The impact of remittances in Lesotho, Malawi and Zimbabwe

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Contents

Executive summary

Households in sub-Saharan Africa have a long tradition of cross-border migration and associated remittances. During periods of economic or political instability, or simply when opportunities at home are scarce, the funds remitted by migrants are a lifeline that can help keep food on the table, children at school, and roofs over heads. However, from an academic perspective, remittances have not always been viewed favourably, with many commentators expressing concern over the hollowing out of economically active populations from the communities from which migration occurs, and the possible subsequent inflationary pressures which remitted funds may cause in those communities.

Increasingly, the literature increasingly reflects a more nuanced view of the economic role played by remittances. A key insight has been that, while remittances can and do play a role in supporting development in origin communities, remittances alone are not sufficient to deal with the often severe economic problems that spurred migration to begin with. Any examination of the impact of remittance receipt on entrepreneurship, for example, must acknowledge that the quality of the business environment may have a severely dampening effect. Even so, evidence is growing that remitted funds tend to support productive investments and activities in origin communities, via a number of channels:

- Human capital formation: by supporting household consumption and educational expenditures, remittances support better human capital outcomes in recipient households
- Improving market access: cash remittances improve the ability of recipients to access formal markets, and in doing so improve their productive capacity. For example, remittances may provide the cash necessary to purchase fertilisers and improve agricultural output, or may mitigate against the impact of lack of access to financial services
- Asset accumulation: the accumulation of both human capital and physical assets can play an important role in facilitating the movement of households out of poverty, and the receipt of remittances may help to finance such asset accumulation

Given these insights, we examined evidence of the impact of remittances on the communities and economies of Lesotho, Malawi and Zimbabwe. The research combined a review of existing literature, primary research among remittance senders and recipients, and original data analysis; and explored the mechanisms by which remittance receipt affects developmental outcomes.

Lesotho

Lesotho has only 2.1 million inhabitants, 27% of which are urbanised, and GDP per capita in USD in 2014 was $1 034.[1] Remittance inflows have historically been a major source of foreign exchange, accounting for as much as 44% of GDP as recently as 2006, for example[2] (although by 2014 this had fallen to 17% of GDP).

These substantial remitting levels have been driven by equally substantial migration to South Africa in particular. The backbone of Basotho remittances from South Africa has traditionally been the mining industry, which employed large numbers of Basotho. However, these numbers have declined rapidly. For example, while almost 65 000 Basotho were employed on South African mines in 2000, by 2015 that number had declined to only 27 948.[3] Partially compensating for this decrease in mainly male migrants to the mines, the level of female migration has been increasing.[4] However, female migrants are more likely to be involved in lower-paid occupations such as informal trading or domestic work,[5] which affects the amount they are able to remit.

Compared to other regional remittance corridors, remittances to Lesotho via formal channels are particularly affordable. This is no doubt influenced partially by the extent of financial sector innovation in this market, and the associated high levels of competition. However, Lesotho is also affected by the fact that most remitters are based in South Africa, and regulatory barriers to the transmission of money between South Africa and Lesotho are fairly low, because they are both members of a Common Monetary Area.

[1] World Bank Databank, all data for 2015 unless otherwise specified.
[2] Central Bank of Lesotho online statistical sources, World Bank Databank, DNA calculation
[3] Central Bank of Lesotho online statistical sources
[4] (Dodson, et al., 2008, p. 14)
[5] (Dodson, et al., 2008, pp. 13, 26)

Primary research with remittance senders provided considerable insight as regards the reasons for migration. A combination of the push factors of extreme poverty at home, and the pull of better wages in South Africa for similar positions, drove most respondents.

> I came here in Gauteng looking for a better life because there's nothing in Lesotho, there's no rain, and the fields are dying, I've got kids, I have to think like a man. I told my wife that "Madisebo I'm leaving, I'm heading to Gauteng to look for a job" so that my kids can live and go to school then that's when I came to Gauteng, that was the decision.
>
> *Lesotho male focus group*

> **Moderator**: Do they ask for money at home or you just send it or it is compulsory?
>
> General consensus: It is compulsory
>
> Respondent 1: It's compulsory, what will they eat, what are they going to wear?
>
> Respondent 2: You rather sleep with an empty stomach in order for them to eat
>
> *Lesotho male focus group*

Respondents used a wide range of remittance channels, both formal and informal, and the popularity of the new Shoprite channel was evident. Respondents seemed to have fairly good knowledge of the range of remitting options open to them, and seemed happy to switch to more competitive offerings, which is borne out by the quick success of the Shoprite product offering. While some respondents had difficulty accessing bank accounts, bank transfers were the most commonly used form of remitting, with 16 of 37 respondents using them.

Respondents mentioned general groceries and school fees when asked what the money they sent would be used for. Most do not dictate to recipients how the money would be spent: some respondents mentioned the practical difficulty of it being hard to tell what the priorities at home were as the reason for rather sending money; but a key concern seemed to be the effect it would have on family dynamics for the sender to try and dictate how money should be spent to a family authority figure.

> It's better to send money because you don't know what they need.

Lesotho male focus group

While some respondents had tried to start businesses at home, they had achieved little success. Business opportunities did present themselves, particularly to take advantage of the relative cheapness of things like clothing in South Africa as compared to Lesotho. But even with these obvious commercial opportunities, the operating environment in Lesotho was very tough.

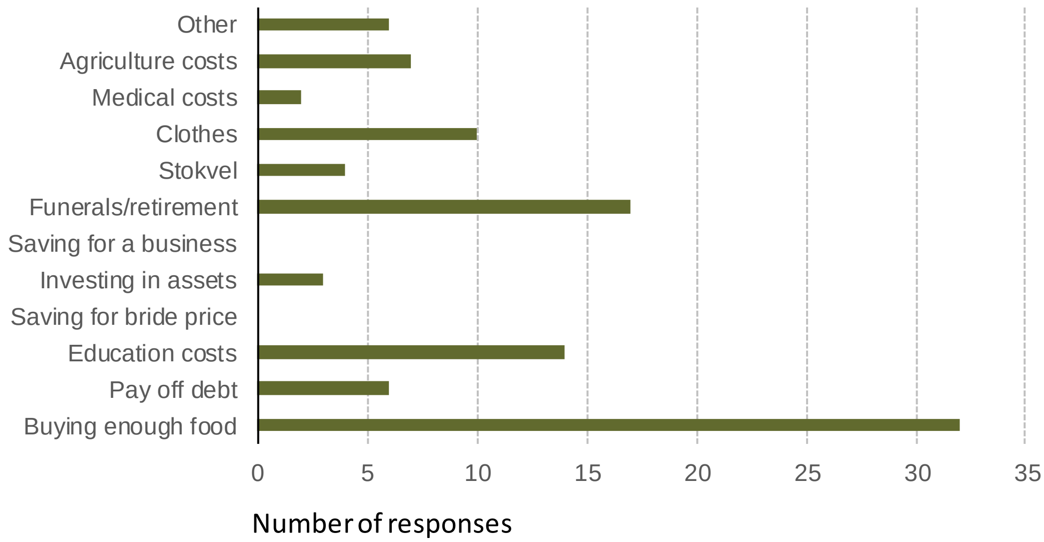
> **Moderator**: Have you thought of starting a business at home in Lesotho?
>
> Respondent 1: I once tried buying clothes this side and sell them that side but the thing is people don't have money they take on credit and pay you with things like beans.
>
> Respondent 2: I don't know what are you supposed to do with those beans you cannot buy some stock with beans.
>
> Respondent 3: Or give you 2 chickens, how are you going to stock other clothes? You are just going backwards.

Lesotho female focus group

Interviews were also conducted with 30 remittance receiving households in Lesotho. Households frequently cited the lack of opportunities in Lesotho as the reason for the migrant making the decision to leave home. Almost all the respondents indicated that they depend solely on the income provided by the migrant worker and their families would not have an alternative means of income. While primary schooling is free, as children enter high school the costs of education are often covered almost entirely by remittances.

Remittances were fairly frequently used to defray agricultural costs, including paying herd boys, purchasing feed to supplement poor rangelands, and paying for medicine for livestock. As shown in Figure 1 below though, the primary financial goal of most households was simply to buy enough food, followed by education costs and saving for funerals and retirement. 28 of the households said that they were finding it difficult to meet their financial goals, which suggests widespread food insecurity in the survey group. None of the households was saving to invest in a business, although one had already successfully done so.

Figure 1: Household financial goals (multiple responses allowed)



Source: Litebe survey, DNA compilation

Malawi

Malawi is an extremely poor nation of 17.2 million individuals, with a per capita GDP of USD381, and with only 16% of the population urbanized.[6] Emigration levels are fairly high, and in 2011, it was estimated that roughly 213 000 Malawians (1.4% of the population) lived abroad. In the period 1998 - 2008, it was further estimated that approximately 90% of all Malawian emigrants settled in SADC countries, with 79% of these destined for South Africa.[7]

Western Union and Moneygram are reported to comprise the bulk of the formal money transfer market in Malawi.[8] However, there appears to be substantial innovation and market entry in Malawian remittance markets, not least by Mukuru. Increasing activity in the formal remittance market appears to have resulted in a switch of consumer preferences to formal providers. Finscope surveys found that the proportion of remitters using formal mechanisms increased from 10% in 2008 to 16% in 2014, which was in line with an overall increase in the proportion of individuals with access to formal financial channels from 26% to 34% over the same period.[9]

Malawi does not share a border with South Africa, which makes the journey to South Africa relatively longer and more expensive than for migrants from Lesotho and Zimbabwe. It is thus more difficult for the extremely impoverished to save enough money to migrate from Malawi to South Africa. In the primary research, respondents consistently expressed the view that they would have struggled to find similar opportunities in Malawi to those found in South Africa. A particular problem in the Malawian job market was a perception that one often had to pay a bribe to get a desirable job.

> Respondent: I just want to address whatever my dear friends have just said, you said a fact that in Malawi there's a lack of opportunities. It is a small country and we don't have many

[6] World Bank Databank, all data for 2015 unless otherwise specified.
[7] (IOM, 2015)
[8] http://www.smesouthafrica.co.za/16622/How-fintech-is-disrupting-money-transfer-in-Africa/
[9] (Millenium Consulting Group, 2014)

> companies like here so comparing Malawi to South Africa, Malawi is better because there are some people that are educated but they are just keeping their papers because the opportunities are not available. If you want to get an opportunity you have to pay other people.
>
> **Moderator**: Let me get this paying thing. Is it a good thing or a bad thing? Is it a bribe?
>
> General consensus: Yes, it's a bribe something like that.
>
> Respondent: It's a bribe because it does affect other people because they don't have anything to bring in front so I can see there is a lack of opportunities in Malawi, that's what makes us come here to look for jobs.
>
> *Malawi male focus group*

Many of the respondents had gone a number of years without returning home for a visit. The key inhibiting factor was the cost of the trip, with an overland return bus trip estimated at around R3 000 per person. Similarly, respondents did not send money home particularly frequently. Of the 20 respondents, 17 said they send home only when needed, leaving only three who said they send money regularly. Some mentioned that when the recipient household had farming income, the need for remittances would vary with the season, depending on whether they needed money to buy fertiliser, as opposed to harvest periods when they needed little. There were also a few mentions of remittance money being used to fund farming activities.

> As I've told you that I'm coming from a deep, deep village, they farm like rice, ground nuts, those things are not for eating only, they can sell and have money, so I try each and every year I must send money for farming, when I don't have anything here they can sell those things and use that money.
>
> *Malawi female focus group*

The most popular way of sending money home was via friends or family. Half of respondents used informal means of remitting, and the most popular formal means of remitting was Mukuru. In practice, in a number of cases the friends and family channel seems to involve sending money via cross-border traders, who travel back and forth frequently, transporting goods for business purposes.

There was substantial interest in running small businesses in focus group discussions. A number of respondents in the female group had either operated a small trading business before migrating, or intended to establish such a small business on returning to Malawi. However, it was evident that successfully running such a business had often proved challenging.

Going forward, some respondents hoped to take advantage of differentials in the price of goods between South Africa and Malawi, to establish cross border trading enterprises of their own. The fact that goods are often cheaper and/or better quality in South Africa than in Malawi was also a big influence on the choice of whether to remit cash or goods. Goods were remitted both for the recipient's personal use, and for on-sale.

> **Moderator**: Why do you send goods instead of money, you send money for them to buy blankets?
>
> Respondent 1: They are very expensive, most of the guys they coming from Malawi to stock here so that they can sell, its good here already they will send them they don't even bother to use transport when coming this side
>
> **Moderator**: Blankets, what else do you send?
>
> General consensus: Everything, plasmas, sugar.
>
> Respondent: With sugar this side is affordable.
>
> Background: Cooking oil the 2 litre and 5 litres.
>
> Respondent: Even the phones, the phones that we are using in Malawi they are from this side.
>
> *Malawi male focus group*

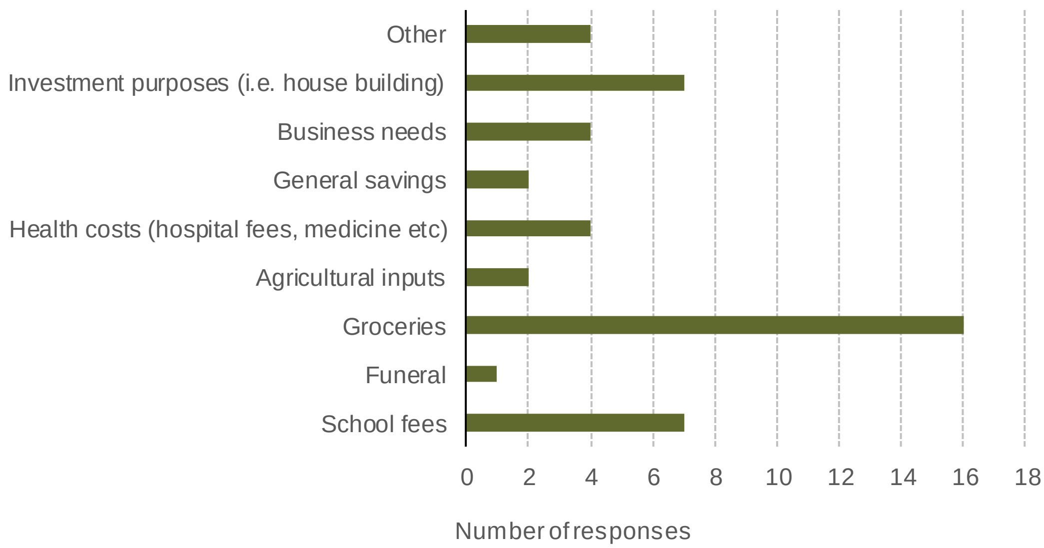
Most remitters felt that their money was vital to the continued well-being of recipient households. Many supported children still living in Malawi, and supplied funds to pay for health care costs of family members as necessary. They typically were supporting multiple individuals in Malawi.

> **Moderator**: You said it's going to be a disaster? [if you don't remit]
>
> Respondent 5: For me, they will suffer also.
>
> Respondent 6: It's going to be a disaster because with the money that we send, they are paying electricity, they are paying for water, if you don't pay it means they have to cut, they will suffer, because if I didn't send money they will never farm because they need to buy fertiliser to put people to help them, so if I didn't send they will never farm and there will be hunger.

Malawi female focus group

16 of the households reported that remittances were spent on general household upkeep. Other major purposes for sending funds included school fees and investment purposes (such as building houses), followed by health costs and business needs.

Figure 2: What was the purpose of money received from outside Malawi over the last 12 months?



Source: Imani, DNA amendments

While most both senders and receivers have bank accounts, bank transfers were not the most commonly used remittance channel, and instead a range of methods were employed, with more popular options being Mukuru, the Post Office, banks and Western Union. Given a choice, no receivers would use informal remittance channels, and instead show a clear preference for bank transfers and money transfer agencies like Western Union and Mukuru. This might be because the transactions are fast and secure. However, access to these channels is limited by poor network infrastructure and the need for formal IDs.

While the survey of remittance recipients and the focus groups of remittance senders undertaken during this project provide interesting insight into remittance patterns and motivations, the sample sizes are too small to provide statistically significant results. In order to produce such results, we instead turned to the Third Integrated Household Survey (IHS3) as undertaken by the Malawi National Statistics Office in 2010/11, which surveyed 12 271 Malawian households.

In order to track whether the receipt of remittances was associated with any changes in poverty, income or asset accumulation, we examined the following:

- Whether remittance receipts vary with investment in agricultural activities, proxied by purchases of inorganic fertiliser: here we found evidence that remittance receipt does increase fertiliser expenditure
- Whether greater remittance receipts are associated with more income earned from other businesses run by the household: results were mixed and conclusions could not be drawn
- Whether remittance receiving households had better child education outcomes, as per the following two indicators:
    - The drop-out level for school age children: remittance receipt was found to reduce drop-out rates
    - Over the period 2010-2013, whether children who were enrolled in primary and secondary education had progressed between grades (as opposed to repeating grades): remittance receipt improved the chances of good outcomes in terms of grade progression

While it is not clear from these results that remittance income affects developmental outcomes more than any other kind of income, there is certainly evidence that the money is productively spent, and should not be viewed as contributing solely to potentially inflationary consumption expenditures.

Zimbabwe

Zimbabwe is a landlocked country with a total population of 15,6 million individuals, 32% of whom live in urban areas. In USD, GDP per capita is currently $890. In constant local currency units, GDP per capita peaked in 1998, and had more than halved by its low point in 2008. Since then it has recovered somewhat, but is still 37% lower than in 2008.[10] The profound deterioration of the Zimbabwean economy has been associated with massive social and political disruptions. As a result, many Zimbabweans[11] left their country to escape the crisis, while continuing to support family members who remained behind. Naturally, the value of the Zimbabwean remittance market has grown substantially as a result, and remittances now play a vital role in supporting an increasingly cash-starved economy.

While the large Zimbabwean diaspora creates a substantial demand for remittance services, which has tended to grow the market, a variety of policy and regulatory changes, often driven by economic crises, have tended to play a destabilising role. Despite these disruptions, there has been substantial growth and innovation in the formal remittance market. The money transfer agent segment of the market is perhaps the most active, and includes operators Western Union, MoneyGram, Mukuru, Hallo Paisa, Mama Money and Exchange4Free.

The discussions in the focus groups reflected the upheavals in Zimbabwe. When asked why they had come to South Africa in the first place, and what would happen to their families if they stopped remitting, respondents repeatedly emphasized the severe need that had motivated their decision to migrate and remit.

> **Moderator**: Tell me more about your suffering (poverty), how were you suffering or living in poverty? Can you elaborate more on that for me.

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[10] World Bank Databank, all data for 2015 unless otherwise specified.

[11] It has been estimated that close to three million Zimbabweans have emigrated over the past decade, with roughly two thirds of these to South Africa.

> Respondent 1: You have kids that have to go to school and you don't have money. You don't even have a bar of soap to take a bath and you don't even have a job so can't even buy that bar of soap, that's suffering.
>
> *Zimbabwe female focus group*
>
> **Moderator**: When did you decide to leave home and come here?
>
> Respondent 9: Oh, I came here in 2008 so if I can recall well, there was drought in 2008, there was no food in Zimbabwe, there was nothing and the only thing you could find in food stores was salt. Sometimes we'd go to bed only having eaten cabbage with no cooking oil and we saw that our neighbours... there would be Quantums arriving for delivery, and I wondered what could stop me from doing the same thing like my neighbour, because I have hands as well. So I decided to come to South Africa.
>
> *Zimbabwe female focus group*

In line with this, the Zimbabwean focus group participants were also sending home money very regularly, and often were sending a large proportion of their income home. 15 out of 20 respondents were sending home at least 12 times a year, and many reported that they were sending most of their earnings home. For eight of the 20 individuals, the average amount they remitted approached their total earnings.[12]

Having moved under duress, many of these migrants had not consistently been able to get work appropriate to their skills level, but were nevertheless better off than they would have been if they had stayed. In both groups there was substantial knowledge of the various methods of remitting, and their relative attributes. The most commonly used method of remitting was Mukuru.com, and respondents

[12] To provide context, this kind of pattern is observed 5 times in the Lesotho group, and not once in the Malawi group.

admitted that prior to the advent of Mukuru, they had relied more heavily on informal methods of remitting. The second most used method of sending money, by taxi or bus, was acknowledged to be very risky and thus undesirable. Respondents were also keenly aware of the difficulties in the financial system, which could affect when and how their remittances arrived home.

Again, goods remittances were very popular because of the price and often quality differential between South Africa and Zimbabwe. A number of respondents effectively run small cross-border trading businesses, sending goods over the border with instructions for relatives to sell them, and in this way increasing the amount of cash that accrues to remittance recipients.

> **Moderator**: Apart from the money that you send home, how do the people back home support/maintain themselves? What do they do to earn a living apart from the money that you send?
>
> .... Respondent 2: They are in the black market, they sell things like sugar, salt, and other things.
>
> **Moderator**: Where do they get those things? Do they get that from you or?
>
> Respondent 2: Yes, they get that from me. I send those in bulk and I tell them that they should sell them.
>
> *Zimbabwe female focus group*

Other than these operations taking advantage of regional price differentials, however, respondents were pessimistic about the chance of starting a business in Zimbabwe, because operating conditions are simply too difficult. In cash-starved local economies, remittance recipients sometimes needed to resort to barter trade, reflecting the economic difficulties.

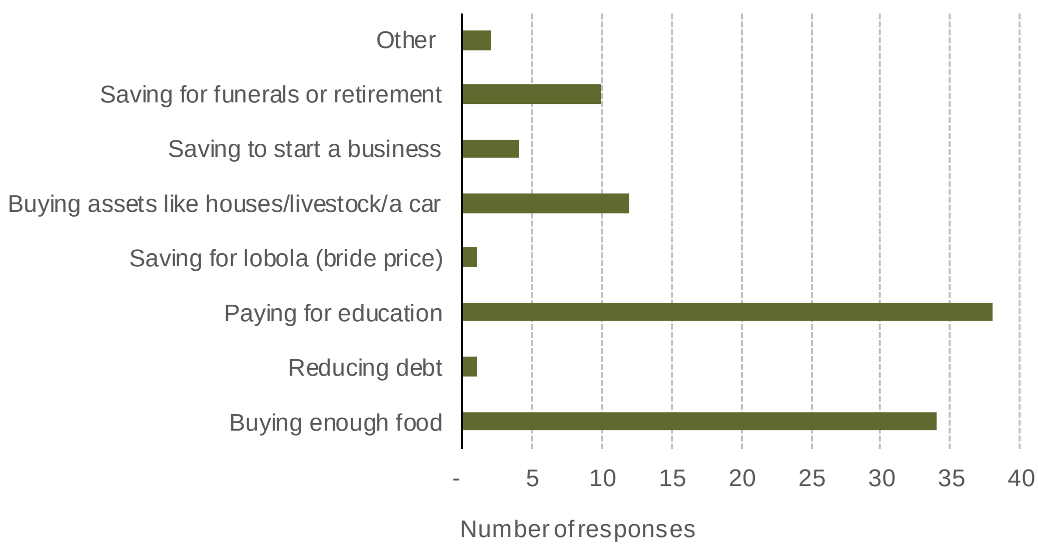
> ... sometimes buying maize when you are at home, somebody becomes hungry in need of maize, then you say let's do barter trade, give me a chicken or 2 chickens, I'll give you a bucket of maize, now the chickens are home they will lay eggs and multiply, then someone will come up and say you are wearing a nice blanket, then she's going to say another one is there at home I can give you mine which is at home (Audio inaudible) if I give you this blanket my husband is going to kill me, or my son, so in order for me not to fight with my husband give me a goat, then we are progressing in that way.
>
> *Zimbabwe male focus group*

There was however some evidence that remittance money was being used to support farming activities in Zimbabwe. Cash flows in farming are highly cyclical, and without ready cash it may not be possible to productively farm.

> If I don't send money and I know that there's poverty, how will they survive because even if they farm, they won't have money to go to the fields, so it would be hard for them.
>
> *Zimbabwe female focus group*

The bulk of the money sent home was being used to finance everyday household survival, in particular school fees, groceries and utilities. Money sent home was described as being spent in its entirety, with no savings.

Figure 3: What are the most important financial goals of the household?



Source: Africa Corporate Advisors

Given that food and education were identified as household spending priorities, it is sobering that almost all households reported that it would be either moderately or very difficult to meet these financial goals. 92.5% of respondents felt that the receipt of remittances would help them to achieve these financial goals, and for 11 out of 40 individuals, remittances were one of the primary means for meeting financial goals.

Key research themes

While the Lesotho, Malawi and Zimbabwe remittance markets are in many ways very different, a number of themes as regards the impact of remittances on poverty can none-the-less be identified:

- ***Access to the cash economy:*** without access to cash, households need to rely on inefficient bartering systems, and cannot access many cash-only markets. For many remittance recipients, access to goods such as fertilisers and education are predicated on having access to sufficient cash, and migrant remittances are often the best available source of such cash income. The cash supplied by remittances thus enables access to these product and service markets, which have knock-on effects in terms of agricultural productivity and the development of human capital.
- ***Goods trading and price differentials:*** migrants often find it advantageous to remit at least partially in goods. Goods supplied in South African markets are often sufficiently cheaper and/or of higher quality to make remitting them worthwhile, either for own use or for on-sale. Tariff barriers between South Africa and markets in Lesotho, Malawi and Zimbabwe are limited, but in practice, in a number of markets various types of border taxes are imposed on imported goods, tending to increase prices. Non-tariff barriers also often tend to decrease the competitive functioning of markets.
- ***The primacy of education – preparing children to migrate?*** In all three of the markets examined, there was a clear link between remitting behaviour and educational spending. Remittances were often explicitly intended to help meet education expenditures, possibly because education fees are one of the primary cash expenditures of many households, and remitters are an important source of access to the cash economy.
- ***Food security and frequency of remitting:*** Remittances play an important role in improving food security, but where the origin household farms, remittances may do more to support food security by paying for seasonal agricultural inputs, and helping recipients to grow their own food. This dynamic is one of the reasons that migrants from Malawi, which is less urbanised and more agricultural, remit less frequently than migrants from Lesotho and Zimbabwe.

- ***Remitting, financial exclusion and financial innovation:*** Frequent remitters are often sending home large proportions of their earnings, in order to meet financial objectives (like feeding their children) that are very close to their hearts. As a result, despite the fact that poverty and migration status may lock them out of formal financial markets, they are well informed financial consumers who are happy to switch service providers if a better offering becomes available. These characteristics put remittance markets at an interesting juncture in the financial exclusion debate. For financially excluded migrants, the formal financial product which they would access first, and often need with some urgency, is remittance services. Remittances thus have the potential to be a gateway into the formal financial sector for many of the excluded.
- ***Heterogeneity of markets and need for tailored approaches:*** In the three markets examined, the role played by remittances and the manner in which remitting occurred differed quite substantially. Any program aimed at improving the ability of remittances to reduce poverty must take into account the wide variances in different markets, and prioritise interventions in accordance with local conditions and requirements.

Conclusions

Remittances play a complex role in poverty alleviation. The ability of desperate people to "vote with their feet" and migrate to seek economic opportunities provides an important safety valve to communities experiencing economic or political shocks, or sustained poverty. A range of motivations, the most important of which is probably altruism, then spur these migrants to send money home to support those left behind, and these funds play critical roles in ensuring food security and educating children, among other objectives.

