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**FINANCIAL INSTRUMENTS OF THE
POOR: INITIAL FINDINGS FROM
THE FINANCIAL DIARIES STUDY**

Daryl Collins

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Financial Instruments of the Poor: Initial Findings from the Financial Diaries study

Abstract

A new data set called the Financial Diaries has been produced, based on a sample of 166 households, drawn from three different areas (Langa, Lugangeni and Diepsloot), from a range of dwelling types and wealth categories. A unique methodology was used to create a year-long daily data set of every income, expense and financial transaction used by these households. Within this sample, households used, on average, 17 different financial instruments over the course of the study year. A composite household portfolio, based on all 166 households, has an average of 4 savings instruments, 2 insurance instruments and 11 credit instruments. Of these financial instruments, for the same composite household portfolio, 30% are formal and 70% are informal. Interestingly, it was found that rural households use as many financial instruments as urban households.

1. Introduction and review of the literature

There is a strange irony when thinking about financial management in poor households. One assumes that by the very nature of not having money, the poor cannot possibly work to manage what they do have. However, empirical facts do not support this assumption. In Financial Diaries surveys in both Bangladesh and India (see Rutherford, 2002; Ruthven, 2002; and Ruthven and Kumar, 2002), it was found that the poor tended to manage their money through a variety of financial instruments. The same is true for South Africa.

The environment within which households operate in low-income countries makes the process of financial decision-making quite different from those in developed countries. The life-cycle hypothesis (Modigliani, 1970), for example, states that earnings are less than consumption after retirement and exceed consumption during the middle years of earning. Rational people should base their consumption decisions on expected lifetime income rather than current

income. However, many researchers (Deaton, 1993; Ando *et al*, 1992; Spio and Groenewald, 1996) reject this hypothesis in most low income countries. Savings seems, instead, to be precautionary and held for insurance reasons.

Another classic economic theory, the permanent income hypothesis (Friedman, 1957), proposes that rational individuals will try to smooth consumption if income is disrupted. Therefore, transitory income shocks should have no effect on consumption. Permanent income shocks (like suffering a major disability) will, however, translate into changes in consumption. This theory works reasonably well in developed countries where mechanisms like insurance and credit can be used to effectively smooth income streams with little disruption in consumption. However, in low income countries, existing mechanisms do not always work well, and households may be forced to cope following a shock by drawing on savings, selling assets, working longer hours, doing without key services such as health and education or without key goods such as certain foods.

Based on data generated by a financial diaries method, Rutherford (2002) tracked household financial flows over the course of a year in Bangladesh and confirmed that households actively manage their portfolio of cash assets with a wide range of instruments. Moreover, different levels of poverty do not mean different levels of active management. Taken all together, financial flows in poor areas are substantial, but mostly small per transaction.

Ruthven (2002) used the same financial diary methodology in India and her results echo much of what was found in Rutherford (2002) in Bangladesh. The results confirmed that lifecycle purposes (births, marriages, deaths) were the primary motivation for raising lump sums of money. However, health spending was also disproportionately high for poorer households and a key reason for saving or borrowing large sums of money. House construction was also extremely important. The results also confirmed that the most widely and frequently used financial devices were family and reciprocal contacts. The transactions were small and interest free. Leaning on friends and neighbours was a regular strategy to cover deficits and to bridge cash flow. Lastly, it confirmed that slightly different portfolios of financial devices were used by households of differing levels of wealth/livelihoods, although all levels of wealth used financial devices. Most respondents were saving by hiding money at home, giving interest-free loans, or putting money into a bank savings account. Most were borrowing by taking an interest free loan, taking a wage advance, or taking a private loan with interest.

2. Response to the literature and research questions

The approach used by Rutherford (2002) and Ruthven (2002) in Bangladesh and India was shown to provide helpful data on the use of a wide range of financial instruments by low income households. This suggests that households are actively managing their money in an attempt to smooth consumption in some way, and measures how successfully financial devices are used to accomplish this.

In South Africa, a perspective on the financial management of poor households will be useful to form the debates about how well financial instruments are serving the needs of the poor. The purpose of the South African Financial Diaries data set is to fill in some of the missing background of the financial lives of South Africa's poor households.

This paper provides the background to the Financial Diaries data set. In section III, the sample and sample selection is discussed. The Financial Diaries methodology is outlined in Section IV. Section V provides some of the initial observations of the dataset of how many financial instruments households use and outlines some of the differences between households in rural versus urban areas, and households of relative wealth. Section VI describes case studies from rural and urban areas. Section VIII highlights some questions for further research.

