even by a slight delay in cash assistance:

Forty shillings [per person] per day is not enough. For a family that needs all the basics, it won't be enough. Even if they have a debt of two months, they will take further debt. For example, we went for the fingerprint [verification] last month, but up to now, we haven't received the money. So, imagine how much debt a person will take. A lot!

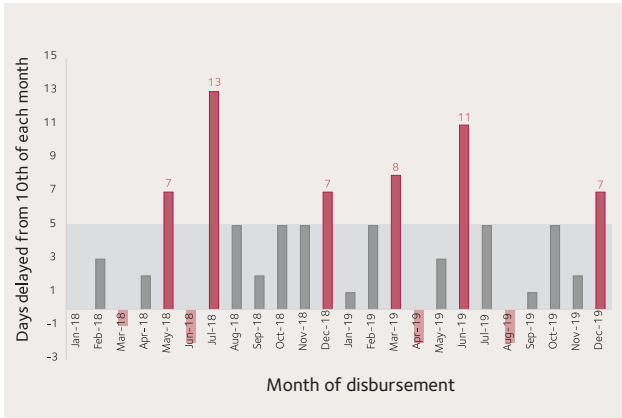


Figure 6.1 Days delayed for Bamba Chakula transfer

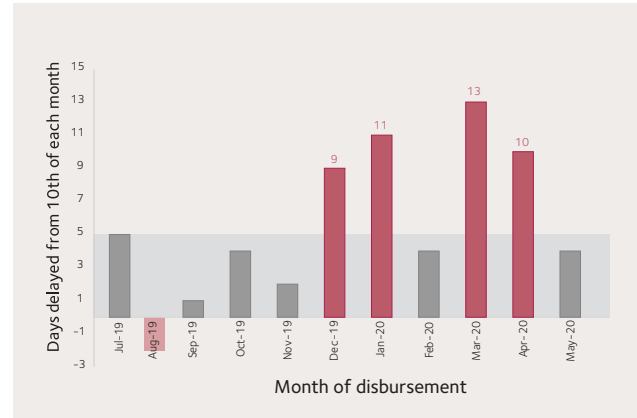


Figure 6.2 Days delayed for unrestricted cash transfer

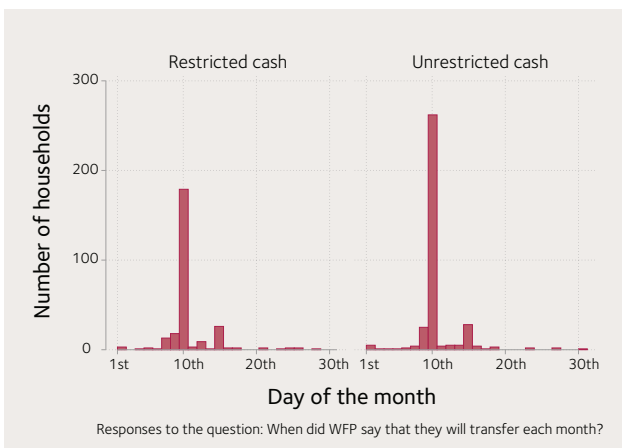


Figure 6.3 Expected transfer day according to survey respondents



A local vendor holds a refugee's bank card (Core Relief) at the market in Kalobeyei Settlement, Kenya

When asked about delays during our 2018 survey, a refugee trader highlighted the implication that delays have on indebtedness and on businesses:

If money delays, the customers will come to ask for food. You will not refuse to give it to your best customers. But then you will find that the merchandise in the shop is depleted... The only thing that I would like to ask WFP is that we shall be happy if money would be transferred on time. This may favour us and may save us from giving out many loans.

Aside from WFP’s food assistance, respondents also complained about recurrent disruptions and long delays in UNHCR’s Core Relief Items (CRI) cash programme, as well as firewood distribution by Lokado. Cash transfers to finance soap and sanitary products under UNHCR’s Core Relief Items programme were not completed between June 2019 and November 2019. Several refugees explained that delays in the distribution of firewood forced them to resell food to obtain cash for cooking fuel, thereby putting them into debt.

They [Lokado] do [distribute firewood] but it takes time. Imagine, there might be a delay for like two months without distribution. So if I don't have firewood, I have to sell food [to buy cooking fuel].

You need to buy charcoal and firewood, which is why the debt gets higher. Also, the firewood we are given at the ration centre doesn't come on time, and sometimes it delays for months.

In summary, indebtedness results from a series of factors, including (1) the lack of economic opportunities, (2) the frequent occurrence of idiosyncratic shocks, (3) the low level of food and non-food assistance compared to prices, (4) the restrictions placed on Bamba Chakula that are forcing refugees to resell food at unfavourable prices, and (5) the recurrent delays in the transfer of assistance. For many households, borrowing food from shopkeepers is their only life-saving safety net in times of hardship. But indebtedness also comes with negative consequences and leads to a cycle of debt and dependency (Figure 6.4).

The Vicious Cycle of Indebtedness

When the Bamba Chakula programme was launched in Kalobeyei in 2016, it was hoped that the switch from in-kind food assistance to Bamba Chakula would empower refugee recipients to act as customers rather than aid beneficiaries. This is in-line with global commitments at the 2016 World Humanitarian Summit to expand cash programming, as well as the local self-reliance objectives of the Kalobeyei Integrated Social and Economic Development Plan (KISEDIP).

In 2019, the launch of the Equity Cash programme was intended to augment this economic empowerment in at least two ways. First, it aimed to put hard cash directly in beneficiaries’ hands, making it unnecessary for them to acquire cash via alternative means, such as selling their food at below-market prices. Second, by providing an unrestricted form of cash assistance, it aimed to increase recipients’ purchasing power, thereby encouraging them to negotiate prices and take charge of their own budgets, rather than relinquishing their Bamba Chakula lines to shop owners.

A staggering 89% of South Sudanese households under the Equity programme have never withdrawn cash. Of these, 90% are in debt.