However, the act of remitting can't address the fundamental reasons which drive largescale economic migration in the first place, namely lack of economic opportunities. While migrants are more likely to invest in their home communities than others, if the home business environment is difficult then there will be few good investment opportunities to be had. Merely sending more remittances home does not address this problem, and can create additional issues, particularly if asset price bubbles form as a result of remittance inflows.

The three economies examined in this report are all impoverished and display various types of economic vulnerabilities. In all three, remittances play a vital role in supporting at-risk households, and in Lesotho and Zimbabwe, are also of significant macroeconomic significance. By keeping children fed and educated, remittances help to improve the long-term growth prospects of impoverished nations, and also play some role in mobilising economic activity via entrepreneurship, albeit to the extent allowed by the local economic climate. Facilitating the development of more affordable and efficient remittance markets thus continues to be an important pro-poor policy initiative.

1. Introduction

Households in sub-Saharan Africa have a long tradition of cross-border migration and associated remittances. During periods of economic or political instability, or simply when opportunities at home are scarce, the funds remitted by migrants are a lifeline that can help keep food on the table, children at school, and roofs over heads. However, finding a way of getting money home has often been a complex and expensive process, and those at the bottom of the socio-economic ladder, with the least access to financial services, have often struggled the most to access remitting systems.

This report provides analysis on the impact that cross-border remittances make to the lives of households in Malawi, Lesotho and Zimbabwe, and the role that access to financial services plays in shaping that impact. Section 2 begins by examining the academic literature on the impact remittances have on developing markets. Section 3, 4 and 5 then examine the specific impact of remittances on the markets of Lesotho, Malawi and Zimbabwe respectively, based on desktop research, database analysis and fieldwork in the countries concerned (it should be noted that the methodological approach to the fieldwork is described in Appendix 1). Section 6 concludes.

2. Understanding the impact of remittances on poverty

Remittance flows potentially have an economic impact at a number of levels. Their first and probably most substantial impact is on the households which receive them, both in terms of current consumption patterns and in terms of potentially facilitating a permanent move out of poverty. The larger the scale of remittance flows, the more likely they also are to have an impact at the macroeconomic level, and the precise nature of that impact can be felt through a number of channels, some positive and some negative. In this section, we examine both sources of remittance impact, and in addition, we reflect on the interaction between access to finance, financial deepening and remittance market development.

2.1 Paths from poverty

Remittances are an important tool for poverty reduction. The act of migration itself, and then the remittances which follow it, are often a deliberate attempt to improve household economic circumstances. As such, the decision to migrate and remit is often taken at household rather than individual level.

Households in poverty typically have a limited ability to save or access debt financing in order to buffer themselves from potential financial shocks. An important means of reducing the riskiness of income streams that is available to poor households is income diversification, and Ellis (2003) points out that migration is one of the main mechanisms open to poor households to diversify income in this manner.[13] The migrant, particularly when they establish themselves in a different country, is not exposed to the political and natural disaster risks of their household of origin, and frequently can find employment in a very different kind of productive activity with a very different risk profile. While no longer living with their family of origin, the migrant nevertheless is still in many ways a member of what has now become a "stretched" household.[14] Because of its role in reducing the financial risks facing a household, the mere presence of migration and remittances is thus arguably a component of poverty reduction. The manner in which remittances are used then may also contribute to this role.

Some commentators argue that it is not possible to separate out the way in which cash remittances are spent, as they are fungible, and thus by increasing household income may increase expenditure even on items which are not explicitly targeted for remittance outlays.[15] However, more recent research suggests that not only is it possible to isolate what remittances are spent on, but that the way in which remittances are spent differs from other sources of income.

The theory is that households undertake a form of "mental accounting"[16] when deciding how to spend income. In this mental accounting framework, the source of income/wealth affects the way in which it is treated by the household. For example, if a particular inflow is viewed as a windfall, rather than regular income, it is more likely to be saved than used to finance day-to-day household expenses. Households are also typically less likely to spend money that has been saved on consumption items.

[13] See also the discussion in (Ratha, 2011, p. 4)
[14] (Crush J. , 2012)
[15] Stark 1991, as discussed in (Rapoport & Docquier, 2005)
[16] (Davies, Easaw, & Ghoshray, 2006)

Davies et al (2006) suggest that remittances are likely to be placed in their own mental accounting category, for the following reasons:

- The remitter may specifically ask for the money to be treated differently
- The money is earned by someone else. If the remittance is seen as a sacrifice on the part of the remitter, it may be more likely to be saved or spent prudently; whereas if it is seen as a gift that the remitter can easily afford, it may be more likely to be spent on a "luxury" item
- Remittances may also be viewed as a more risky source of income, particularly if they are received infrequently, which would increase the likelihood of remittance income being saved rather than used for consumption expenditure

Davies et al (2006) tested whether remittance income was treated differently than other sources of income in Malawi. Analysis of survey data found that remittances were more likely to be saved than other forms of income, that remittance receiving households did not consume out of their fixed assets (while all other households did), and that remittance receiving households saved more than households of similar income levels. In addition, low income households receiving remittances spent more on education than their counterparts. As summarised in Ratha (2011, p. 4), these kinds of results are supported by other research, which in some cases has found that remittances are spent disproportionately on health and education, for example.

Remittances and asset accumulation

To the extent that remittances affect household investment patterns, they tend to increase the household's portfolio of assets. This is likely to be a particularly important way in which remittances facilitate paths from poverty, as the accumulation of such assets is increasingly understood to play a role in determining which households are able to escape poverty. The kind of assets which are of relevance "are often categorised between five or more different asset types owned or accessed by family members: human capital (skills, education, health), physical capital (produced investment goods), financial capital (money, savings, loan access), natural capital (land, water, trees etc.), and social capital (networks and associations)."[17] A large part of the reason that such asset accumulation is important is that holding more assets allows households to derive income from a wider range of sources, and by thus diversifying their income streams, reduce their overall risk. More income streams may also translate into a higher absolute level of income. More substantial holdings of assets such as land, livestock, education levels, access to better roads and better rainfall, and amount of male labour in the household all seem to improve the ability of households to leave poverty.[18]

Ellis (2003) spells out the link between asset accumulation, poverty reduction, migration and remittances as follows:

> *"In general terms, the higher the level and the more diverse the assets owned by the household, the greater its capacity to manage risk and cope with shocks i.e. the less vulnerable it is. So far, we have referred to migration principally in terms of one category of asset, namely labour, the mobility of which helps to ameliorate seasonality and risk. However, of course, the asset effects of migration go much further than this. The earnings obtained from migrating, and the remittances sent back by migrants to their resident families, are critical to maintaining or raising the level of other assets: savings, land, equipment, livestock, education of children, and so on. Migration also widens social networks and consequently increases so-called social capital."*[19]

A number of studies have found evidence to confirm this relationship between the receipt of remittances and the accumulation of the assets which can help households to leave poverty. Examples of such findings are listed below.

[17] (Ellis, 2003)
[18] Dercon (2002, 2006), discussed in (Narayan & Petesch, 2007, p. 87)
[19] (Ellis, 2003)

- In Mexico and El Salvador, the receipt of remittances has been found to improve school attendance levels, reduce the likelihood of children leaving school, and improve child literacy rates[20]
- In Malawi, Dinkelman & Mariotti (2016) found that children in areas where recruiting for South African mines had taken place (and thus remittances had been repatriated) had gained more years of schooling than those in districts without recruiting stations[21]
- Ellis (2003) cites studies which found that remittances had been used to undertake improvements in the quality of agricultural land, purchase agricultural inputs that improve output, and invest in agricultural equipment; as well as fund education
- A 2002 study of Mexican data found that remittances increased the amount of "accumulated schooling," and that "the gain is the highest for the categories of children traditionally at risk of being dropped from school, i.e., girls and older children (13 to 15 year-olds)"[22]
- Rapoport and Docquier (2005) cite multiple studies (in Tunisia, Turkey and Mexico) which find that money saved by migrants is frequently invested in entrepreneurial activities on return to the home country. In many cases access to financial services is poor, and thus savings from remittances are the only available means of start-up capital
- Crush et al (2010) found evidence of remittance funds establishing and sometimes supporting spaza shops, shebeens and taxi businesses in Lesotho, as well as remittance earnings being used to establish micro-lending businesses (however, the level of such entrepreneurial activities found was relatively low)
- Ratha (2011, p. 63) cites multiple studies which have found links between remittances and investment, including spending on housing in Guatemala; microenterprise capital in urban Mexico; and investments in agricultural land in Pakistan.

[20] Various studies, as per (Narayan & Petesch, 2007, p. 315)
[21] (Dinkelman & Mariotti, 2016)
[22] Hanson and Woodruff (2002), supported by Cox Edwards and Ureta (2003), as discussed in (Rapoport & Docquier, 2005, p. 70)

It should be noted that identifying investment patterns by poor households can be complicated by the fact that items such as bicycles and sewing machines, which are typically classed as consumption items when purchased by middle class individuals, are often forms of investment in micro-enterprises by the very poor. Livestock purchases can also be a significant form of asset accumulation, and have a traditional role as a means of saving in many communities in sub-Saharan Africa. Ellis (2003) observes that "numerous studies have observed that moving out of poverty is a cumulative process, often achieved in tiny increments," and that livestock accumulation is frequently part of this process for the rural poor. A discussion of the role of micro-credit in accessing such ladders out of poverty in East Asia includes the following observation:

> *""The Grameen Bank approach to micro-credit is by now well known. What may be less well understood is that a large share of the initial loans is invested in animals. Across projects and countries in Asia there is an ideal progression that even the poor aspire to. It starts with ducks and chickens; then a few goats are kept for milk or fattening and to slaughter for a day of sacrifice; next a milch cow; then a bullock for ploughing in cooperation with another one-buffalo family; then two bullocks, which can be used to plough the fields of others. An example is given of one Micro-finance institution in India, where more than two thirds of the loans in the first and second loan cycles were invested in animals."*[23]

The relationship between asset accumulation and reducing extreme poverty has been field tested as a component of the graduation model, an intervention method developed by the Bangladesh Rural Advancement Committee (BRAC) and subsequently used by CGAP.[24] The core components of the graduation model are as follows:

- Effective targeting of the poorest households
- Supporting consumption through cash or food transfers, to reduce immediate stresses that make households less likely to take those opportunities that may be available

[23] (Todd, 1998)
[24] (Hashemi & de Montesquiou, March 2011)

- Introducing savings programs, to create financial buffers for households
- Skills training and regular coaching
- An **asset transfer**: "Transferring an asset to help participants jump-start a sustainable economic activity is a critical element of the graduation model…. The most common asset transferred across all pilots is livestock. Pilots have also offered seedlings and other agricultural inputs, sewing machines, and a stock of commodities to start small shops."

This approach has to date been used in programs in Bangladesh, Ethiopia, Peru, India, Ghana, Pakistan and Honduras, and except for Honduras, participants have "reported increased income, greater access to food, reduced stress levels, and happier lives as a result of the program."[25]

Remittances and consumption expenditure

While remittances play an important role in facilitating investments in productive assets by migrant-sending households, it should however be acknowledged that the vast majority of remittances are typically used to finance day-to-day living expenses. Many migrants are simply not able to earn enough to accumulate substantial funds for investment, as the following study in Lesotho found:

> *"The female migrants concurred: "Money that we send home is not used for farming nor for business." The money is "all used for family needs and there is always none left to start a business." The fact that so few households in the national survey invest in business activity certainly bears this out. One woman stated quite categorically that, "remittances are not used for business purposes, whether big or small. Money is often sent to cover certain needs. The money that is sent is little and after all is done, nothing remains to start a business." In many cases, migrants remit whatever they can and there is little or any surplus at the end of the month to save, invest, or to establish a small enterprise."*[26]

[25] http://www.cgap.org/blog/good-news-about-graduation-approach-and-what%E2%80%99s-next
[26] (Crush, Dodson, Gay, Green, & Leduka, 2010)

Internationally, studies suggest that on average only between 5 and 10% of remittances are invested in assets such as housing or micro-enterprises,[27] a fact which is sometimes used to argue that remittances do not play a significant role in promoting development. As Crush (2012) points out, "not only is this an extremely narrow perspective, it also means that the food needs of households (and their food security more generally) are rarely given much consideration as development objectives and outcomes."[28] To the extent that remittances spent on food prevent the stunting of children in particular, they are arguably a very important form of investment in human capital, without which later investments in education, for example, will not be productive.

Insights into the potential impact of remittances on the development of human capital, simply by making more consumption possible, can be derived by examining the impact of consumption support programs such as South Africa's child support grant (CSG) system. A number of studies have now been conducted on the impact of this program, and results in most cases show strong evidence of improved human capital development outcomes. Early results by van der Berg (2007) showed that the number of children whose parents reported that the child had gone hungry in the last year dropped from 31% in 2002 to 23% in 2005, as the scope of the program was increased.[29] More recently, research conducted for the Department of Social Development found the following impacts on children in households receiving the CSG:[30]

- "improves height-for-age scores for children whose mothers have more than eight grades of schooling"
- "Children who were enrolled in the CSG at birth completed significantly more grades of schooling than children who were enrolled at age six, and achieved higher scores on a math test"

[27] (Narayan & Petesch, 2007, p. 313)
[28] (Crush J. , 2012, p. 6)
[29] (van der Berg, 2007)
[30] (DSD, SASSA and UNICEF, 2012)

- "Children enrolled at birth whose mothers have eight or more grades of schooling have a significantly lower likelihood of being ill relative to otherwise comparable children enrolled at age 6"
- "Receipt of the CSG by the household reduces adolescent absences from school"
- "Analysis of adolescent risky behaviours provides evidence of the Child Support Grant's impact in significantly reducing six main risky behaviours – sexual activity, pregnancy, alcohol use, drug use, criminal activity and gang membership"

Given the value of these kinds of effects of increased consumption expenditure for the very poor, it is thus not surprising that expenditure of remittances is often focused on improving household consumption rather than making investments.

It should also be acknowledged that the places from which migrants come are often not hospitable environments for investment. If the investment environment at home is bad enough, it may in fact be more sensible for migrants to save to invest in their destination country, and only send enough money back home to cover the living costs of recipients.[31] These issues are covered in more depth in section 2.3.

2.2 Access to finance and remittances

The senders and recipients of cross-border remittances often have difficulty accessing formal financial services. Not only are such individuals often extremely poor, which may be sufficient in and of itself to lead to exclusion from financial markets; but the fact that senders are foreign nationals in the country in which funds are earned means that there is an additional dimension to accessing financial systems, which can be prohibitively difficult to navigate if the migrant's legal status is not perfectly in order.

For these reasons, a large proportion of remittances tend to travel via informal channels. Recent estimates suggest that just over half of all remittances sent from South Africa to Lesotho, for

[31] (Crush, Dodson, Gay, Green, & Leduka, 2010, pp. 72-73)

example, travel via informal channels, while three quarters of Zimbabwean remittances from South Africa are informal, as is more than 80% of money sent to Malawi.[32] There are several opportunity costs experienced when remittances travel informally. The most immediate of these is the increased risk of theft or loss of the remittances, which is substantially higher with informal channels. These factors may contribute to the fact that research has found that having a bank account tends to increase the amount of remittances sent.[33] A number of authors have also found that, when funds are sent via formal channels such as banks, a proportion of the remittance is often saved. Informal remitting also imposes costs on a system-wide basis, as an opportunity to improve financial inclusion levels is missed, and funds which would otherwise be made available for on-lending in the formal financial system are instead held as cash.[34]

In practice, there appears to be substantial complementarity between the growth of remittance markets, and the development of financial systems. Aggarwal et al (2006) used data on formal remittances in 99 countries for the period 1975 to 2003, and found that remittances tended to increase both the size of bank deposits, and the ratio of credit to GDP. A similar study on the Mexican market in 2007 found that remittances "are strongly associated with the depth and breadth of banking services in Mexico…The most robust impacts relate to the placement of bank branches, the number of accounts and the deposit to GDP ratio."[35] These results have been duplicated in African markets as well. A review of 44 African countries from 1975 to 2004 found that "remittances promote financial deepening in the region, after controlling for macroeconomic and institutional variables that are commonly used to explain financial development in low-income countries."[36]

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[32] (Truen, Kgaphola, & Mokoena, 2016)
[33] (Moser, 2007, p. 231)
[34] (Ratha, 2011, p. 72)
[35] (Demirguc-Kunt, Cordova, Peria, & Woodruff, 2007)
[36] (Gupta, Pattillo, & Wagh, June 2007)

Some studies suggest that another way in which remittances affect access to finance is via credit markets. To the extent that credit allows investment in productive activities, this can have a knock-on effect on the economy of the receiving country, which is discussed further in the next section.

2.3 Impact at macroeconomic level

For a number of countries with very high levels of labour emigration, remittance inflows are of a substantial enough size to profoundly affect the structure and health of the macroeconomy. There are several transmission channels through which remittances can have macroeconomic effects, as discussed below.

Consumption spending and "Dutch disease"

In most countries the bulk of remittances are spent on consumption items, rather than saved or invested in productive assets. If these consumption items are imported goods, the net impact of remittance inflows on the receiving country is substantially lessened, as local producers do not experience increased demand. For example:

> *"Remittances to Lesotho are largely a zero-sum game. The money comes in from South Africa and is spent mostly on South African or other foreign imports, especially foodstuffs and clothing."*[37]

This pattern of consumption expenditure on imports, if large enough, will tend to worsen the terms of trade of the recipient country over time. Ultimately, this may cause a depreciation of the local currency, making imported goods more expensive, and decreasing the purchasing power of all households. Theoretically, it is thus possible for inflows of capital to make a country poorer rather than richer (a version of what is known as "Dutch disease"). However, research has shown that in

[37] (Crush, Dodson, Gay, Green, & Leduka, 2010, p. 68)

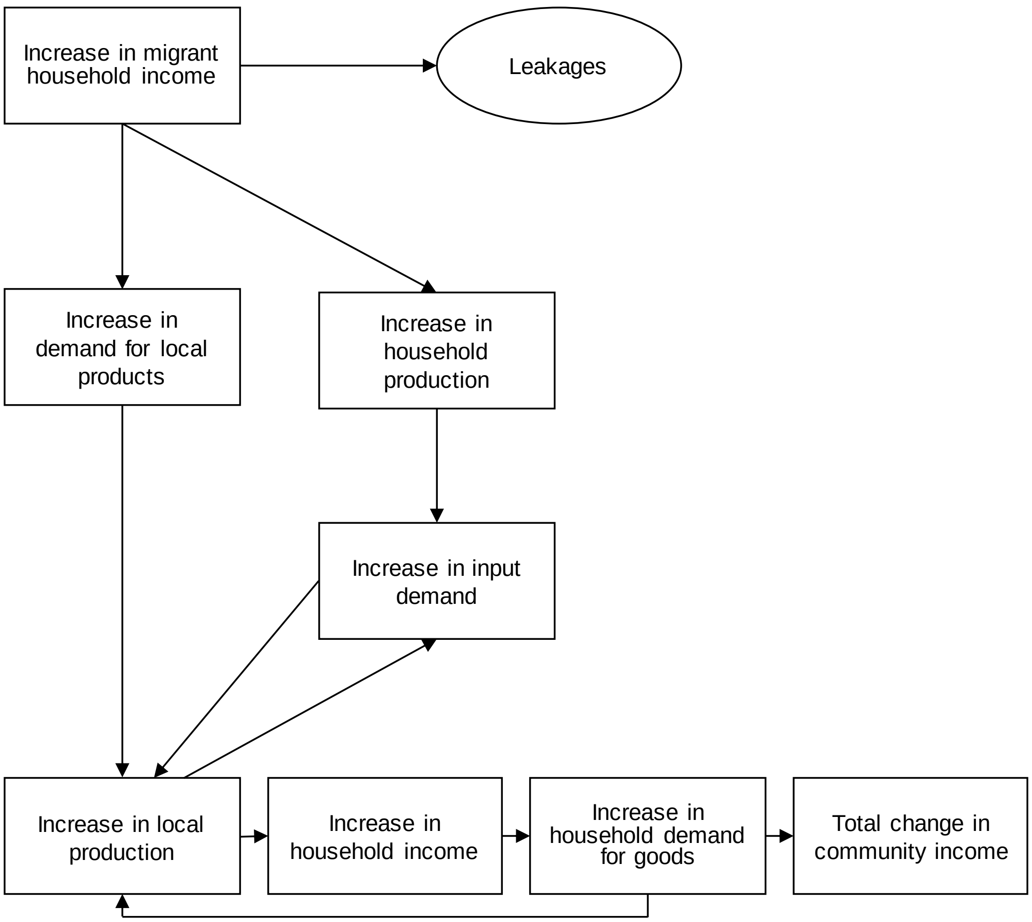
practice, it is extremely difficult to create the preconditions for this to occur, and thus that remittance inflows should generally be regarded as having a positive impact on receiving countries' income.[38]

A key mechanism which ensures that remittances typically have a positive impact on local income is the multiplier effect of consumption activity. As shown in the figure below, remittances tend to at least partially increase spending on locally produced goods and services, which supports local productive activity, and tends to increase community income levels (conversely of course the more spending is on imported goods, the more funds leak from the local economy, and the smaller the multiplier effect).

Studies suggest that, internationally, the expected remittance production multiplier is 1.5-2.1.[39] Thus even when spending on imports is fairly substantial, and the exchange rate deteriorates as a result, remittances should nevertheless have an impact on local productive activity, via increased income levels.

[38] (Bhagwati, Brecher and Hatta, 1983) as discussed in (Rapoport & Docquier, 2005, p. 51)
[39] (Narayan & Petesch, 2007, pp. 326-7)

Figure 4: Effect of remittances on community income



Source: Zarate-Hoyos (2005), as discussed in (Narayan & Petesch, 2007, pp. 326-7)

The impact that remittances have on both consumption and production patterns at household level can be complex, particularly when remittances funds are used to increase production for own consumption. Gubert (2005) summarises a number of studies which have found varying but usually positive impacts on rural development and farming in particular, related to receipt of remittances.[40] Similarly, evidence has been found between receipt of social grants in South Africa (which arguably are a form of transfer equivalent to remittances) and the initiation of farming activities. In households living on tribal lands, receipt of an old age pension has been found to increase the probability of undertaking farming activities, and the use of fertilizer in such farming activities. Moreover, the authors found no displacement of wage labour activities: "the increase in home production arises among households that would otherwise not have worked or farmed, so that the additional farmers represent new informal economic activity."[41]

Investment markets

Studies suggest that migrants often display "home bias", and are more likely to invest in their home country than foreign investors.[42] Where migrants invest in new businesses, they may also benefit from the experience, skills and market insights which they developed while working in the country to which they migrated. However, there is a limit to the ability of even the most entrepreneurial migrant to productively invest in the home country, if investment conditions are particularly hostile. As pointed out by Ballard (2005):

> *"emigrants from such areas have displayed extremely high levels of entrepreneurial ability in the course of gaining entry to, and making the most of, opportunities in the global labor market. Set in that context, the suggestion that those abilities simply evaporated the moment migrants returned to their home base makes little sense. A better explanation is that despite all their efforts to deploy their entrepreneurial skills on a more sustainable basis, they were largely stymied by local obstacles."*[43]

[40] (Gubert, 2005, p. 53)
[41] (von Fintel & Pienaar, 2016)
[42] (Chimhowu, Piesse, & Pinder, 2005)
[43] (Ballard, 2005, p. 112)

In such circumstances, migrant-sending areas may be locked into cycles of dependency, where remittances are necessary to fund the day-to-day expenditures of local households, but there are insufficient opportunities to make productive investments in the local economy. In such areas, migration may become a permanent feature of life for generations of young workers, and the local economy will remain exposed to any fluctuations in the fortunes of such migrants. Chimhowu, Piesse and Pinder (2005) describe such an outcome in Jullundur in India, where the appearance of prosperity is funded by remittances, but has not improved the productive base of the local economy. Such investments as are undertaken are in assets which are not directly productive, such as housing.

Credit markets

Very poor communities are often subject to a number of forms of economic exclusion, including exclusion from financial markets. If they are involved mainly in subsistence activities, they may even struggle to access the cash economy. For these communities, remitting migrants are often a particularly important source of access to such markets, as they provide cash and sometimes savings ability which are not accessible otherwise.

Analysis undertaken of a cross-section of 73 developing countries for the period 1975-2002 provides confirmation of this hypothesis. Specifically, the study found that remittances promote growth in countries with less developed financial markets, which suggests "*that remittances help alleviate credit constraints on the poor, substituting for the lack of financial development, improving the allocation of capital, and therefore accelerating economic growth. The findings suggest that there is an investment channel through which remittances can promote growth where the financial sector does not meet the credit needs of the population*."[44] A further study examined the economic impact of remittances in Argentina, Peru and Brazil, where Argentina was found to have the least developed financial markets,

[44] (Giuliano & Ruiz-Arranz, 2005)

and Brazil the most. It found that the impact of remittances on GDP growth was strongest in Argentina, and weakest in Brazil – thus supporting the contention that remittance inflows help to bridge failures in financial markets.[45]

2.4 Summary conclusions

Remittances have not always been viewed favourably from a development perspective, with many commentators expressing concern over the hollowing out of economically active populations from the communities from which migration occurs, and the possible subsequent inflationary pressures which remitted funds may cause in those communities. However, the literature increasingly reflects a more nuanced view of the economic role played by remittances. A key insight has been that, while remittances can and do play a role in supporting development in origin communities, remittances alone are not sufficient to deal with the often severe economic problems that spurred migration to begin with. Any examination of the impact of remittance receipt on entrepreneurship, for example, must acknowledge that the quality of the business environment may have a severely dampening effect. Even so, evidence is growing that remitted funds tend to support productive investments and activities in origin communities, via a number of channels:

- Human capital formation: by supporting household consumption and educational expenditures, remittances support better human capital outcomes in recipient households
- Improving market access: cash remittances improve the ability of recipients to access formal markets, and in doing so improve their productive capacity. For example, remittances may provide the cash necessary to purchase fertilisers and improve agricultural output, or may mitigate against the impact of lack of access to financial services
- Asset accumulation: the accumulation of both human capital and physical assets can play an important role in facilitating the movement of households out of poverty, and the receipt of remittances may help to finance such asset accumulation

[45] Calderon et al. (2007) as discussed in (Motelle, June 2011, p. 242)

With these considerations in mind, we now examine the impact of remittance receipt on the very different economic environments in Lesotho, Malawi and Zimbabwe respectively.

3. Lesotho

Lesotho is a small country, surrounded entirely by South Africa, with only 2.1 million inhabitants. 27% of the population is urbanised, and GDP per capita in USD in 2014 was $1034.[46] Remittance inflows have historically been a major source of foreign exchange, accounting for as much as 44% of GDP as recently as 2006, for example.[47] These substantial remitting levels were driven by equally substantial migration to South Africa. However, the pattern of this migration has changed in recent years.