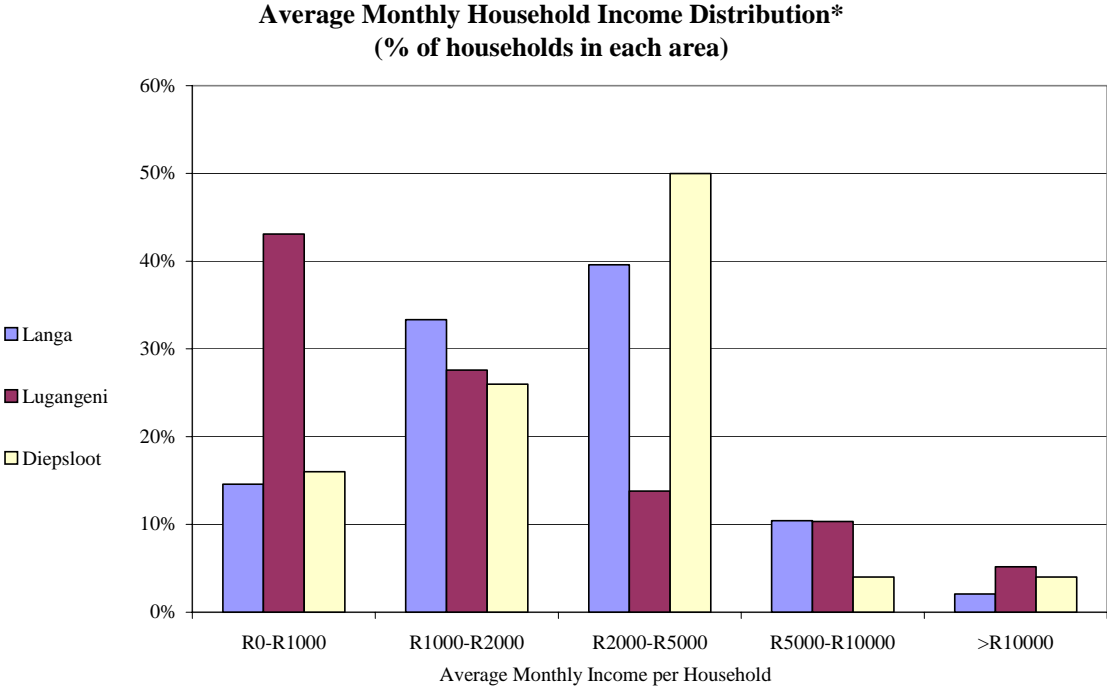
3. The Financial Diaries Sample

To draw the sample for the South African Financial Diaries, the same method was used as in Rutherford (2002) and Ruthven (2002): a participatory wealth ranking (PWR). Within South Africa, the participatory wealth ranking method is used by the Small Enterprise Foundation (SEF), a prominent non-governmental organisation microlender based in the rural Limpopo Province and academic findings have shown it to robustly identify poor households within selected villages and neighbourhoods. Simanowitz (1999) compared the PWR method to the Visual Indicator of Poverty (VIP) and found that the VIP test was seen to be at best 70% consistent with the PWR tests. At times one third of the list of households that were defined as the poorest by the VIP test was actually some of the richest according to the PWR. The PWR method was also implicitly assessed in van der Ruit, May and Roberts (2001) by comparing it to the Principle Components Analysis (PCA) used by the Consultative Group to Assist the Poorest (CGAP) as a means to assess client poverty. They found that three quarters of those defined as poor by the PCA were also defined as poor by

the PWR. This study closely followed the SEF manual to conduct wealth rankings on which to select the sample for the Financial Diaries data set. After the year-long survey, it was found that the sampling method resulted in a wide variety of household incomes and sources.

Given that the majority of poor households in South Africa are black, we focused on interviewing black households in the following areas: Langa, Cape Town (urban); Diepsloot, Johannesburg (peri-urban); and Lugangeni, Eastern Cape (rural).

3.1 Monthly Income per Household



**Income includes regular wages, grants, remittances, business profits, casual wages, rental income, pensions and UIF*

Figure 1: Average monthly household income distribution (% of households in each area)

As Figure 1 shows, most of Financial Diaries households have monthly incomes below R5000 per month, but the income distributions for each area differ widely. In Langa and in Diepsloot, three quarters of the households have monthly incomes between R1000-R5000, while only 15% have monthly incomes below R1000. In rural Lugangeni, on the other hand, nearly 45% of the households have income levels below R1000 per month. This is even more striking when one considers that this definition of income takes into account *all* non-financial cash flows that a household might receive, including remittances

from relatives living elsewhere, business profits, rental income as well as regular and casual wages, grants and pension income.

3.2 Monthly Income per household member

This picture becomes more pronounced when looking at monthly income per household members. The United Nations Millennium Development Goals suggest that it is key to assess those living below the threshold of \$1 per person per day. The fluctuating rand/dollar exchange rate makes it difficult to determine a clear lower boundary in rand for the Financial Diaries households. We chose to set our lowest bracket at R200 per month or less, which is roughly \$1 per day at an average exchange rate of R6.40 per U.S.\$.