However, because of indebtedness, many of the intended benefits of Bamba Chakula and of the later switch to unrestricted cash have gone unrealised. Very few refugees actually receive cash from Equity agents. A staggering 89% of South Sudanese households under the Equity programme have never withdrawn cash. Of these, 90% are in debt. As two South Sudanese refugees explained, indebted customers do not actually receive cash under the Equity programme:

Since I was introduced to the Equity Bank programme, I have not withdrawn any money using my ATM card. I receive money for washing soap [UNHCR’s Core Relief Items cash programme] only. But for the money from Equity, I never see it. The shop owner withdraws the money himself. If the shops are not operating that day, it means the shopkeepers are traveling to withdraw money from the bank

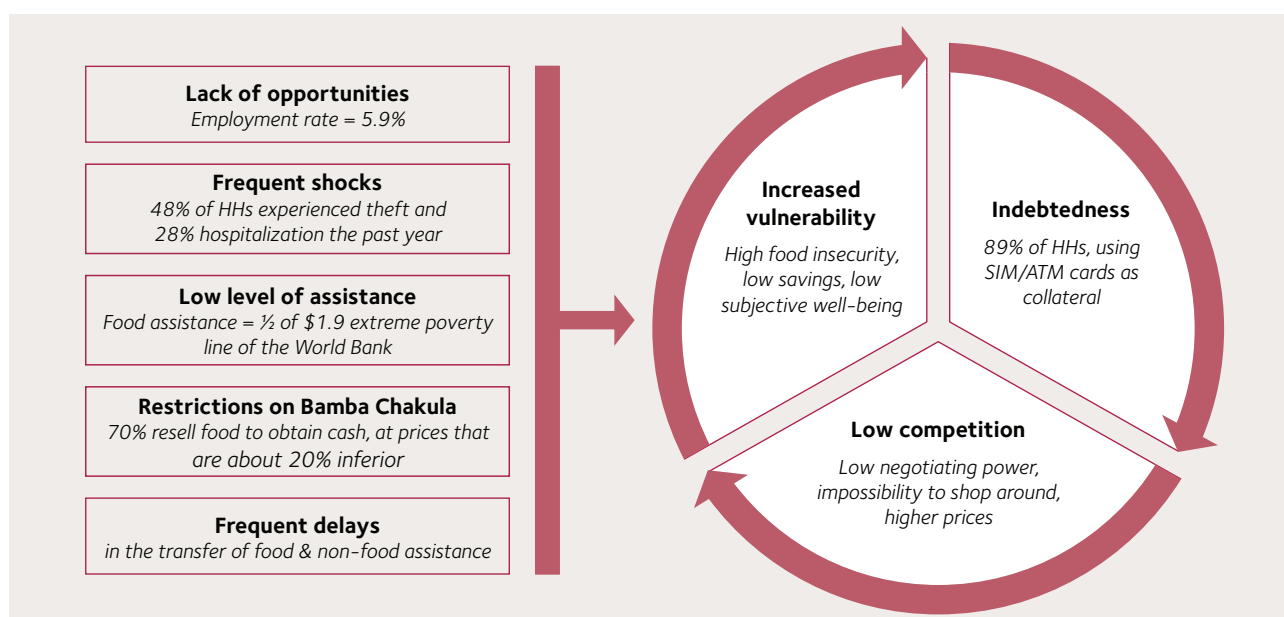


Figure 6.4 The vicious cycle of indebtedness

in Kakuma. They go to town carrying with them all of our ATM cards to collect the money.

I cannot receive money from an ATM. The money remains with the shop owner. Items in the shop are very expensive, so I always borrow my food [on credit]. I have just borrowed for the month of March [three months beyond December interview]. I always borrow in advance.

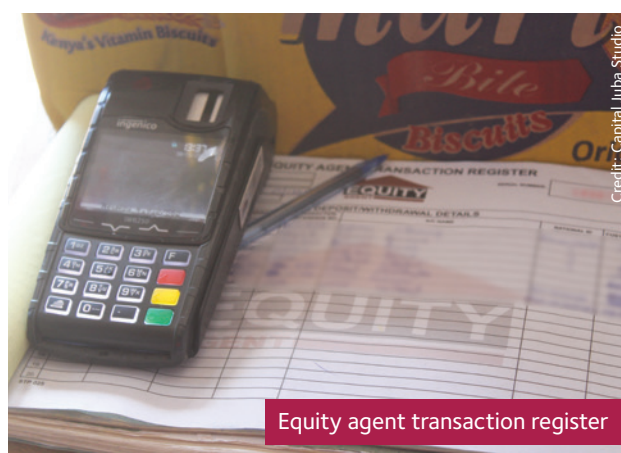
Indebtedness is distorting the markets and reducing competition between shops. When people are in debt, they cannot shop around and compare prices, which is necessary for market competition. Instead, they remain committed to the shop that has provided their credit. As one Ethiopian man explained:

I choose one shop and buy my items there, because my Bamba Chakula card is kept there. Whenever the date for receiving our transfers arrives, I go and pick my food.

Indebted refugees are forced to pay higher prices for their food. This is because indebted customers are not in a position to negotiate prices with shop owners. From our survey results, we find that prices of the most commonly consumed food items are significantly higher for indebted households compared to households who are not indebted. To illustrate, the average price of one kilo of maize (the main staple) for an indebted household is KES 50, KES 2.45 higher than the average price faced by households who are not indebted. For every standard sack of 45 kg of maize, an indebted household loses KES 110.3 (equivalent to 5% of one sack of maize). One South Sudanese woman explained her frustration and sense of disempowerment:

The shop owners refuse to negotiate the prices. [They say] the price is the same across the market. Shopkeepers are exploiting us. I do not receive cash. My Bamba Chakula [line] remains with the shop owner.

When people buy food on credit, they cannot benefit from the cash-in-hand discount. A South Sudanese man explained:



Equity agent transaction register

If you go with cash, the shopkeeper negotiates the price. For example, if you buy on credit, one box of matches costs ten shillings and one mug of beans costs 50 shillings... But if you buy with cash, one matchbox costs five shillings and one mug of beans is only 40 shillings.

Customers who hand over their Bamba Chakula lines or ATM cards to shopkeepers tend to relinquish control of their finances. Rather than acting as a consumer and keeping a budget, they take on the role of a beneficiary and allow the shopkeeper to withdraw whatever amount that they deem fair. As a woman from South Sudan explained:

With Bamba Chakula, I don't even see the account. I don't know whether there is money in our card or how they [the shopkeeper] are withdrawing the money. My task is just to go to the shop, and the shopkeeper will ask what I want. I indicate the kind of food I want to buy. As for withdrawing the money, I don't know. I don't even know how much credit I have there in the shop.

