Human Sciences Research Council
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Democracy, Governance and Service Delivery

Financial Literacy in South Africa:

Results from the 2017 South African Social Attitudes Survey (SASAS) round

Report prepared for

The Financial Sector Control Authority (FSCA)
(*formerly Financial Services Board, FSB*)

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2018

Suggested citation:
Roberts, B., Struwig, J., Gordon, S. & Radebe, T. (2018). *Financial Literacy in South Africa: Results from the 2017/18 South African Social Attitudes Survey round*. Report prepared by the Human Sciences Research Council on behalf of the Financial Sector Control Authority. Pretoria: Financial Sector Control Authority.

Contents

List of Tables

List of Figures

Acknowledgments

We would like to express our appreciation to the following individuals, groups and institutions who contributed to the project and successful completion of this study on financial literacy in South Africa:

- The Financial Sector Conduct Authority (FSCA) for commissioning this important study.
- Lyndwill Clarke and Tamrynne Peyper from the Consumer Education Department at FSCA, for their support, guidance, advice and input throughout the study.
- Prof. Bernadene de Clercq of Unisa for her invaluable inputs and suggestions regarding the financial literacy survey module.
- The 3 067 South Africans who generously gave of their time to participate in the survey and share their views and experiences.
- The HSRC's provincial supervisors, sub-supervisors and data collectors who traversed the country - often under difficult circumstances - to ensure that high quality information was collected from all those who were interviewed.
- TK Research Consulting, specifically Tronny Mawadzwa, who worked relentlessly over the December 2017 period to capture all the questionnaires and deliver a double captured dataset.
- Mercy Ngungu, who ran the data cleaning programmes and protocols to ensure that the data used for analysis was of high quality, as well as Dr Khangelani Zuma who weighting the data.
- The role played by the HSRC project administrators, especially Busisiwe Mamba, who managed most of the field logistics, from training to contracts, car rentals and payments.
- The Human Sciences Research Council's (HSRC) Democracy, Governance and Service Delivery (DGSD) research programme team for conceptualising the study design, analysing the quantitative data, drafting the report as well as managing the project.

Executive Summary

AIM OF THE SURVEY

The 2018 Financial Literacy Study is part of an ongoing investigation of financial literacy in South Africa and was conducted by the Human Sciences Research Council (HSRC) at the request of the Financial Sector Conduct Authority (FSCA). This report presents the results of this study and the primary objective of the report is to provide the FSCA with information on the level of financial knowledge, attitudes and skills in the country. The purpose of the study is to assist the FSCA with its consumer education programmes and policy initiatives. Accurate data on financial knowledge, attitudes and behaviour can also be used to drive strategic planning and preparation. The HSRC is proud to be associated with the FSCA's efforts to improve financial literacy in South Africa. The study's methodology follows the best international standards on the gathering of data on levels of awareness, knowledge and understanding of financial literacy at a national level.

The executive summary presented here provides a brief synopsis of what is known about financial knowledge and capabilities in South Africa. At this stage, it is important to note that financial literacy is a complex multi-dimensional concept that comprises a combination of knowledge, attitudes and capabilities. This layered amalgamation can be effectively expressed by four financial domains: (a) financial control; (b) choosing and using appropriate financial products; (c) financial planning; and (d) knowledge and understanding. Such a composition was designed by the Organisation for Economic Co-operation and Development (OECD) International Network on Financial Education (INFE) using a unique and ground-breaking methodological approach. The 2018 financial literacy report follows the conceptual framework of the OECD/INFE. Based on this methodological approach, the 2018 financial literacy report is subdivided into seven themes: (i) financial knowledge and understanding; (ii) financial decision-making; (iii) prudent financial behaviours and attitudes; (iv) saving behaviour; (v) experiencing and coping with financial shortfalls; (vi) money management; and (vii) credit and loan behaviour. The executive summary showcases headline findings on all these themes but will first present the survey methodology.

RESEARCH METHODOLOGY

In order to achieve the nationally representative sample desired by the FSCA, a survey had to be designed that would ensure that all adults in South Africa are represented regardless of creed, colour and class. The target population for the FSCA financial literacy survey was individuals aged 16 and over who lived in private homes (specifically people living in households, hostels and other structures). To ensure that the sample was also representative in terms of the country's racial and cultural diversity, specific geo-demographic categories (which have been developed from the 2011 Census data) were used as the implicit stratification variable. There have been five surveys on financial literacy conducted at the request of the FSCA, these occurred in 2011, 2012, 2013, 2015 and 2017. All five surveys were based on a baseline survey on financial literacy which was conducted in 2010 and was commissioned by the former Financial Services Board.

Using census data, Small Area Layers (SALs) were derived as the primary sampling unit for the survey and five hundred SALs were selected throughout South Africa. These SALs were chosen to reflect the diversity of the adult population based on their income, education, race and geographic characteristics. Within each SAL a total of 7 visiting points or households were selected to be interviewed, using random sampling. In each household, one member who was 16 or older was selected randomly as a respondent to complete the questionnaire in the language of his or her choice. A total of 3,067 people were interviewed for the 2018 financial literacy survey –this sample was

chosen to represent 39,797,128 adult individuals living in South Africa. The FSCA study fieldwork was conducted between October and December of 2017.

FINANCIAL KNOWLEDGE AND UNDERSTANDING

In order to understand financial literacy in South Africa, it is necessary to gauge the extent of the financial knowledge that an individual possesses. In the survey, respondents were quizzed about their awareness and comprehension of certain financial concepts (such as inflation and compound interest). This quiz is used to examine how South Africans understand the financial world and provides an assessment of individuals' familiarity and proficiency of basic financial concepts.

BASIC ARITHMETIC

The first item on the quiz concerned mathematical division, a core component of financial literacy. The exact praising of this item was: "Imagine that five friends are given a gift of R1,000. If the friends have to share the money equally, how much does each one get?" The overwhelming majority of adults were able to supply the correct answer to this first quiz item. In 2017, only small percentages of respondents provided incorrect or irrelevant answers to this question. It is clear, after reviewing the answers to this question during the 2011-2017 period that the share of people answering the question correctly did not change over the period.

UNDERSTANDING OF INFLATION

The second item on the quiz was on inflation. Respndents were asked: "Now imagine that the friends have to wait for one year to get their share of the R1,000 and inflation remains the same. In one year's time will they be able to buy: (i) More with their share of the money than they could today; (ii) The same amount; and (iii) Or, less than they could buy today?" Barely a fourteenth (16%) chose the response that was expected (i.e. the brothers would be able to purchase less in a year than today). There has been a decline in the share of the population giving a correct answer to this question between 2010 and 2017. In an additional inflation-related quiz question, respondents were asked whether they felt the statement, "Inflation means the cost of living is increasing rapidly", was true or false. An estimated 80% said that this was a truthful assertion. If 2017 is compared with 2011, it is apparent that more people answered this question correctly in 2017 when compared with 2011.

UNDERSTANDING OF INTEREST AND COMPOUND INTEREST

The other quiz items relate to interest and interest rates. The first interest rate quiz item read as follows: "You lend R25 to a friend one evening and he gives you R25 back the next day. How much interest has he paid on this loan?" Approximately 65% of the adult population issued a correct response to the paying of interest on a loan. Respondents were then asked to estimate how much would be in a savings account after a year, assuming a 2% rate on an initial R100 deposit. Around two-fifths (46%) of the adult population issued a correct response to this question'. Finally, in order to test compound interest, respondents were asked a follow-up question on the previous quiz item: "And how much would be in the account at the end of five years?" About a third (35%) of the general population gave a correct answer to this question in 2017. The proportion of adult South Africans giving correct answers to these questions was lower in 2017 than it was in 2013.

SUBGROUP DIFFERENCES ON THE FINANCIAL QUIZ

When examining the responses to the financial literacy quiz items outlined above it is clear that there is a highly varied distribution of responses with certain subgroups differing sharply from one another. Marked differences are noted along socio-economic divides with better educated, wealthier individuals more likely to answer questions on the financial quiz correctly. White and Indian respondents were also more likely than their Black African and Coloured counterparts to give a correct

answer to the quiz questions. Interestingly, there were wide differences in knowledge based on provincial residence. Individuals residing in KwaZulu-Natal and Gauteng reported higher financial quiz scores than their counterparts in other provinces.