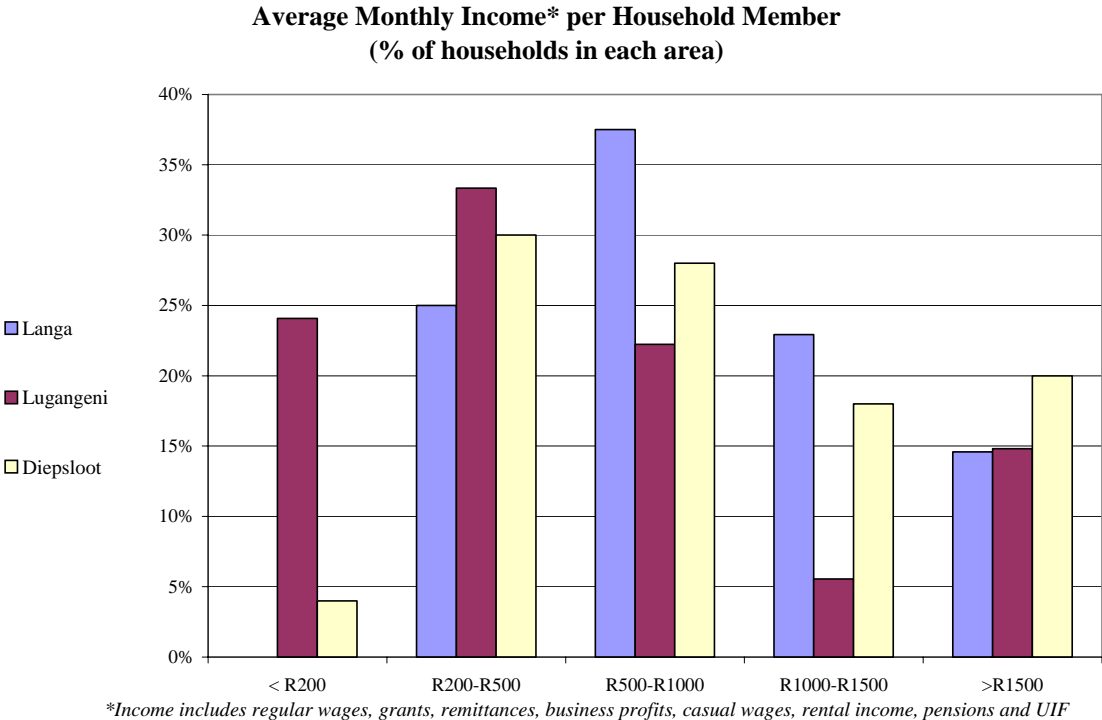


Figure 2: Average monthly income per household member (% of households in each area)

Not only do rural households receive less income as a whole, they also tend to have more members. Whereas the average household size in the urban and peri-urban samples is about three, the average household size in the rural sample is just over five. As a result, a far larger proportion of households in the rural sample of Lugengeni (25%) fall within an income per member range of less than

R200 per month than in the urban areas (0% and 4% respectively in Langa and Diepsloot).

3.3 Sources of income

Another key difference between the rural and urban samples of the Financial Diaries is the source of income. On average, a rural household relies on government grants for 48% of their household income. Another 19% comes from remittances from relatives, while 15% comes from regular jobs. In Diepsloot, on the other hand, 60% of household income, on average, comes from regular jobs, while only 5% of income is from grants. In Langa, income from regular jobs accounts for 55% of the average household income, while grants account for 15% of average monthly income. Self-employment is a distant 10% of household income in the urban and peri-urban areas, while in Lugangeni, self-employment income registers a meagre 3% of household income.