Shop owners can then make withdrawals on their customers' behalf. This leaves people increasingly uninvolved in managing their budgets. As indebted cash transfer recipients are treated less like consumers and more like conventional

	(1) IHS (Food expenditure)	(2) Severe food security	(3) Log (Calories intake /adult equivalent)	(4) IHS (Non-food expenditure)	(5) IHS (Temptation goods)	(6) Resell	(7) Exchange	(8) Asset index	(9) Wellbeing
HH has debt	-0.0136 (0.0242)	0.187*** (0.0246)	0.00105 (0.0231)	-0.253** (0.108)	0.0587 (0.108)	0.0886*** (0.0243)	0.241*** (0.0207)	-0.0303** (0.0123)	-0.159*** (0.0421)
No. of observations	887	887	883	892	892	892	892	892	1518
R ²	0.393	0.399	0.281	0.466	0.339	0.363	0.324	0.422	0.444

Table 6.2 The association of household indebtedness and outcomes

Note: Food expenditure in a household is calculated by aggregating the value of a list of food items consumed in the past seven days divided by the number of household members. The total value is transformed using inverse hyperbolic sine (IHS). Food insecurity variable is constructed under the HFIAS score (Coates et al., 2007). The variable is valued as one if the household is categorised as 'severely food insecure' and zero otherwise. Calorie intake per adult equivalent is calculated by converting the list of food items consumed by the household in the past seven days into calories. Data on calories is obtained from the U.S. Department of Agriculture. We then calculate adult equivalents by following the method proposed by Deaton and Zaidi (2002) and log-transform this aggregated value. Non-food expenditure is a total of expenditures converted into KES per month. This total value is then transformed using IHS. Non-food expenditure items include spending on firewood, charcoal, soap, healthcare, education, clothes, tailoring services, milling of grains, transport, airtime, cosmetics, barber and ceremonies. Spending on temptation goods is a summation of monthly spending on soda, tobacco, eating out, alcohol and video halls. This total value is also transformed using IHS. Resell variable is equal to one if the household has resold the food which was bought through Bamba Chakula SIM or Equity ATM card in the past 30 days, and zero otherwise. Exchange variable is equal to one if the household has obtained items by exchanging food which was bought through Bamba Chakula SIM or Equity ATM card in the past 30 days, and zero otherwise. The asset index is a summary index constructed following Anderson (2008). The assets which are taken into account are shown in Figure 4.3 and Figure 4.4. Individual wellbeing is measured using a 5-point Likert scale to answer the question 'All things considered, how satisfied are you with your life as a whole these days?.'

aid beneficiaries, they experience the Equity programme in exactly the same way as the Bamba Chakula programme. For those who have taken debts worth multiple months of cash assistance, shopkeepers are restricting their additional borrowing to half of a month's assistance:

If you want to buy food on credit, the shopkeeper allows you to take half of the food. For example, if you are family of size seven, the shopkeeper will only credit for your food for size three. But food for a family of size four remains. You will eat only this food until the day of putting your fingerprint [referring to biometric system], that is, when the money is received. When you go to the shopkeeper before your time for borrowing food comes, he will send you away. (Lotuko woman, BC recipient)

The shopkeeper refused to give me food even just now, before I started talking to you. The shopkeeper said we have to pay the previous debts before we can take more food. (Lopit woman, BC recipient)

Together, these factors put cash recipients into a cycle of debt and dependency. Those who take food on credit pay higher prices. And when people pay higher prices for food, they are more likely to require further credit to meet their monthly food needs. Our data shows that indebted households are significantly more likely to be severely food insecure and spend less on non-food items (see Table 6.2). We also find that indebted households are more likely to resell and exchange food items.

Indebtedness left some refugees feeling trapped in exploitative relationships. One man from South Sudan explained that shop owners provide their debtors with low quality food:

The shop owner sometimes gives me rotten food. It is sometimes like we are in a prison... The food is sometimes rotten, especially fish and beans. Since you don't have any other option, you must take the food, because of your debt with the shop owner. If I could get cash, then I could go to other shops... But now, even though I tell the shop owner to give me good food, he will refuse. Maybe the shop owner purchases the food at a cheap price – that could be why he does not bring fresh food. (Lotuko man)

Debt is increasingly a source of stress, especially when people find themselves multiple months deep. We find that indebtedness is significantly and negatively associated with subjective assessments of well-being. A Somali-Ethiopian woman described the stress of being in debt: “You have taken someone's property you will think about will you be taken to jail. This is because it is only 40 shillings that we receive per day.” Another woman explained that she has debts equivalent to her Size-5 monthly Equity cash transfer. Although this amount is not as large as for many others who are in debt, it is a source of considerable stress:

I am afraid that this will drive up my blood pressure. I don't have a husband; we have divorced. So I don't receive support elsewhere. I have many sleepless nights. The only thing I receive is 7,000 shillings under this programme. So, what will you buy with these 7,000 shillings? We have so many challenges and the rations are too small.

Debt also puts women at higher risk of sexual harassment and gender-based violence. One woman described how the owner of a milling machine refused to allow her to grind her maize unless she could pay up front. When she explained that she did not have cash, he suggested sexual rather than monetary compensation. Women who are forced into these interactions are unlikely to receive support in their communities, as their activity is labelled as prostitution and attributed to their “choice”, ignoring the coercive nature of the debt relationship.

Facing both the uncertainty of food insecurity and the pressures exerted by their creditors, many people are left with compounding feelings of anxiety, helplessness and even fear. Some have asked whether they can fall back on the UN for support:

I have debts. The shop owner is currently demanding 7,000 Kenyan shillings from me. When I put my fingerprint, the shop owner will take the money for February. This is stressful, because if I will not put my fingerprint, the shop owner will disturb me a lot to bring the money. If I cannot pay the money, I will tell him to ask UN to pay the money. (Lopit woman, Bamba Chakula recipient)

I have taken debts for January. I take food on credit when I do not have food in the house. The UN should pay the debt, because I do not have money. (Lotuko man, Equity recipient)

If they [the UN] accept to pay the shopkeepers for the three months that we have consumed [on credit], then we can return our Equity ATM cards to our hands. (Lopit woman, Equity recipient)

Such statements highlight the sense among refugees that the debt trap is a protection concern. Beyond its implications for household food security, this may also undermine the UN's self-reliance agenda in Kalobeyei.