The backbone of Basotho remittances from South Africa has traditionally been the mining industry, which employed large numbers of Basotho. However, these numbers have declined rapidly. For example, while almost 65 000 Basotho were employed on South African mines in 2000, by 2015 that number had declined to only 27 948.[48] Partially compensating for this decrease in mainly male migrants to the mines, the level of female migration has been increasing.[49] However, female migrants are more likely to be involved in lower-paid occupations such as informal trading or domestic work,[50] which affects the amount they are able to remit. Migration dynamics have been complicated by the HIV/AIDS epidemic, which currently affects approximately 23% of adults, the second highest incidence in the world.[51] Migration has hastened the spread of the disease, and in many cases has caused the death of remitting migrants. Households which have lost a male breadwinner to AIDS may then be more likely to see the subsequent migration of a female household head, who again is likely to be vulnerable to the disease. The overall impact is to increase poverty and dependency, both making remittances more important and removing the migrants who are able to generate such remittances.[52]

[46] World Bank Databank, all data for 2015 unless otherwise specified.
[47] Central Bank of Lesotho online statistical sources, World Bank Databank, DNA calculation
[48] Central Bank of Lesotho online statistical sources
[49] (Dodson, et al., 2008, p. 14)
[50] (Dodson, et al., 2008, pp. 13, 26)
[51] (UNAIDS, 2014)
[52] (Crush, Dodson, Gay, Green, & Leduka, 2010)

Compared to other migrants based in South Africa, Basotho seem to remit more, even after the effect of highly-paid mining employment on the ability to remit is taken into account.[53] This may reflect the close proximity of many migrants to their origin communities, enabling them to maintain strong ties with home, which facilitates more remitting.

3.1 Remittance markets

Lesotho has highly active remittance markets, with formal operators including banks, money transfer agencies, mobile operators, retail stores and Teba Lesotho, which is a dedicated channel used by mining migrants. The destination of most migrants is South Africa, and many remain in close proximity to the Lesotho border. As a result, a relatively large proportion of remittances are carried home by hand by the remitter, which can typically be accomplished in a relatively low cost round trip, over weekends or even shorter periods of time. Other informal channels such as taxi drivers are also used. In 2010, one commentator estimated that only 5% of remittances to Lesotho flowed through formal channels,[54] as a result of these market features.

The formalization of these informal flows represents a market opportunity for the financial sector. Operators suggest that low transaction costs and speedy transfer of money are key product features for most remittance customers in the formal market. In this regard, money transfer operators (Western Union, MoneyGram and more recent entrant Mukuru) and mobile money players have a competitive edge over commercial banks, whose traditional electronic financial transmission (EFT) and SWIFT products are not only more expensive and slower, but also require clients to hold accounts with them. Some banks are partnering with agencies to achieve a more attractive product offering (for example, Standard Lesotho Bank is already offering MoneyGram services and is looking to sign on more service providers).

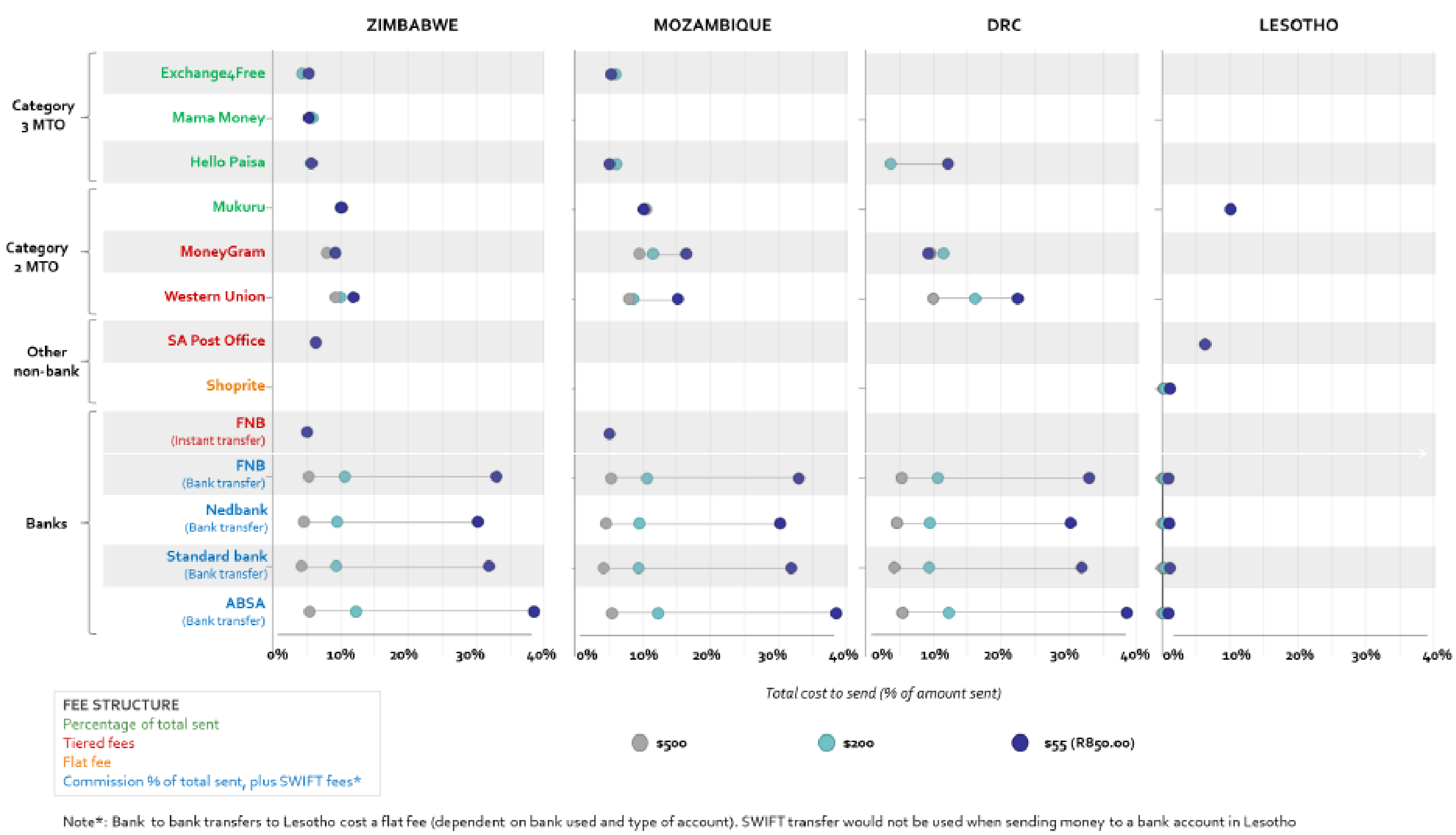
[53] (Dodson, et al., 2008, p. 29)
[54] (Crush, Dodson, Gay, Green, & Leduka, 2010)

Mobile companies Vodacom and Econet entered the market in 2015 to offer money transmission services via the mobile money system developed initially in east Africa by Safaricom. Lesotho Postbank plans to launch at least two new services before the end of 2016. Shoprite (a supermarket chain) entered the remittance market in March 2015 in a scheme facilitated by consultations between the reserve banks of South Africa and Lesotho,[55] and has experienced considerable success since then. The group handled a total of M39.6 million in 2015 and had facilitated remittances of M76.8 million by September 2016. There is thus substantial evidence of growth and innovation in the remittance market in Lesotho, which is likely to be contributing to increased formalization of remittances over time.

As shown in the figure below, compared to other regional remittance corridors, remittances to Lesotho via formal channels are particularly affordable. This is no doubt influenced partially by the extent of financial sector innovation in this market, and the associated high levels of competition. However, Lesotho is also influenced by the fact that most remitters are based in South Africa, and regulatory barriers to the transmission of money between South Africa and Lesotho are fairly low, because they are both members of a Common Monetary Area.

[55] (Central Bank of Lesotho, 2015, p. 55)

Figure 5: Total cost to customer to send US$55 (R850), US$200 and US$500. Cost shown as % of the amount sent



Source: (Eighty20, 2016, p. 16)

3.2 Remittances at macroeconomic level

Remittances are extremely important to the Lesotho economy, although their relative importance appears to have been declining in recent years. As shown in Table 1 below, while remittances accounted for almost a third of GDP in 2009, by 2014 this had fallen to 17% of GDP. This reflects in part the declining employment of Basotho in the South African mining industry, which has historically been a major driver of both migration and remittance patterns. A recent estimate suggests that just under half of remittances from South Africa to Lesotho travel via formal channels.[56]

Table 1: Selected macroeconomic data, Lesotho (million maloti)

	2009	2010	2011	2012	2013	2014	2015
Current account	485	(1,160)	(1,524)	(2,988)	(1,485)	(2,477)	(2,489)
Goods	(7,114)	(8,003)	(7,124)	(10,457)	(9,940)	(11,202)	(11,599)
Services	(3,245)	(2,930)	(3,200)	(3,364)	(3,237)	(3,262)	(3,382)
Income	4,805	4,827	3,847	3,573	3,634	3,310	3,951
Current transfers	6,039	4,946	4,953	7,259	8,058	8,678	8,541
Net official development assistance and official aid	1,037	1,874	1,863	2,254	3,086	1,124	
Foreign direct investment, net inflows (% of GDP)	5.34%	1.39%	2.42%	2.38%	2.27%	4.33%	
GDP (expenditure basis)	14,509	16,404	18,602	20,222	21,677	23,647	-
Personal remittances received	**4,643**	**4,467**	**4,715**	**4,553**	**4,470**	**4,126**	**4,664**
Remittances as % GDP	**32%**	**27%**	**25%**	**23%**	**21%**	**17%**	

Source: Central Bank of Lesotho, World DataBank World Development Indicators, DNA calculations

However, even at current relatively low levels, remittances are extremely significant for the Lesotho economy. Without remittances, the size of the current account deficit would close to triple. Remittances are almost four times as large as net official development assistance and aid, and four times or more the value of foreign direct investment.

56 (Truen, Kgaphola, & Mokoena, 2016)

In recognition of the size and relative importance of remittance flows, the Government of Lesotho has undertaken policy initiatives to improve their economic impact. The oldest of these is probably the Deferred Pay Act 1979, which requires a proportion of the income of miners recruited in Lesotho to be repatriated to Lesotho. This system is administered by Teba, and it should be noted that because Teba's fees are covered by the miner's employer, it has proved impractical to try and persuade such miners to open accounts with other institutions.[57] Lesotho has also committed to the implementation of the African Union's Strategic Framework on International Migration and Common Position on Migration and Development, and has ratified the UN International Convention on Protection of the Rights of All Migration Workers and Members of their Families.[58]

Interviews with remittance operators suggests that customer due diligence requirements and balance of payments reporting requirements are felt to be major obstacles to the development of flexible products targeted at the remittance market. Know your customer requirements in effect limit commercial banks to serving only clients who currently hold accounts with them, but many potential remittance clients do not hold bank accounts. This is felt to be one of the reasons why money transfer agencies and mobile operators were experiencing substantial growth in the sector, as compared to banks. Relaxation of reporting requirements associated with the introduction of Version III of the BoP system is eagerly awaited by operators.

3.3 Remittance impact and use of formal financial channels at household level

The impact of remittances on households in Lesotho was investigated via a two-phase approach, involving focus groups with remittance senders in Gauteng in South Africa, and semi-structured interviews with remittance receiving households in Lesotho. The methodology of this fieldwork is detailed in Appendix 1.

3.3.1 Remittance senders

[57] (Nalane, Chikanda, & Crush, 2012, p. 20)
[58] (Crush, Dodson, Gay, Green, & Leduka, 2010)

The focus groups with remittance senders provided considerable insight as regards the reasons for migration. A combination of the push factors of extreme poverty at home, and the pull of better wages in South Africa for similar positions, drove most respondents. Some also migrated to join family members who were already in South Africa (the pattern of wives joining husbands who had already migrated being fairly common).

> **Moderator**: The work that you do now like Domestic work, Self- employment or working at a Fish and chips if you were you in Lesotho were you going to be able to do those kinds of jobs?
>
> Respondent: I won't be able because there's no money in Lesotho, money is this side.....
>
> ....Respondent: I won't work in Lesotho either there is no money unlike here I know that if I work 2 days at least I can make enough more whereas in Lesotho in 2 days I won't make enough, you won't make enough to buy Mealie Meal, when I'm here I can be able to buy Mealie Meal.
>
> **Moderator**: If you were in Lesotho what is it that you guys were going to be doing in terms of work?
>
> General consensus: Farming
>
> Respondent 1: When I was still in Lesotho I survived by farming Wild Spinach and there was no profit, there was no money.
>
> *Lesotho female focus group*
>
> I came here in Gauteng looking for a better life because there's nothing in Lesotho, there's no rain, and the fields are dying, I've got kids, I have to think like a man. I told my wife that "Madisebo I'm leaving, I'm heading to Gauteng to look for a job" so that my kids can live and go to school then that's when I came to Gauteng, that was the decision.
>
> *Lesotho male focus group*

In both focus groups there was a theme that was repeated a number of times, of potentially needing to resort to illegal activity to survive if staying in Lesotho. For example, male respondents spoke of theft, stock theft, and selling marijuana as being options, and female respondents spoke of the risk of recipient households turning to such measures. It is hard to know how seriously to take this without more context.

Moderator: So if you don't send the money what's going to happen?

General consensus: (Audio inaudible) they will start stealing.

Respondent 1: They will play dice then steal.

Respondent 2: Summarily you'll hear that sheep are missing then you find that they are suspecting him that he stole them because he is not working.

Lesotho female focus group

If this mention of illegal activity is accurate, it is certainly in line with the respondents' perception of how important remittances are to the survival of recipient households.

Moderator: Do they ask for money at home or you just send it or it is compulsory?

General consensus: It is compulsory

Respondent 1: It's compulsory, what will they eat, what are they going to wear?

Respondent 2: You rather sleep with an empty stomach in order for them to eat

Lesotho male focus group

In South Africa, the female group predominantly worked as domestic workers or in informal trade, and some had husbands who had previously migrated and remitted but had since lost their jobs. Both patterns are in line with the findings in Dodson et al (2008). The male group held a mixture of formal and informal jobs. In both male and female groups, most seemed to utilize networks of contacts, both family and friends, to make the move to South Africa.

Respondent 4: I left with some other guys who told me that there's a lot of money in Gauteng I sat my mother down and told her that I'm tired of eating porridge I want to go to Gauteng to see what's going on, just to take a glimpse.

Respondent 5: I have a family down there, there's my aunt who stays there, before leaving I sat with my mother and father and spoke to them that I'm going to Gauteng to look for a job.

Respondent 6: My father brought me here; he came here first, found a piece job and a place to stay, he was also brought by someone else here, as I was growing he told me that it was time for me to come as well because it's tough that side.

Lesotho male focus group

Respondents used a wide range of remittance channels, both formal and informal, and the popularity of the new Shoprite channel was evident in the groups. A number of recipients sent money home monthly, particularly if the recipient household had no other income source, but would send less frequently when work was scarce and earnings dropped.

> Respondent 8: Every month, I if I don't send it through Shoprite I send Maskolo she's the one who takes it home for me.
>
> **Moderator**: Brother?
>
> Respondent 9: I send via Shoprite but sometimes money becomes scarce you know how constructions are, sometimes they call you, sometimes they don't.
>
> **Moderator**: Do you send it every month or it depends on the job?
>
> Respondent 9: It depends on the job, if I got it I send; like now I'm not employed it has been 3 months since I've been unemployed.
>
> **Moderator**: Sir?
>
> Respondent 10: I spend most of my times at school but when there's money I send it, with me I take it to Bara where people take their taxis and ask them to put it by the bridge they will get it from there.

Lesotho male focus group

While some respondents had difficulty accessing bank accounts, bank transfers were the most commonly used form of remitting, with 16 of 37 respondents using them. Shoprite was used by 11 respondents, and was the second most popular channel. The discussions suggest that Shoprite is perceived to be cheaper and more convenient than banks.

> **Moderator**: Tell me if FNB and Shoprite are the favourite ways to send money?
>
> Respondent: With Shoprite I like it because it's closer to my family rather than taking it to Capitec because it's far in Pigsback and it's money to get there so with Shoprite it's closer, you just take one taxi or credit a taxi then pay back later.
>
> **Moderator**: So in Lesotho you can take a taxi then pay back later?

General consensus: Yes.

Respondent: It's not like you not going to pay it.

Moderator: It's nice in Lesotho so like you can take a taxi on credit

Respondent: Shoprite is nice because it's cheap because when you send R1000 it gets there like that with FNB when there's no money in the card it won't get there like that there will some deductions made maybe R50.

Lesotho female focus group

Respondents seemed to have fairly good knowledge of the range of remitting options open to them, and the relative prices and characteristics thereof. They also seemed happy to switch to more competitive offerings, which is borne out by the quick success of the Shoprite product offering.

Moderator: Take me back from when you started living here in South Africa, FNB and Shoprite are the only ways you have been sending money with ever since or you have changed? Maybe you have been using something else then switched to FNB or Shoprite?

Respondent 1: I was using Standard Bank then I realised that the fees are high so I switched to FNB and now I'm realising that FNB is becoming ill too so I prefer Shoprite.

Respondent 2: I have been using FNB not so long I heard that they took R50 so I switched to Shoprite.

Respondent 3: When I was still working as a Domestic worker I was using FNB sometimes you find that when you withdraw it has deducted R150.

General consensus: That's how it is.

Respondent 4: If it can spend a day without being withdrawn you will find it with large deductions.

Lesotho female focus group

Respondents mentioned general groceries and school fees when asked what the money they sent would be used for. Most do not dictate to the recipients how the money would be spent, and there was little consensus about whether being able to do so would affect how much they sent. Some respondents mentioned the practical difficulty of it being hard to tell what the priorities at home were as the reason for rather sending money; but a key concern seemed to be the effect it would have on family dynamics for the sender to try and dictate how money should be spent to a family authority figure.

> **Moderator**: Do you tell the people that you send the money to what they are supposed to do with the money that you sent them?
>
> General consensus: No they will decide on what they want to do with the money, they know what they want.
>
> Respondent 1: We don't know what they want.
>
> Respondent 2: They will decide on what they want to buy, if they use it carelessly it's up to them as long as they got the money.
>
> *Lesotho female focus group*

> It's better to send money because you don't know what they need.
>
> *Lesotho male focus group*

> **Moderator**: So the money that you send home, do you tell them what they should do with it or they just do whatever?
>
> Respondent 1: They will decide.
>
> Respondent 2: They will swear at you that you are disrespecting them.
>
> Respondent 3: Now that you have money you are telling us what to do.
>
> Respondent 4: You will even regret why you were telling them.
>
> **Moderator**: So this thing of you paying the school fees directly won't work?
>
> General consensus: No it won't work.
>
> *Lesotho male focus group*

While some respondents had tried to start businesses at home, they had achieved little success. Business opportunities did present themselves, particularly to take advantage of the relative cheapness of things like clothing in South Africa as compared to Lesotho. But even with these obvious commercial opportunities, the operating environment in Lesotho was very tough.

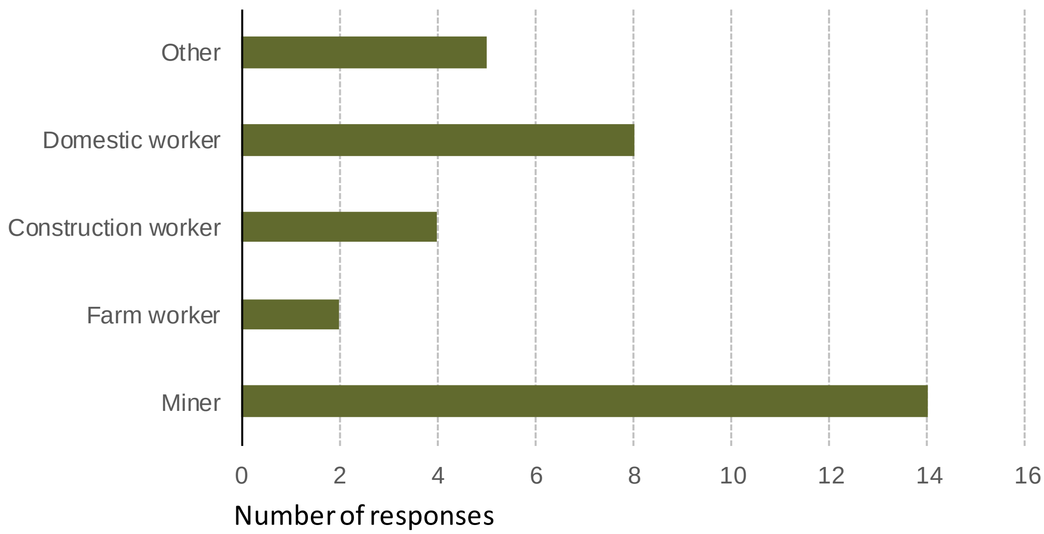
> **Moderator**: Have you thought of starting a business at home in Lesotho?
>
> Respondent 1: I once tried buying clothes this side and sell them that side but the thing is people don't have money they take on credit and pay you with things like beans.
>
> Respondent 2: I don't know what are you supposed to do with those beans you cannot buy some stock with beans.
>
> Respondent 3: Or give you 2 chickens, how are you going to stock other clothes? You are just going backwards.
>
> *Lesotho female focus group*

3.3.2 Remittance recipients

All 30 of the responding households in the Lesotho survey had at least one migrant living in South Africa. Lesotho is underdeveloped and largely rural, with employment opportunities being very scarce. Households frequently cited the lack of opportunities in Lesotho as the reason for the migrant making the decision to leave home. The majority of migrants have historically worked at South African mines, and 'miner' was still the occupation most frequently cited by respondents, despite the fact that the number of mining jobs for Basotho has been declining continuously for some time.

As a response to the loss of mining jobs, the number of Basotho women migrating to work as domestic workers has increased, which has changed the gender profile of migrants somewhat. In the Maseru district, a substantial number of respondents indicated that the migrant workers in their households were women, which had not been largely the case in the remote areas where male miners were more predominant.

Figure 6: Occupation of remitting migrant



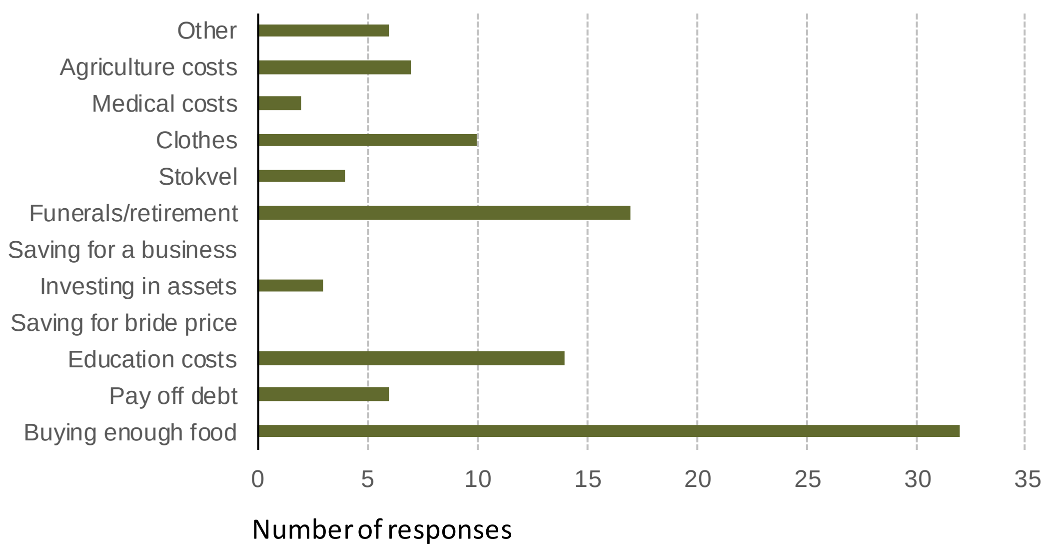
Source: Litebe survey, DNA compilation

Migrants with mining jobs have traditionally earned more than others. During the course of the fieldwork, the impact of this could be observed in the structure of the houses in which the families of mining migrants lived, which was conspicuously different from those who are domestic workers or drivers, for example. Remittances from mining migrants enabled the building of relatively big houses with cement bricks, and those who have worked for longer periods tend to have well off families. Some of them, though few, have bought vehicles, and livestock is sometimes procured using remittances.

Almost all the respondents indicated that they depend solely on the income provided by the migrant worker and their families would not have an alternative means of income. While primary schooling is free, as children enter high school the costs of education are often covered almost entirely by remittances.

14 out of 33 respondents owned some form of livestock, and for four of these households livestock holdings were substantial (the household with the most livestock owned 16 cattle, 100 sheep, 1 horse, 3 donkeys, 20 goats, 1 pig and 2 chickens). Remittances were fairly frequently used to defray agricultural costs, including paying herd boys, purchasing feed to supplement poor rangelands, and paying for medicine for livestock. As shown in Figure 7 below though, the primary financial goal of most households was simply to buy enough food, followed by education costs and saving for funerals and retirement. 28 of the households said that they were finding it difficult to meet their financial goals, which suggests widespread food insecurity in the survey group. None of the households was saving to invest in a business, although one had already successfully done so.

Figure 7: Household financial goals (multiple responses allowed)

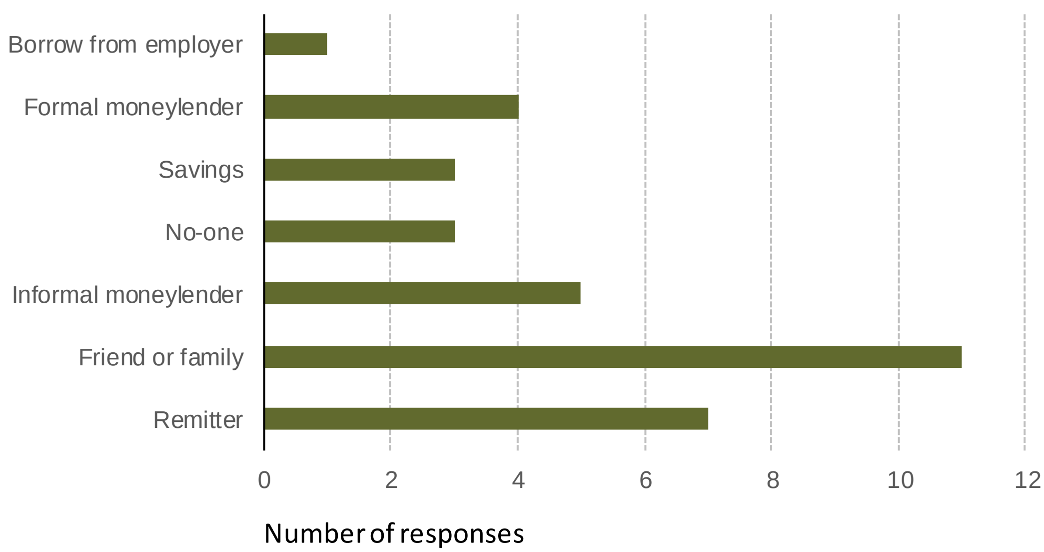


Source: Litebe survey, DNA compilation

The household which had established a small business was based in a rural area, and had purchased equipment to manufacture toilet paper with savings from remittances sent by a migrant miner. The earnings from this business had likely helped to smooth household income, particularly given recent disruptions to mining income caused by strikes in South Africa. Interestingly, this household appeared to make little use of formal financial systems, as the migrant carried funds home himself, and no one in the household had a bank account.

While livestock ownership was quite widespread, and the running costs thereof featured frequently in household financial decisions, none of the households said they would sell livestock to raise funds in case of an emergency. Instead, their preferred sources of such fund were friends and family, followed by the remitting migrant, and informal moneylenders. In many cases, they felt they could not raise more money from the remitting migrant, because they had already reached the limit of what they could send. Three households had no sources of emergency funds.