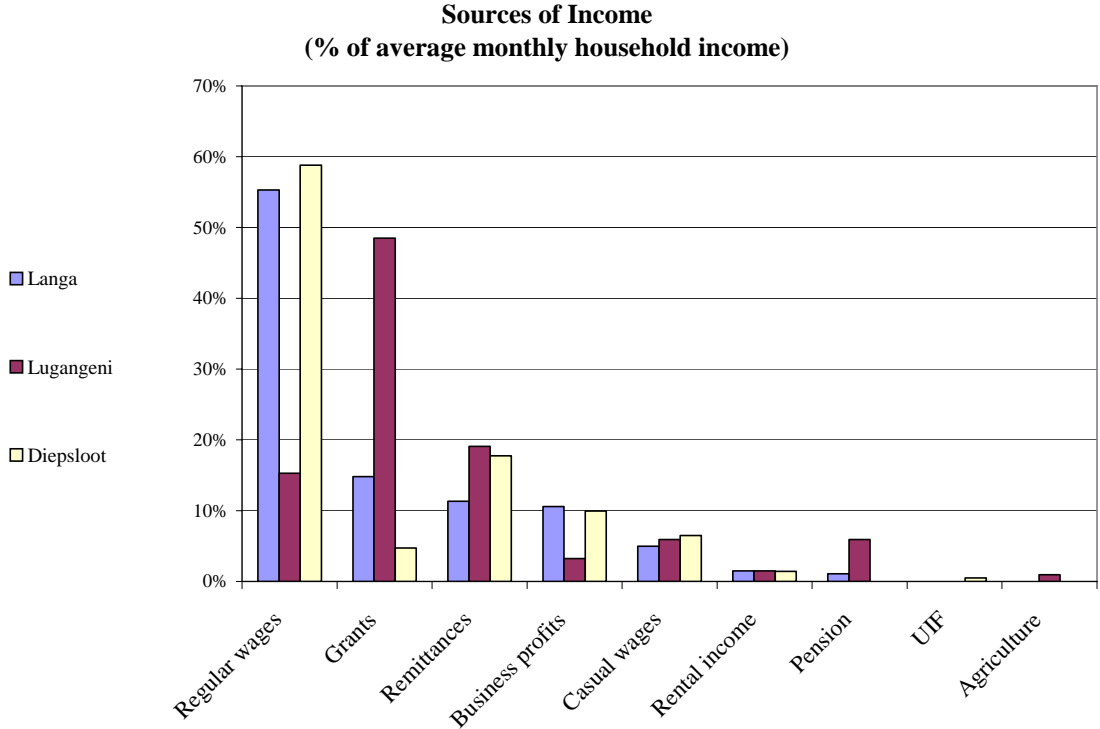


Figure 3: Sources of income (% of average monthly household income)

4. Diary methodology

This study adopts the same diary methodology that was used in Rutherford (2002) and Ruthven (2002) in Bangladesh and India, but attempts to build on the information gathered in the first studies to enhance the quantitative output in this study. The sample was also expanded from 42 households to 166 households.

Whereas the Financial Diaries studies in India and Bangladesh were mostly unstructured interviews and open-ended discussions, the South African Financial Diaries study uses a combination of closed-end and open-ended questionnaires. The first three initial questionnaires are structured and gather information on household demographics, physical assets, typical income and expenditure patterns, historical and current employment, and lastly current and previous use of financial instruments. There are roughly 28 pre-defined financial instruments that each have their own questionnaires to record different aspects of the instrument. Each existing financial instrument receives its own financial device code against which cash flows are captured in the future. These three interviews not only allow the household to become more comfortable with the fieldworkers, but are also used to create an initial balance sheet position, as well as a typical monthly cash flow statement.

4.1 Diary questionnaires¹

The households were then interviewed every other week for a year, capturing every cash flow that came into and out of the household, including income, expenditure, changes in physical assets, servicing financial instruments and initiating financial instruments. To facilitate the collection of data, the data from the first initial questionnaires were used to produce a diary questionnaire specific to each household. This was used to both prompt memory, aid data collection and to save the respondents time and patience. Data was captured by fieldworkers each week for the previous week's interviews and new diary questionnaires were generated. The diary process was enabled by a tailor-made Access database and the consistent weekly capture of data.

Each week the respondents were also asked if they did anything new in the past two weeks, for example, opened a new bank account, joined a new stokvel, or if they stopped a financial device. Each new financial device was captured on a specific form and cash flows generated by that device were captured thereafter. If a financial device was closed, a Close form was captured and cash flows on that device were not captured thereafter. They were also asked if a major event

¹ Examples of the exhibits discussed in the following section may be downloaded from the Financial Diaries website under the Methodology section. See www.financialdiaries.com.

happened, such as, if a person joined or left the household, if a household member found or left a new or casual job or if a new physical asset was bought, sold or stolen. Each week the fieldworker also filled in a journal whereby he/she noted various observations, events or comments made by the respondent that was not captured elsewhere in the diary questionnaire.

4.2 Ongoing data checks

A key feature of the database and the ongoing diary system is the ease with which the data can be checked. Two key checks were built into the system. The first is a report that shows which household have been interviewed in two week periods for the last six weeks. This tells the project coordinator which households were not seen within a two week period. This report is run every week and followed up by a conference call with all six fieldworkers.

The second report is one that tracks the sources and uses of funds in and out of the household from the time of the most recent interview to the time of the previous interview. Allowing for cash in hand in both interviews, it should be that the sources of funds (income, taking a loan, drawing money from a bank account, etc) should equal the uses of funds (paying for food, putting money under the mattress, repaying a loan, etc). Any household that had an excess or deficit of sources versus uses of funds greater than R200 was examined individually to detect where the imbalance was coming from. If the imbalance was coming from an input error, the data was corrected. If the imbalance seemed to come from a lack of reporting, the fieldworker was informed and given details on which to follow up in the next interview. In this way, the data was continuously checked to ensure quality.

5. Initial results from the Financial Diaries data set

5.1 The poor hold a portfolio of diverse financial instruments

Over the course of the study year, it was found that households would use an average of 17 different financial instruments. Some financial instruments would “stay open” all year, such as a bank account, while others would open and close within days, such as borrowing between neighbours.

Although credit is the type of financial instrument most often associated with poor households, we found that most households used a variety of insurance, credit and savings instruments. The poor do not tend to use only one type of financial instrument – they manage a portfolio. Most households have at least one credit, insurance and savings instrument. They do not just borrow, and they do not just save.