How Credit Affects Retailers and Wholesalers

On a few occasions, shopkeepers have agreed to stop providing food on credit, but this requires concerted action. When even a few shops begin extending credit again, the other shops must either follow suit or lose customers to the non-conforming retailers. As explained by one refugee shopkeeper in Village 3:

The business people will not agree on one thing. We have agreed in the past to stop giving out credit. There were some who had their own agenda. We later realised that some were giving food on credit, and we lost customers. If you don't sell anything, you incur losses.

As credit arrangements become the norm across the market, shopkeepers have no choice but to participate. Any shop that refuses to give credit will lose their customers to competitors.

The rising debt owed to shopkeepers in Kalobeyei also complicates the relationship between retailers and wholesalers. As one host trader in Kalobeyei explained, “it [credit with customers] creates a chain of debt.” Many



A Bamba Chakula shop in Kalobeyei

Kakuma-based wholesalers understand the challenges facing retailers who work in the business environments of the camp and settlement, and they have generally been willing to provide their stock on credit, as was encouraged under WFP's preferred wholesaler guidelines. However, the businesses further up the supply chain in Kitale, Nairobi, and even Mombasa have little patience for long-standing debts. Many of these suppliers expect debts to be paid after just one week, which is not possible on the monthly cycle used for cash assistance distribution in Kakuma and Kalobeyei.

Furthermore, many shopkeepers find themselves unable to pay their debts to suppliers because their customers default on their debts. An employee at Al Mubarak Wholesalers reported that as many as 30 refugee customers may default on their debts per month, which in turn prevents retailers from paying off their debts to suppliers. Credit payments to wholesalers are also affected by delays in the monthly distribution of cash assistance; as one Kenyan trader in Village 3 explained, "Sometimes, wholesalers are forced to deny us food on credit due to the delayed voucher payment."

For this reason, Kakuma-based suppliers have made efforts to reduce their debts. One wholesaler explained that in 2017, they had given out credit to shopkeepers totalling KES 20-30 million. But as of 2019, they had reduced this to about KES 10 million. Another wholesaler indicated that they had reduced the amount they give out in credit by about 10% since 2017. As one wholesaler complained, "one month is too long to wait for debts to be repaid. There is too much pressure from Kitale." The lack of available credit to retailers can be seen in the many shops standing empty or closed in Kalobeyei.

Wholesalers don't grant credit to retailers evenly, as the provision of credit depends on the trust between retailer and wholesaler. Of the KES 10 million in debt given out by Kakuma wholesalers, KES four million has been given to a single retailer operating in Kalobeyei Village 3.

A few Kalobeyei traders have made special arrangements with wholesalers in order to secure credit. Aside from purchasing their stock from them, they have also taken them on as shareholders, such that the wholesalers earn a share of the shop's profit. This system provides additional benefits for the wholesalers, which in turn incentivises them to continue

providing stock on credit. As one shopkeeper with a shop in each of the three villages explained:

That profit I get from my shops in Village 1 is divided in half... I also have another big shop (in Village 2) that the wholesaler supports. They gave as much stock as I need. They will then get half of the profit. Here in Village 3, I am managing this shop. This is mine. But for the others we divide the profit.

For Bamba Chakula retailers, the switch to unrestricted cash transfers came with both pros and cons. On the one hand, unrestricted cash opened up the market by allowing any business to compete with the Bamba Chakula retailers. However, Bamba Chakula retailers have not been affected much by the switch, because many have secured the Equity ATM cards of their indebted customers, making them captive consumers. Many Bamba Chakula shopkeepers actually prefer the unrestricted cash transfer programme because they don't lose as much to fees as they did under the Bamba Chakula programme:

For example, with a three million shilling withdrawal... With Equity Bank it is very nice. They will not deduct anything. But if I remove three million shillings from my Bamba Chakula line, I will lose about 40,000 shillings to fees. (Refugee trader, Kalobeyei Village 3)

Some shop owners have expressed concerns about theft, which makes it risky to store cash at their business premises. Those registered as Equity agents must keep cash to distribute to beneficiaries, but many are concerned that they will be targeted by those who know they are handling large sums of money:

We have fear here. If I have money, I cannot bring more than 200,000 shillings back here. It happened one day when I withdrew money from the bank. The money was 300,000 shillings, and I was robbed on the way back to Kalobeyei. When that happens, there is no one who will help you to recover your loss. It was on the way back from the bank in Kakuma town. We had been followed to the bank. Some thieves saw me. They let me leave, but then they began fighting on the route back, on the highway. They took all 300,000 shillings. (Refugee shop owner, Equity agent)

Before the switch, some shop owners in Kalobeyei also feared that customers would go shopping in Kakuma, where prices are cheaper. Some Equity recipients confirmed that they make their household food purchases in Kakuma, due to the lower prices. As one South Sudanese man explained:

I am getting my food from Kakuma One, from Mr Mesfin... I chose that shop because he gives cash. If I sometimes need cash, like KES 100, he can give it to me. That is the reason I chose the shop. I have been using that same shop since the time of Bamba Chakula... One bag of maize here in Kalobeyei costs 2,200 shillings. But in Kakuma One, the maize costs 2,100 shillings. (Lokoya man, size 2, Equity recipient)

This strategy is however impossible for indebted households who collateralised their Equity ATM cards to borrow food or money.

7. Conclusions and Policy Options

Our research showed that the introduction of unrestricted cash transfers to replace Bamba Chakula in Kalobeyei reduced the share of households reselling food to obtain cash. The switch has had positive impacts on asset holding and subjective well-being. But both modalities of cash-based assistance are associated with a massive problem of indebtedness, which undermines their effectiveness. If no action is taken to reduce dependency on credit, rising indebtedness could potentially lead to a breakdown in debtor-creditor relationships. This section discusses the pros and cons of various policy options available to the World Food Programme and its partners in Kakuma.