PRUDENT FINANCIAL ATTITUDES AND BEHAVIOURS

To ensure a stable and profitable financial future, consumers need to follow prudent and judicious behaviour. In order to better understand whether South Africans are prudent in their financial behaviour, the SASAS research team has been collecting data on fiscal prudence since 2010.

HOUSEHOLD BUDGETS

To better comprehend the nature of financial control, a question was posed on whether respondents had a household budget (i.e. a plan to guide the allocation of funds for spending, saving and paying debts). Most of the general public in 2017 indicated that they had a budget that helped them make financial decisions in their daily money management. Approximately three-fifths (54%) of South Africans aged 16 years and older said that they had a household budget. There is a positive relationship between budget holding and educational attainment. Consider that 79% of those with a tertiary education had a household budget while only 40% of those with junior primary and below had such a budget. Economic class was, unsurprisingly, also a strong predictor of this kind of financial control with the poor significantly less likely to have a household budget.

CONSIDERED APPROACH TO PERSONAL FINANCES

A majority of the adult population (55%) acknowledge that they, prior to making a purchase, always carefully consider whether they can afford it. A quarter said that they only do this often. Attitudes towards prudent spending have not changed significantly since 2010 when the measure was first introduced. Three-fifths of the general public said that they always keep a close watch over their personal finances. Many South Africans told fieldworkers that they do not always pay their bills on time. Only a minority (43%) of adult South Africans indicated that they are always or often punctually in terms of paying the bills. On the other hand, a significant segment of the population does not have any bills to pay.

Since 2010, SASAS respondents were asked about their attitudes towards saving. The question was as follows: “Do you agree or disagree: I find it more satisfying to spend money than to save it for the long-term?” More than two-fifths of all people (32%) agreed with the statement while 28% disagreed. Attitudes towards monetary expenditure have not changed significantly since these questions were first asked in 2010. Now, let us consider respondents’ answers when they were asked if agreed or disagreed with the statement: “I tend to live for today and let tomorrow take care of itself”. Results show that more than half (53%) of the adult population disagreed with this statement while less than a third (32%) agreed. To sum up these results, it would appear that many people in the country report a lack of financial self-control.

PLANNING AHEAD

In order to gauge South African attitudes towards long-term financial planning, respondents were asked if they agreed or disagreed with the statement: ‘I set long-term financial goals and work hard to achieve them’. In 2017, around two-fifths (47%) of the adult population reported they set long-term goals often or some of the time and only a minority (19%) said that they never set such goals never. Self-reported financial planning has change over the period for which we have data. The share of the general population that said they set long-term goals always or often declined from 55% in 2012 to 46% in 2017. Those who occupy the upper layers of the economic pyramid were found to be more likely to engage in financial planning. Labour market status seemed to have a strong impact on the

frequency with which South Africans set long-term financial goals. Those in paid employment were considerably more likely than the unemployed or those outside the labour market to set long-term goals of this type.

FINANCIAL DECISION-MAKING

In the world that is growing more complex, the ability to make good financial decisions is an important part of financial success. In fact, financial decision-making is one of the most crucial subjects in any analysis of financial behaviour.

PERSONAL INVOLVEMENT IN MONEY MANAGEMENT

In South Africa, responsibility for day-to-day money management decisions has traditionally been the province of the household's male head (often the patriarch of the family). But in our modern country, financial decisions are increasingly made jointly by family members. In 2017, we found that only about a third (31%) managed household finances themselves, a third made financial decisions jointly with someone else while a third stated that they played no role in making such decisions on finances. We noted some improvement in the degree to which married women contributed to fiscal decision-making in the household between 2011 and 2017. More than a fifth (22%) of married females had no say over day-to-day financial management in their household at the start of the period while only 16% had no say at the end. In other words, most married women in the country had some involvement in how financial decisions were made in their household in 2017.

RESEARCH AND ADVICE SEEKING

It is important to inquire about the confidence of South Africans have in their ability to make decisions without financial advice. Many tend to display high levels of confidence in being able to make these types of decisions without consulting financial advisers. Of all adult South Africans, 51% agreed that they were confident of their financial knowledge without seeking financial advice, compared to 21% who said they were not confident. This represents an increase in confidence since 2011 when more than two-fifths (44%) of the adult population indicated that they have a clear idea of the sorts of financial products or services that they needed without consulting a financial advisor. This finding was surprising given the growing complexity of financial markets and the dour nature of the current economic environment.

Many South Africans claimed that they research thoroughly before making a financial decision. Of the entire adult population, 51% claimed they had studied the situation meticulously before making such a decision, compared to a fifth who admitted to not engaging in this kind of work. Unlike what was recorded for the confidence measure above, the tendency to research financial decisions has not changed significantly since 2011. This indicates that the boost in confidence that was observed between 2011 and 2017 is not due to a greater tendency towards financial research among South Africans. For both men and women, being married made them more prepared to do research before making financial decisions.

GRIEF AND REGRET

Even the best researched financial decision can be wrong. But do ordinary people in South Africa regret their financial decisions? Survey respondents were asked if they had made any financial decision in the last 12 months that they had regretted. In the period 2011-2017, we found that the vast majority of South Africans reported that they did not regret a financial decision. This either indicated that the majority of the adult public had not made any financial decision in the last 12 months that they regretted or perhaps they felt reluctant to admit to recent mistakes. Fiscal decisions on savings or investments were the type of decision most often regretted in 2017. Interestingly, the

share of white minority who regretted a financial decision increased significantly between 2015 and 2017. Evidence suggests that members of the white minority experienced a noteworthy upsurge in regret on savings and credit decisions in the last two years.

SAVING BEHAVIOUR

South Africa needs to build a culture of saving. This report looks at savings behaviour in the country and tries to understand why the general population tend not to save.

PLANNING FOR FINANCIAL EMERGENCIES

It is important to assess the extent to which the adult public puts money aside for a rainy day or emergencies. To this end, respondents were asked to report on setting aside emergency funds that would cover their expenses for three months in case of sickness, job loss, economic downturn or other emergencies. In 2017, two-thirds (69%) of the population reported that they would *not* be able to cover expenses for three months in case of an emergency. Worryingly, these findings suggest that a majority of adults have no substantive reserves that they would be able to draw upon in the face of an unanticipated loss of income. This is a problem that, perhaps unsurprisingly, primarily affects the poor. We found that economic status was a better predictor of whether an individual will have set aside emergency (or rainy day) funds than almost any other variable.

MAKING PROVISION FOR THE FUTURE

Our analysis shows that many South Africans find it difficult to save, with nearly half (48%) not managing to save at all in the year prior to being interviewed. This may be explained by limited access to employment and income for many as well as the high cost of living in the country. There is evidence that more affluent South Africans are saving less in 2017 than in 2012. This could be a response to difficult economic times. When asked about personal savings in the year prior to being interviewed, paying money into a bank account emerged as the most popular forms of saving among South Africans. Around a quarter (24%) of adults aged 16 years and older paid money into a savings account. A smaller share (16%) stated that they had built up a balance of money in their bank accounts in the twelve months before the interview. Many practiced informal forms of saving behaviour. Approximately a sixth (16%) of the general public said that had saved informally by keeping cash at home or carrying cash in their wallet and 11% saved through an informal savings club.

RETIREMENT PLANNING

A small share of the general population held formal retirement products and the share using such products has declined between 2012 and 2017. A significant segment (42%) of the adult population told interviewers that they had no retirement plan in the latest survey round. When asked about how confident they were in their retirement plan, many were either not confident or neutral about their preparations for retirement. This, disturbingly, suggests that a majority of the public either has no retirement plan or is not confident about the retirement plan that they do have. The subgroups more apt to be confident are older people, the wealthy and the tertiary-educated. This demonstrates, once again, how substantial inequalities in the financial capabilities of individuals are determined by their socio-economic position.

EXPERIENCING AND COPING WITH A FINANCIAL SHORTFALL

There is a need to comprehend how ordinary people in South Africa manage financial vulnerability. In order to gain greater insight into this kind of vulnerability, we looked at financial resilience among the adult public. Since 2010 survey respondents have asked whether they had, in the year prior to being interviewed, personally experienced a period when their income did not quite cover their living costs. In 2017 almost half the adult population (43%) reported that they experienced such a shortfall. This is

a worrying finding as it indicates that many South Africans still struggle to make ends meet. Educational attainment seemed strongly correlated with experiencing a financial deficit. Only a quarter of tertiary-educated adults reported an income shortfall in 2017 and the share of this group who had experienced a shortfall declined during the period 2012-2017.