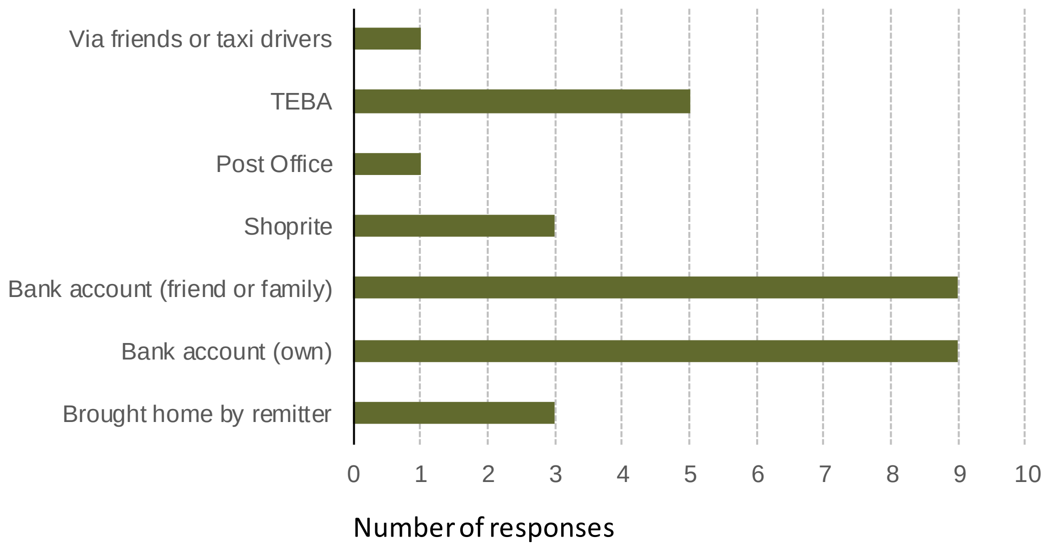
Figure 8: Source of money in an emergency (multiple responses allowed)



Source: Litebe survey, DNA compilation

18 of the respondents used bank accounts to remit, but interestingly, only nine of these individuals were using their own bank accounts, as the use of a friend or family member's account appears to be very widespread. TEBA accounts were the next most commonly used method, followed by bringing the money home oneself and Shoprite.

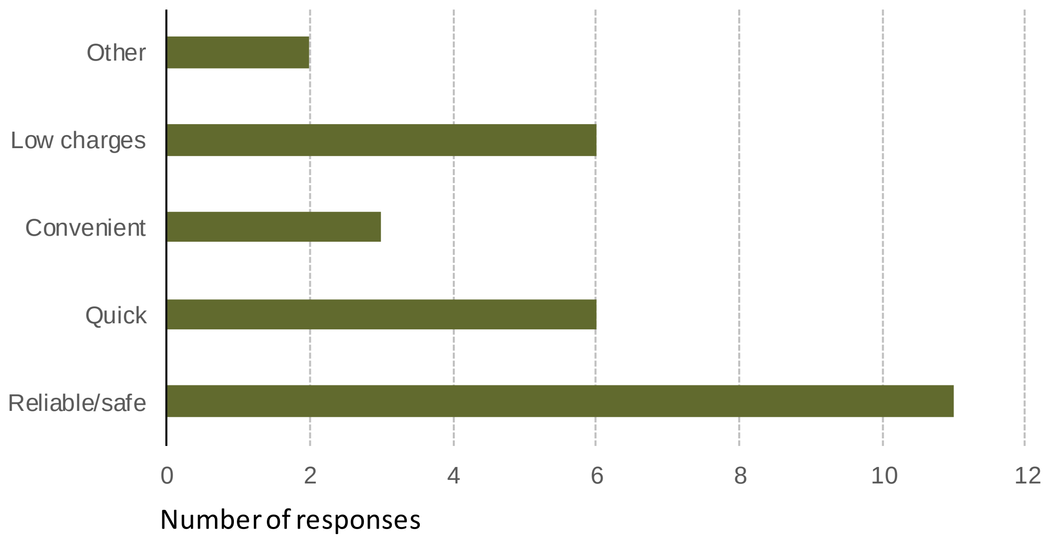
Figure 9: Primary remittance method used



Source: Litebe survey, DNA compilation

Reliability and safety was the most frequently cited advantage of the chosen remittance method, followed by the speed with which funds arrived, and affordable charges. 21 of the remitters were sending home monthly on a monthly basis, and the amount remitted at a time varied between R5 000 and R300. Five remitters were also returning home monthly or almost monthly, and another 20 were coming home at least four times a year.

Figure 10: Advantages of remittance method used (if cited; multiple responses allowed)



Source: Litebe survey, DNA compilation

3.4 Statistical evidence of remittance impact

Our first preference in analysing the impact of remittances on poverty outcomes was to conduct statistical work ourselves, on existing databases. One such database was available for analysis in Lesotho, namely the Continuous Multi-Purpose Household Survey (CMS). The CMS was collected by the Lesotho Bureau of Statistics, and contains data on household income sources (including remittances) and spending patterns, and household outcomes (for example, on educational attainment). The data was collected in four rounds of questioning over the period first quarter (August to October) of 2011/2012, through to the fourth quarter (May to July) of 2011/2012.

There were however practical difficulties with conducting statistical analysis on this data. Remittance values were collected broken down as shown in Table 2 for only three quarters of the period, and the survey asked respondents only what they had received as remittances in the last month. As shown, the resulting data shows wide variations over time, as well as between category. Cash remittances in particular drop sharply in value between the second and fourth quarters, while in-kind remittances vary more between the second and third quarters. In all cases, there is a risk that the data collected is missing major seasonal variances and certain kinds of remittance patterns. For example:

- Most people who only remit once or twice a year will not be picked up
- Remittances might peak when school fees are due, for example, and it is uncertain whether the months collected are high, low, or medium value months

Table 2: Remittances and transfers received in the month preceding the survey

Maloti, mean amounts	2nd quarter 2011/12	3rd quarter 2011/12	4th quarter 2011/12
Cash remittances			
- domestic, HH member	633	638	27
- domestic, non-HH member	273	406	46
- international, HH member	1,166	1,305	332
- international, non-HH member	569	643	39
Remittances in kind			
- domestic, HH member	419	205	335
- domestic, non-HH member	132	45	258
- international, HH member	1,761	633	1,518
- international, non-HH member	205	721	101

Source: CMS Statistical Reports, Lesotho Bureau of Statistics

Given these concerns, it did not seem likely that statistical analysis of the impact of remittance receipts using this dataset would provide meaningful outcomes. We therefore turn instead to a review of the existing literature to derive an understanding of the impact of remittances on poverty in Lesotho.

The importance of remittances to the Lesotho economy has resulted in substantial analysis being undertaken of the nature of its impact. A key early piece of research was completed by Gustafsson and Makonnen (1993), which modelled the impact on poverty and inequality should remittances to

Lesotho cease, and the migrant workers return home (and thus add to consumption expenses for the household at home). They found a 40% decrease in household consumption per capita, associated with a 14% increase in poverty, and an overall increase in inequality, the effects of which would be greater in rural than urban areas.

Mochebelele & Winter-Nelson (2000) looked at the relationship between migration, remittances, and agricultural productivity in Lesotho, in order to see what the net impact of the loss of available labour due to migration, versus the increased ability to purchase agricultural inputs, would be on agricultural productivity. They found that the predominating effect of migration and remitting was an increase in agricultural productivity, and theorised that remittance income helped households to consistently manage crops, for example as regards timely application of fertiliser. Compared to the technically feasible output level, migrant farms achieved on average 76% of potential output, versus only 64% for non-migrant farms. Furthermore, the authors concluded that "*remittances facilitate current agricultural production, rather than substitute for it. This implies that reduced opportunities for labor migration would cause not only reduced remittance income but also reduced technical efficiency in agricultural production*."

This link between remittances and purchase of agricultural inputs is confirmed by Crush et al (2010). In particular, they find widespread reported usage of remittances to purchase seeds (24.4% of households), fertiliser (18.5%) and hire tractors (12.5%), mostly to increase production for own consumption.[59] While the authors emphasize that relatively few households successfully invest remittances in productive activities – partly because funds remitted are often only sufficient to cover consumption, with no surplus left over to invest – they nevertheless report a number of anecdotal accounts of such successful investments, including the following:[60]

- An elderly ex-migrant farmer, who uses remittances from his daughter of R800 to hire workers for his farm, and earns R1 600 by selling surplus output

[59] (Crush, Dodson, Gay, Green, & Leduka, 2010, p. 66)
[60] (Crush, Dodson, Gay, Green, & Leduka, 2010, p. 66 onwards)

- Another ex-migrant farmer, who receives R3 000 from his spouse, which he uses to grow sorghum which is sold either as-is or as malt for beer brewers, and earned R3 500 in the previous year doing so
- The spouse of a miner, who receives R17 000 per year in remittances. Remittances have been invested in the following productive activities:
  - inputs to farming activities (fertilizer, labour, seed, etc)
  - a small store, which generates profits of around R24 000 per annum
  - minibus taxis – this venture was unsuccessful, and all but one of the taxis have since been sold
- the spouse of a miner, who receives R36 000 per annum in remittances. While her attempt at running a grocery store was unsuccessful, she then opened a liquor store with annual profits of R92 400
- the spouse of a migrant in South Africa, who receives R10 000 in remittances. She runs a spaza store, sells homegrown vegetables, and brews and sells traditional beer, making about R4 500 per annum in total.
- Moneylending activities: one respondent mineworker pooled funds with friends at the beginning of the year (R2 000 contribution by each person), which was then used to lend money for emergencies, at an interest rate of 50%. Funds and profits are then split between members of the pool at year end.

Finally, Motelle (2011) examined the link between financial development, proxied by the credit-deposit ratio, and remittance inflows. He found that while the relationship between the two variables is likely not causative, "in the long run remittance flows into Lesotho contribute positively to financial development."

4. Malawi

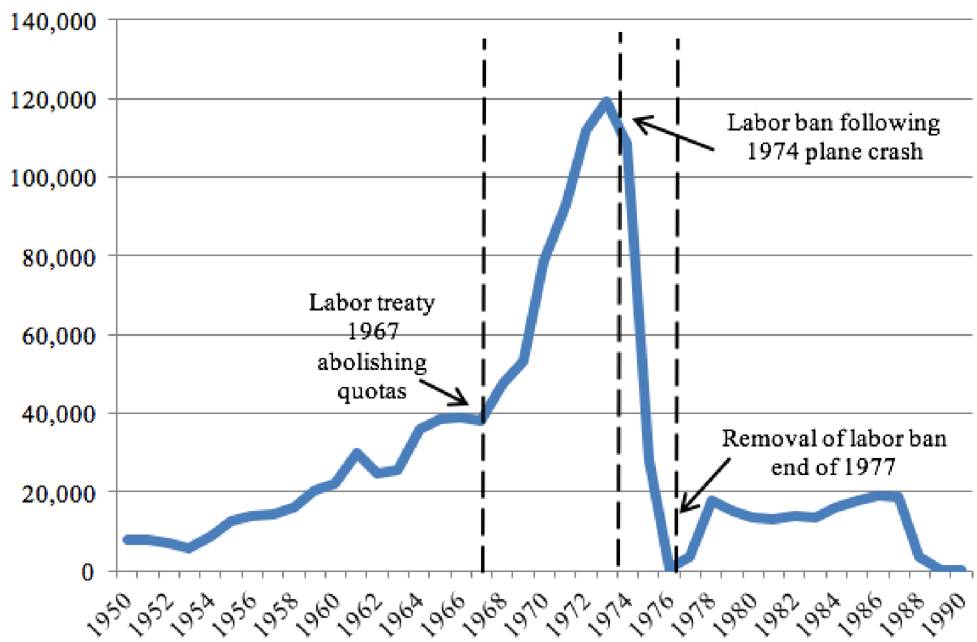
Malawi is an extremely poor nation of 17.2 million individuals, with a per capita GDP of USD381, and with only 16% of the population urbanized.[61] The CIA World Factbook suggests that of 229 countries examined, Malawi is the seventh poorest internationally on a GDP per capita basis. Emigration levels are fairly high, and in 2011, it was estimated that roughly 213 000 Malawians (1.4% of the population) lived abroad. In the period 1998 -2008, it was further estimated that approximately 90% of all Malawian emigrants settled in SADC countries, with 79% of these destined for South Africa.[62]

While Malawi as a whole is extremely poor, many Malawian emigrants are not. Evidence of a sustained "brain drain" in the medical professions in particular is well-documented. For example, while approximately 100 nurses per year emigrated from Malawi in 2002-2003, the country only trained approximately 60 nurses per year, and as at 2004 only 36% of nursing positions in the public health sector were filled.[63]

Historically, however, the largest single category of Malawian migrants have tended to be relatively unskilled individuals, recruited to work on South African mines. As can be seen in Figure 11 below, the number of these migrants peaked in 1973. Numbers never truly recovered from a ban on recruitment instituted following a tragic plane crash in 1974 involving dozens of Malawian mine workers, and the recruitment system was ended in 1988 after a dispute as regards HIV testing of migrants by South African authorities.[64] In the absence of such formal recruitment schemes, it is likely that the poorest Malawians will struggle to finance the costs of emigration by themselves.

Figure 11: Annual employment of Malawians in South African mines, 1950-1994

[61] World Bank Databank, all data for 2015 unless otherwise specified.
[62] (IOM, 2015)
[63] (Record & Mohiddin, 2006)
[64] (Truen & Chisadza, 2012)



Source: (Dinkelman & Mariotti, 2016)

4.1 Remittance markets

Malawian remittance markets are affected by the distribution pattern of Malawian migrants, who are fairly widely scattered across SADC. As shown in Table 3 below, migration data collated by the World Bank suggests that in the region, the major destination countries for Malawians are Zimbabwe, Mozambique and South Africa, and that the United Kingdom is an important destination in the developed world (it should be noted that a 2016 estimate of the number of Malawians resident in

South Africa is substantially higher, at 216 515 individuals).[65] It is likely that the economic challenges in Zimbabwe limit the value of formal remittances from that country to Malawi.

Table 3: Estimated Malawian migrants in top five destination countries, 2013

	Estimated migrants
Zimbabwe	98,384
Mozambique	76,058
South Africa	70,038
United Kingdom	16,137
Tanzania	12,226

Source: World Bank Migration and Remittances data, http://www.worldbank.org/en/topic/migrationremittancesdiasporaissues/brief/migration-remittances-data

All money transfer service providers operating in Malawi must be licenced by the Reserve Bank of Malawi. However, mobile service providers tend to be more closely regulated by the communications regulator, with the Reserve Bank only regulating them in terms of prudential issues and exchange control matters.

Western Union and Moneygram are reported to currently comprise the bulk of the formal money transfer market in Malawi.[66] However, there appears to be substantial innovation and market entry in Malawian remittance markets, with recent examples including the following:

- South African-based money transfer operator Mama Money went into operation in January 2015, concentrating on the Zimbabwe/South Africa channel, but plans to serves the Malawian market going forward[67]

[65] (Truen, Kgaphola, & Mokoena, 2016)
[66] http://www.smesouthafrica.co.za/16622/How-fintech-is-disrupting-money-transfer-in-Africa/

- A partnership between MFS Africa and Airtel Malawi was established in late 2015 to offer mobile money transfer services from South Africa to Malawi[68]
- Zimbabwean money transfer operator Mukuru has also recently entered the Malawian market

Increasing activity in the formal remittance market appears to have resulted in a switch of consumer preferences to formal providers. Finscope surveys found that the proportion of remitters using formal mechanisms increased from 10% in 2008 to 16% in 2014, which was in line with an overall increase in the proportion of individuals with access to formal financial channels from 26% to 34% over the same period.[69]

4.2 Remittances at macroeconomic level

The Malawian economy is fairly small, and is quite dependent on foreign aid. Its sustained current account deficit, for example, is largely covered by inflows of foreign aid. In contrast, formal remittance inflows amount to less than 5% of foreign aid received, and less than 1% of GDP. In real terms, GDP growth has averaged 5.5% over the last five years. It should be noted that a recent estimate of total formal and informal remittances from South Africa alone suggested that R477.4m is sent annually, which equates to approximately MK23.9 billion (assumes exchange rate of 50 to ZAR). The formal market size estimates shown in the table below are thus likely to be substantially smaller than the reality.

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67 http://www.smesouthafrica.co.za/Mama-Money-makes-it-easier-for-migrants-to-send-money-back-home/
68 (Millenium Consulting Group, 2014)
69 (Millenium Consulting Group, 2014)

Table 4: Selected macroeconomic data, Malawi (billion kwacha)

	2010	2011	2012	2013	2014	2015
Current account	(59.30)	(171.10)	(167.58)	(499.01)	(483.17)	(612.78)
Goods	(104.63)	(170.53)	(268.47)	(530.70)	(596.41)	(650.28)
Services	(22.47)	(22.79)	(29.42)	(42.47)	(61.87)	(77.54)
Income	(28.67)	(58.99)	13.28	(64.98)	(79.96)	(97.62)
Current transfers	96.47	81.21	117.04	139.13	255.07	212.65
Net official development assistance and official aid	152.70	124.73	291.09	411.62	395.23	
Foreign direct investment, net inflows (% of GDP)	1.39%	14.10%	(0.87%)	11.50%	11.83%	2.17%
GDP (current prices)	1,033.19	1,150.92	1,425.23	1,924.11	2,534.66	3,207.38
Personal remittances received	**3.28**	**3.96**	**7.05**	**12.44**	**16.35**	**26.17**
Remittances as % GDP	**0.32%**	**0.34%**	**0.49%**	**0.65%**	**0.65%**	**0.82%**

Source: Reserve Bank of Malawi, World DataBank World Development Indicators, DNA calculations

Because of the relatively small role played by formal remittances, relatively few steps have been taken by the Malawian government to encourage such flows. One recent development which may spur further remittance inflows is the signing of an agreement with the United Arab Emirates to facilitate Malawian contract workers to the UAE. The agreement was signed in August 2013, and is for four years. However, it quickly became controversial due to allegations of poor working conditions for the migrants concerned.[70]

4.3 Remittance impact and use of formal financial channels at household level

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[70] http://mwnation.com/malawian-workers-decry-poor-working-conditions-in-uae/

The impact of remittances on households in Malawi was investigated via a two-phase approach, involving focus groups with remittance senders in Gauteng in South Africa, and semi-structured interviews with remittance receiving households in principally rural areas in Malawi. The methodology of this fieldwork in detailed in Appendix 1.

4.3.1 Remittance senders

Malawi does not share a border with South Africa, which makes the journey to South Africa relatively longer and more expensive than for migrants from Lesotho and Zimbabwe. It is thus more difficult for the extremely impoverished to save enough money to migrate from Malawi to South Africa. The composition of the focus groups reflected this fact. In both groups, a fairly large proportion of participants had held a salaried position in Malawi before coming to South Africa (including two chefs, an office administrator, a panel beater, a salesman, and the manager of a small business). In the female group, a pattern of coming to South Africa to join an established partner who had migrated earlier was common.

Respondents consistently expressed the view that they would have struggled to find similar opportunities in Malawi to those found in South Africa. A particular problem in the Malawian job market was a perception that one often had to pay a bribe to get a desirable job.

> Respondent: I just want to address whatever my dear friends have just said, you said a fact that in Malawi there's a lack of opportunities. It is a small country and we don't have many companies like here so comparing Malawi to South Africa, Malawi is better because there are some people that are educated but they are just keeping their papers because the opportunities are not available. If you want to get an opportunity you have to pay other people.
>
> **Moderator**: Let me get this paying thing. Is it a good thing or a bad thing? Is it a bribe?
>
> General consensus: Yes, it's a bribe something like that.
>
> Respondent: It's a bribe because it does affect other people because they don't have anything to bring in front so I can see there is a lack of opportunities in Malawi, that's what makes us come here to look for jobs.
>
> *Malawi male focus group*

The variety of jobs available in South Africa was felt to be greater, and wages were relatively more generous. In addition, some goods were much cheaper in South Africa than in Malawi. All in all, migrating to South Africa was felt to offer good prospects for improving one's opportunities.

> Respondent 3: ….so I decided to come here because here you can have a job in a car wash, where in my country there is nothing like that, I don't know about now but you cannot have a job in a car wash because there are no companies who do those such things….
>
> *Malawi male focus group*
>
> **Moderator**: What was the main reason [for migrating]? Except for following the hubby, was there any other reason?
>
> Respondent: …. even if I can find a job there the money that I can earn at home and here in South Africa is not the same, it's different, here I'm going to gain a better money than home that is why I came here so that if I work here, if I find a job even if it's a domestic even if I'm earning R1 000, R1 500 with that money I can survive and I can even send that money home to help my relatives.
>
> *Malawi female focus group*
>
> Respondent 1: … the only thing that I'm getting attracted to is like meat and other stuff because meat at home is expensive so when you come here eat meat and other stuff you going to assume that life is good…
>
> *Malawi male focus group*

Many of the respondents had gone a number of years without returning home for a visit. The key inhibiting factor was the cost of the trip, with an overland return bus trip estimated at around R3 000 per person.

> **Moderator**: How much is it to go back home?
>
> Respondent 1: It depends, maybe R1 500 a bus.
>
> **Moderator**: Just to go?
>
> Respondent 1: To and from is R3 000, it's like that.
>
> **Moderator**: How many years and how many times did you go home?
>
> Respondent 2: It's just 4 years and I never went back home.

Malawi female focus group

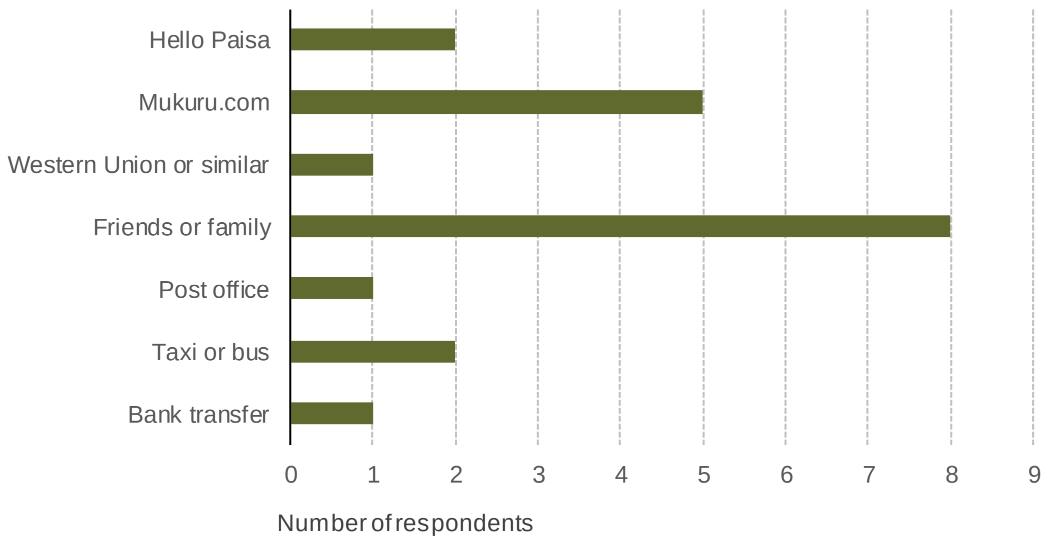
Similarly, respondents did not send money home particularly frequently. Of the 20 respondents, 17 said they send home only when needed, leaving only three who said they send money regularly. Some mentioned that when the recipient household had farming income, the need for remittances would vary with the season, depending on whether they needed money to buy fertiliser, as opposed to harvest periods when they needed little. There were a few mentions of remittance money being used to fund farming activities.

> As I've told you that I'm coming from a deep, deep village, they farm like rice, ground nuts, those things are not for eating only, they can sell and have money, so I try each and every year I must send money for farming, when I don't have anything here they can sell those things and use that money.

Malawi female focus group

The most popular way of sending money home was via friends or family, as per the figure below. Half of respondents used informal means of remitting, and the most popular formal means of remitting was Mukuru.

Figure 12: What method do you use to send money home?



Source: Foshizi

In practice, in a number of cases the friends and family channel seems to involve sending money via cross-border traders, who travel back and forth frequently, transporting goods for business purposes. There was some evidence among respondents of a shift to greater use of formal channels, particularly Mukuru. While respondents acknowledged that there was a greater risk of losing money when sending it via informal channels, there was also repeated mention of the difficulty of navigating the paperwork requirements of formal channels, which is probably a key driver of continued use of informal remitting methods.

> **Moderator**: How do you send money back home?
>
> Respondent 1: I registered with Mukuru so I send money through Mukuru

Respondent 2: To me it is like my brother who said Mukuru but before Mukuru we used to go to the buses, sometimes talk to the bus conductor more especially in the Cape.

Malawi male focus group

Moderator: Any other .. [method of remitting]?

Respondent 3: From experience I have seen others what they do is to just ask someone who normally come this side to give money in Malawi and that particular person is here you get the lines and orders things back to Malawi.

Respondent 4: To make it simple if you want to send R500 they will check how do we know about the rates from 1-40 so we make that R500 times 40 to give the Kwacha, and that person will travel to this side. That thing most of the times is very cheaper than these other processes because you always be assured that he gets the money, so you just make sure that when the person arrives here, more especially the people who takes goods like blankets, duvets you can just give them the Rand.

Malawi male focus group

There was substantial interest in running small businesses in both focus groups. A number of respondents in the female group had either operated a small trading business before migrating, or intended to establish such a small business on returning to Malawi. However, it was evident that successfully running such a business had often proved challenging. In South Africa, many of the women were currently employed as domestic workers.

Secret: I'm a business woman so when I'm here, even when I came here in South Africa I came here to look for money so that maybe I can improve my business.

Moderator: Oh you've got business back home?

Secret: Yes.

Moderator: What do you do?

Secret: We were selling clothes.

Moderator: Is it still operating?

Secret: For now there's no money so there's nothing.

Malawi female focus group

Going forward, respondents hoped to take advantage of differentials in the price of goods between South Africa and Malawi, to establish cross border trading enterprises of their own. Many also hoped to eventually return home for good, but were realistic about the potential difficulty of succeeding in business in Malawi, and the need to raise capital before returning.

> **Moderator**: You are going to be opening a business, how is it going to survive if there's no money in Malawi?
>
> Respondent 1: It's better to try than to just…
>
> Respondent 2: You raise money.
>
> Respondent 1: You are going to raise money while you are here because if you go home without money life is going to be harder there.
>
> *Malawi female focus group*

The fact that goods are often cheaper and/or better quality in South Africa than in Malawi was a big influence on the choice of whether to remit cash or goods. Goods were remitted both for the recipient's personal use, and for on-sale (sometimes in cross-border trading businesses, as part of an ongoing commercial effort, and sometimes as once-off profit-making opportunities).

> **Moderator**: Why do you send goods instead of money, you send money for them to buy blankets?
>
> Respondent 1: They are very expensive, most of the guys they coming from Malawi to stock here so that they can sell, its good here already they will send them they don't even bother to use transport when coming this side
>
> **Moderator**: Blankets, what else do you send?
>
> General consensus: Everything, plasmas, sugar.
>
> Respondent: With sugar this side is affordable.
>
> Background: Cooking oil the 2 litre and 5 litres.
>
> Respondent: Even the phones, the phones that we are using in Malawi they are from this side.
>
> *Malawi male focus group*

Moderator: … Why do you send goods not money, why don't you send money so that they can buy the grocery that side or they can buy furniture that side?