In this research, we used mixed methods to study the relative effect of two modalities of food assistance implemented in Kalobeyei. At the time of our fieldwork, October-December 2019, about 7,000 households were benefiting from the Bamba Chakula programme of mobile money transfers, which is restricted to food items and to specific shops. In June 2019, Bamba Chakula transfers were replaced by unrestricted cash transfers on bank accounts for about 1,050 households living in the southern part of Kalobeyei Village 3.

We hypothesised that the switch to unrestricted cash transfers would have the following effects: (1) a drop in the costly practice of buying and reselling food items at lower value than purchase in order to obtain cash; (2) an increase in assets and expenditures on non-food items and temptation goods; (3) an undetermined effect on food expenditures and food insecurity; (4) gender-related changes in intra-household decision-making and increased tensions within households relating to the allocation of money; and (5) an undetermined effect on subjective well-being.

In line with theory, our regression analysis reveals that households receiving unrestricted cash transfers are less likely to engage in the highly inefficient practice of reselling food in order to access non-food items. The switch to unrestricted cash transfers had robustly positive effects on household asset ownership. There is also some evidence that unrestricted transfers may lead to higher expenditure on alcohol and tobacco. Although this is worrying, it relates to only a limited proportion of households (14%) and a small proportion of their budget (3.7%). We find little impact on food security, food expenditures, and intra-household decision making. Disagreements within households are actually rare: only 11% of households reported some disagreements. The effect of the switch to unrestricted cash transfers had a significant positive impact on subjective well-being.

The results of the pilot experiment of unrestricted cash transfers are therefore broadly positive. However, only a

limited share of households reported benefiting from the switch: about one-third of respondents reported preferring unrestricted cash assistance compared to Bamba Chakula, while two-thirds reported that they have no preference between the two models. The key factor determining whether someone benefits from the switch seems to be their level of indebtedness. A staggering 89% of sampled households are indebted towards their retailers. The debt relationships that were created under the Bamba Chakula model have endured under the unrestricted cash model. Our research identified five factors that have contributed to high indebtedness levels in Kalobeyei: (1) the lack of economic opportunities, (2) the frequent occurrence of idiosyncratic shocks such as thefts, accidents, and diseases, (3) the low level of food and non-food assistance, (4) the Bamba Chakula restrictions on the purchase of non-food items, and (5) the recurrent delays in the transfer of assistance.

Indebtedness has prevented recipients from accessing cash as intended. Indebted households have low negotiating power, face high prices, and are prevented from selecting between competing retailers. Indebted households are more likely to be food insecure, more likely to be dissatisfied with their lives, and less likely to have savings. Facing both the uncertainty of food insecurity and the social pressures exerted by their creditors, many indebted refugees are left with feelings of anxiety, helplessness, and fear. In turn, the growing debts owed to shopkeepers also complicates relationships between retailers and wholesalers.

Realising the benefits of unrestricted cash transfers requires UNHCR, WFP, and other stakeholders to address the problem of indebtedness and decrease the heavy reliance on credit. Below, we discuss the pros and cons of various policy options for addressing the problem of indebtedness, including debt repayment schemes or debt relief, social safety nets, more frequent transfers, training, and monitoring. All solutions are subject to the funding constraints of key stakeholders operating in Kalobeyei.

Debt Relief

In order for refugees to realise many of the benefits of unrestricted cash transfers, the staggering levels of indebtedness must first be reduced. We estimate the cost of providing direct debt relief to refugee households at about one million USD in Kalobeyei.¹²

However, debt relief would be encumbered by a number of complications. First, humanitarian agencies would struggle to verify the quantities of the debts owed to retailers, as there would be an incentive to exaggerate the values. One way to bypass the need for a record of credit levels is by making a one-off blanket transfer of two months of food assistance, which is expected to be sufficient to relieve 87% of households. However, this would be an unpopular decision if only provided in Kalobeyei and not in Kakuma.

Another problem is that offering debt relief once may raise expectations that it will be offered again in the future. This presents a moral hazard for the credit system and might result in a rapid return to indebtedness for many cash recipients.¹³ Therefore, debt relief only makes sense if policies are adopted simultaneously to prevent households from falling back into debt.

Debt Management

Our results suggest that a behaviour change strategy – which would discourage households from seeking high levels of credit and traders from providing it – is likely to fail. Our analysis suggests that indebtedness is not simply a result of poor decision-making; rather, refugees are forced by circumstance to request credit to make ends meet when their resources do not reach the end of the month. Similarly, traders cannot let their regular customers and neighbours go hungry, and so they agree to provide food on credit. Behaviour change interventions are therefore unlikely to succeed because they would not address the structural factors that push people into debt.

However, a humanitarian agency could facilitate repayment of debts by supporting a transitional arrangement for indebted households. The intervention would require several steps. First, the agency would keep a register of indebted refugees who elect to participate in the repayment scheme. Second, the agency would step in to mediate the use of monthly transfers. For example, it could negotiate a scheme with shopkeepers that provides an adequate amount of food to the indebted households based on cash-in-hand prices, while using the monthly balance to reduce the debt. Finally, once refugee debt is eliminated, refugees would be released back to a market-based system.

In this scheme, the amount of debt paid off each month would be recovered by reducing the cost of food offered to indebted households. To encourage shopkeepers to adhere to the lower cash-in-hand prices, the agency would need to provide some security that monthly distributions would be paid in a timely manner, allowing shops to repay their debts to wholesalers.

In this solution, indebted refugees would essentially go back to a ration-based distribution system until their debt is paid back, with the agency acting as a broker.

Meanwhile, shopkeepers could continue with their current system among non-indebted customers. This solution may be seen as heavy-handed by some clients or shopkeepers, and it would not resonate with a key tenet of cash-based assistance, which is to foster dignity by increasing household financial autonomy. However, the repayment assistance would be a temporary strategy that would ultimately reduce household dependency on credit and build capacity for greater financial autonomy in the long-run. To ensure that the payment assistance is not coercive, it could be provided on a voluntary basis to willing households who sign up.

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Supporting Community Safety Nets

People take credit from shopkeepers when their personal social networks – including family, friends and religious communities – are unable to provide support. Expenses incurred during sudden and often unexpected misfortunes – such as theft, funerals, or medical problems – create financial shocks for households. Given widespread poverty, informal social networks are often unable to respond with assistance, especially when such shocks are frequent and systemic. Shopkeepers tend to be the only actors able to lend food.