Survey participants were asked a follow-up question to the financial shortfall question. Respondents who experienced a shortfall were asked how they coped with this deficit. This helps us understand what strategies adult South Africans employ when faced with financial duress. The most common strategies were: (i) access credit by using existing contacts or resources; and (ii) existing resources. Specifically, a large portion (48%) of all those who had experienced a financial shortfall borrowed from friends and family. Almost half (49%) of all those who suffered a financial shortfall, cut back on their spending. The fact that so few people accessed formal or informal credit shows that such organisations are not readily accessible to households in financial duress (perhaps due to the entry barriers involved).

In order to obtain a deeper understanding of individual responses to financial duress, respondents were asked which coping strategy was *most important* during a period of financial shortfall. In 2017, it was clear that the most important coping mechanism for the general public was to draw on existing resources and 31% of those who had experienced a shortfall reporting that they had cut back on expenditure or doing without as their main strategy. An equally popular response was to borrow from family and friends and 31% of those in shortfall listed this as their main strategy. Similar results were observed during the 2012 survey round and this demonstrates the durability of these findings.

MANAGING MONEY

Individual and household financial money management is an important area of study. It is essential for us to be familiar with not only financial management and planning but product usage. Comprehending what products an individual is using is a vital component of financial literacy. In the report, we look at financial management in the household over the period 2010-2017 with a focus on the ownership of banking and investment products.

BANKING PRODUCTS

The most common banking product that South Africans are aware of is a saving account, mentioned by (86%) of the population in 2017 and this was followed by an ATM card (75%) and a credit card (58%). Other products which were familiar to more three-fifths of the adult population were Mzansi account (52%) and debit card (51%). Public awareness of post office savings accounts declined over the period 2011-2017. Awareness of cell phone banking products (such as M-Pesa, mobile-phone based money transfer and micro-financing service for Vodacom) has grown significantly over this period. If we turn our attention to product holding, it is apparent that a sizeable share of the public indicated that they possessed no banking products. The most frequently mentioned form of banking products that was held by adults was a savings account –almost half (45%) of all adults held saving accounts in 2017. Almost two-fifths (36%) of the adult public had an ATM card –a substantial change from what was observed in 2013.

INSURANCE PRODUCTS

The insurance product that people are most aware of is car insurance followed by a life insurance (or life cover) and cell phone insurance. With regards to informal insurance products, a majority of the adult public had heard of a burial society as a form of funeral insurance, indicating the popularity of this kind of informal association. Less well-known forms of insurance include homeowners' insurance, insurance that covers the deceased's debts, and funeral cover from a stokvel –this shows how

underused these kinds of insurance. This is perhaps due to their current cost and availability. The majority of the products listed here were held by more than a fifth of the population. Most of the general population did not hold insurance products. The notable exception is burial societies which have always been popular in South Africa and are an important part of Black African culture. More than a quarter (27%) of the adult public held an account with a burial society and the share of the public with such an account has grown over the period 2011-2017.

INVESTMENT AND SAVINGS PRODUCTS

The investment and savings product that most South Africans are aware of is a pension fund. The next most popular was an informal savings club indicating the popularity of these informal saving associations. More formal investment and savings products were less popular –less than three-fifths of the population had heard of an education policy and a provident for example. Less than half of all adult South Africans seemed to be familiar with unit trusts, provident funds or investment policies – signalling perhaps that much of the population does not think about investing or saving at this level. On the whole, adult South Africans do not hold investment, retirement and savings products and none of the investment and savings products listed here were held by more than a fifth of the population. However, a remarkable finding was noted in our analysis. The share of people keeping investments with an informal savings clubs has grown substantially over the period 2013-2017, indicating that informal savings clubs can still attract investment even during periods of economic downturn.

CREDIT AND LOAN BEHAVIOUR

Accessing credit is an important component of the modern consumers' fiscal activity and provides opportunities for individuals to start a business, buy assets and recover from financial duress. Let us look at public awareness and holding of certain credit and loan products as well as self-reported credit ratings amongst the general population.

CREDIT AND LOAN PRODUCTS

The most common formal credit and loan products that South Africans are aware of is a store card ,a lay-bye and a loan from a micro-lender, with more than half of the adult public having heard of these products. Additional formal products which were familiar to more than half of the adult population were vehicle (or car) finance through the bank and hire purchase. The most common informal credit and loan products that South Africans were aware of was a loan from friends and family and a loan from a mashonisa or informal money lender. In general South Africans do not hold credit and loan products. Many, in fact, seemed wary of acquiring debt burdens. For those carrying debt, store cards and lay-byes are the most widespread form of credit and loan product that was held. The informal credit and loan product most frequently held by ordinary South Africa was a loan from friends or family.

CREDIT RATINGS AND DEBT BURDEN

People in South Africa were asked to rate their credit rating as either good or bad. Most of the adult population said that their credit rating was good –a fifth of the public thought that their rating was good and 24% indicated that it was very good. Only a quarter felt that their credit rating was about average and 14% said that they rating was bad. To better understand how people in the country feel about their credit commitments, survey respondents were asked if they were keeping up with their commitments at the moment. A significant share of the adult population (46%) told fieldworkers that they did not have commitments of that nature. Of those who had commitments of this type, many told fieldworkers that they struggled to keep up. About a tenth (8%) of the general population indicated that they had either fallen behind with some or many commitments. Finally, let us consider whether people thought their level of debt was not too high. Almost half (45%) of the general public

said that they did not have too much debt right now and only 14% told us that they were burdened with far too much debt.

LEVELS OF FINANCIAL LITERACY

Since 2011, it has been possible to create an index for financial literacy in South Africa. At the time there was a growing concern about South Africa's lack of knowledge about the financial literacy of consumers. The index was designed in 2011 by the research team using a 2010 baseline survey. –the designed was commissioned by the OECD INFE. This design has now been established as the international benchmark of financial literacy measurement and has been thoroughly tested in many countries. By using the OECD design, the results of our analysis would be comparable at a cross-national level, meeting a key mandate of the FSCA. From a methodological perspective, the OECD measurement variables were centred on a specific set of questions. The work completed here provides a platform to recognise and appreciate the complexity of the financial literacy in the context of the modern period.

In the 2012 Financial Literacy Report, certain questions had to be isolated and transformed into core measures of financial literacy. This same process is followed for the 2017 report and focused on four principal domains: (a) financial control, (b) financial planning, (c) choosing appropriate products and (d) financial knowledge and understanding. The financial scores for each domain as well as the overall financial literacy score for South Africa were calculated and are portrayed in the table below. Our financial literacy score is a vital tool that has and can enrich stakeholders' understanding of financial literacy in post-apartheid South Africa.

Financial literacy scores, 2011-2017 (mean scores based on a 0-100 scale)

Domain	2011	2012	2013	2015	2017
Financial control	58	61	61	63	62
Financial planning	53	50	48	48	47
Product choice	45	46	44	46	48
Financial knowledge	56	55	56	58	55
Overall financial literacy	54	54	52	55	54

The groups with the highest financial literacy score were: (i) the tertiary educated, (ii) the wealthy, (iii) those in full-time employment and (iv) dwellers in formal urban areas. In order to understand relationships between the variables that impact on the financial domain scores, and also to control for the impact of variables on each other, a multivariate regression was undertaken. The significance of educational attainment and economic status cannot be understated in our analysis of financial literacy. Financial domain scores differ substantially by the position of the individual on the country's socio-economic pyramid. In other words, a clear class and human capital bias was evident across all the domains produced for this report. Labour market participation was also positively correlated with financial literacy revealing the strong association between employment and more responsible financial behaviour.

Young people were found to have relatively high levels of knowledge and understanding. However, the youth demonstrated low levels of financial capabilities. South African youth are inexperienced with financial products because they have limited access to financial resources and often lack of a regular income. To gain new insight into age differences in financial literacy, we completed a special analysis of the following age cohorts: (i) 16-29; (ii) 30-49; and (iii) 50 and above. Our analysis suggests that economic status was a weaker predictor of financial literacy for the 16-29 age cohort than for the other cohorts. For the youth, educational attainment was a stronger determinant of financial acumen.

Even controlling for all other factors related to economic and human capital position, marital status still plays a salient role in determining financial literacy. For all cohorts, being married made individuals much more likely to exhibit greater and sounder control over their finances.