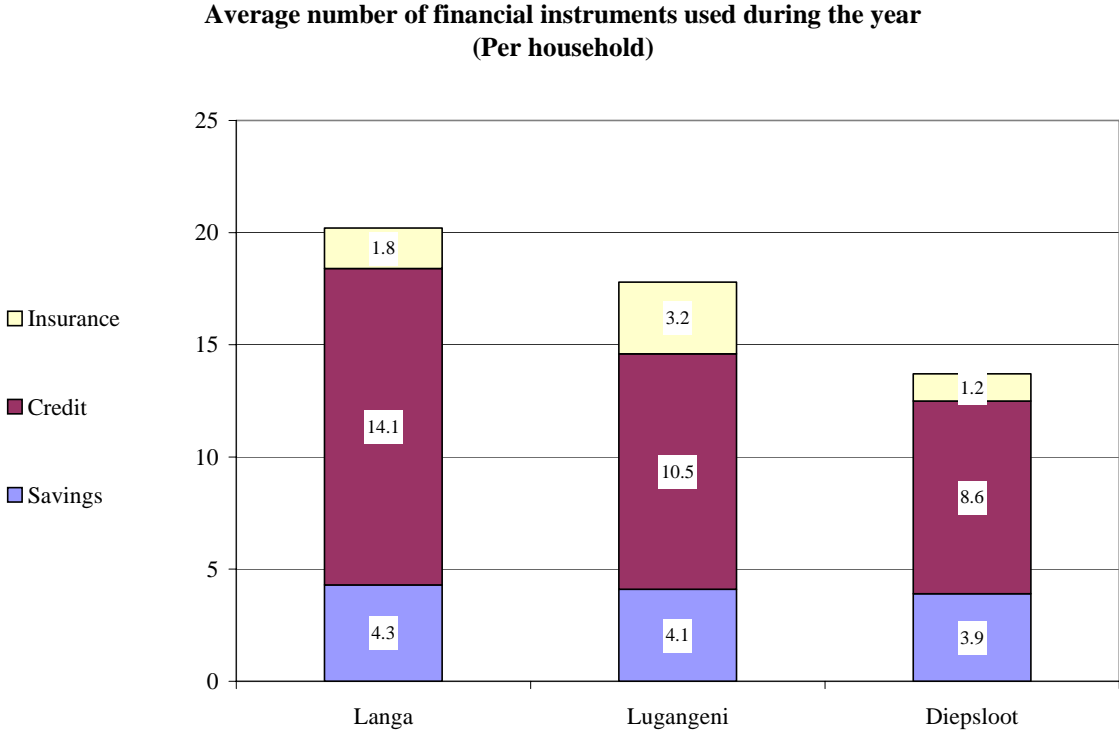


Figure 4: Average number of financial instruments used during the year (per household)

5.2 Rural households tend to use as many financial instruments as urban households

One might assume that, because they are further from formal financial services, the rural poor might use less financial instruments. However, it was found that rural households tended to use as many financial instruments as urban households. They tend to use more informal instruments than formal instruments. One reason for this is because they use not just one burial society but several. They also have very active lives lending and borrowing with each other.

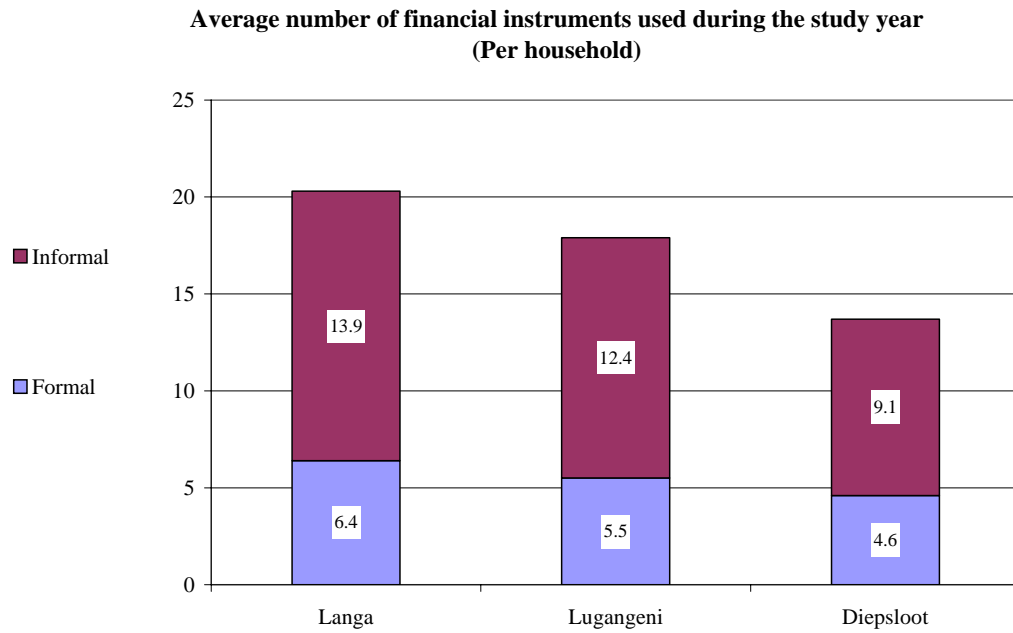
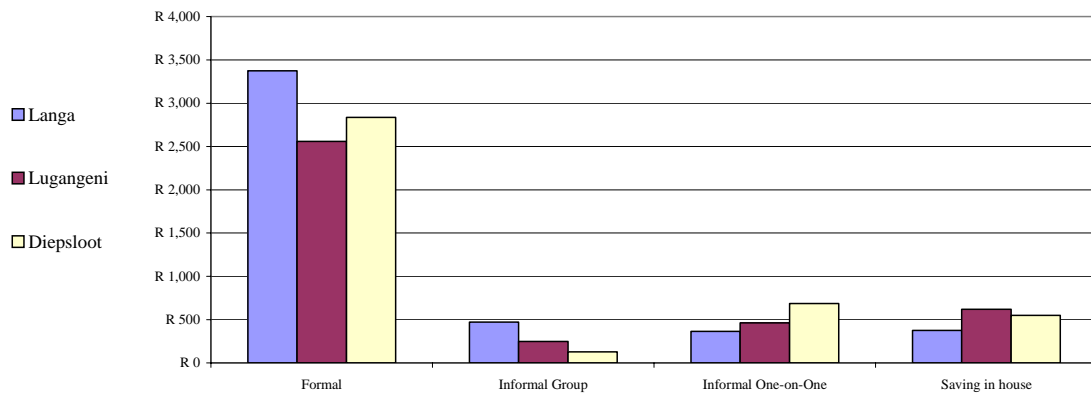