One way to reduce reliance on credit from shopkeepers is to support formal and informal social safety nets in Kalobeyei. Humanitarian agencies could begin by implementing a formal safety net in the form of an emergency fund for refugees in situations of extreme vulnerability due to temporary shock. When observing a problem, compound and neighbourhood leaders would refer the identified cases to a field post in each village of Kalobeyei. After assessing the cases, social workers would authorise an emergency transfer of money on the accounts of identified households. Such transfers could be provided as either a gift or as a loan. In the case of a loan, future transfers could be used for repayment. Because transfers are electronic, illicit use of funds would be easy to monitor.

Over time, as more households are free from debt and more economically secure, they will have greater capacity to provide informal support to vulnerable people within their social networks.

Streamlining Cash Transfer Programmes

In the short run, cash transfer modalities could be adjusted to enhance informal networks' ability to respond to shocks.

First, humanitarian agencies should solve the problem of recurrent delays in the delivery of food and non-food

¹² In Village 3, the average level of household debt owed to shopkeepers is KES 13,313.

¹³ For example, as part of an evaluation of a large-scale household debt relief scheme in India, Kanz (2016) found that rural households who have received debt relief were significantly less concerned about reputational risks of potential defaults in the future compared to the control group.



A shop selling oil, sugar and other goods in Kalobeyei

assistance. According to refugees, frequent delays in the distribution of cash transfers are exacerbating the indebtedness problem.¹⁴ Such delays are systemic shocks that affect all households at the same time, implying that informal networks are unable to efficiently respond to it. The problem of recurrent delays in food and non-food assistance should be solved by streamlining procedures at WFP, Safaricom, and/or Equity Bank.

Second, a more effective system of delivery would be to spread cash transfers over the entire month. About 8,000 households are living in Kalobeyei. Rather than sending transfers to all households on the same day each month, transfers could be sent daily to groups of about 260 households. This more distributed pattern of monthly cash transfers would have many benefits for refugees and for shopkeepers. First, social networks would be better able to respond to shocks, as not every household would be facing end-of-the-month scarcity at the same time. Second, it would facilitate the work of shopkeepers who would not have to respond to high demand peaks on distribution days, which often leaves them short of stock. Third, it would

First, humanitarian agencies should solve the problem of recurrent delays in the delivery of food and non-food assistance.

limit the total amount of cash needed in the local economy. Most households spend the entirety of their food ration on the distribution day. If unrestricted cash transfers are rolled out for all households in Kalobeyei, Equity Bank agents will have to be able to distribute 500,000 USD of cash on the distribution day. Such a large amount is not only logistically challenging, but also extremely risky in terms of security. The fact that all households receive

food assistance on the same day partly explains why Equity Bank agents are often reluctant or unable to provide cash to their clients and instead prefer to transfer food directly. If cash transfers were spread throughout the month, less than

20,000 USD of cash would have to circulate in the Kalobeyei economy in order for the system to work. This would be much more manageable and secure for Equity Bank agents and shopkeepers.

A third option would be to increase the frequency of transfers in order to encourage consumption smoothing. With weekly transfers of KES 325, for example, a household that has nothing to eat one day because it faced an unexpected shock would have to wait a maximum of six days before receiving the next transfer. This option would prevent long-run periods without any transfer. It could also limit losses in case of theft. Households willing to purchase commodities in bulk to benefit from lower prices will face the challenge of having to save money over time. Saving might be facilitated by access to Equity Bank accounts.

Increasing Purchasing Power

Many refugees also complained that cash assistance is broadly insufficient for their basic food and non-food needs. Humanitarian agencies should pursue two avenues for increasing refugees' purchasing power. First, they should continue to invest in self-reliance programming, as improving livelihoods and generating new income-earning opportunities is the best way to increase purchasing power in the long run. In the short run, however, if resources are available, UNHCR, WFP, and other humanitarian agencies should consider increasing the monthly value of cash transfers and broadening their scope.

Rather than sending transfers to all households on the same day each month, transfers could be sent daily to groups of about 260 households.

To do so, the purchasing power required for households to achieve certain standards of nutritional and economic security should be assessed.¹⁵ Based on current

¹⁴ Other studies of cash transfer programmes have also documented the negative impact of transfer delays on household welfare, including an accumulation of debt. The impact is especially serious when there is a lack of communication of the delay as households are not able to plan (FAO, 2015).

¹⁵ In some contexts, households have been observed to spend the extra income from cash transfer programmes to pay off debts (e.g. Aker (2017) in the DRC and Hoddinott et al. (2018) in Niger). In general, however, evidence on the impact of cash transfers on household debt remains inconclusive (Bastagli et al. 2016). For example, the opposite effect might happen when households receiving cash transfers are perceived to be more creditworthy and subsequently take out more loans, as seen in Merttens et al. (2013) in Kenya.

market prices, it is feasible for a household to achieve 2,100 calories per day with transfers of KES 1,400 per person per month (MacPherson and Sterck, 2019). But this amount is not sufficient to purchase a varied diet with vegetables, fruits, dairy, and fish/meat, and certainly not enough to cover other needs in terms of wood and charcoal, clothing, and

A comprehensive transfer for food and non-food items should probably be around to KES 4,000. For the sake of comparison, the international 1.9 USD poverty line of the World Bank is approximately equal to KES 2,850 when considering purchasing power parity.

health and education costs. For example, a balanced diet composed of 350g of grains (maize, wheat, and rice), 50g of pulses, 30g of meat or fish, 100g of fruit, 150g of vegetables, 150g of milk, and 50ml of oil would give 2,100 calories per day but would cost about KES 3,000 per person per month. Accounting for other needs, a comprehensive transfer for food and non-food items should probably be around to KES 4,000. For the sake of comparison, the international 1.9 USD poverty line of the World Bank is approximately equal to KES 2,850 when considering purchasing power parity. At the time of writing this report, a *Cash Working Group* that includes UNHCR, WFP, the Kenyan government and other stakeholders is developing a methodology to estimate the cost of a

Minimum Food Basket (MFB) containing a greater variety of essential foods and a Minimum Expenditure Basket (MEB) that includes essential non-food items. WFP is planning to increase the value of monthly transfers to KES 2,500 per person in Kalobeyei to cover the cost of the MFB. This amount is for food needs only, and other needs will have to be covered by other agencies or through livelihood options.