1. Introduction

In South Africa, financial literacy has gained the attention of a wide range of policymakers who recognise the value of financial knowledge and experience. Not only does financial illiteracy impact on the individual's or families' day-to-day money management but also influences their ability to save for long-term goals and become financially independent at retirement. This interest has occupied the attention of the South African government for almost a decade now. The extent of the political will in this regard was effectively conveyed by the Minister of Finance, Pravin Gordhan, when he stated in a 2009 speech that:

> "the need for more comprehensive efforts to improve the financial literacy of consumers has been highlighted during the current economic crisis, and is evident by the high debt levels of many consumers".

In this speech, Pravin Gordhan recognised that the growing diversification of financial marketplace has complicated financial decision-making for ordinary people. The increasing complexity of this marketplace has made enhancing consumers' financial knowledge and capability an essential goal of our political leaders. Indeed, we could say that South Africa faced a financial illiteracy crisis in the late 2000s.

South Africa's political leaders responded to the financial illiteracy crisis by a determined and resolute attempt to map financial literacy among the nation's population using an innovative survey methodology. Following this mapping, a number of different consumer education programmes were developed to improve financial literacy in the country. The financial literacy of the population is now continually monitored using surveys to gauge the effectiveness of these programmes. Tracking the level of financial literacy research in the country is currently the province of the Financial Sector Conduct Authority (FSCA). The Authority has commissioned the Human Sciences Research Council (HSRC) to provide comprehensive nationally representative data on the level of financial knowledge, attitudes and skills in the country. In this introductory chapter, we will look at the methodological tradition that guides the HSRC on this issue. But first it would be instructive to consider the overall economic situation in South Africa.

1.1. State of the Economy

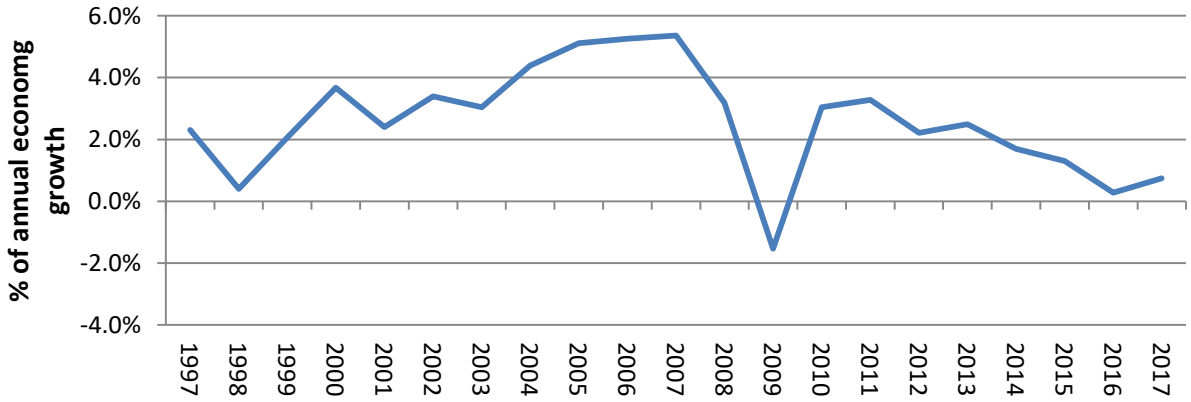
Since the advent of majoritarian democracy in the early 1990s, the South African economy has experienced a considerable economic transformation. South Africa has been able to tap into international bond markets with satisfactory sovereign risk spreads because of coherent and reasonable (for the most part) post-apartheid budgetary policies. For most of the democratic period, the post-apartheid demonstrated a commitment to fiscal sustainability. The latest Open Budget Index, compiled by the International Budget Partnership, rated the country higher than most nations surveyed (International Budget Partnership 2018). On the other hand, the period 2011-2017 has been characterised by low growth, weak consumer confidence and fiscal irresponsibility by the state. This section will outline the economic situation in South Africa with particular attention paid to the period 2011-2017. A time of dour economic conditions, the context of this period is important for those wishing to understand recent financial behaviour in the country.

In the mid and late 1990s, the South African economy faced some difficult headwinds. The economy was battered by the 1998 East Asian crisis and local industry struggled to reintegrate into the world economy. However, as can be seen from Figure 1-1, the country grew significantly between 2001 and 2006 –annual gross domestic product grew at an average rate of 4.2% in real terms during this period.

However, the general economy experienced a significant downturn in 2008 and 2009 and, following this slump, has struggled to return to previous levels of growth. Levels of real per annum growth in the recent 2011-2016 period were quite low at only 1.6%. Although this can be described as a noteworthy improvement over what was observed during the period 1980-1993 (when real per annum growth was 1.4%), it is far below what is considered optimal by economists. The projected level of growth for the immediate future period (2016-2021) is currently quite low at only 1.3%. This shows that economic growth has slowed in recent years and is projected to remain stagnant for the foreseeable future.

One of the reasons for the slow recovery has been the commodity prices slump of the last few years. To a certain extent, the South African economy is dependent on commodity markets (especially in terms of platinum, iron-ore, gold and coal). The causes for the commodity price falls included oversupply and large inventories. Another of the main reasons for the slump has been the rebalancing and slowdown of the Chinese economy in the last few years. China has become one of South Africa's major trading partners and her economy is significantly impacted by conditions in that country. Irresponsible government spending and lacklustre commodity markets negatively impacted the current account deficit during the period 2014-2017. According to the South African Reserve Bank, the country's current account deficit increased to R137.5 billion in the fourth quarter of 2017.

Figure 1-1: Annual gross domestic product (GDP) growth, 1996-2017 (%)



Source: Global Insight Database

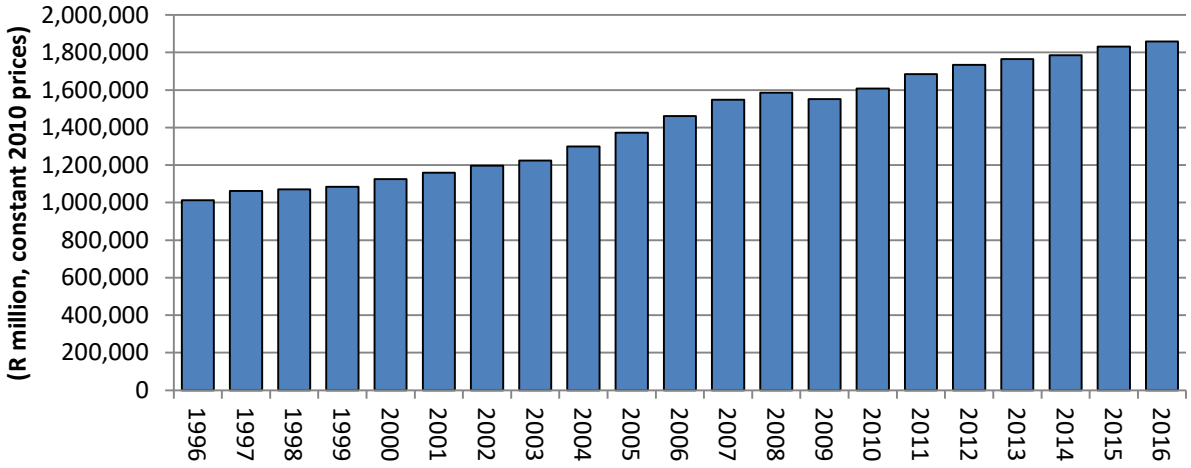
For the Johannesburg Stock Exchange (JSE) the period 2014-2017 period was torrid. In the four years from 25th June 2014 to 25th June 2018, the JSE All Share Index has increased from 50,350 to 56,116 –a return of only 11.45%. The last twelve months of this period were particularly volatile. S&P Global Ratings cut the country's sovereign foreign-currency debt rating to junk status in November 2017. In its report, the agency concluded that weak economic growth had led to a deterioration in public finances beyond previous expectations. In addition, the agency noted that political corruption had played a major role in its decision although government debt was also an issue. Public sector borrowing has expanded rapidly in the last eight years while private sector investment and borrowing have been lethargic[1]. The S&P downgrade followed a similar announcement by the

[1] If the reader is interested in the recent economic history of South Africa, an informative report by economists from DescriptionPricewaterhouseCoopers (2018) succinctly outlines South Africa's fiscal problems of the period 2007-2017 as well as scenarios for the future.

major ratings agency Fitch, affirming South Africa's rating at sub-investment or junk status. Moody's is the last of the three major credit rating agencies to still hold South Africa's debt at investment grade.