Figure 5: Average number of financial instruments used during the study year (per household)

5.3 Most transactions go through formal financial instruments

All households push and pull a significant amount of money through financial instruments over the course of a month. We capture this activity by *turnover*. Turnover is calculated by adding the inflows into a financial instrument with the outflows of a financial instrument, over a particular period. In figure 6, we chose to show the month of August as a typical month of financial instrument turnover in different types of financial instruments.

Monthly* Turnover for Types of Financial Instruments***
(Rands)**



*For month of August 2004

**Turnover=inflows into the instrument plus outflows out of the instrument.

***Formal=Bank accounts, provident funds, formal funeral plans, formal insurance, formal loans, accounts/lay by, store cards, unit trusts and savings annuities.

Informal group=stokvels, burial societies and stokvel loans

Informal one-on-one=mashonisa loans, one-on-one lending and borrowing and money guarding

Saving-in-house=savings in house

Figure 6: Monthly turnover for types of financial instruments (Rands)

Overall, the average household in the sample in a typical month will transact between R3000 through financial instruments. Not surprisingly, these transactions primarily happen in transactions-based formal financial instruments such as bank accounts. A household getting a payment through the bank—say a regular wage, pension or grant—will receive this money into the instrument *plus* take the same amount out on a typical month.

5.4 Langa: Giving credit is the most frequently used financial instrument

In Langa, the most frequently used financial instrument is a business giving credit. This is not because there are a large number of businesses in Langa, but it may be because the businesses in our Langa sample have given more credit relative to other areas. A financial instrument is created every time a new customer takes credit and households can have up to 15 credit accounts running at the same time. Figure 7 illustrates one-on-one borrowing and lending. The average household in the Langa sample will have borrowed at least twice over the study year from neighbours, friends or family and lent an equal number of times.