Respondent 1: We prefer to buy it here because of the class, when we decide to buy dining set here in South Africa it's nice because of the class so that side we don't have a lot of factories that are doing those standards, we are always waiting for imports. So it's expensive to wait for someone to export something from China and sell to us, we can't even manage to buy a fridge, so we are still here we can lay-by then later we send it because we don't have companies like here that you can go to like fair price then you get it.

Malawi female focus group

While many of the remitters had some say in how the money they sent was spent, there were some differences between the groups as to how much say they had. The male group began the discussion by indicating that they felt they had control over how money was spent, but ultimately concluded that such control would be impractical, while most female respondents did not feel that they could dictate to recipients.

Moderator: It looks like all of you have a say?

Respondent: If I send money it's like I'm a president, they can just use it. That's if its easy for you to get it.

Malawi male focus group

Moderator: If you had control in money let's say others say school fees, there's grocery, if you can send the school fees money direct to school, the grocery money direct to the shop, then they go and get grocery would it affect them?

Respondent: Very much

Moderator: How? Would they be happy with that? Lets start.

Respondent: They won't be happy simply because being a human being you've got your own need, you can ask money from someone, you have your own choices, your own needs when you get money you tell yourself that okay let me do this and this, if you tell someone to go to that shop get stock for R200 it's like you are punishing him telling him that either like it or not do this, which is not nice.

Respondent: You can get that soap at spar with an expensive price, you can get that soap at the nearby grocery store with a little price, you are limiting that person.

Malawi male focus group

Respondent 4: I just want to add on top of that because when you send the money, you can't just tell them that the money, maybe you are sending it for school fees and they want to buy something, you can't just say this money is for food, maybe somebody might get sick, you just can't say that next month I'm not going to send, they will call and say there's a problem, if you don't have money you try and look for something.

Malawi female focus group

Most remitters felt that their money was vital to the continued well-being of recipient households. Many supported children still living in Malawi, and supplied funds to pay for health care costs of family members as necessary. They typically were supporting multiple individuals in Malawi.

Moderator: The people that you are sending money to, if you count them?

Secret: The people, from my in-law they are 8, from my mother they are 7.

Malawi female focus group

Moderator: You said it's going to be a disaster? [if you don't remit]

Respondent 5: For me, they will suffer also.

Respondent 6: It's going to be a disaster because with the money that we send, they are paying electricity, they are paying for water, if you don't pay it means they have to cut, they will suffer, because if I didn't send money they will never farm because they need to buy fertiliser to put people to help them, so if I didn't send they will never farm and there will be hunger.

Malawi female focus group

4.3.2 Remittance recipients

The most common source of remittances for the 30 households surveyed in Malawi was South Africa, which was the origin of funds for 18 of the households. Most other remittance sources were SADC countries. Siblings (brothers and sisters) were found to be the most common remitters to their families back home. The most common frequency of receiving remittances is once or twice every year.

However, it should be noted that one household received funds 19 times, and one extreme outlying household received funds 48 times (albeit from two remitters).

Funds received ranged from MK 12,000 to MK 7,200,000 per annum (at an average rate of around MK50 to the rand, this translates to ZAR240 to ZAR144,000). The majority however received funds ranging between MK50,000 and MK 100,000. For this study, the household receiving MK 7,200,000 was an outlier, as it was the only respondent receiving more than MK 3,000,000 (it should also be noted that these two households were also outliers in terms of the number of remittances received, at 48 and 19 times respectively). Most received remittances randomly, but a number of respondents (13 out of 30) stipulated that they received funds upon request.

10 households were also able to provide an estimate of the total value of goods received over the last 12 months, ranging from MK 30,000 to MK3,000,000. The household receiving MK3,000,000 in goods is the same household which received MK 7,200,000 in cash.

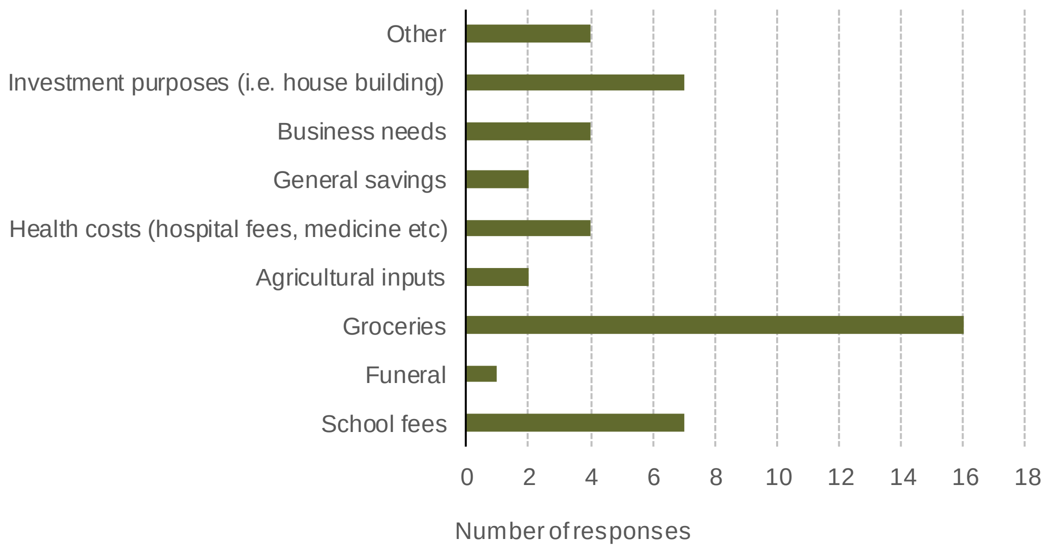
21 of 28 responding receivers stated that this was the first year that they had used their current remittance channel, while six had been using it for two years, and one had been using it for three years. This might suggest that receivers and senders do not always use the same channel, but instead alternate between channels.

Respondents cited a number of advantages to using their preferred channels, including the ease of receiving the money, the speed of the transaction, no need for identity cards, security, reliability, sms alerts when transactions are done, low transaction costs, and other savings on time and distance.

On the other hand, a number of disadvantages were listed as well. Some of the disadvantages stated include: needing to queue to collect funds, limited liquidity at agents, poor network issues, high fee charges, insecurity, need for formal IDs, the need to be literate in order to transact, exchange rate volatility and the risk that the agents might use the money.

16 of the households reported that remittances were spent on general household upkeep (this includes groceries, and reporting in the "other" category for descriptions such as 'upkeep' and 'daily living'). Other major purposes for sending funds included school fees and investment purposes (such as building houses), followed by health costs and business needs.

Figure 13: What was the purpose of money received from outside Malawi over the last 12 months?



Source: Imani, DNA amendments

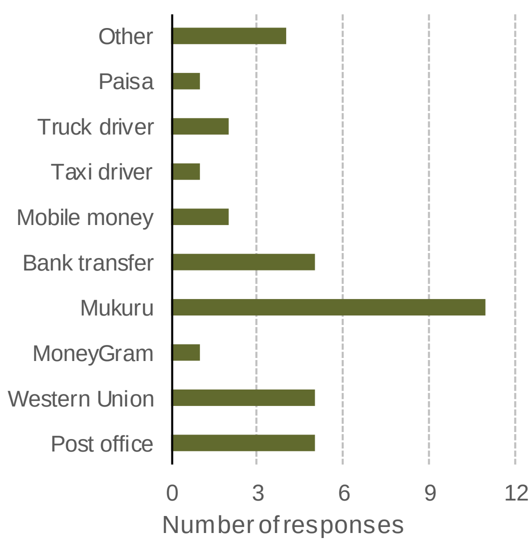
In most cases, the sender does not have control over use of the funds, despite having mechanisms to check how the funds have been used. Checking is mostly done through telephone calls to other family members, workers, and relatives. 16 respondents felt the sender would send more if they had more control over how it was spent.

Most the senders are salaried employees (18 out of 30), with a few who own businesses. Most of the senders reside in urban areas such as Cape Town, Durban, Johannesburg, Gaborone, Harare, Maputo, Nampula and Pretoria. Most have been abroad for 3 to 4 years, with some having been out the country for 13 to 15 years. The primary reason for moving was to seek employment and business opportunities, and in many cases spouses and other relatives had then followed the original migrant. While most of the senders visit home once every year (13 out of 30), others had never visited

While most both senders and receivers have bank accounts, bank transfers were not the most commonly used remittance channel, and instead a range of methods were employed, with more popular options being Mukuru, the Post Office, banks and Western Union. Over the last 12 months, funds received ranged between MK 20,000 and MK100, 000. Since most of the transfer costs are incurred by the sender, most the receivers do not have knowledge on transfer costs and charges.

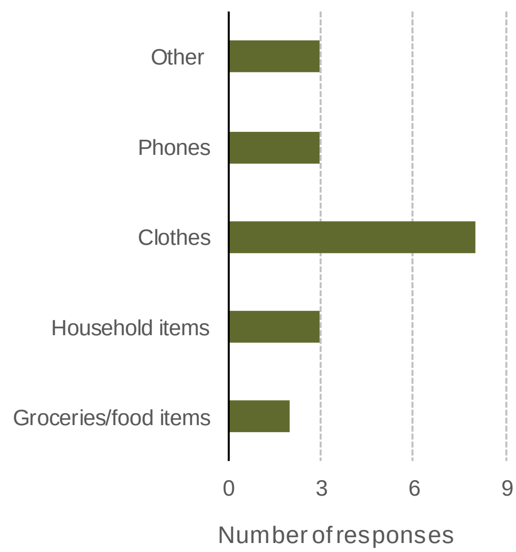
Figure 14 below shows the major remittance channels used by respondents over the last 12 months, and it should be noted that formal channels dominated. Apart from the funds received, receivers also often receive remitted goods, with clothing being the most popular form of goods remittance found by a substantial margin.

Figure 14: Remittance channels used



Source: Imani, DNA amendments

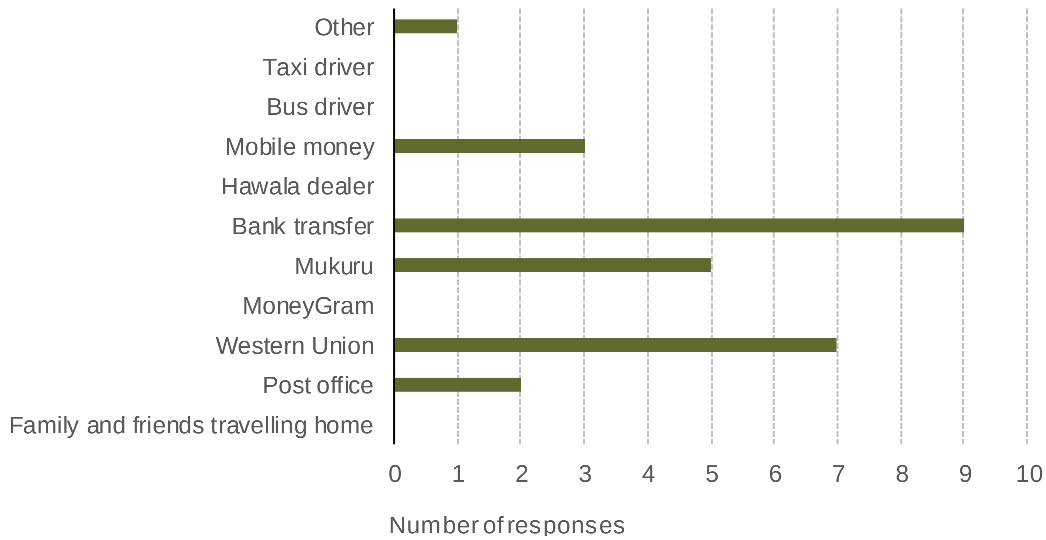
Figure 15: Goods received from senders



Source: Imani, DNA amendments

Major determinants of sender's channel preference include convenience, reliability, and speed of transfer. Given a choice, no receivers would use informal remittance channels, and instead show a clear preference for bank transfers and money transfer agencies like Western Union and Mukuru. This might be because the transactions are fast and secure. However, access to these channels is limited by poor network infrastructure and the need for formal IDs.

Figure 16: If you had a choice on the channel for receiving money, which channel would you select?

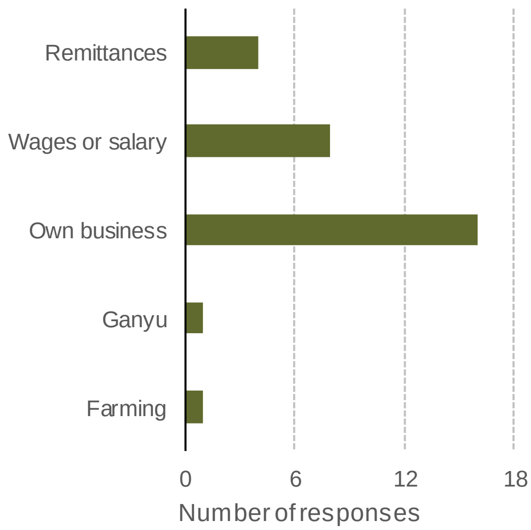


Source: Imani

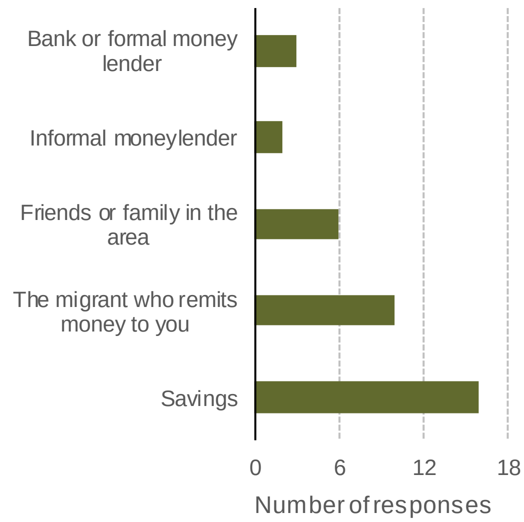
Remittances were ranked the third most important source of household income by respondents, with most households relying first on their own businesses or wages and salaries. However, remittances were an important source of funding in times of emergency. After drawing on savings, households were most likely to ask for money from remitting migrants when in a pinch, before approaching local friends and family, for example.

Figure 17: What is your household's main source of income?

Figure 18: If something bad happened and you needed money urgently, which of these sources would it likely or very likely you could get money from?



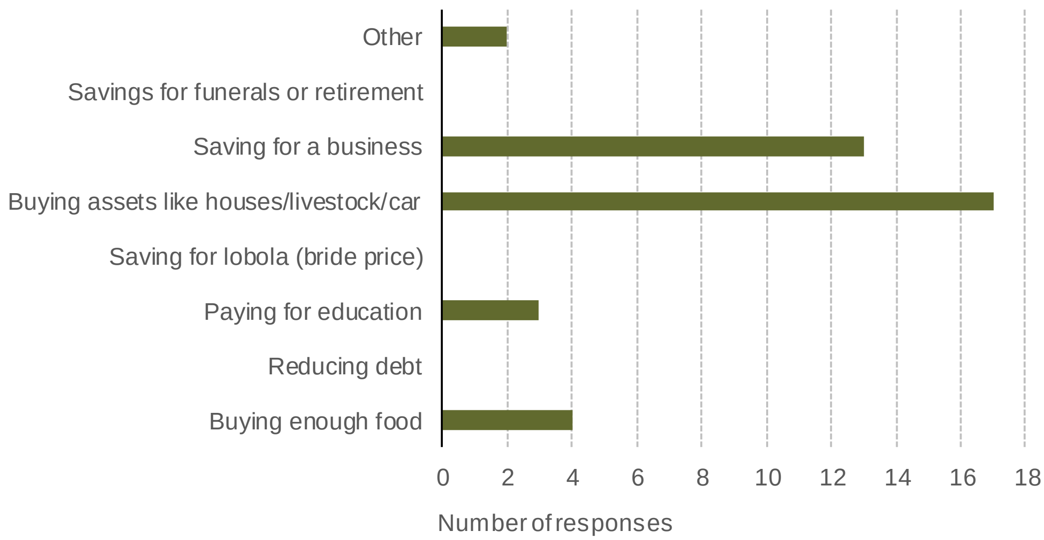
Source: Imani



Source: Imani, DNA amendments

For most households, key financial goals centred on buying assets and finding funds to start a business. Only four households stated that buying enough food was a key financial goal. This is consistent with the fact that most households interviewed seem not to be extremely poor. For instance, 29 out of 30 households stay in well built houses with compact earth or burnt bricks, and 29 out of 30 are connected to electricity or have dry cell connections as sources of energy. 19 out of 30 respondents argued that remittances are of quite limited help in meeting household financial goals, partly because remittances are mainly meant for a particular purpose.

Figure 19: What are the most important financial goals at the moment for your household?



4.4 Statistical evidence of remittance impact

While the survey of remittance recipients and the focus groups of remittance senders undertaken during this project provide interesting insight into remittance patterns and motivations, the sample sizes are too small to provide statistically significant results. In order to produce such results, we instead turn to the Third Integrated Household Survey (IHS3) as undertaken by the Malawi National Statistics Office in 2010/11, which surveyed 12 271 Malawian households.

The purpose of the IHS studies are to "benchmark poverty and vulnerability indicators to foster evidence-based policy formulation and monitor the progress of meeting the Millennium Development Goals (MDGs) as well as the goals listed as part of the Malawi Growth and Development Strategy (MGDS)."[71] As such, these surveys include a wide variety of data on the sources of household income and spending patterns, including fairly detailed remittance receipt information. Furthermore, a panel of 3 246 households from the IHS3 were re-interviewed in 2013 for the Integrated Household Panel Survey 2013 (IHPS), which allows tracking of the welfare of these households over time.

We have interrogated these data both to find out more detail about the pattern of remitting in Malawi, and in to see if any insight can be gained as regards the pattern of correlation of key impact variables with remittance receipt. A detailed explanation of the statistical approach used is attached as Appendix 2.

4.4.1 Pattern of remitting

Analysis of the IHS3 provides a number of insights into the pattern of remitting in Malawi. The IHS3 questionnaires contained two separate categories of remittance questions, with somewhat different categorisation of information, which should be borne in mind when interpreting data. Specifically, households were asked to report on remittances from children in the household who live elsewhere in substantially more detail than on remittances received from other sources. Unless otherwise specified, the analysis in this section is thus only of remittances received from children living outside the household.

Table 5 below shows the overall pattern of remitting. For both non-child and child remitters, the bulk of funds remitted come from domestic remitters. The number of remitters is only available for child remitters, which allows us to calculate the average amount remitted per person as well. This shows that, on average, domestic remitters remit the least per person (only MK 6 252 per annum, compared to MK174 440 for remitters living

[71] http://catalog.ihsn.org/index.php/catalog/2301/studydescription

outside the SADC region). In total, Malawian households received about MK14 681 million in remittances in 2010 from all sources, which equates to around 1.42% of GDP.[72]

Table 5: Total child remittances as per 2010 IHS3

	Domestic	SADC	Non-SADC	Unknown location	Total
Total child remittances (MK millions)	2,606.9	65.0	430.9	1,110.0	4,212.9
Number of child remitters	*416,944*	*9,160*	*2,470*	*30,153*	*458,727*
Average child remittance size (MK)	*6,252*	*7,099*	*174,440*	*36,812*	*9,184*
Non-child remittances (MK millions)	6,938.6	3,529.5			10,468.1
Child and non-child remittances	**9,545.48**	**4,025.47**		**1,110.0**	**14,680.93**

Source: IHS3, DNA calculations

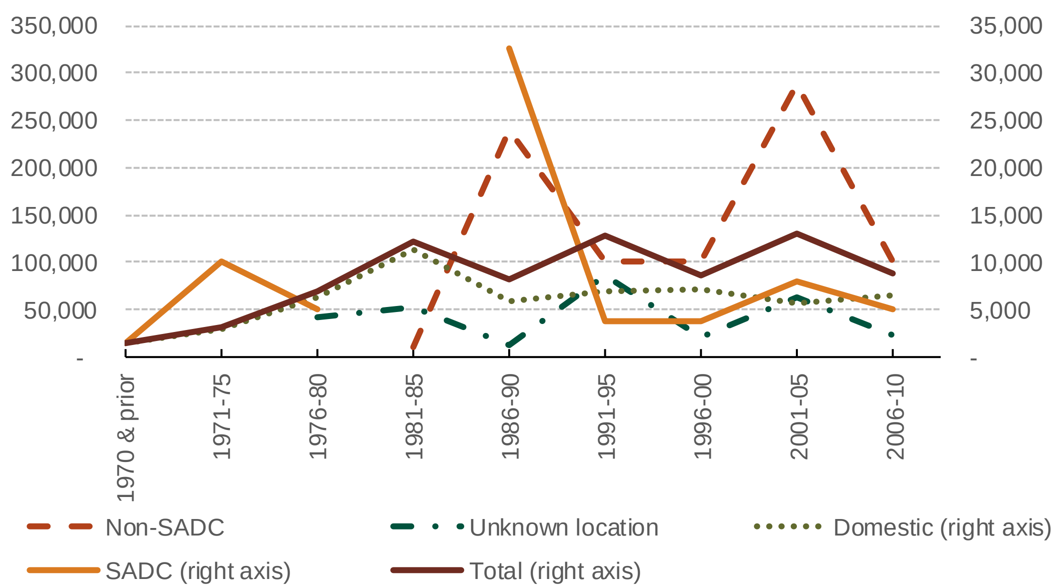
A review of the available literature on remittance patterns suggests that a number of trends should be discernible in the Malawian data (see for example Truen & Chisadza, 2012; and Truen, Kgaphola, & Mokoena 2016). In particular:

- research suggests that the amount of time a migrant has spent out of the country influences how strong their home ties are, and thus how much they remit.
- Affordability should impact on the amount remitted, with lower earning categories of migrants remitting less. Women and less educated migrants typically earn less than men and well educated migrants, and thus should also remit less.

[72] MK4.0 billion of these remittances were derived from international sources. This can be contrasted to the formal estimate of international remittances received as shown in Table 4, which in 2010 was estimated as MK3.28 billion or.0.32% of GDP.

As shown in Figure 20 below, there is some evidence that the amount remitted per person tapers off after time, but what is surprising is how long it takes for such a reduction in amount remitted to occur. As much as 30-40 years appears to lapse before substantial decreases in remittances are seen, which corresponds to the length of a working career, and suggests that many adult children continue remitting home until they reach retirement age. It is unfortunate that similar depth of data is not available from non-child remitters, as the social bonds which spur prolonged remitting behaviour may be weaker for non-child remitters.

Figure 20: Average remittance per person by year left Malawi and location of remitter, child remittances



Source: IHS3, DNA calculations

Table 6 below shows the data reflected in the figure above, as well as the proportion of child migrants remitting per period left home. Again, there is little evidence of remittances tapering off over time, and in fact, the proportion of migrants remitting seems to peak at around 20 years away from home. As shown, average remittance size from non-SADC sources is many times higher than those from SADC or domestic migrants.

Table 6: Amount remitted per child, by year of moving away from home

	Average amount remitted per person					
	Domestic	Unknown	SADC	Non-SADC	Total	% remitting
1970 and prior	1,439	-	1,500	-	1,441	20.2%
1971-75	2,957	-	10,000	-	3,046	34.9%
1976-80	6,348	42,000	5,000	-	6,908	25.7%
1981-85	11,365	52,825	-	10,000	12,237	26.2%
1986-90	5,818	13,240	32,653	240,000	8,215	29.2%
1991-95	6,906	86,239	3,750	100,000	12,755	27.7%
1996-00	7,095	21,037	3,766	101,580	8,574	23.6%
2001-05	5,670	62,119	7,997	288,180	12,929	21.5%
2006-10	6,552	23,693	4,953	100,000	8,759	14.5%

Source: IHS3, DNA calculations

The category of migrants of whom the least remit, as shown in Table 6 above, is those who have most recently migrated. This may provide some supporting evidence for an affordability hypothesis, as those who have recently migrated are less likely to have fully established themselves in their new location. Additional evidence for this hypothesis can be examined by looking at remittance patterns by education and gender.

On the gender front, while 20% of male children remit, only 13% of female children do. As shown in Table 7 below, male migrants also typically remit slightly more per individual (although this is not the case in the unknown location category). Both the lower proportion remitting and smaller average remittance size are consistent with a pattern of women earning less and thus being less able to afford to remit.

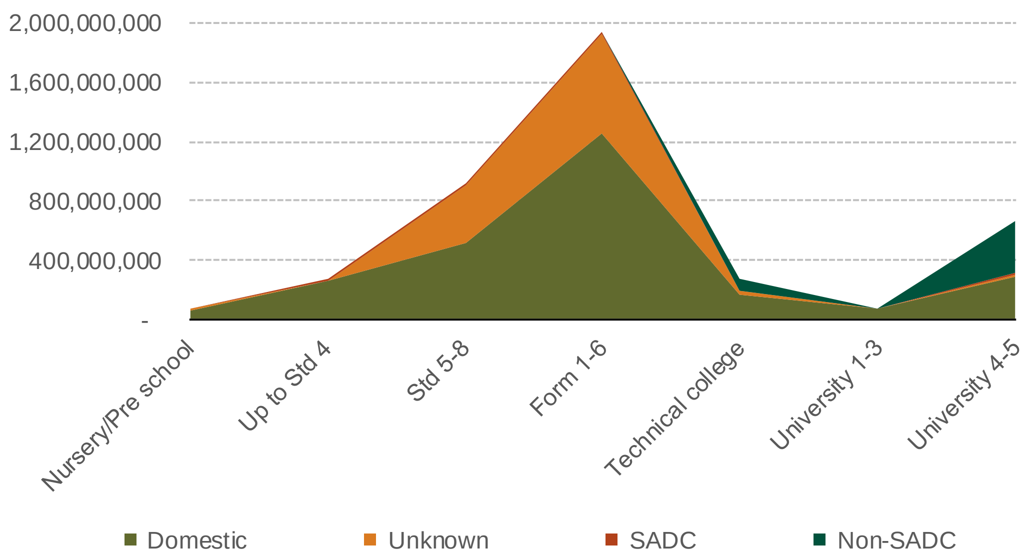
Table 7: Amount remitted per child, by gender

		Domestic	SADC	Non-SADC	Unknown location	Total
Male	**Total remitted (MK million)**	1,474.70	998.30	40.11	142.37	**2,655.47**
	Average remittance (MK)	6,264	37,685	9,269	130,980	**9,933**
Female	**Total remitted (MK million)**	1,132.21	111.69	24.92	288.57	**1,557.40**
	Average remittance (MK)	6,237	30,502	5,156	208,585	**8,137**

Source: IHS3, DNA calculations

In terms of the absolute size of funds remitted, the most remittances are sent home by those whose education ended between Form 1 and Form 6, as shown in the figure below. However, this is the result of the large number of remitters in this education category. On an individual basis, those with 4 to 5 years of university are the most substantial remitters, as shown in Table 8 below (this is not the case in the "unknown" category, but the sample size is relatively small at only 440 individuals, and may not be statistically representative).