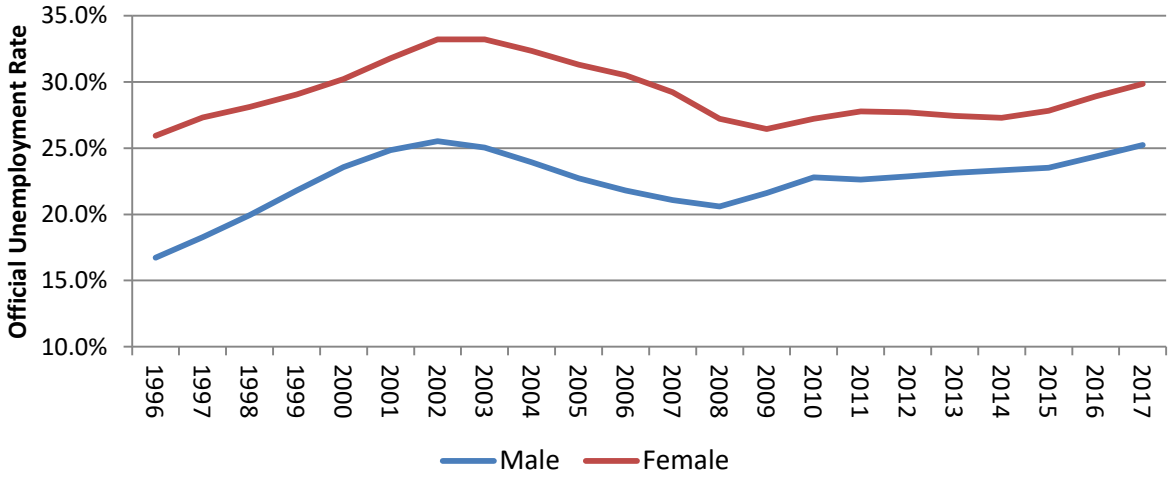
A better way to understand economic development in South Africa may be to consider the value of disposable personal income in the country. It could be argued that growth in total disposable income is the best way to measure the real strength of any modern national economy. As yearly total disposable income is the entire income for all households after taxes, it is a more accurate presentation of the amount of money available to spend in the economy. Annual disposable income is presented for the period 1996-2016 in Figure 1-2. We saw a significant growth in this type of income from 1996-2007 when total disposable income per annum in the country grew from R1,013 billion to R1,547 billion (constant 2010 prices). Hereafter, the level of growth was slower and annual total disposable income was only R1,859 billion in 2016. This affirms a slowdown in the economy in the last few years.

Figure 1-2: Total annual disposable income, 1996-2016 (R million, constant 2010 prices)



Source: Global Insight Database

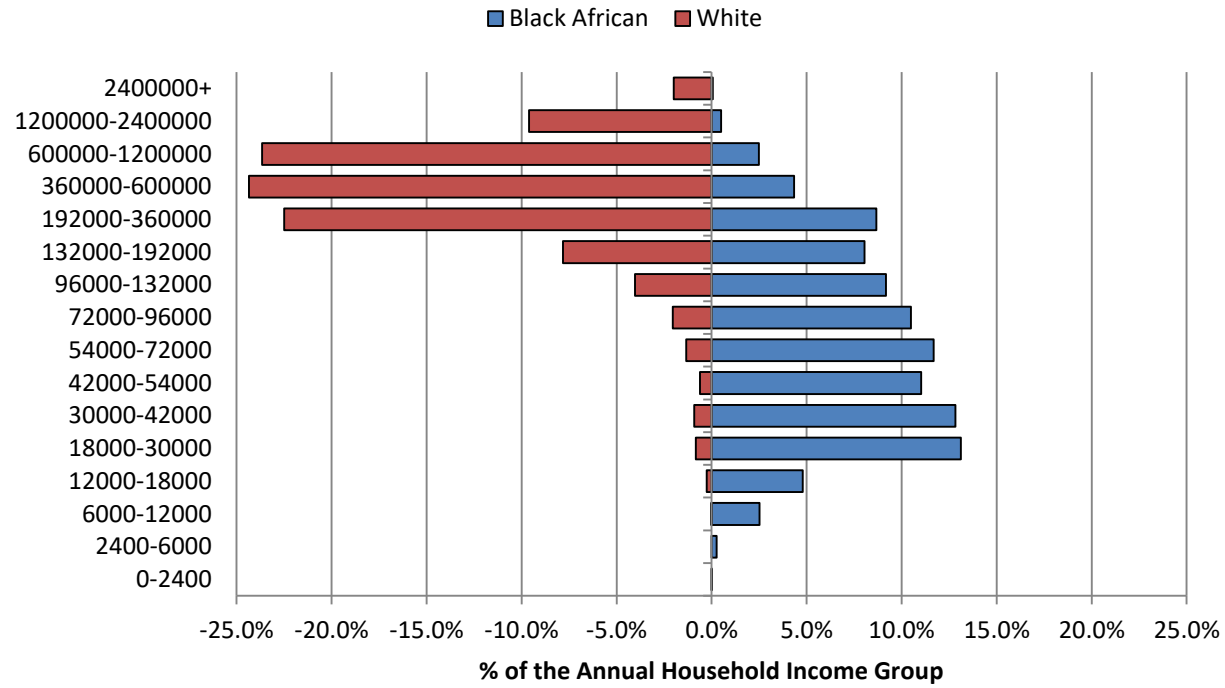
Figure 1-3: Official Unemployment Rate, by Gender, 1996-2017



Source: Global Insight Database

One of the main obstacles of the post-apartheid economy has been persistent unemployment. As can be observed from the Figure 1-3, a considerable share of the economically active population is currently seeking work. During the mid-1990s, levels of unemployment grew substantially before stabilising in the early 2000s. A brief and moderate period of decline in unemployment was noted between 2002 and 2008. Following this short respite, the level of unemployment in the country began to rise slowly over the 2010-2017. One of the most interesting features of the post-apartheid labour market has been the deteriorating differential between male and female unemployment. In 1996 a greater portion (26%) of women were defined as unemployed when compared to men (17%). The differential between men and women was fairly stable during the period 1996-2007. Beginning in 2008, however, this differential began to disparate and in 2017 was about half what it was in 1996.

Figure 1-4: A comparison of the distribution of annual household income among black African and white households, 2016 (percent in each income band)