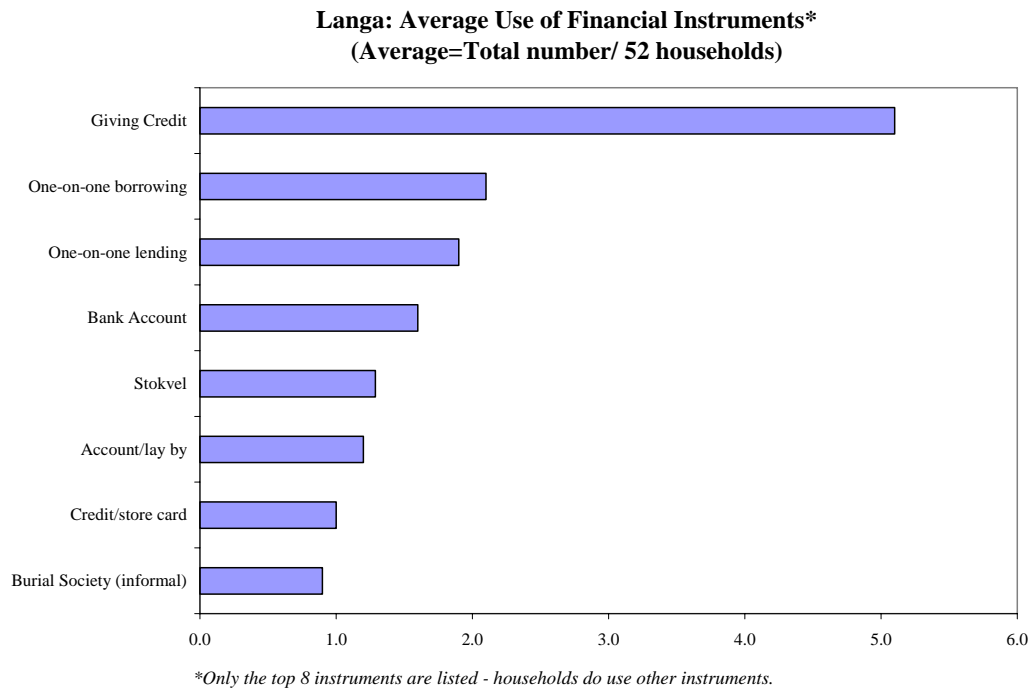


Figure 7: Langa: Average use of financial instruments

5.5 Lugangeni: Burial societies are frequently used

As in Langa, households in Lugangeni have frequent borrowing and lending patterns between each other. Unlike Langa, in Lugangeni, households are likely to have at least one informal burial plan, as well as one formal funeral policy. They are also more likely than other areas to save in their houses. Although more informal financial instruments tend to be used most frequently, this does not mean that households do not have bank accounts. The average household in Lugangeni will have at least one bank account.

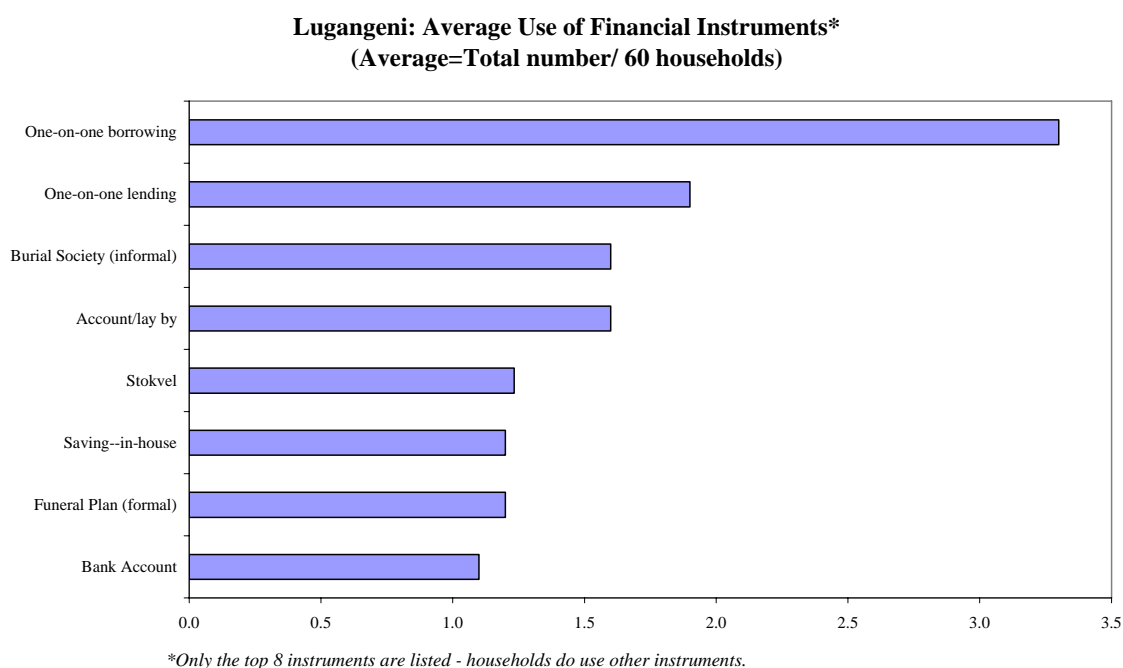


Figure 8: Lugangeni: Average use of financial instruments

5.6 Diepsloot: Bank accounts are frequently used

Although very few people have lived in Diepsloot for more than a couple of years, financial ties in the form of lending and borrowing are as frequently used as in the more established areas of Langa and Lugangeni. In Diepsloot, however, households use bank accounts more frequently than the other two areas. The average household will have at least one bank account. Despite this frequent use of banks, however, most households will also save in the house.

6. Urban versus rural case studies

The emphasis in the Financial Diaries study is on understanding poor households at a detailed level rather than using a broad sample to make conclusions about the South African population; it thus cannot be used as a nationally representative survey.

The following case studies provide key examples of the type of detailed level information available. The household profiles focus on evidence from both an urban area and a rural area.