While many refugees complained about rising prices, our data does not suggest that prices of key staples have significantly increased since the creation of Kalobeyei. Since January 2017, maize has fluctuated around KES 45/kg, rice around KES 100/kg, sugar around KES 120/kg, and oil around KES 200/L. At the time of our survey, however, beans were about 20-30% more expensive than usual, at KES 120/kg. WFP should continue to monitor prices as it regularly does. Unlike in-kind food aid, the quantity of which is determined centrally by WFP, the quantity of food that a household can purchase with their cash assistance is dependent on the fluctuating price of goods in the local market. As prices rise, the value of monthly cash transfers becomes increasingly inadequate to cover household food needs. WFP should be prepared to quickly respond to any significant increase in prices by selling staple food to retailers or consumers at reasonable prices.

Numeracy Training

Indebtedness might also partly result from poor numeracy. About 47% of South Sudanese adults in our sample have completed no formal education at all. There is limited ability to identify numbers in their written form; only 50%

of respondents were able to read a four-digit number when presented to them on a tablet. Reassuringly, about 75% of respondents were able to solve math problems entailing multiplication and addition. This suggests that many are able to carry out the calculations necessary for negotiating prices and maintaining a budget, although they may not be able to read receipts or maintain written records of their purchases.

One direct way to improve numeracy would be to organise training sessions about how to do simple calculus with a calculator or with their mobile phones. The intervention could also target children, as a majority of them go to school and may therefore be able to help their parents with shopping. However, training on its own is not expected to make a major difference in gross levels of indebtedness in Kalobeyei.¹⁶

Monitoring and Research

Contact between WFP and its beneficiaries is less direct with cash assistance than with in-kind assistance. Over the past years, WFP has built a strong relationship with business partners in Kalobeyei, in Kakuma, and elsewhere. Contacts with households are more limited. WFP could benefit from seeking more first-hand information from beneficiaries on a more regular basis, to react quickly when issues such as indebtedness arise. This may also enable deeper understanding of the intra-household dynamics, including gender norms, that underlie decision-making relating to expenditure, credit, and debt.

WFP should also closely monitor the behaviour of businesses to encourage healthy competition. Practices such as price-gouging should be discouraged or reprimanded. WFP should also ensure that Equity Bank agents give cash to beneficiaries and do not collude with shopkeepers to increase their profit.

Finally, rigorous research is needed to evaluate the impact of any policies implemented to tackle indebtedness. For example, experimental or quasi-experimental methods could be implemented to evaluate the impact of a social security system, to assess the impact of varying cash assistance modalities (e.g. spreading transfers over the month or weekly transfers), and to evaluate the effect of numeracy training. Such research is important as refugees in other parts of the world, such as those in Lebanon (Government of Lebanon and UN Lebanon, 2019), are reported to be accumulating increasing levels of debt. Over-indebtedness is not just a concern in the refugee community, but also amongst low-income households in other developing countries, such as India, Thailand and Brazil (Kantz, 2016). The need to better understand how to most effectively assist these households in breaking out of and preventing from falling back into the vicious debt cycle is critical.

Finally, rigorous research is needed to evaluate the impact of any policies implemented to tackle indebtedness.

¹⁶ The impact of financial literacy training on financial management is generally positive, but debt-related outcomes are more difficult to achieve and training interventions are less effective for those in low income economies (Kaiser, 2017). There are nevertheless some success stories. For example, Doi et al. (2014) finds that Indonesian migrants and their families who received financial literacy training are 8.9 percentage points less likely to have taken out a loan in the past six months.

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A shop selling tailoring materials

Credit: C. Rodgers

Appendices

Table A.1 Balance table of variables capturing pre-existing characteristics of households and individuals before they arrived in the settlement.

Variable	(1) Control		(2) Treated		(3) Total		P-value of t-test	Normalised difference
	N/[Clusters]	Mean/SE	N/[Clusters]	Mean/SE	N/[Clusters]	Mean/SE		
No. of adults	368 [81]	1.668 [0.053]	528 [84]	1.759 [0.040]	896 [127]	1.722 [0.033]	0.164	-0.103
No. of people	368 [81]	6.454 [0.172]	528 [84]	6.756 [0.152]	896 [127]	6.632 [0.117]	0.178	-0.107
HHH: age	368 [81]	31.310 [0.481]	528 [84]	32.064 [0.467]	896 [127]	31.754 [0.346]	0.248	-0.080
HHH: female	368 [81]	0.685 [0.030]	528 [84]	0.678 [0.020]	896 [127]	0.681 [0.017]	0.854	0.014
HHH: married	368 [81]	0.685 [0.025]	528 [84]	0.733 [0.022]	896 [127]	0.713 [0.017]	0.143	-0.106
HHH: polygamous	368 [81]	0.318 [0.023]	528 [84]	0.320 [0.020]	896 [127]	0.319 [0.015]	0.944	-0.005
HHH: equatorial	368 [81]	0.978 [0.008]	528 [84]	0.970 [0.009]	896 [127]	0.973 [0.007]	0.455	0.053
HHH: uppernile	368 [81]	0.019 [0.007]	528 [84]	0.025 [0.008]	896 [127]	0.022 [0.006]	0.573	-0.038
Has income act before	368 [81]	0.543 [0.049]	528 [84]	0.544 [0.053]	896 [127]	0.544 [0.038]	0.999	-0.000
Ration size	368 [81]	6.541 [0.183]	528 [84]	6.922 [0.152]	896 [127]	6.766 [0.120]	0.102	-0.130
Cash,assets at reception	368 [81]	-0.001 [0.013]	528 [84]	-0.017 [0.012]	896 [127]	-0.011 [0.009]	0.322	0.065
Farmed before	368 [81]	0.897 [0.024]	528 [84]	0.833 [0.032]	896 [127]	0.859 [0.022]	0.093	0.182
Father's education	368 [81]	2.674 [0.308]	528 [84]	2.455 [0.238]	896 [127]	2.545 [0.190]	0.569	0.048
Mother's education	368 [81]	0.345 [0.092]	528 [84]	0.489 [0.080]	896 [127]	0.430 [0.060]	0.246	-0.079
Age	613 [81]	28.496 [0.389]	925 [84]	29.206 [0.386]	1538 [127]	28.923 [0.288]	0.178	-0.075
Female	613 [81]	0.630 [0.022]	925 [84]	0.613 [0.012]	1538 [127]	0.620 [0.012]	0.497	0.034
Married	613 [81]	0.595 [0.024]	925 [84]	0.631 [0.020]	1538 [127]	0.617 [0.016]	0.215	-0.074
Polygamous	613 [81]	0.254 [0.019]	925 [84]	0.234 [0.017]	1538 [127]	0.242 [0.013]	0.415	0.049
Equatorial	613 [81]	0.967 [0.015]	925 [84]	0.971 [0.009]	1538 [127]	0.969 [0.009]	0.823	-0.020
Uppernile	613 [81]	0.029 [0.013]	925 [84]	0.022 [0.008]	1538 [127]	0.025 [0.008]	0.547	0.050
Has income act before	613 [81]	0.326 [0.031]	925 [84]	0.310 [0.030]	1538 [127]	0.317 [0.023]	0.705	0.034
Father's education	613 [81]	1.966 [0.241]	925 [84]	1.722 [0.170]	1538 [127]	1.819 [0.143]	0.402	0.061
Mother's education	613 [81]	0.214 [0.056]	925 [84]	0.308 [0.051]	1538 [127]	0.270 [0.038]	0.216	-0.066