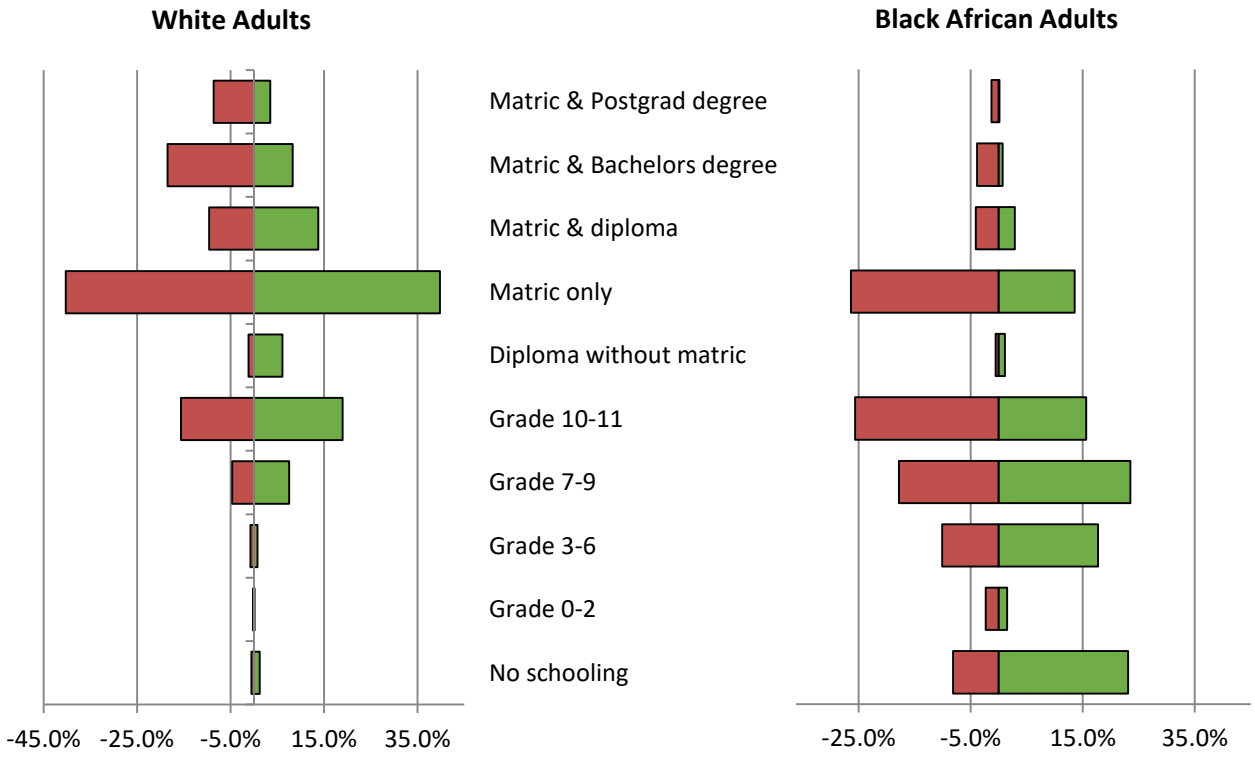


Source: Global Insight Database

Since the end of the apartheid period, South Africa has continued to be defined by significant economic inequalities and is well-known for having one of the largest wealth disparities in the world. Measuring inequality using the Gini Coefficient, we can see that inequality grew from 0.61 in 1996 to 0.66 in 2003. Following the 2007 period, we observed a moderate decline in this type of economic inequality and the 2016 Gini Coefficient was only 0.63. One of the hallmarks of South African's economic inequity is its racial nature. Although the country's white population has lost their monopoly over the electoral franchise, this group can still be considered– to borrow a term from Amy Chua –a "market dominant" minority. Consider that, for instance, the average household income of the white population was R621,307 per annum in 2016 compared to only R123,265 per annum for the Black African majority. This kind of racial income inequality can be even more clearly observed if we look at the distribution of the two groups across household per annum income categories in Figure 1-4.

As can be observed, most Black African households are located in the lower income subcategories. In fact, we found that 46% of Black African households had an income between R30,000 and R96,000. Only about one-sixth of Black African households had annual earnings over R192,000. This can be contrasted with white households. Less than a fifth (17%) of white households had an annual household income between R30,000 and R96,000 and 61% earned more than R192,000 per year. Now let us look at the other two population groups –the Coloured and Indian minorities –in South Africa. The Indian minority group was not as wealthy, on average, has the white population group. However, interestingly, a significant share of this group could be classified as middle class. Consider, for example, that 59 % of Indian households had an annual income greater than R192,000. Although wealthier on average than the Black African majority, the Coloured population group was more likely than other racial minorities to struggle economically. We observed that 34% of this group lived in households earning between R30,000 and R96,000 per annum.

Figure 1-5: A comparison of the educational attainment of black African and white adults (20 years and older) in 1996 and 2016 (%)



Note: The red bar signifies 2016 while the blue bar signifies 1996.
Source: Global Insight Database

In South Africa we do not only observe substantial racial inequalities in economic capital but also important racial disparities in human capital. During the apartheid period, racial minorities (especially the white population) had far greater access to formal education than the Black African majority. As a result, the latter entered the democratic period with a significant human capital deficit. In 1996, only 4% of the Black African population aged twenty years and older had a tertiary degree of some kind (Figure 1-5). This can be compared, unfavourably, to 25% of their white counterparts. There has been some improvement in the post-apartheid period and, in 2016, 9% of the Black African adults aged twenty years and older held some sort of tertiary

degree in 2016. However, during the same period, the white minority had leveraged their existing levels of economic and social capital to make significant human capital gains. Almost two-fifths (37%) of the white population aged twenty years and older had a tertiary degree in 2016.

The level of racial inequality in human capital must be recognised as a serious developmental issue. But the level of progress made in reducing the interracial human capital disparity must also be acknowledged. Consider that in 1996, only 37% of those adults (aged twenty years and above) with a tertiary education were Black African. The share of adults with a post-graduate degree who were Black African during this period was even lower at 16%. However, in 2016, 59% of those with a tertiary degree were Black African and so were 48% of those with a post-graduate degree. The share of adult Black Africans with no schooling has also fallen significantly over the last twenty years. Nearly a quarter (23%) of Black Africans aged twenty and older in 1996 had no schooling compared to just eight percent in 2016. During this same period, the Indian minority has also made significant human capital gains. The share of the Indian adult population with a tertiary degree was 22% in 2016, up from just 12% in 1996. Human capital gains amongst the Coloured population have been, in contrast, far slower. As data on financial literacy is presented in this report, these inequalities in economic and human capital must be borne in mind

1.2. International Network on Financial Education

Created in 2008, the Organisation for Economic Co-operation and Development (OECD) International Network on Financial Education (INFE) promotes and facilitates international co-operation between policymakers and other stakeholders on financial education issues worldwide. It serves as a platform to collect data on financial literacy, develop analytical and comparative research, and improve policy instruments. The aim is to enhance financial education efficiency through nationally co-ordinated and tailored empirical research. These efforts will, hopefully, financially empower consumers and help them address the challenges of the evolving financial and socio-economic landscape. More than 240 public institutions from over 110 countries now belong to the OECD INFE. One of the earliest members of the OECD INFE is South Africa and representatives from the country were instrumental in helping the OCED's current approach to financial literacy.

A commitment to the OECD INFE was part of South Africa's National Consumer Financial Education (NCFE) Strategy. The National Treasury of South Africa plainly summarises its mission for comprehensively empowering consumers to engage with financial services in the NCFE Strategy. The goal of the NCFE Strategy, approved by the NCFE Committee, is to guarantee that:

> "All South Africans, particularly those that are vulnerable and marginalised, are empowered to participate knowledgeably and confidently in the financial marketplace and to manage their financial affairs, deal with their day-to-day financial decisions and make good choices about allocating their incomes from school-going age, during working age and through to retirement."

A principal component of any national consumer financial education strategy is collecting data on financial literacy through the establishment of a regular survey series. In South Africa, the HSRC has been conducting such a series under the auspices of the South African Social Attitudes Survey (SASAS). A pilot survey was completed in 2010 and initial results showed that a substantial proportion of the country's population was not adequately equipped to make sound financial decisions. Certain groups (such as the poor and the uneducated) were found to be particularly vulnerable as a result of financial illiteracy. This data showcased clearly the urgent necessity of a sustained and robust response to financial illiteracy in South Africa.

Based on 2010 pilot, the first comprehensive OECD INFE survey instrument was employed to measure financial literacy was fielded in 2011. Four dimensions were employed to measure financial literacy, allowing the multifaceted nature of the concept to be better captured. The use of this methodology set the HSRC instrument ahead of previous surveys that measure financial literacy in South Africa. The work completed by the HSRC highlighted the need for targeted interventions and consumer education programmes that will incrementally promote financial inclusion and improve awareness of financial products and services. The work also showed clearly the need for periodic, multidimensional evaluations of financial literacy. These periodic evaluations were required to identify target groups and their changing needs, as well as monitor the cumulative effect of interventions directed at producing a more financial capable citizenry. The significant contribution of the HSRC on financial literacy research has been recognised by the NCFE Committee. The FSCA has also astutely realised the value of periodic evaluations of financial literacy in South Africa and has conducted comprehensive surveys of financial literacy in the country periodically.

In 2017, the FSCA commissioned an expanded OECD INFE instrument following consultation and discussion with international partners. There as a new focus on attitudes towards credit usage in the country. This was prompted by growing concerns in South Africa about the unsustainable nature of public debt. The new instrument allowed a more vigorous and robust investigation of key financial attitudes and behaviours in South Africa. The broad objectives of this expanded FSCA 2018 study are:

- To determine levels of financial literacy in South Africa
- To benchmark financial literacy levels in South Africa against financial literacy levels in other countries as part of the OECD INFE pilot study
- To inform public policy, particularly as it relates to vulnerable and at-risk groups with low levels of financial literacy, and
- To provide a valuable empirical evidence base with which to assist the development of strategies to improve financial literacy in South Africa at both community and national levels.