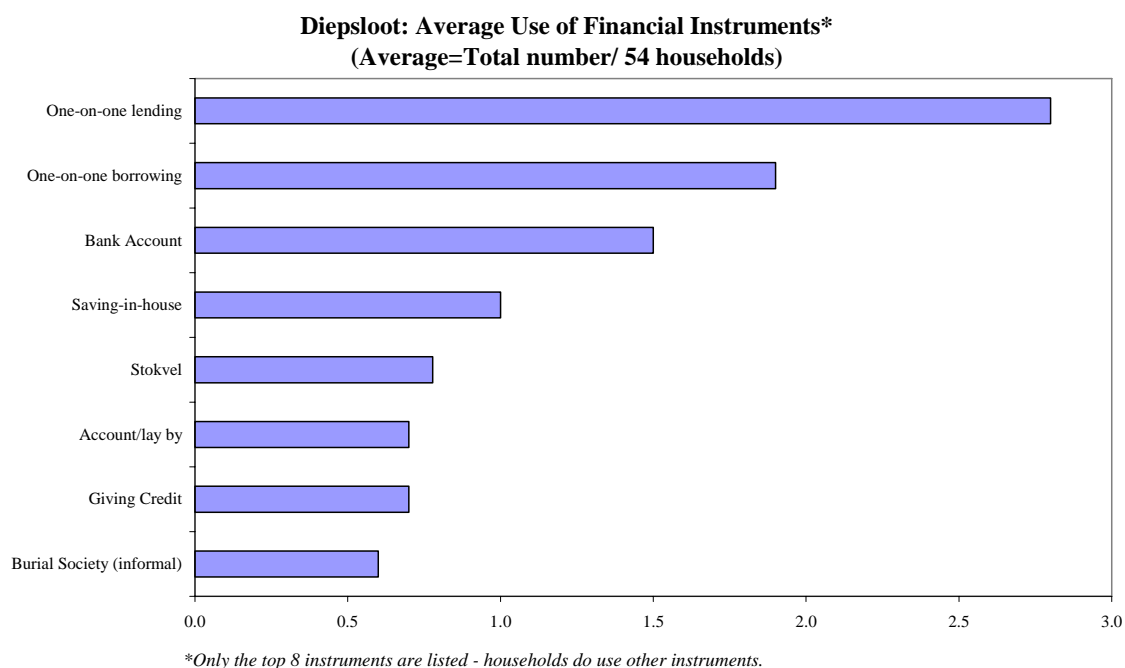


Figure 9: Diepsloot: Average use of financial instruments

Case study 1: Poor rural household with many informal financial instruments

Masiwela* is a neat and gracious 65 year old woman who is living with one grandchild and the child of a relative. She supports the three of them on an old age grant. Her daughter gives her money now and then, but she constantly complains that the old age grant is not enough to support them. She asks her son for money, but he says that the grant should be enough. Another daughter, who receives a child grant, also comes in and out of the household with her two children. In order to cope she often takes goods on credit with local vendors (five times over the year), borrows from mashonisas (four times over the year) and borrows from relatives (three times over the year). She also takes credit from the local spaza shop, and pays it off by the end of the month.

Over the course of the study year, she tends to have an average of 15 financial instruments per month. She belongs to a funeral plan with a local undertaker for which she pays R10 per month, and also belongs to four burial societies. Three of the four burial societies require payment only when someone dies. However, there have been many funerals that she has needed to contribute to in the past year. As a result, she says that she has had to take mashonisa loans to cover the

payments.

Masiwela also has a bank account but she didn't use it during the study year – she says that she only used it when she was younger and working. However, she has also said that she is concerned about saving in the house, which she did all year, because her niece lost R50 hiding money in the house.

Case study 2: Peri-urban household with many formal instruments

Lucas* is a 34 year old man living with his 26 year old wife and 3 year old daughter in a house in Diepsloot. He has a regular job working as a stock control person. Most of his financial instruments are connected with his payslip. He earns a gross salary of R871 per week. Each week, PAYE, union fees and UIF are deducted as well as child support of R75 that he provides for his children by another woman. He owns his home via a home loan and pays the bond off his payslip. A deduction of R131 is made every week. He also pays R175 every week to pay off a loan from his employer, which was borrowed against his provident fund. In addition, he pays Medicare and Discovery Health, as well as an employer-owned provident fund. Lucas's employer gives the employees a statement that shows their balance in the provident fund, as well as how much they can borrow against it! He borrowed R5000 two years ago to buy a fridge. His salary is paid into a Standard Bank account every week.

Apart from financial instruments that are connected to his payslip, Lucas also pays for an informal burial society from his home village, into which he pays R20 per month. He also bought a wall unit on account from Barnetts and pays R200 every month for this.

Early in the study year, he grew too ill to work and his employer gave him a gift of R2000 with which he bought a TV. With the exception of the last 1 ½ months when he was ill, he received sick leave. During the 1 ½ months that he did not earn a salary, he was supported by remittances from his relatives.

Note: * Names have been changed.

7. Further research

Based on the above initial findings, the following research questions warrant further investigation: What are the financial usage profiles for different types of households? What is the typical financial instrument portfolio for households with an older household head as contrasted with a younger household head? How does regular employment impact the type of financial instruments that household use? Do the more formal instruments that households have access to once employed add value to their financial management?

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