Figure 21: Total remittances by educational level, child remitters



Source: IHS3, DNA calculations

Table 8: Average remittance per person (MK) by education, child remittances

MK	Domestic	Unknown	SADC	Non-SADC	% remitting	% remitters domestic
Nursery/Pre school	2,273	26,892	4,813	-	8.5%	95%
Up to Std 4	3,208	11,138	3,384	-	12.2%	96%
Std 5-8	3,294	38,417	4,699	-	15.1%	92%
Form 1-6	9,232	37,782	7,660	10,000	24.8%	87%
Technical college	17,478	52,661	14,500	107,115	35.3%	87%
University 1-3	29,244	-	7,000	50,000	36.1%	82%
University 4-5	40,111	19,000	49,665	214,283	51.8%	75%

Source: IHS3, DNA calculations

4.4.2 *Impact of remittances*

The next step of the analysis was to use the dataset to track whether the receipt of remittances was associated with any changes in poverty, income or asset accumulation. To this end, we examined the following:

- Whether remittance receipts vary with investment in agricultural activities, proxied by purchases of inorganic fertiliser
- Whether greater remittance receipts are associated with more income earned from other businesses run by the household
- Whether remittance receiving households had better child education outcomes, as per the following two indicators:
    - The drop-out level for school age children
    - Over the period 2010-2013, whether children who were enrolled in primary and secondary education had progressed between grades (as opposed to repeating grades)

A detailed explanation of the issues with the dataset and the statistical techniques used is attached as Appendix 2. Below we summarise our findings.

Usage of Fertilizers

The log of remittance income was found to be positively correlated with fertilizer use, with a high degree of significance. The sign and the significance of remittance did not change across the data set examined, which further supported the findings. Coefficients on most other variables investigated were also consistent with theory. Coupons subsidizing fertiliser use increase fertilizer use, while lower levels of household education decrease it. More adult household members and thus more labour available for farming also tends to increase fertilizer use. Distance from a border post increases fertilizer use, which is somewhat unexpected, but is only significant at the 5% level, and only in the 2010 aggregate dataset.

Some caution must however be used in interpreting the results. In particular, it is not clear that remittance income affects fertilizer use more than any other kind of income. While the coefficient for remittance income is larger than that for other income in 2013, in 2010 this is reversed, and in both cases they are of a similar quantum.

Enterprise Income Regressions

We then turned to an evaluation of whether the receipt of remittance income is correlated with the ability of a household to earn enterprise income. This would hold, for example, if remittances in cash helped to purchase stock, or remittances in goods were used as a source of stock.

Remittance income was found to be significant in the 2010 aggregate regression (at the 5% level), with a positive coefficient, suggesting that remittance income and enterprise income are positively correlated, as postulated. However, total remittance effects were not found to be significantly different from zero in the 2013 panel regression, and the coefficient swapped signs. Total employment income was significant in both, but with differing signs. Either there was a structural change to cause this effect or uncaptured variation is present. Further analyses (as detailed in the appendix) did not result in an improvement in results.

Education Dropout Regression

As paying for education costs are often cited as one of the reasons for remittances, we now examine whether remittances had any relationship with the likelihood that children would drop out of the schooling system. Dropout as a variable were expressed as the number of dropouts per household (a counting process).

We found that remittance income has a significant correlation with number of drop-outs per household, and has negative coefficients in both regressions – in other words, the receipt of remittance income is negatively correlated with the number of drop-outs per household. As in the fertilizer calculation, however, it is not clear that remittance income affects drop-out rates more than any other kind of income. In fact, other income has a more statistically significant relationship with drop-out rates.

Panel Education Outcomes

The drop-out rate is of course not the only educational variable of interest. The Malawian schooling system has high levels of grade repetition,[73] and thus not only is it relevant that a child is continuing to stay in the education system, but that they are progressing through grade levels. The final regression exercise therefore examined whether children in the 2013 panel had shown such grade progression in the period from 2010, and whether receipt of remittances influenced this outcome.

The "Good Education" response variable for the panel education regression was defined as the number of the children in a household who had completed 3 or more years of school between the two survey periods, divided by the number of children in the household in school during both years. This was expressed as a percentage/proportion, and was regressed using a logistic regression (binomial error terms). The grades that the students were in during the 2010 survey and 2013 survey were extracted and the grade difference was calculated. A grade difference of three or more was classified as a good outcome.

The analysis found that the log of total remittances was highly significantly correlated to good outcomes. The sign of the remittance coefficient was positive, indicating that an increase in remittance levels was correlated with a corresponding increase in the likelihood of good outcomes.

[73] A recent World Bank report estimates that the primary school system in Malawi, for example, "requires 23 student years to produce one graduate, instead of 8 years with perfect internal efficiency." (World Bank, 2010, p. 54)

Conclusions

In all four relationships tested, remittances were found to have the expected positive correlation with improved outcomes in household performance (although for enterprise income in particular, the relationship was weak). While it is not clear that remittance income had a different impact on spending on these items than other forms of household income, it does not seem to be the case that remittance income is being spent purely on consumption items with potentially inflationary consequences.

5. Zimbabwe

Zimbabwe is a landlocked country with a total population of 15,6 million individuals, 32% of whom live in urban areas. In USD, GDP per capita is currently $890. In constant local currency units, GDP per capita peaked in 1998, and had more than halved by its low point in 2008. Since then it has recovered somewhat, but is still 37% lower than in 2008.[74]

The profound deterioration of the Zimbabwean economy has been associated with massive social and political disruptions. The triggering factor was a land redistribution campaign, which had been in existence since 1997, but intensified in 2000, leading to widespread politically-motivated violence.[75] The land reform programme resulted in the redistribution of white-owned commercial farms to black Zimbabweans, often with political connections. Most seized farms became unproductive, leading to job losses and severe reductions in export earnings. By July 2008, the resulting hyperinflation was estimated at 231 million percent, and economic collapse had resulted in unemployment rates accelerating to 94%.[76]

As a result, many Zimbabweans[77] left their country to escape the crisis, while continuing to support family members who remained behind. Naturally, the value of the Zimbabwean remittance market has grown substantially as a result, and remittances now play a vital role in supporting an increasingly cash-starved economy.

[74] World Bank Databank, all data for 2015 unless otherwise specified.
[75] CIA World Factbook
[76] (Kerzner, 2009)
[77] It has been estimated that close to three million Zimbabweans have emigrated over the past decade, with roughly two thirds of these to South Africa.

5.1 Remittance markets

The development of the remittance market in Zimbabwe has been highly influenced by the socio-economic environment. While the large Zimbabwean diaspora creates a substantial demand for remittances services, which has tended to grow the market, a variety of policy and regulatory changes, often driven by economic crises, have tended to play a destabilising role.

In order to address the damage associated with hyper-inflation, in 2009 the Zimbabwean government introduced dollarization of the economy. This resulted in a period of relative stability, which subsequently devolved into a liquidity crisis in late 2015.[78] In October 2016, the government gazetted the introduction of bond notes, which appear to some critics to be a form of unbacked currency, in order to address the liquidity crisis. Each of these developments has influenced remittance markets, and typically has tended to push remittances from formal to informal channels. The ultimate effect of the introduction of bond notes on these markets is still playing out at the time of writing, and is thus unknown.[79]

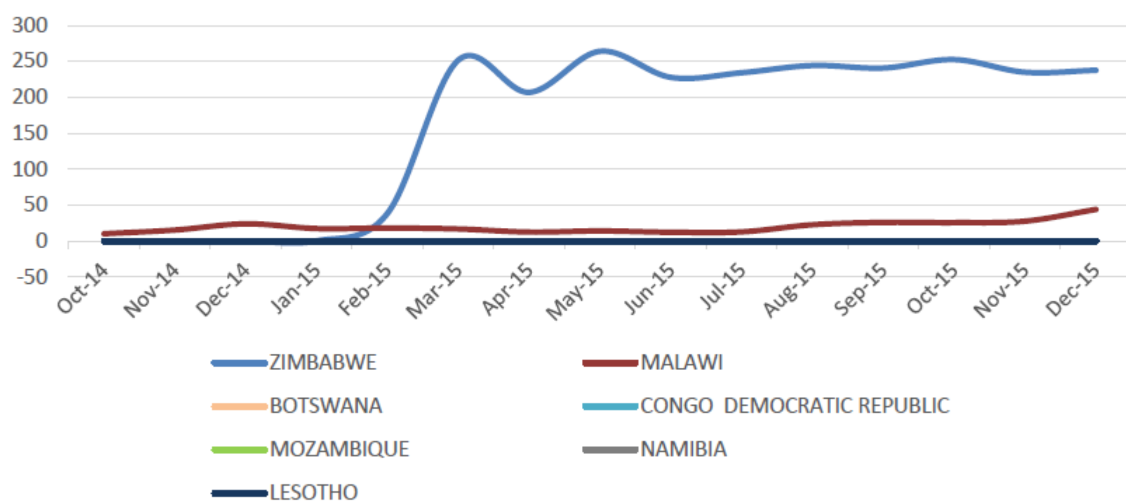
Despite these disruptions, there has been substantial growth and innovation in the formal remittance market. The money transfer agent segment of the market is perhaps the most active, and includes operators Western Union, MoneyGram, Mukuru, Hallo Paisa, Mama Money and Exchange4Free. Mobile money services have also recently entered the market, with Telecash (Pty) Ltd and EcoCash (Pty) Ltd offering innovative products. These mobile operators must still maintain an account with a bank that is responsible for settlements.

[78] The liquidity crisis itself is argued to be associated with instability caused by the introduction of a business Indigenisation policy – see https://www.theindependent.co.zw/2016/06/17/alternative-solutions-liquidity-cash-crisis/ for example.

[79] There are some early indications that the bond note is starting to trade at less than parity with the USD, and may thus be subject to the inflationary pressures that damaged the Zimbabwean dollar. See for example https://zimnews.net/latest-zim-bond-notes-parallel-markert-emerge/

On the Zimbabwean side, service providers offering remittance services must be licenced by the central bank as authorised dealers. Many of these authorised dealers then provide back-end services for remittance service providers such as Mukuru, Western Union, MoneyGram and so forth. On the Zimbabwe-South Africa corridor, the introduction of a remittance-only authorised dealer with limited authority (ADLA) license by the South African authorities has allowed the establishment of a new class of competitors in these markets, and appears to have had a large effect on volumes remitted to Zimbabwe, as shown in the figure below.

Figure 22: Remittances sent through Authorised Dealers with Limited Authority (volume, thousands)



Source: (Eighty20, 2016, p. 11)

5.2 Remittances at macroeconomic level

Remittances comprise a significant and increasing proportion of Zimbabwean GDP, as shown in Table 9 below. In 2015, formal diaspora remittances as recorded by the RBZ were estimated to approach USD1 billion, which is more than double the quantity of net foreign direct investment received by Zimbabwe, and helps to counter-balance a sustained current account deficit. Substantial informal flows make the real impact of remittances on the economy much higher. One recent estimate put total formal and informal remittance flows from South Africa alone to Zimbabwe at approximately R8 824.0m in 2016, or around US$630m (assumes an exchange rate of 14 rand to the dollar), of which slightly more than three quarters is estimated to travel via informal channels.[80]

Table 9: Selected macroeconomic data, Zimbabwe (million US$)

	2009	2010	2011	2012	2013	2014	2015
	Actual	**Actual**	**Actual**	**Actual**	**Actual**	**Est.**	**Proj.**
Current account	(1,224.1)	(1,878.5)	(3,385.6)	(3,042.4)	(3,432.2)	(2,837.2)	(2,595.3)
Goods	(1,599.8)	(1,918.1)	(3,145.7)	(2,902.0)	(3,114.6)	(2,748.0)	(2,880.9)
Services	(394.7)	(607.8)	(876.5)	(855.8)	(918.7)	(863.4)	(903.2)
Income	(254.9)	(546.7)	(901.1)	(963.3)	(1,034.0)	(888.2)	(639.0)
Current transfers	1,025.3	1,194.2	1,537.8	1,678.7	1,635.1	1,662.5	1,827.8
Net official development assistance and official aid **	736.22	712.53	722.72	999.49	824.4	757.85	
Foreign direct investment, net inflows (% of GDP) **	1.29%	1.76%	3.53%	3.22%	2.97%	3.84%	3.03%
GDP (expenditure basis) **	8,157.1	9,422.2	10,956.2	12,392.7	13,490.2	14,196.9	13,892.9
Diaspora remittances	**300.7**	**361.1**	**570.3**	**646.3**	**764.2**	**837.0**	**943.9**
Remittances as % GDP	**3.69%**	**3.83%**	**5.21%**	**5.22%**	**5.66%**	**5.90%**	**6.79%**

*Source: Reserve Bank of Zimbabwe, World DataBank World Development Indicators (marked with **), DNA calculations*

The Reserve Bank of Zimbabwe (RBZ) is cognisant of the economic importance of remittances, for example acknowledging in its 2014 annual report that it expected the current account deficit to be financed by "funds circulating outside the banking sector and diaspora sources." In keeping with the important role played by remittances, a number of policy and regulatory initiatives have been

[80] (Truen, Kgaphola, & Mokoena, 2016)

undertaken to facilitate remittance inflows, and encourage them to flow via formal channels (as informal flows affect the liquidity of the RBZ and the formal financial system). Some of the most recent include the following:

- The introduction of a Diaspora Remittances Incentives Scheme (DRIS), which is an extension of the 5% export bonus scheme introduced in May 2016. In terms of this scheme, the transmitting agent will be paid 2% of the amount remitted, and the recipient will receive 3% of the amount remitted as incentive payments
- The licencing fees of ADLAs in non-urban areas have been reduced in order to encourage more of them to open up in rural areas
- The adoption in July 2016 by the Ministry of Macro-Economic Planning and Investment Promotion of a Diaspora Policy, which seeks to create incentives for Zimbabweans in the diaspora to invest and remit. This policy has yet to be implemented.

In practice, policies seeking to encourage formal remittances have tended to be destabilised by the various economic and political crises that have beset Zimbabwe in recent years. For example, the current introduction of bond notes is again likely to lead to greater informalisation of the remittance market.

5.3 Remittance impact and use of formal financial channels at household level

The impact of remittances on households in Zimbabwe was investigated via a two-phase approach, involving focus groups with remittance senders in Gauteng in South Africa, and semi-structured interviews with remittance receiving households in Harare and Bulawayo in Zimbabwe. The methodology of this fieldwork in detailed in Appendix 1.

5.3.1 Remittance senders

Zimbabwe has undergone extreme economic and political turbulence in recent years, and the discussions in the focus groups reflected this. When asked why they had come to South Africa in the first place, and what would happen to their families if they stopped remitting, they repeatedly emphasized the severe need that had motivated their decision to migrate and remit.

> **Moderator**: Tell me more about your suffering (poverty), how were you suffering or living in poverty? Can you elaborate more on that for me.

Respondent 1: You have kids that have to go to school and you don't have money. You don't even have a bar of soap to take a bath and you don't even have a job so can't even buy that bar of soap, that's suffering.

Zimbabwe female focus group

Moderator 2: For those who had girlfriends, how did your girlfriends feel when you left them?

Background: They are crying even now, it hurts, but your mind thinks back, you just can't stay while you don't have money, what are you going to wear or eat, when you just sitting home with your mother and your father and your brother, you wake up staring at each other, others go out and hustle to get something so if you also go maybe a distance you can make life to be better.

Zimbabwe male focus group

Moderator: When did you decide to leave home and come here?

Respondent 9: Oh, I came here in 2008 so if I can recall well, there was drought in 2008, there was no food in Zimbabwe, there was nothing and the only thing you could find in food stores was salt. Sometimes we'd go to bed only having eaten cabbage with no cooking oil and we saw that our neighbours... there would be Quantums arriving for delivery, and I wondered what could stop me from doing the same thing like my neighbour, because I have hands as well. So I decided to come to South Africa.

Zimbabwe female focus group

If you don't send money home, what will they eat?

Zimbabwe female focus group

In line with this, the Zimbabwean focus group participants were also sending home money very regularly, and often were sending a large proportion of their income home. 15 out of 20 respondents were sending home at least 12 times a year, and many reported that they were sending most of their earnings home. As highlighted in Table 10 below, for eight of the 20 individuals, the average amount they remitted approached their total earnings.[81]

> We know that at the end of the month, especially with me... before I even buy my own groceries, I first have to send money home and ensure the kids are taken care of.

Zimbabwe female focus group

[81] To provide context, this kind of pattern is observed 5 times in the Lesotho group, and not once in the Malawi group.

Table 10: Focus group participant responses, income versus remittances

	How many times a year do you send money home?	Roughly how much do you send each time you send money home?	How much do you earn per month before tax?
1	12	R801-R1 000	R 2 501 - R 5,000
2	8	R801-R1 000	R 1,401 - R 2,500
3	12	Over R2 000	R 8,001 - R11,000
4	13	R1 001-R2 000	R 5,001 - R 8,000
5	12	R1 001-R2 000	R 2 501 - R 5,000
6	**Many times but less than 12 times**	**R801-R1 000**	**R 801 - R 1,400**
7	12	R1 001-R2 000	R 2 501 - R 5,000
8	**Many times but less than 12 times**	**R501-R800**	**Up to R800**
9	**12**	**R801-R1 000**	**R 801 - R 1,400**
10	**12**	**R501-R800**	**Up to R800**
11	6	R801-R1 000	R 801 - R 1,400
12	1	R801-R1 000	R 1,401 - R 2,500
13	12	Up to R200	R 5,001 - R 8,000
14	**12**	**R801-R1 000**	**R 801 - R 1,400**
15	12	Up to R200	R 2 501 - R 5,000
16	**12**	**R1 001-R2 000**	**R 801 - R 1,400**
17	12	R801-R1 000	R 1,401 - R 2,500
18	12	R801-R1 000	R 1,401 - R 2,500
19	**12**	**R801-R1 000**	**R 801 - R 1,400**
20	**12**	**R801-R1 000**	**R 801 - R 1,400**

Source: Foshizi

The male and female groups differed substantially in their employment patterns, with many of the female group being unemployed and reliant on piecework or a male partner, while most of the male respondents had a more steady income source (for example, a teacher, a mechanic, builders, a part-time artist and investment advisor, a tailor, and a carpenter). Despite less steady sources of income, the female respondents reported going home much more frequently than the male respondents, particularly to visit children who had stayed in Zimbabwe. A round trip was estimated to cost in the region of R1 000 to R1 200.

Having moved under duress, many of these migrants had not consistently been able to get work appropriate to their skills level, but were nevertheless better off than they would have been if they had stayed.

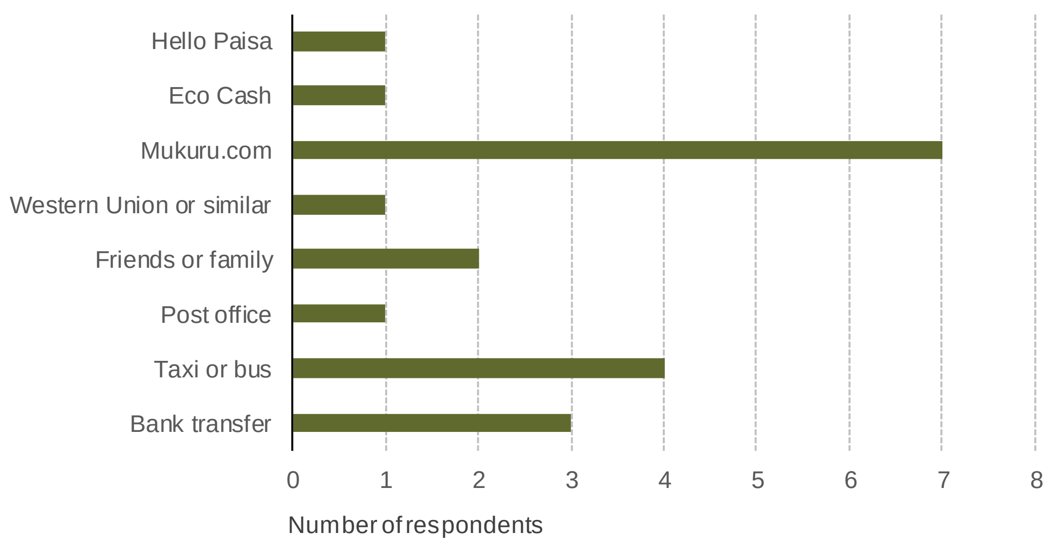
> **Moderator**: Let's talk about money. If you had to go home, doing the work that you do …. would you expect to get more money or less money compared to what you are making here in South Africa?
>
> Respondent 1: Here it's a desperate move from desperate situation; I won't say most people that are coming from Zim they are actually doing the jobs that they are wishing to be doing, they are actually paid the money they are supposed to be paid because you have responsibilities, you've got bills to look after. One cannot choose, you have to go with the job for that particular time and get the money that can cover you for ABCD then that's it.
>
> **Moderator 2**: The job that you are doing now, you are currently doing, are you saying now that you are earning, you said "desperate time calls for desperate measures", are you earning less amount of money than you wanted or you are okay?
>
> Respondent 1: Less.
>
> **Moderator 2**: Let's take it from there, that small amount of money you are earning now, is it more or less than the money that you can earn in Zim?
>
> Respondent 1: This is a better situation like I'm saying.
>
> **Moderator**: It's better even though you are not satisfied?
>
> Respondent 1: Exactly.
>
> *Zimbabwe male focus group*

In both groups there was substantial knowledge of the various methods of remitting, and their relative attributes. The most commonly used method of remitting was Mukuru.com, as shown in Figure 23 below, and respondents admitted that prior to the advent of Mukuru, they had relied more heavily on informal methods of remitting. The second most used method of sending money, by taxi or bus, was acknowledged to be very risky and thus undesirable.

> Respondent 1: Usually when you sending your money via a person or drivers it's risky, very risky.
>
> Respondent 2: Especially those who are travelling with a car when they encounter problem they use that money, at least at the bank you can receive your money back.

Zimbabwe male focus group

Figure 23: What method do you use to send money home?



Source: Foshizi

Somewhat unusually, one respondent in both the female and male groups sent money home via a business enterprise which had operations in both South Africa and Zimbabwe (which is essentially the mechanism of the hawala model used in many parts of Asia). It is not clear if this model is a means for businesses to find informal means of transferring funds into and out of Zimbabwe, and thus evade capital controls or not.

> We used to give people who are this side going that side and Malaisha those were normal and those who had businesses this side and that side, they were people that we worked with because you give him money here then he calls home to his wife, his wife takes the money and give it to the others.
>
> *Zimbabwe male focus group*

> I call this person and he works here and has businesses back home, I inform him that I have a certain amount of money that I need to send home and then he will call the people at his store and inform them that someone is going to come collect a certain amount of money.
>
> *Zimbabwe female focus group*

Respondents were also keenly aware of the difficulties in the financial system, which could affect when and how their remittances arrived home. At the time of the focus groups, there was a liquidity problem in Zimbabwean markets affecting the ability of recipients to withdraw cash. While respondents felt they could avoid the issue by choosing which formal remittance channel they used, major problems in the formal system would presumably eventually push them into informal remitting methods.

> Respondent 2: What I realised from the Reserve Bank of Zimbabwe they can't keep money only small banks are working the likes of Mukuru.com those are the banks that has money, if you can send money to the Reserve Bank now it can happen that you already sent your money they can tell you that they don't have it and already your money has been received, they will call to report that your money is there they will tell you to wait they haven't got it as yet.
>
> …Respondent 3: People are waiting 3 months with no payment because there's no money in the bank.
>
> *Zimbabwe male focus group*

Again, goods remittances were very popular because of the price and often quality differential between South Africa and Zimbabwe. The ability to buy goods on lay-by in South Africa was also attractive for larger purchases. A number of respondents effectively run small cross-border trading businesses, sending goods over the border with instructions for relatives to sell them, and in this way increasing the amount of cash that accrues to remittance recipients.

Moderator: Why do you send goods instead of money?

Respondent 3: They are cheaper that side than in Zim, you can find that a bed is almost 300 dollars now but if you can change 300 dollars to rands I can buy a bed of about R6000, but the bed that cost R1500 here cost about 300 dollars in Zim, it means the cost of living is very high.

Zimbabwe male focus group

Moderator: Apart from the money that you send home, how do the people back home support/maintain themselves? What do they do to earn a living apart from the money that you send?

.... Respondent 2: They are in the black market, they sell things like sugar, salt, and other things.

Moderator: Where do they get those things? Do they get that from you or?

Respondent 2: Yes, they get that from me. I send those in bulk and I tell them that they should sell them.

Zimbabwe female focus group

Other than these operations taking advantage of price differentials, however, respondents were pessimistic about the chance of starting a business in Zimbabwe, because operating conditions are simply too difficult. In cash-starved local economies, remittance recipients sometimes needed to resort to barter trade, reflecting the economic difficulties.

Moderator: As you are here have you ever thought of opening businesses at home?

Respondent 1: Yes, but we had to forget, because of the situation there are no chances that you can start.

Zimbabwe male focus group

... sometimes buying maize when you are at home, somebody becomes hungry in need of maize, then you say let's do barter trade, give me a chicken or 2 chickens, I'll give you a bucket of maize, now the chickens are home they will lay eggs and multiply, then someone will come up and say you are wearing a nice blanket, then she's going to say another one is there at home I can give you mine which is at home (Audio inaudible) if I give you this blanket my husband is

> going to kill me, or my son, so in order for me not to fight with my husband give me a goat, then we are progressing in that way.
>
> *Zimbabwe male focus group*

There was however some evidence that remittance money was being used to support farming activities in Zimbabwe. Cash flows in farming are highly cyclical, and without ready cash it may not be possible to productively farm.

> **Moderator 2**: When you say they are farming, are they farming and eat those things or they farm and sell those things at the market?
>
> Respondent 4: Some they sell, some they eat.
>
> **Moderator 2**: They sell?
>
> Respondent 5: With us as we live in the rural area if I can contribute a bit they can farm and be able to have something in their pocket. It's not a big place, its just a small portion of an area, they farm tomatoes, if there's something like a meeting she can go with something after the meeting is adjourned she can sell those things, you find that she can get something for salt, mealie meal and sugar and whatsoever.
>
> *Zimbabwe male focus group*

> If I don't send money and I know that there's poverty, how will they survive because even if they farm, they won't have money to go to the fields, so it would be hard for them.
>
> *Zimbabwe female focus group*

The bulk of the money sent home was being used to finance everyday household survival, in particular school fees, groceries and utilities. Money sent home was described as being spent in its entirety, with no savings. There was little interest in being able to control the way recipients spent money, with the potential for conflict being cited as a reason not to.

> **Moderator**: if there was a way for you to send money directly to your child's school and not to your mother, or buy groceries for them directly from the store, do you think that will affect their

way of living? They are used to having direct access to the money and then they will do the shopping or pay the fees. Do you think that will affect them?