In short, the purpose of this expanded project is to generate information on the levels of awareness, knowledge and understanding of financial literacy in South Africa. The goal is to support the NCFE Strategy by generating data on financial adult literacy in the country using a survey instrument consistent with international best practices. Since the questions were tailored to the international OECD/INFE module, the responses to the questions can be benchmarked against other countries (developed and developing). The HSRC is confident that the output from this study will fill a vacuum in current knowledge on financial literacy and that the information will be useful for the FSCA in terms of their strategic goals.

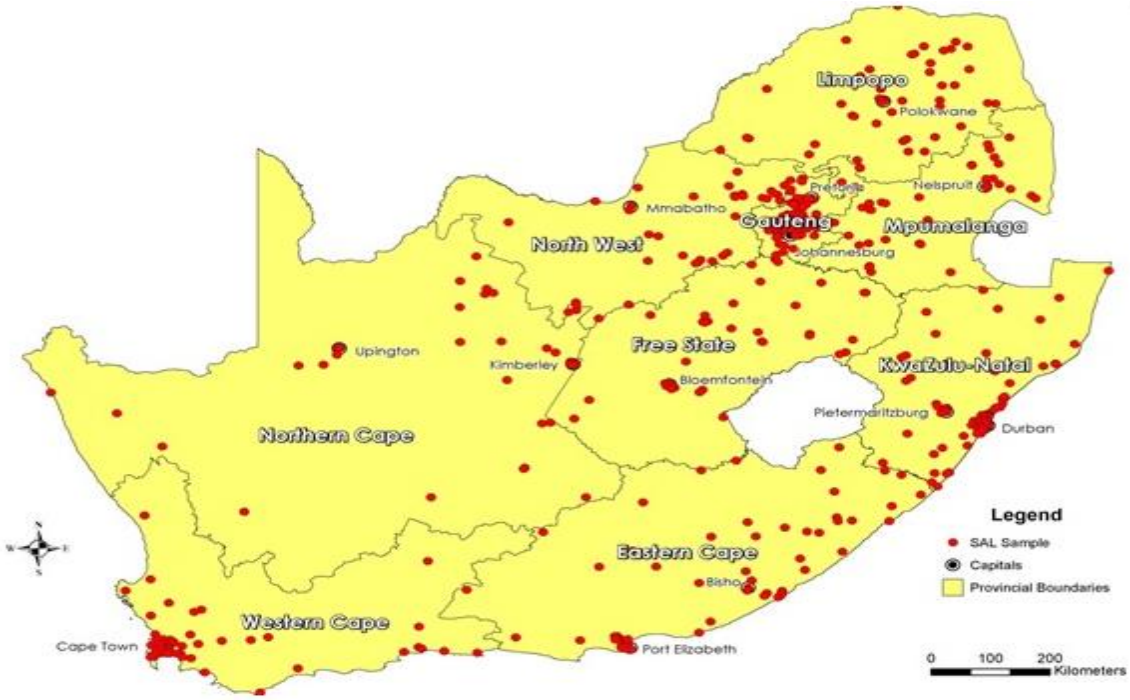
2. Research Methodology

We used data from the South African Social Attitudes Survey (SASAS) for this report. Data from the following rounds of SASAS were used: 2010, 2011, 2013, 2015 and 2017. This chapter will present information on the details of the survey, including questionnaire design and sampling framework. This chapter will outline in detail the survey methodology used to obtain this data. The first section will explain the sample design of the survey, the second will describe the data collection protocols and the final section will sketch out the capturing and weighting of the data.

2.1. The Sample Design

The HSRC designed SASAS to yield a representative sample of 3,500 adults aged 16 and older living in South Africa. The sample was spread across the country's nine provinces and was designed to include only people living in private residences. The survey has three sampling stages. Small area layers (SALs) were the primary sampling units and in the first stage, five hundred SALs were drawn. Estimates of the population numbers for various categories of the census variables were obtained per SAL. Data for this stage was drawn from the 2011 census. Three explicit stratification variables were used to draw the SALs, namely province, geographic type and majority population group. In this sampling frame special institutions (such as hospitals, military camps, old age homes, schools and university hostels), recreational areas and industrial areas were excluded prior to the drawing of the sample. The distribution of the SALs in South Africa is represented in Figure 2-1.

Figure 2-1: A Graphical representation of the 500 sampled Small Area Layers



Dwelling units (also known as visiting points) in each SAL were taken as the secondary sampling units. In the second stage, seven dwelling units were selected per SAL. A dwelling unit is defined as "separate (non-vacant) residential stands, addresses, structures, flats, homesteads, etc." Dwelling units were drawn with equal probability in each of the selected SALs. A dwelling unit was selected using a random starting point and counting an interval between dwelling units. The interval was calculated using the number of households in the SAL. Once the selected dwelling unit had been identified, the number of households at this visiting point had to be ascertain –this was done using Statistics Africa protocols. Finally, in the third sampling stage, a person was drawn with equal probability from all household members in the drawn dwelling unit. This household member (i.e. the respondent) needed to be 16 years or older. For the purpose of this survey, the KISH grid was used to randomly select the respondent in the household. This resulted in a sample of 3500 individuals.

2.2. Ethical Considerations and Consent

The HSRC subscribes to a strict internal Code of Ethics. The study design and research tools (questionnaires, consent and assent forms, training manuals, etc.) were submitted for approval by the HSRC's Research Ethics Committee (REC). Each questionnaire conducted by the HSRC is fielded only if the HSRC ethics committee has approved it. At all times we will keep in mind the confidentiality of information that we may have at our disposal.

Adult respondents and Informed Consent (older than 18 years): All respondents older aged 18 years and older were asked for written informed consent. The consent form explains the purpose of the study; emphasises that participation is voluntary; explains the likely duration of the interview; explains how confidentiality will be preserved; offers an earnest appraisal of the risks/discomforts and benefits associated with participation in the study; and provides details of the HSRC's toll-free ethics hotline and survey coordinator contacts.

Minors and Written Informed Consent (Persons under the age of 18 years): The reason for the inclusion of respondents younger than 18 years in the study design is to ensure that there are sufficient numbers of youth (16-24 years) in the survey sample. The SASAS series places a strong emphasis on generational differences in underlying social values and intends to track changes in the cross-sectional data over time. In instances where the selected research participant is a minor aged 16-18 years, the informed consent process followed will adhere to the HSRC's Guidelines on Research with orphans and vulnerable children (OVC). A dual consent process is required, both from the minors and their parent/guardian.

Ensuring confidentiality of information*:* All personal information on the respondent were removed when the data is captured and analysed. Codes to identify respondents were used instead. Information will be stored electronically with password-protection at the HSRC. Efforts are also being exerted to secure both the electronic and paper based survey questionnaires. As part of the ongoing HSRC-wide deliberations around data access protocols, the SASAS team remain emphatic about the need for restricting access to the data only to those subscribing to a pledge of confidentiality and ethical use of the data.

2.3. Data Collection Protocol

The following general protocol guidelines for data gathering were implemented:

- Fieldworkers and supervisors were required to notify the relevant local authorities that they would be working in the specific area. The purpose was twofold (a) to increase safety protocols for fieldworkers (b) and to reassure respondents, especially the elderly or suspicious, that the survey was official. Official letters describing the project and its duration and relevant ethical issues were distributed to the authorities. This was done not only as a form of research and ethical protocol but also to ensure the safety of the fieldwork teams.
- In rural areas supervisors were advised to inform the Nikos or Induna in a traditional authority area, whilst in urban formal or urban informal areas they had to report to the local police station. In some areas, the local councillor was also informed of the study prior to commencing work in the area.
- Fieldworkers were further advised that farms should be entered with caution and that they should report to the local Agri South Africa (Agri SA) offices before doing so. Field supervisors were issued with 'Farm letters' which contained information on the purpose of the study and contact details in case they had queries.

- Consent forms needed to be completed upon successfully finishing each interview. While verbal consent was to be secured from the respondent before the interview, a written consent form had to be signed afterwards.
- Fieldworkers were issued with name tags and letters of introduction to be used in the field. The introduction letter was translated from English into six other languages.
- Fieldworkers had to present their identity cards when introducing themselves.