Table A.2 Regression results of the treatment dummy on variables capturing pre-existing characteristics of households before they arrived in the settlement.

	(1) Treatment dummy as dependent
No. of adults	-0.00242 (0.0189)
No. of people	0.00230 (0.0135)
HHH: age	0.000638 (0.00168)
HHH: female	-0.00479 (0.0375)
HHH: married	0.000968 (0.0339)
HHH: polygamous	0.0198 (0.0310)
HHH: equatorial	-0.0164 (0.158)
HHH: uppennile	0.0184 (0.192)
Has income act before	0.0291 (0.0266)
Ration size	0.00499 (0.0126)
Cash,assets at reception	-0.0139 (0.0414)
Farmed before	-0.0604 (0.0547)
Father's education	-0.000607 (0.00392)
Mother's education	0.0112 (0.00901)
Omnibus F-test	0.652
P-value of F-test	0.816

F test for the joint hypothesis that $\gamma_1 = \dots = \gamma_j = 0$
 * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.3 Village 3 Household Interviews

Nationality Ethnic Self- Identification	BC Recipients	Equity Recipients	Women	Total
South Sudanese	13	18	22	31
<i>Lotuko</i>	6	5	4	11
<i>Lopit</i>	2	4	6	6
<i>Didinga</i>	3	5	7	8
<i>Dinka</i>	1	1	2	2
<i>Lokoya</i>	0	1	0	1
<i>Peri</i>	0	1	1	1
<i>Nuer</i>	0	1	1	1
<i>Madi</i>	1	0	1	1
Burundian	0	5	4	5
Ethiopian	2	2	2	4
TOTAL	15	25	28	40

Table A.4 Village 3 Shopkeeper Interviews

	BC Only	Equity Only	Neither	BC + Equity	Women	Total
Refugee	1	1	0	1	0	3
Host	2	0	2	3	4	7
TOTAL	3	1	2	4	4	10



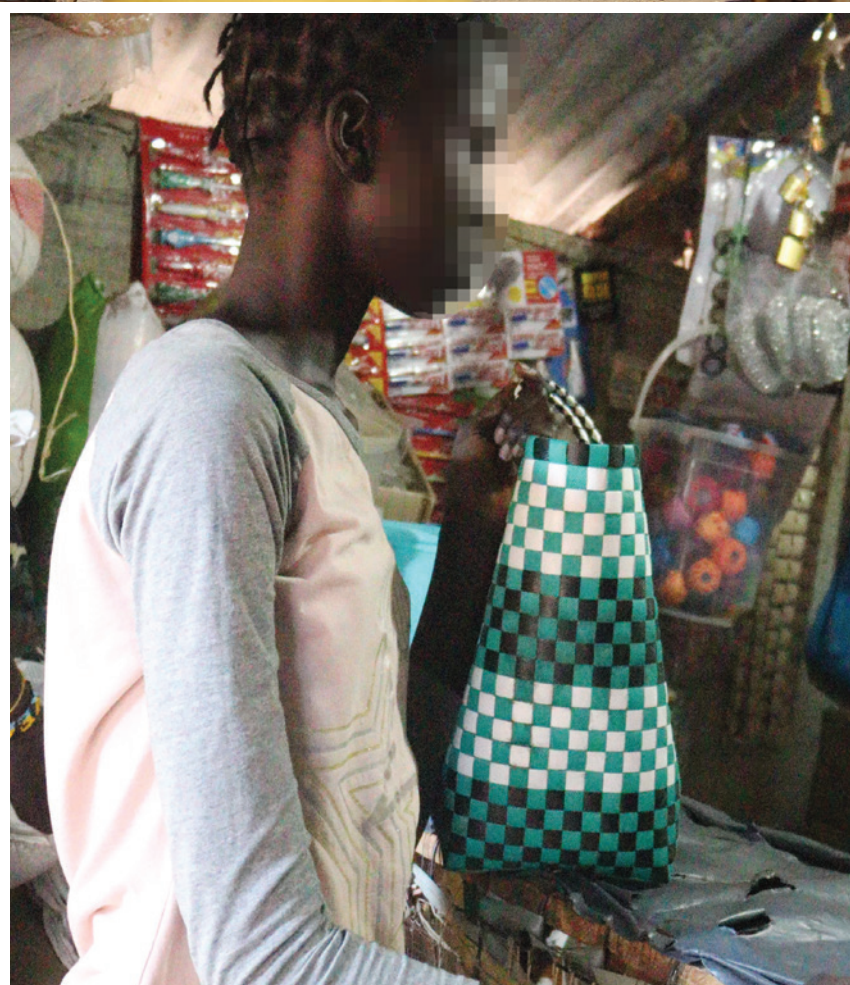
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