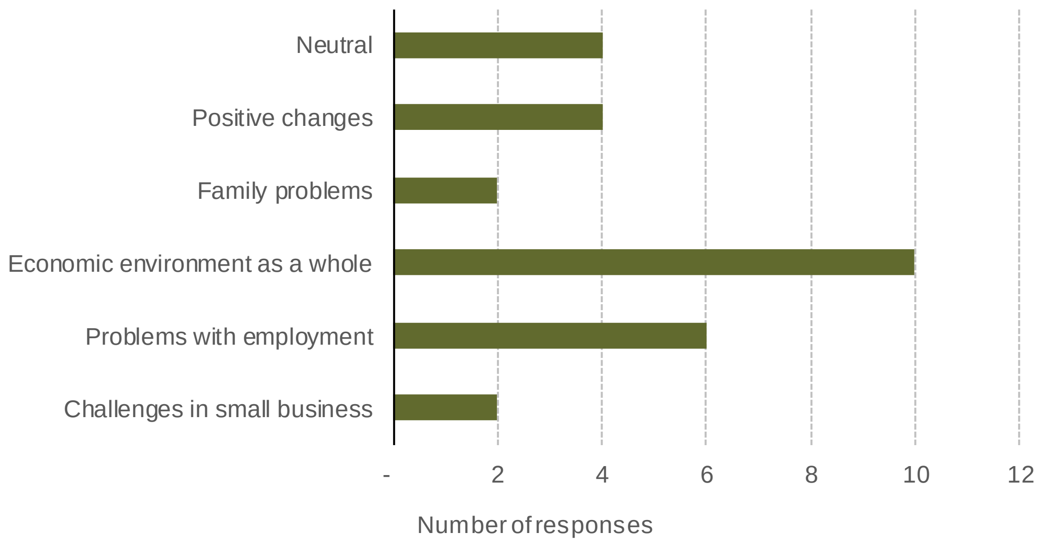
.... Respondent 2: they won't be happy about it because when we send money from this side, they get to keep the change so that they can also be happy, so if you send the money directly to the school, then it's going to be like you don't trust them anymore as your elders.

Zimbabwe female focus group

5.3.2 Remittance recipients

40 remittance receiving individuals in Harare and Bulawayo were surveyed in semi-structured interviews. Unsurprisingly, the results from the survey again confirmed the extent of the economic crisis in Zimbabwe. 55% of households said that their well-being had deteriorated in the last five years, compared to only 35% who felt that they were doing better than before. Many of those who used to provide food or money for the household had lost their jobs or had retired (often involuntarily) from formal employment. 62.5% of the respondents stated that there had been major changes in their sources of income for the past five years, and when asked for the causes of those changes, most often attributed them to the economic environment as a whole (see Figure 24 below).

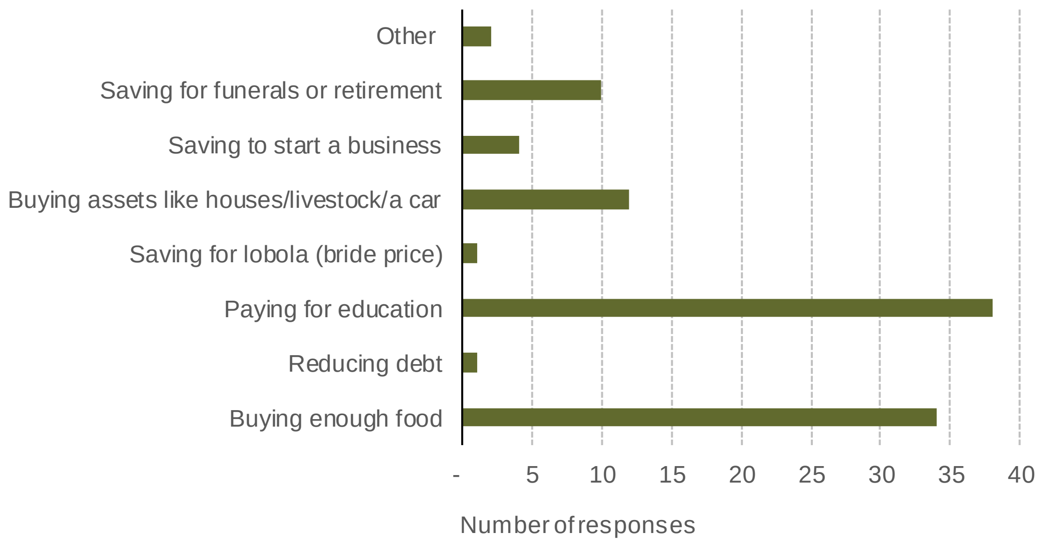
Figure 24: If there were any big changes in your sources of income or food in the last 5 years, what caused them?



Source: Africa Corporate Advisors, DNA calculations. Note, N=28

The most important financial goals of the households surveyed were buying food (85%) and paying for education (95%). Secondary financial obligations such as buying a car, saving for a wedding and paying off debt thus seem to have taken a backseat to these key priorities, given the economic crisis.

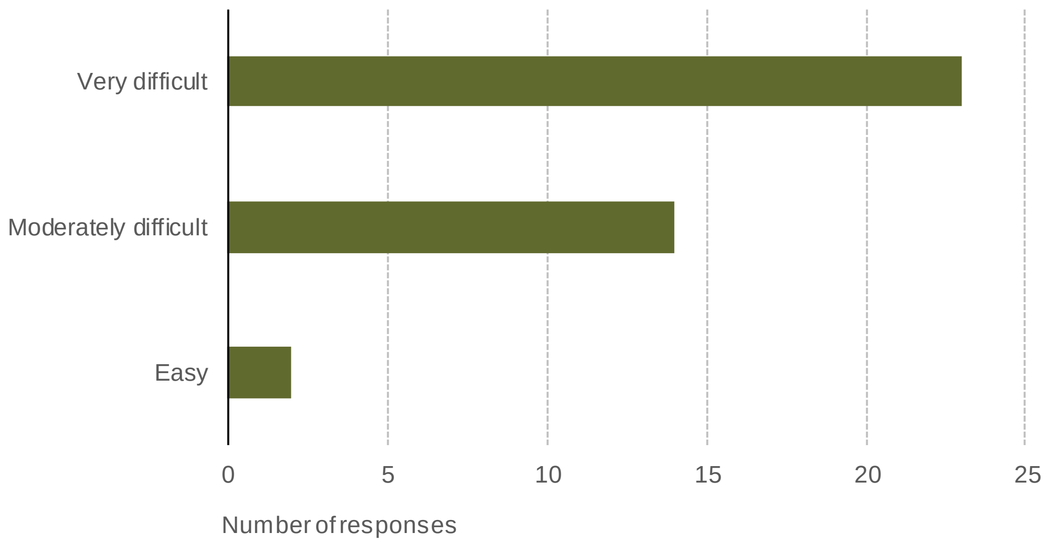
Figure 25: What are the most important financial goals of the household?



Source: Africa Corporate Advisors

Given that food and education were identified as household spending priorities, it is sobering that almost all households reported that it would be either moderately or very difficult to meet these financial goals. 92.5% of respondents felt that the receipt of remittances would help them to achieve these financial goals, and for 11 out of 40 individuals, remittances were one of the primary means for meeting financial goals.

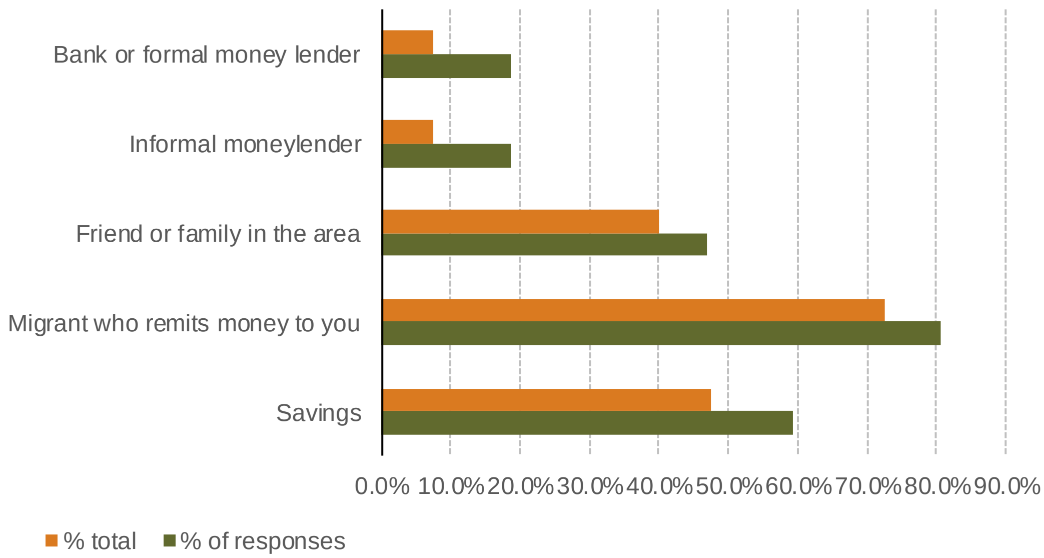
Figure 26: How easy will it be to meet your financial goals?



Source: Africa Corporate Advisors

In the event of a financial emergency, respondents were most likely to rely on the migrant who remitted to them to come through with needed cash, before using savings or family and friends living close by. Both on a day-to-day basis, and in unusual situations, therefore, remittances are a key source of funding for households.

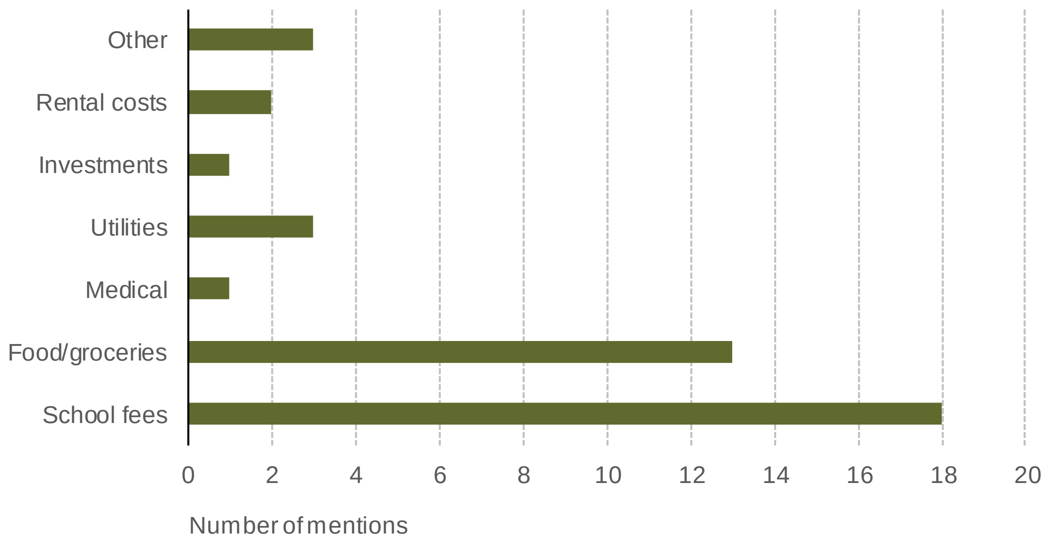
Figure 27: Most likely or likely to get money from the following sources if something bad happened and you needed money urgently



Source: Africa Corporate Advisors, DNA calculations
Note: a number of interviewees did not respond to each question. The percentages are thus shown both as a percentage of responses given to the question, and as a percentage of the total number of interviewees

When asked what remitters requested them to spend the money on, recipient responses suggested that this was very much in line with actual household financial priorities, with again school fees and food/groceries receiving the most mentions. It may also be significant that 12 of the 40 households were receiving money on a quarterly basis, which is in line with the quarterly payment of school fees each term. 12 of 33 replying respondents felt that remittance senders would send more money if they had more control over how it was spent, which shows some differences with the results of the focus group exercise in South Africa.

Figure 28: What does the person who sends the money want you to spend the money on?



Source: Africa Corporate Advisors, DNA calculations

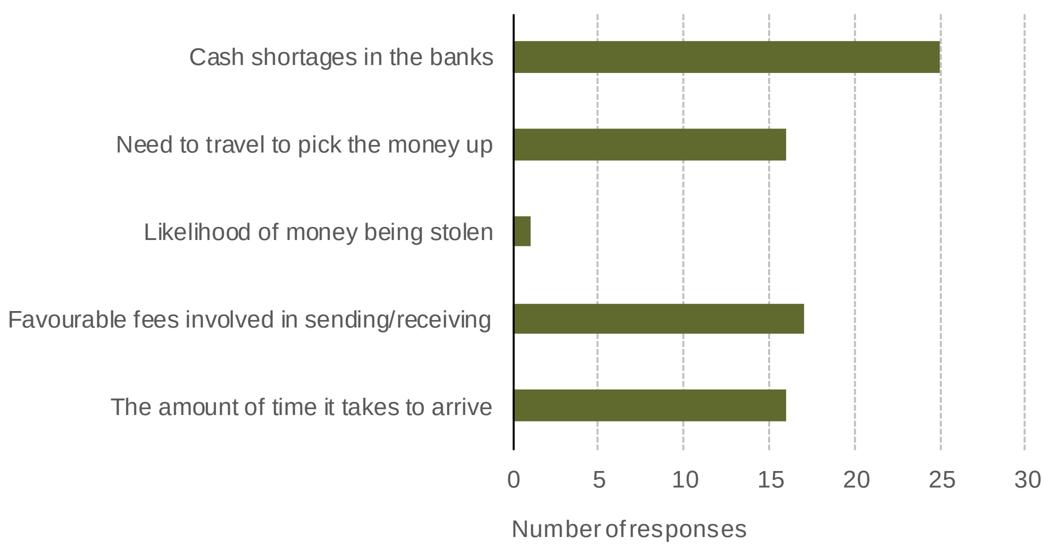
The vast majority of respondents lived in urban areas - 82.5% reported themselves as living in the city, with the rest living in townships, mines or villages. Despite this, 47.5% of respondents owned cattle, 37.5% had chickens, 35% had goats, 5% had sheep, and 10% had other livestock. Some of these holdings of livestock were moreover fairly substantial. For example, eight households had ten or more cattle, and four had 50 or more chickens. Livestock holdings offer both a means to diversify income sources, and have traditionally been used as a means of investing capital. Zimbabweans may have turned more to this means of savings as the banking system has experienced successive shocks.

Most respondents received remittances monthly (20 out of 40), and the next most common frequency was quarterly (12 out of 40). 31 out of 40 respondents were receiving more than $100 per transaction., and the most used means of remitting reported was Mukuru, with 65% of respondents using it. 62.5%

of respondents mentioned that they had a bank account, but only one stated that they used banks as a means of receiving remittance money.

42.5% of the respondents cited favourable transaction fees as the key advantage of the remittance mechanism they used, while 40% were influenced by the need to travel to pick up the money. The most cited advantage/disadvantage of the method used however was the cash shortages being experienced at banks at the time. Some respondents mentioned that there were long queues at the outlets at which they picked up their money. This is likely to have been a key reason why banks were so seldom used as a means of remitting in the sample group.

Figure 29: What are the advantages and disadvantages of the method you receive remittances by?



Source: Africa Corporate Advisors

50% of the respondents indicated that the method by which the remittances were being sent affected them in achieving their goals. Those affected complained that remittances could not be withdrawn in full if sent through Mukuru, which (presumably because of cash challenges in the economy), had imposed withdrawal limits at the time of the study. Many respondents also complained about the exchange rate they received on remittances sent in rand.

5.4 Statistical evidence of remittance impact

Unfortunately, while Zimbabwe does produce a statistical survey that tracks both household well-being and receipt of remittances, the Poverty Income Consumption and Expenditure Survey (PICES) 2011/12, it does not make the dataset available to third parties for analysis, and we were thus unable to conduct our own research on this dataset. The official report on PICES found that remittances from abroad amounted to US$319 million per annum, reaching approximately 140,600 households.[82] 79.3% of remittances were received by households in urban areas, and the average national annual remittance was US$2,269, or around US$189 per month. Remittances from abroad comprised 5.3% of total household income.

A number of other studies have however been undertaken on the impact of remittances on receiving households, the results of which we now briefly address. Research has consistently found that the receipt of remittances raises consumption of items such as food. For example, a study in Chegutu Town found that households with migrants spent around 8% more on consumption than those without migrants, and that "in effect, migration explains consumption levels more than even the household size, meaning the availability of income is central to consumption decisions than the number of people sharing the meal.[83]" Similarly, another study of remittance receiving households found that the majority agreed that "we would have grown sick with hunger without [remittances]."[84]

While remittances are a very important form of income support, they do not always directly reach those most in need. One study found that "the distribution of received money and goods is not

[82] Own calculations
[83] (Mishi & Mudziwapasi, 2014, p. 13)
[84] (Bracking & Sachikonye, 2006, pp. 26, 35)

weighted to the poorest, and 40 per cent of the poorest households do not receive anything." [85] The same study suggested that remittances spent by wealthier households on food and other consumption items may cause price inflation in these markets, further exacerbating the poverty trap in which very poor, non-remittance receiving households find themselves.

The Chegutu Town study, however, found that, while non-remittance receiving households are more financially vulnerable, "their livelihood strategies revolve around the expenses of remittances of receiving households, seen as the target 'market' from which they can get income or otherwise. Remittances thus play a crucial role directly and indirectly in the livelihoods of the receiving and non-receiving households respectively."[86] For example, members of these households may provide services such as household help to receiving households, or sell them goods.

There is some evidence of recipient households investing in productive assets, and undertaking entrepreneurial activities.[87] The link between remittances and increased productivity is particularly clear in agriculture, where cash remittances allow households to purchase a range of agricultural inputs, including "labour, ploughing implements, livestock, manure, fertiliser, seeds and livestock vaccines," and by doing so supplement their remittance income with agricultural income.[88] When it comes to small businesses, however, many remittance recipients seem to feel that the flow of remittances is sufficient to sustain them, and thus further efforts at productive investments are unnecessary.[89]

However, in communities with substantial amounts of remittance inflows, remittances still play a vital, albeit indirect role, in sustaining local entrepreneurs. This is because they boost local spending power. In the Chegutu Town study, where the closure of the local mine had resulted in high levels of

[85] (Bracking & Sachikonye, 2009, p. 216)
[86] (Ncube & Gómez, 2011, p. 15)
[87] (Ncube & Gómez, 2011, p. 14)
[88] (Ncube & Gómez, 2011, p. 15)
[89] (Ncube & Gómez, 2011, p. 18)

dependence on remittances, local entrepreneurs "expressed a common feeling that if remittances were to cease flowing into the locale, their businesses will be at risk."[90] It is interesting to note that some of these individuals were not locals, but instead were attracted to the area because of its high remittance inflows, and the associated business opportunities.[91]

It is also notable that the Chegutu Town study found evidence of community investment of remittances into public goods, specifically, a local clinic and dam. This was uncovered during interviews with a local Ward Councillor, who claimed that migrants in South Africa had organised a steering committee to address home town development issues and channel remittances in this way.[92] These kinds of home town associations are found frequently in remittance receiving regions in the Americas, but still seem to be fairly rare in the sub-Saharan region. It would thus be interesting to find out what the drivers of this development were in Chegutu Town.

[90] (Ncube & Gómez, 2011, p. 19)
[91] (Ncube & Gómez, 2011, p. 20)
[92] (Ncube & Gómez, 2011, p. 17)

6. Key research themes

While the Lesotho, Malawi and Zimbabwe remittance markets are in many ways very different, a number of over-arching themes as regards the impact of remittances on poverty can none-the-less be identified. Below we discuss some of these in more depth.

Access to the cash economy

Arguably the first and most onerous form of financial exclusion is the inability to access cash. Households without cash must either produce what they need, or barter for it, and bartering carries many inherent inefficiencies which will tend to reduce the total income they can realise. An efficient barter only occurs when you can find someone who has what you need, and wants what you have – an onerous requirement not experienced in cash-based transactions.

Moreover, many kinds of products and services are typically only available on a cash basis. The research highlighted the fact that for many remittance recipients, access to fertilisers and to education are typically predicated on having access to sufficient cash. For these households, migrant remittances are often the best available source of such cash income, and thus a crucial means of accessing these product and service markets, which in turn have knock-on effects in terms of agricultural productivity and the development of human capital.

Goods trading and price differentials

While cash remittances offer important access to a number of markets, there is also often substantial advantage to be experienced in remitting at least partially in goods. Remitters emphasized that, even after accounting for the cost of transportation and the risk of damage or loss during the trip, there were many different types of products where goods supplied in South African markets were sufficiently cheaper and/or of higher quality to make remitting them profitable. In effect, remitting goods could be used as a way of increasing the effective amount remitted, as the recipient could on-sell them for more than they cost. Alternatively, remitting goods improved the effective purchasing power of the recipient, as they were able to receive a desired item at a lower price than it was available domestically.

Tariff barriers between South Africa and markets in Lesotho, Malawi and Zimbabwe are limited. However, in practice, there are a number of reasons why regional markets do not work particularly well, resulting in sustained price and quality differentials across borders. In a number of markets various types of border taxes are imposed on imported goods, tending to increase prices. Non-tariff barriers such as licensing requirements on telecoms goods, for example, or distribution arrangements with agents, also often tend to decrease the competitive functioning of markets.

Remitting goods is not sufficient to address these sustained market problems, but it does provide a safety valve for chronically distorted and restricted markets, and certainly improves the purchasing power of remittance recipients. Goods remittances should perhaps be regarded as an early indication that a goods market is malfunctioning, and that policymakers should be focusing attention on it.

The primacy of education – preparing children to migrate?

In all three of the markets examined, a clear theme was the link between remitting behaviour and educational spending. Education was a top three financial priority for households, and remittances were often explicitly intended to help meet education expenditures. As has already been discussed, one of the factors driving this focus on education is likely the fact that education fees are one of the primary cash expenditures of many households, and remitters are an important source of access to the cash economy.

However, it is also worth noting that, in uncertain economic environments where investments in physical capital are likely to be high risk, investments in human capital probably have an attractive risk profile, not least because an educated child is able to migrate to leave an uncertain political and economic environment.

Food security and frequency of remitting

Remittances play an important role in supporting consumption expenditure, and in particular in improving food security. However, the manner in which this dynamic plays out may be affected by the nature of food production in the origin community. For example, where the origin household has access to good agricultural land, remittances may do more to support food security if they are timed to pay for seasonal agricultural inputs, like fertiliser, labour to assist with harvesting, or vet fees. By doing so, the remitter improves the ability of the recipient household to grow their own food, and thus indirectly improves food security. Alternatively, for recipients in urban areas or without access to good land, regular/monthly remittances play a more important role in helping to purchase food.

We would speculate that this dynamic is one of the reasons that migrants from Malawi remit less frequently than migrants from Lesotho and Zimbabwe. Malawi is a more rural country, where households have better access to agricultural land, and thus are more likely to benefit from intermittent assistance with school fees and agricultural inputs.

Remitting, financial exclusion and financial innovation

Frequent remitters are highly motivated customers for appropriate financial services. They are often sending home large proportions of their earnings, and doing so frequently, in order to meet financial objectives (like feeding their children) that are very close to their hearts. As seen in the focus group discussions, this often means that they end up well informed on the relative virtues of the different kinds of financial services available to them, and that they are happy to switch service providers if a better quality/price offering becomes available. The rapid ascendancy of Mukuru and the Shoprite money transfer product are evidence of this aspect of remittance markets.

However, low income remitters are also more likely to be excluded from full participation in financial markets, not least because many do not have formal residence status in their destination country. The relative poverty of many such migrants further locks them out of formal financial systems, particularly when the unit costs of remitting are proportionately too large for the small amounts sent at a time.

These characteristics put remittance markets at an interesting juncture in the financial exclusion debate. For financially excluded migrants, the formal financial product which they would access first, and often need with some urgency, is remittance services. Remittances thus have the potential to be a gateway into the formal financial sector for many of the excluded. Evidence shows that the availability of better quality/lower cost remitting services would also tend to increase the amount of remittances sent, with knock-on effects on the ability of remitters to address poverty in origin communities.

Heterogeneity of markets and need for tailored approaches

In the three markets examined, the role played by remittances and the manner in which remitting occurred differed quite substantially. These differences were driven by geographical distance from the destination country, the nature of the local economy, the rationale for migration, the extent of regulatory barriers, as well as a number of other factors, probably including cultural issues. Any program aimed at improving the ability of remittances to reduce poverty must take into account the wide variances in different markets, and prioritise interventions in accordance with local conditions and requirements.

7. Conclusions

Remittances play a complex role in poverty alleviation. The ability of desperate people to "vote with their feet" and migrate to seek economic opportunities provides an important safety valve to communities experiencing economic or political shocks, or sustained poverty. A range of motivations, the most important of which is probably altruism, then spur these migrants to send money home to support those left behind, and these funds play critical roles in ensuring food security and educating children, among other objectives.

However, the act of remitting can't address the fundamental reasons which drive largescale economic migration in the first place, namely lack of economic opportunities. While migrants are more likely to invest in their home communities than others, if the home business environment is difficult then there will be few good investment opportunities to be had. Merely sending more remittances home does not address this problem, and can create additional issues, particularly if asset price bubbles form as a result of remittance inflows.

The three economies examined in this report are all impoverished and display various types of economic vulnerabilities. In all three, remittances play a vital role in supporting at-risk households, and in Lesotho and Zimbabwe, are also of significant macroeconomic significance. By keeping children fed and educated, remittances help to improve the long-term growth prospects of impoverished nations, and also play some role in mobilising economic activity via entrepreneurship, albeit to the extent allowed by the local economic climate. Facilitating the development of more affordable and efficient remittance markets thus continues to be an important pro-poor policy initiative.

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Appendix 1: Fieldwork design

The project included four distinct fieldwork exercises, conducted in South Africa, Lesotho, Malawi and Zimbabwe respectively. The methodology used is discussed below.

South Africa

The South African leg of the fieldwork comprised a dipstick research study on migrants from Lesotho, Malawi and Zimbabwe, currently based in South Africa, who send remittances home. The research was conducted by Foshizi in September 2016 in Gauteng. Recruitment of focus group participants took place in the following areas within Gauteng: Johannesburg Wanderers taxi rank, Rosettenville, Turffontein, Booysen, Soweto areas.

The study comprised six focus groups with 10 participants each, with respondents grouped in accordance to nationality, gender, and age in accordance with the table below.

Region	25-34 years	35-44+ years
Zimbabwe	1 group with males.	1 group with females.
Malawi	1 group with females.	1 group with males.
Lesotho	1 group with males.	1 group with females.

Each focus group interview took 90 minutes, with an experienced moderator facilitating the interview. Respondents were spoken to in the language of their choice; a translator was present where needed. Group discussions took place in residential areas or households to ensure a level of comfort and immediate access into respondents' lives.

At the end of the interview respondents were asked to fill in a mini questionnaire that included personal questions on their remitting behaviour, less suitable for group discussion, as well as basic demographic data.

Lesotho

The Lesotho fieldwork was conducted by Mr Litsebe Jimson, who conducted 33 semi-structured interviews of household heads in families that receive remittances from cross-border migrants.

Lesotho is mountainous country with 56.7 percent of the population living in the lowlands where access to physical infrastructure, utilities and services is relatively good, 12.8 percent live in the foothills and 30.5 percent in the mountains (Census 2006). Means of livelihoods differ in the lowlands and highlands, therefore the impact of cross-border remittances will differ by ecological zone. The country has four distinct ecological zones namely: the lowlands strip along the western border with Free State Province where elevation ranges from 1,400 – 1,800m, the foothills with elevations of 1,800 – 2,000m, the Senqu River Valley with elevations of 1,400 – 1,800m, and the mountainous area (highlands) at an elevation of 2,000 – 3,400m (Chakela 1999).

The proximity of households' locations to key border posts may also influence the impact that remittances have on the livelihoods of beneficiaries due to differing access to services that facilitate access to remittances.

Lesotho being a rural country, the approach to taking a roughly representative sample for the study had to be considered carefully taking into consideration the topography and proximity to borders. Cluster sampling was deployed whereby interviews were conducted per ecological zone, targeting eight households each in the following four areas: Thaba-Tseka (Mountain District), Leribe (Foothills), Maseru (Lowlands District), as well as Mohales Hoek (Senqu River Valley). The semi-structured interview transcripts were filled during interviews, with audio recordings made of each interview. The number of respondents that were reached and were willing to discuss from Leribe District are 6, Mohales Hoek District 6, Thaba-Tseka District 5 and Maseru District 16, thereby totaling to 33 recorded respondents in all.

Malawi

The Malawi fieldwork was conducted by Imani Consulting. The project plan was to conduct 30 interviews of around 30 minutes each, in Lilongwe, Blantyre and the rural areas in between, with the bulk of the interviews conducted in rural areas.

31 respondents were ultimately interviewed, representing remittance receiving households, with one interview subsequently excluded due to data inconsistencies. Most respondents were based in the south region; followed by the central region of Malawi. Dedza with 11 respondents was one of the districts with the highest number of qualified interviewees. All the respondents interviewed were Malawian citizens. The respondent's age ranged from 20 to 56. The sample size comprised 19 males and 11 female respondents. Of the 30 respondent's households, 24 households were male headed

households, and 6 were female headed. 24 of the interviewees were household heads within their households.

Zimbabwe

Africa Corporate Advisors was contracted to conduct at least 30 semi-structured interviews with heads of households receiving remittances in Zimbabwe, of approximately 30 minutes each. A total of 40 interviews were ultimately undertaken in the largest cities of Harare and Bulawayo. The interviews were conducted using semi-structured open ended questions.

The main shortcoming of the study was that it was conducted during a period when the country had cash shortages in the financial system. The analysis of the survey result was through the aid of SPSS statistical software.

Appendix 2: IHS3 statistical analysis, Malawi

The Third Integrated Household Survey (IHS3) is a Living Standards Measurement Study (LSMS) survey and is run in cooperation with the LSMS World Bank Division and the National Statistics Office (NSO) of Malawi. The first round was run between March 2010 and March 2011 (National Statistics Office of Malawi,2012,1) with the second round being run during 2013. This is one of the few panel data sets produced by the LSMS, even though the initial origin of the LSMS had panel data collection as a major goal (Deaton, 1997, 37).

Surveys of this magnitude are often a stratified two-stage cluster sample design and this particular LSMS incarnation follows suite. A stratified two-stage cluster sample design is an example of a complex survey design to which a particular statistical treatment must be applied. We cannot use the normal Simple Random Sample (SRS) techniques as even though they (may) produce the correct point estimates, as the standard errors of such estimates will generally be underestimated (Deaton, 1997, 52)/(Lohr,1999,133), and statistical significant relationships between variables is more likely to be found.

Stratification is possible when a variable of interest takes on different mean values in different sub-populations. When this occurs, we may divide up the population into *H* sub-populations (called strata) and obtain increased precision in our estimates of population quantities (Lohr,1999,95).

Cluster sampling is generally used to reduce the cost of a survey at the expense of less precise estimation (Lohr,1999,132). In one-stage sampling, suppose we subdivide the population into *N* clusters where each element (observational unit) of the population is in exactly one cluster. We would then take a sample from the N clusters and observe **every** element within the selected clusters (Lohr,1999,133).

To generalise to two-stage clustering, suppose again we divide the population into N first-stage units called Primary Selection Units (PSUs). The elements contained within these PSUs will be referred to as Secondary Selection Units (SSUs). We then take a sample of the PSUs. In one-stage clustering, we would sample **all** the SSUs within the selected clusters. In two-stage sampling, instead of observing all the SSUs within each cluster, we only observe a sample of these SSUs within each cluster (Lohr,1999,146). The SSUs are then the observational units. Sampling schemes may differ in first-stage and second-stage sampling.

There are three distinct datasets in the IHS3. The aggregate cross-sectional sample design conducted in 2010, which is the first dataset, originally called for a sample size of 12 288 households. However, due to being unable to follow up with 17 households in visit 2, the final sample size is 12 271, which is able to be representative at the district level (National Statistics Office of Malawi,2012,10). It should be noted that of the 12 271 households, 688 were replacements for a variety of reasons (National Statistics Office of Malawi,2012,5).

The 2008 Malawi and Population Housing Census (PHC) was used as the sampling frame for the IHS3 survey (National Statistics Office of Malawi,2012,5). In the first stage of selection, PSUs were the Enumeration Areas (EAs) defined in the above-mentioned census and were selected with probability proportional to size, with size being defined as the number of households within each enumeration area. This was done for each district (National Statistics Office of Malawi,2012,6).

The strata for the first stage consists of 31 artificial districts, corresponding to the 27 actual districts in Malawi (excluding Likoma). The 27 districts are classified as sub-strata of the main rural stratum and four districts were deemed to have an urban component corresponding to the major cities of Lilongwe, Mzuzu, Blantyre and the municipality of Zomba (National Statistics Office of Malawi,2012,5). Each district was not split into urban/rural components due to the relatively small number of urban EAs within the majority of districts. Implicit stratification was provided on the urban/rural domains, however, to provide greater geographic representativeness (National Statistics Office of Malawi,2012,6).

The second IHS3 dataset is the panel component of the survey, which had a baseline of 3 246 households in the 2010 survey. The third was the 2013 survey, which had a sample size of 4 000 households that could be traced back to 3 104 baseline (2010) households, which represented an overall attrition rate of 3.78% (National Statistics Office of Malawi,2014,6). The panel subcomponent enumeration areas (EAs) were post-stratified by urban and rural areas in each region so that reliable results could be obtained for the urban and rural domains at the national level. A higher sampling rate was used for the Northern Region and urban strata at each region (National Statistics Office of Malawi,2012,9).

Second-stage sampling was carried out by making a listing of households within the selected enumeration areas and drawing a simple random sample of 16 primary households and 5 replacement households (National Statistics Office of Malawi,2012,10).

The data analysed during the course of this project comes from three questionnaires within the survey. These were the Agriculture, Fishery and Household questionnaires, which formed the basis of our income calculations. It was necessary to include the Agriculture and Fisheries data given the agrarian nature of the population of interest as these components may represent a major proportion of the total income of a given household.

There were a number of problems associated with the analysis of the survey data, both from a theoretical and practical perspective. On the theoretical side, adjustments needed to be made for the design of the survey when deriving any reported statistic. On the practical side, there were a number of limitations and biases within the data.

To simplify and standardise the statistical analysis, we made use of the R language along with the *survey* package. The survey package enables design considerations to be handled in a central and consistent way, with its use of design-specific methods and objects. The survey design of the IHS3 and the sampling weights provided with the design resulted in limitations, such as not being able to take arbitrary subsets of the survey (Lumley,2010,32). It was thus decided to make use of a replicate weight approach.

A Jack knife approach for replicate weights was first attempted but in the 2010 panel component it was found that Nsanje only had one remaining PSU for a requisite subset, so bootstrapped weights were used instead. The bootstrap procedure samples repeatedly from the sample in the survey with replacement, a statistic of interest is calculated and the variability between all replicates is assessed in order to obtain a variance for the statistic of interest (Deaton,1998,59). For our purposes, bootstrapped regressions were performed using the replicate weights supplied by the *survey* package function *as.svrepdesign()* after initial data cleaning and formatting was performed.

On the practical side, we must acknowledge that certain biases creep in when dealing with reported survey data:

- We first note that the definition of a "household" varies between surveys, and more broad definitions of a household will cause households to be larger and have a membership which responds more to economic changes (Deaton,1998,23).
- Further, households in developing nations often serve as both producers and consumers of their own goods, yielding difficulties in making consumption and income estimates and distinctions

(autoconsommation) (Deaton,1998,24). This is particularly relevant to the Malawian economy where a large proportion of households produce their own food.
- The recall period of a specific module affects estimates of income and consumption. In the case of consumption, individuals are more prone to forgetting purchases that happened further in the past, thus increasing measurement error over longer recall periods. A shorter recall period will tend to increase the precision of the estimates, but is less likely to pick up on variation in purchases within the year, and thus will only be somewhat related to normal expenditure patterns (Deaton,1998,24). This is significant as the survey was administered to different households at different times.
- A further consequence of a short recall period is that individuals tend to include income or expenditures that occur before the reporting period, in an effort to be helpful, so that the enumerator gets "all relevant information" (Deaton,1998,25). This will have a tendency to increase estimated consumption.
- There is some coverage bias within the surveys. In particular, we do not have data on armed forces or institutionalised individuals, nor data on the inhabitants of the Likoma district. However, these subpopulations should be small enough to ignore, and would likely only have significant impacts on estimates of alcohol and tobacco consumption (Deaton,1998,28).
- There are incentives for households to understate income and assets. Further, in a developing household different income and expense streams (family, business, agricultural or personal) may be confused, as distinctions are often not made between them by the individuals of the household. It has been found in the literature that self-employed farm or non-farm income is often heavily understated (by up to 66% in the US Current Population Survey for farm-income), which will result in large estimation errors in general (Deaton 1998, 29).

We have attempted to bear in mind and compensate for the above limitations and biases contained within the data, especially as they are likely to heavily affect our income estimates, which are in turn the basis for much for the work done below. It is likely that all the income values derived are heavily understated, but the magnitude of understatement cannot be ascertained. Self-employed income is likely to be most affected, which includes measures of enterprise, agriculture and fisheries income. Remittances used a long recall period (12 months) and thus are also likely to be understated as a whole.

With regards to total household income, disaggregation into components could be performed as a further step to reduce variability in a single estimate. Our income sources come from the following variables:

Table 11: Income sources used to derive household income estimates

hh_56_59_Income_from_Ganyu_Labour	ag_e20_Coupon_Sales
hh_o17_In_Kind_Child_Remittance	ag_i03_Rainy_Season_Crop_Sales
Primary_Income	ag_q03_Permanent_Tree_Sales
Primary_Fringe_Income	ag_o03_Dry_Season_Crop_Sales
Secondary_Income	ag_r17_Livestock_Sales
Secondary_Fringe_Income	ag_s06_Livestock_Products_Sales
Other_Income	fs_e08_Fish_Income_1
RuralTransfers	fs_e08_Fish_Income_2
InternationalTransfers	fs_i08_Fish_Income_1
UrbanTransfers	fs_i08_Fish_Income_2
Child_Remittance	fs_f03_Fish_Income_1
Enterprise_Income	fs_f03_Fish_Income_2
hh_r02a_Social_Safety_Nets_Cash	fs_j03_Fish_Income_1
hh_r02b_Social_Safety_Nets_In_Kind	fs_j03_Fish_Income_2

A number of calculations were performed in order to standardize data into an annualized, household-based measurement. For example, where income was provided only for the previous month, it was multiplied by 12 to estimate an annual average. Where periods relating to the income were provided, they were used to enhance the precision of the estimation. For example, for the calculated values of fishing income, the average weekly quantities of fish product sold multiplied by the average price per unit multiplied by the number of months in the fishing season (High or Low) and summed together yield the Household and Enterprise fishing incomes found in the Fisheries questionnaire.

Three regressions were run for each of the variables of interest: the first on the cross-sectional aggregate data set, the second on the 2010 panel component and the third on the 2013 panel component. It should be noted that since the 2010 panel is a subsample of the 2010 aggregate data set, results should be along the same lines and may only differ if the panel data is not representative on the same level as the aggregate for the variable of interest. The fourth regression was performed on the 2010 panel component alone, incorporating details of individuals tracked within the 2013 panel component. Only the 2010 Aggregate Cross Section and 2013 Panel data regressions are presented for comparison below.

For all the regressions we make extensive use of subsets. In particular, since we are interested in the impact of remittances, we typically only look at the subset of the population that receives remittances. Further, to stabilise variance, we make extensive use of logs. Finally, other household income excluding remittances was required to be greater than zero for an observation to be included in the subset (since log(0) is undefined). The last condition is not too onerous, as there were few houses that relied solely on remittance income for their household needs.

We generally avoid attempting to make inferences and just comment on the sign of the coefficient and significance of the variable. To infer causality one needs experimental data, combined with the difficulties in interpretation of complex survey statistics makes it unfeasible to note anything but correlations.

Usage of Fertilizers

The first regression examined whether the receipt of remittances was correlated with the use of inorganic fertilizers. The response variables in this case were the sum of the following two calculated values:

- ag_d39d_KG_Inorganic_Fertilizer_First_Application
- ag_d39i_KG_Inorganic_Fertilizer_Second_Application
- ag_k40d_KG_Inorganic_Fertilizer_First_Application
- ag_k40i_KG_Inorganic_Fertilizer_Second_Application

which represents the entirety of inorganic fertilizer used during the rainy and dry seasons for the current survey year. Linear regression with normally distributed errors was chosen for the response in lieu of a censored regression for simplicity. Fertilizer use was regressed against the following variables:

- log(Total_Remittance): total remittances received annually by the household, in cash and kind, from all destinations

- Coupons_Used: this captured use of coupons issued in terms of an agricultural input subsidy program to purchase subsidized fertiliser
- Dist_Borderpost: distance from the nearest border post
- as.factor(Highest_Grade)Lower_Std8: the default household was set as one where the member of the household with the highest level of education had achieved Standard 8 (ie had at least completed primary education). This variable represented households which differed from that default, as the highest level of education achieved was less than Standard 8
- as.factor(Highest_Grade)No_Education: households where no member had any formal education
- Adult_Household_Members: number of adults (15 to 60), which reflects potential household access to agricultural labour
- log(Household_Income_Total): all other sources of household income, excluding remittance income

The results of the analysis are shown in the two tables below. These results relate only to remittance receiving households, involved in agriculture, that receive at least one other source of household income.

Table 12: Fertiliser use, 2010 aggregate data set

Coefficients:	**2010 Aggregate Estimates**				
KG Fertilizer	**Estimate**	**Std. Error**	**t value**	**Pr(>|t|)**	**Significance**
(Intercept)	2.621589	0.190049	13.794	< 2e-16	***
log(Total_Remittance)	0.072545	0.014692	4.938	1.30E-05	***
Coupons_Used	0.179131	0.020006	8.954	2.73E-11	***
Dist_Borderpost	0.002875	0.001217	2.362	0.02289	*
as.factor(Highest_Grade)Lower_Std8	-0.23079	0.052778	-4.373	7.92E-05	***
as.factor(Highest_Grade)No_Education	-0.379895	0.085698	-4.433	6.55E-05	***
Adult_Household_Members	0.066456	0.024055	2.763	0.00847	**
log(Household_Income_Total)	0.093277	0.013353	6.986	1.52E-08	***

*Note: * is significant at 5% level; ** is significant at 1% level; *** is significant at 0.1% level*

Table 13: Fertiliser use, 2013 panel data set

Coefficients:	**2013 Panel Estimates**				
KG Fertilizer	**Estimate**	**Std. Error**	**t value**	**Pr(>|t|)**	**Significance**
(Intercept)	1.4224676	0.40821	3.485	0.00117	**
log(Total_Remittance)	0.1307892	0.0251151	5.208	5.41E-06	***
Coupons_Used	0.1445517	0.0214658	6.734	3.49E-08	***
Dist_Borderpost	0.0005346	0.0016974	0.315	0.75435	
as.factor(Highest_Grade)Lower_Std8	-0.0338925	0.1327513	-0.255	0.79973	
as.factor(Highest_Grade)No_Education	-0.0233124	0.1010351	-0.231	0.81864	
Adult_Household_Members	0.0907631	0.0284789	3.187	0.00271	**
log(Household_Income_Total)	0.1098692	0.0190711	5.761	8.76E-07	***

*Note: * is significant at 5% level; ** is significant at 1% level; *** is significant at 0.1% level*

We see that the log of remittance income is very highly significant in both sets of regressions. The sign of the remittance coefficient is positive leading to positive correlations between remittance and the response i.e. for a unit increase in the log of remittance income, the log number of kgs of fertilizer is expected to increase by 0.072545 logarithmic kilogrammes (e.g. an increase of approximately 1kg per logarithmic remittance income). It is good to note that in both years, the sign and the significance of remittance does not change leading to a consistent result for different surveys.

In addition, coefficients on most other variables are consistent with theory. Coupons subsidizing fertiliser use increase fertilizer use, while lower levels of education decrease it. More adult household members and thus more labour available for farming also tends to increase fertilizer use. Distance from a border post increases fertilizer use, which is somewhat unexpected, but is only significant at the 5% level, and only in the 2010 aggregate dataset.

Some caution must be used in interpreting the results. In particular, it is not clear that remittance income affects fertilizer use more than any other kind of income. While the coefficient for remittance income is larger than that for other income in 2013, in 2010 this is reversed, and in both cases they are of a similar quantum.

Enterprise Income Regressions

We now turn to an evaluation of whether the receipt of remittance income affects the ability of a household to earn enterprise income. This would hold, for example, if remittances in cash helped to purchase stock, or remittances in goods were used as a source of stock. Enterprise income was calculated in its entirety from HH_MOD_N2. The module asks households what months of High/Average/Low sales look like in terms of revenue, and the corresponding months in which these sales patterns occurred. Simple multiplication of number of months in a particular sales state and the average sales for that state was used to estimate income for that year, accounting for the number of months in operation. Enterprise Income was removed from Total Income for the purposes of this regression.

- Dist_Road: distance from a paved road in kilometers, as a measure of isolation
- log(Household_Income_Total): all other sources of household income, excluding remittance income, **enterprise income and employment income**
- log(Total_Employment_Income): all income earned from paid employment by household members. The rationale for splitting this out from other income sources was that paid employment is likely to increase the opportunity cost of time spent on enterprises, and thus that these income sources may have a different effect on enterprise activity levels than other income sources.

The results for the 2010 aggregate and 2013 panel data sets are shown in the two tables below.

Table 14: Enterprise income regression, 2010 aggregate data set

Coefficients:	**2010 Aggregate Estimates**				
Enterprise Income	**Estimate**	**Std. Error**	**t value**	**Pr(>|t|)**	**Significance**
(Intercept)	1.6623	1.51907	1.094	0.280065	
log(Total_Remittance)	0.32253	0.12154	2.654	0.011195	*
Dist_Road	-0.04344	0.0431	-1.008	0.319272	
as.factor(Highest_Grade)Lower_Std8	0.5185	0.29546	1.755	0.086573	.
as.factor(Highest_Grade)No_Education	-1.63591	0.41738	-3.919	0.000321	***
Adult_Household_Members	0.19661	0.08164	2.408	0.020494	*
log(Household_Income_Total)	0.24149	0.07891	3.06	0.003845	**
log(Total_Employment_Income)	0.34194	0.11362	3.009	0.004412	**

*Note: * is significant at 5% level; ** is significant at 1% level; *** is significant at 0.1% level*

Table 15: Enterprise income regression, 2013 panel data set

Coefficients:	2013 Panel Estimates				
Enterprise Income	Estimate	Std. Error	t value	Pr(>|t|)	Significance
(Intercept)	-3.1677597	0.7600476	-4.168	0.00015	***
log(Total_Remittance)	-0.0011584	0.0599386	-0.019	0.984672	
Dist_Road	0.0008425	0.0149159	0.056	0.955222	
as.factor(Highest_Grade)Lower_Std8	0.0334821	0.196979	0.17	0.865844	
as.factor(Highest_Grade)No_Education	-0.5915275	0.1594671	-3.709	0.000604	***
Adult_Household_Members	0.0156989	0.0516371	0.304	0.762611	
log(Household_Income_Total)	1.8078977	0.0984899	18.356	< 2e-16	***
log(Total_Employment_Income)	-0.720361	0.1074855	-6.702	3.89E-08	***

*Note: * is significant at 5% level; ** is significant at 1% level; *** is significant at 0.1% level*

As we can see, remittance income was found to be significant in the 2010 aggregate regression (at the 5% level), with a positive coefficient, suggesting that remittance income and enterprise income are positively correlated, as postulated. However, total remittance effects were not found to be significantly different from zero in the 2013 panel regression, and the coefficient swapped signs. Total employment income was significant in both, but with differing signs. Either there was a structural change to cause this effect or uncaptured variation is present. Further analyses should be done. Normal error terms were used for this regression. The subset applicable to the result is the subset of households that do receive remittances, have positive household income and are engaged in a household enterprise.

Education Dropout Regression

As paying for education costs are often cited as one of the reasons for remittances, we now examine whether remittances had any relationship with the likelihood that children would drop out of the schooling system. Dropout as a variable had a complex definition. Firstly, the subset of the population who had ever attended school was calculated. From these, the number of children who had attended school but not graduated nor were currently enrolled were calculated. These became the number of dropouts per household (a counting process). We restricted the age range of calculations to individuals under the age of 22 and within the schooling system. Other variables used included:

- log(Household_Income_Total): only remittance income was excluded from this total
- Orphan: both parents deceased or location unknown
- Married: child of educational age reported to be married (monogamous or polygamous), divorced, separated or widowed

Poisson distributed errors were used to reflect the nature of the count. Results are shown in the tables below.

Table 16: Dropout regression, 2010 aggregate data set

Coefficients:	**2010 Aggregate Estimates**				
Dropout	**Estimate**	**Std. Error**	**t value**	**Pr(>|t|)**	**Significance**
(Intercept)	-0.769857	0.352321	-2.185	0.034652	*
log(Total_Remittance)	-0.070525	0.021648	-3.258	0.002259	**
Dist_Road	0.005595	0.003872	1.445	0.156064	
as.factor(Highest_Grade)Lower_Std8	0.252369	0.118229	2.135	0.038822	*
as.factor(Highest_Grade)No_Education	-15.385004	1.461055	-10.53	3.15E-13	***
Adult_Household_Members	0.372125	0.029743	12.511	1.39E-15	***
log(Household_Income_Total)	-0.105681	0.025811	-4.094	0.000194	***
Orphan	-0.481404	0.189555	-2.54	0.014983	*
Married	0.065186	1.931309	0.034	0.973239	

*Note: * is significant at 5% level; ** is significant at 1% level; *** is significant at 0.1% level*

Table 17: Dropout regression, 2013 panel data set

Coefficients:	2013 Panel Estimates				
Dropout	Estimate	Std. Error	t value	Pr(>|t|)	Significance
(Intercept)	0.141492	0.380742	0.372	0.7121	
log(Total_Remittance)	-0.069165	0.032679	-2.117	0.0404	*
Dist_Road	0.001185	0.004676	0.253	0.8012	
as.factor(Highest_Grade)Lower_Std8	0.047481	0.190055	0.25	0.804	
as.factor(Highest_Grade)No_Education	0.133734	0.192777	0.694	0.4918	
Adult_Household_Members	0.315329	0.026893	11.725	1.12E-14	***
log(Household_Income_Total)	-0.157637	0.021381	-7.373	4.93E-09	***
Orphan	-0.600242	0.461986	-1.299	0.2011	
Married	0.163279	1.829606	0.089	0.9293	

*Note: * is significant at 5% level; ** is significant at 1% level; *** is significant at 0.1% level*

We see that remittance income is significant and has negative coefficients in both regressions – in other words, the receipt of remittance income is negatively correlated with the number of drop-outs per household. A higher remittance value for the household is correlated with a reduction in the expected number of dropouts for the given household. This was applied relatively unrestricted to the households that received both remittance income and any other form of household income and thus is valid for said subset.

As in the fertilizer calculation, it is not clear that remittance income affects drop-out rates more than any other kind of income. In fact, other income has a more statistically significant relationship with drop-out rates. It might be possible to derive more accurate estimates by examining educational outcomes on an individual level, rather than the household level at which this data is formatted. This is planned for further stages of the research.

Panel Education Outcomes

The drop-out rate is of course not the only educational variable of interest. The Malawian schooling system has high levels of grade repetition, and thus not only is it relevant that a child is continuing to stay in the education system, but that they are progressing through grade levels. The final regression exercise therefore examined whether children in the 2013 panel had shown such grade progression in the period from 2010, and whether receipt of remittances influenced this outcome.

The "Good Education" response variable for the panel education regression was defined as the number of the children in a household who completed 3 or more years of school between the two survey periods, divided by the number of children in the household in school during both years. This was expressed as a percentage/proportion, and was regressed using a logistic regression (binomial error terms). The grades that the students were in during the 2010 survey and 2013 survey were extracted and the grade difference was calculated. A grade difference of three or more was classified as a good outcome. Individuals were tracked by using the unique identifier "PID" which remained constant over the two panel data sets. Only children in Standard 1 to Form 4 were included as the baseline children for the 2010 panel.

Table 18: Panel regression of "good education" outcome

Coefficients:	**2010 Panel Estimates**				
Good Education	**Estimate**	**Std. Error**	**t value**	**Pr(>|t|)**	**Significance**
(Intercept)	-2.910838	0.550955	-5.283	3.98E-06	***
log(Total_Remittance)	0.166945	0.043708	3.82	0.000425	***
Dist_Road	-0.006097	0.010262	-0.594	0.555486	
as.factor(Highest_Grade)Lower_Std8	-0.56042	0.134418	-4.169	0.000145	***
log(Household_Income_Total)	0.045597	0.0439	1.039	0.304771	
Orphan	0.212783	0.158441	1.343	0.186324	
Married	0.086673	0.238494	0.363	0.718073	

*Note: * is significant at 5% level; ** is significant at 1% level; *** is significant at 0.1% level*

We can see that the log of total remittances was highly significant. The sign of the remittance coefficient is positive, indicating that an increase in remittance levels is correlated with a corresponding increase in the likelihood of good outcomes.

It should be noted that the parameters included in the tables above do not reflect all approaches taken to data analysis. In particular, an attempt was made to use per capita remittances and other household incomes in the education regressions, on the assumption that per capita measures might better reflect the affordability of education. However, doing so was found to decrease significance levels greatly.

We then further subset the data so as to examine children 10 years and older (with a maximum age of 22), on the basis that primary education is free in Malawi, which will tend to decrease the drop-out rates of very young children (in addition, the opportunity cost of the labour potential of children will rise as they grow older). All the previous regressions were repeated with the new subset of children with the addition of a Rural/Urban indicator, and some community level information on access to educational and financial resources (specifically, the distance in kilometres to primary and secondary schools, commercial banks and micro finance financial institutions – this was the best proxy for financial access we found in the survey). We also amended the definition of highest level of education of a household member, into the following four categories: No education; up to Standard 4; Standard 5 to Form 4; and Form 5 and above.

The resulting models did not display any improvement in explanatory value. They typically had fewer significant variables than the approach we have already detailed in the foregoing, and results mimicked much of the original regression coefficients. The results for the cross-sectional data set are below:

1. Fertilizer 2010 Aggregate – the urban coefficient was significant and the expected sign (less spending on fertiliser in urban areas). The previous highest level education definition resulted in more significant categories at higher levels of significance. School distance measures had no significance coefficients
2. Enterprise 2010 Aggregate – Neither the rural/urban indicator nor the distance from financial institutions were significant. Age categories decreased in significance versus previous definitions. No change with direction/significance of income variables.
3. Dropout 2010 – Remittance significance decreased to above 5% level. Education breakdown reflected same trends as previous definition. Government primary school distance turned significant at 5% with distance increasing number of dropouts. Urban Indicator only presents significance at 10% level.
4. Panel Good Education – Decreased significance of all variables that were significant. Remittance now not significant. Distance from government primary school turned up significant at 5% level Distance from government secondary school significant at 10% level. Urban indicator did not turn up significant.

We see that for education, there may be a confounding effect with distance and remittance receipt.