The fieldwork usually occurs during the period from the start of October and ended in December in each year. A network of locally-based fieldwork supervisors in all parts of the country assisted in data collection. Competent fieldworkers with a thorough understanding of the local areas were employed as part of this project. Two-day training sessions were held in various provinces. The main training session took place in Pretoria and covered the Northern provinces (namely, Gauteng, Limpopo, Mpumalanga and North West). Other training sessions were held in East London, Durban, Kimberley and Cape Town. The training session included lessons on selection and sampling of households; fieldwork operating procedures; research protocol and ethical considerations. The questionnaire was discussed in detail. As far as possible, the training was designed to be participatory, practical as well as interactive, and gave fieldworkers the opportunity to seek clarification. A training manual was also developed as part of the training toolkit. All relevant remarks and instructions discussed during the training session were included in the training manual.

Figure 2-2: An example of a Small Area Layer map used to assist the fieldwork teams to navigate to the correct areas

Once the training sessions were completed, a navigational toolkit was provided to fieldwork teams. These toolkits were developed to assist the field teams in finding the selected SALs. These kits assisted the supervisors and fieldworkers to locate the exact SAL where the interviews were to take place. The navigational kits included:

- Route descriptions, to assist the teams to navigate their way into the selected enumerator areas.

- Maps that, using aerial photographs as a base, identified the exact geographic location of the enumerator areas to be sampled throughout the country.
- More detailed maps that identified the exact area, pinpointing street names and places of interest such as schools, clinics, hospitals etc. These maps also included latitude-longitude, GPS coordinates indicating the centroid of the SAL.

HSRC researchers conducted random visits to selected areas and worked with the fieldworkers for a certain period to ensure that they adhered to ethical research practices and that they understood the intent of the questions in the questionnaire. HSRC researchers also ensured that the correct selection protocols were followed in order to identify households and respondents in the household. The researchers also checked on procedures followed in administering the research instrument. Field backchecks were also conducted in all nine provinces. Telephonic backchecks were done on 10 % of the total sample.

2.4. Data Capturing and Weighting

In each SASAS round, data-capturing was conducted by an external service provider. This provider has the capacity to design capturing templates and capture data fast and effectively. All questionnaires were double captured in CSPRO to ensure that no capturing errors occur. The final dataset was converted into SAS and SPSS format and a data manager embarked on a data-cleaning exercise. Data was checked and edited for logical consistency, for permitted ranges, for reliability on derived variables and for filter instructions. After data cleaning, the analytical team received the realisation rates of the survey. During the period 2010-2017 SASAS had, on average, an impressive realisation rate. Consider, for example, the realisation rate for the 2017 SASAS round (Table 2-1) when the realisation rate of 85% was achieved. Our high realisation rate is partly achieved by experienced fieldwork teams and a committed research team.

Table 2-1: Sample realisation for the South African Social Attitudes Survey (SASAS), 2017

Province	Number of replaced SALs	Ideal sample (N Households)	Realised sample (N Households)	% Realisation
Western Cape	3	455	413	91%
Eastern Cape	0	455	393	86%
Northern Cape	0	259	224	86%
Free State	0	266	209	79%
KwaZulu-Natal	3	651	543	83%
North West	0	259	210	81%
Gauteng	3	581	526	91%
Mpumalanga	0	266	262	98%
Limpopo	0	308	287	93%
Total	9	3500	3067	88%

The data was weighted to take account of the fact that not all units covered in the survey had the same probability of selection. The weighting reflected the relative selection probabilities of the individual at the three main stages of selection: (i) visiting point (address); (ii) household; and (iii) individual. In order to ensure representativity of smaller groups (e.g. Northern Cape residents or Indian/Asian people) weights needed to be applied. Person and household weights were benchmarked using the SAS CALMAR macro and province, population group, gender and five age groups. These benchmark variables for persons and province and population group of the respondent in the household were selected due to their reliability and validity. The marginal totals for the

benchmark variables were obtained from mid-year population estimates as published by Statistics South Africa. The estimated South African population was therefore, used as the target population. Take into account, for instance, that the total number of people interviewed for the SASAS 2017 round which was 3,067. When weighted, this total represents 39,797,128 South Africans of 16 years and older. The final data set (unweighted and weighted) are disaggregated in Table 2-2 by key demographic variables.

Table 2-2: Sample characteristics (unweighted and weighted)

	Unweighted N	Percent	Weighted N	Percent
South Africa	3,067	100%	39,797,128	100%
Gender				
Male	1,185	39%	19,238,153	48%
Female	1,882	61%	20,558,976	52%
Age Group				
16-19 years	214	7%	4,592,000	12%
20-24 years	316	10%	5,031,270	13%
25-34 years	656	21%	10,772,036	27%
35-44 years	579	19%	7,635,967	19%
45-54 years	457	15%	5,164,175	13%
55-64 years	412	13%	3,610,583	9%
65+ years	426	14%	2,991,079	8%
Population Group				
Black African	1,865	61%	31,342,520	79%
Coloured	514	17%	3,585,986	9%
Indian/Asian	347	11%	1,115,692	3%
White	341	11%	3,752,931	9%
Geographic Type				
Urban formal	2,161	70%	24,459,010	61%
Urban informal	142	5%	2,442,840	6%
Rural trad. auth. areas	589	19%	11,476,094	29%
Rural farms	175	6%	1,419,185	4%
Province				
Western Cape	413	13%	4,843,537	12%
Northern Cape	393	13%	4,314,145	11%
Eastern Cape	224	7%	856,317	2%
Free State	209	7%	2,010,248	5%
KwaZulu-Natal	543	18%	7,538,047	19%
North West	210	7%	2,689,122	7%
Gauteng	526	17%	10,762,165	27%
Mpumalanga	262	9%	3,040,321	8%
Limpopo	287	9%	3,743,227	9%

SASAS contains many questions on an individual's demographic status. The final data set (unweighted and weighted) are disaggregated in Table 2-2 by key demographic variables. However, for the purposes of our study, we need to subdivide the population by socio-economic status. We used a number of different variables to do this including formal educational attainment and labour market status. But one of the most powerful instruments to measure economic status in SASAS is the Living Standard Measure (LSM). This is a composite index consisting of assets and socio-economic characteristics. The LSM was developed by South African Audience Research Foundation and has become the most widely used marketing research tool in Southern Africa. It is based on more than thirty questions about asset ownership and access to services like water and electricity. It divides the population into 10 LSM groups, 10 (highest) to 1 (lowest). For the purposes of our analysis, we created

four major LSM groups: (i) Low (1-3); (ii) Lower Middle (4-5); (iii) Upper Middle (6-7); and (iv) High (8-10).

For more information on the South African Social Attitudes Survey, please visit www.hsrc.ac.za/sasas or contact the coordinators listed below.

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3. Financial Knowledge and Understanding

In order to understand financial literacy in South Africa, it is essential to analyse the degree of the financial knowledge that people in the country possesses. Knowledge is the most common, and perhaps the most recognisable, element of the numerous definitions of financial literacy (for a discussion of these discussion, see Huston 2010, Lamdin, 2011; Remund, 2010). But who are those in South Africa with low financial knowledge? For the 2010 Financial Literacy Pilot study, the SASAS research team designed a module to measure South Africans' understanding of key financial concepts (such as inflation and interest rates) and numeracy. One of the most crucial measures of knowledge in SASAS is the Financial Literacy Quiz and in Section 3.1 we will examine responses to this quiz. Another instrument included in this module is the multiple choice test on financial risk. Section 3.2 will analyse responses to these multiple choice questions, dissecting how the questions were answered by different subgroups over the period 2011-2017. Then we will look at where South Africans learn the most about personal finances. Finally, in Section 3.4, we will investigate which financial markets and indicators South Africans keep monitored.

3.1. Financial Literacy Quiz

A core component of the financial literacy survey was a set of questions that were administered in the form of a quiz. This quiz was used to examine how South Africans understand the financial world. The items test knowledge of concepts such as mathematical division, inflation, interest rates and compound interest. The standard quiz has consisted of four questions. The exact questions are Q34-Q38 in Appendix C. However, in the 2017 round of SASAS, the research team added two additional questions to this quiz. One was on credit rates and the other was on what determined the interest on a loan (the exact questions are Q42 and Q43 in Appendix C). Correct answers to the quiz questions are displayed in Table 3-1. The following section will explore responses to the Financial Literacy Quiz and examine outlining the level of financial knowledge at a national level.

Table 3-1: Financial knowledge quiz trend analysis, 2011-2017 (percent answering correctly)

Qs Num.	Quiz Item	2011		2012		2013		2015		2017	
1	Basic arithmetic (division)	85	(0.87)	86	(1.00)	85	(1.09)	87	(0.93)	87	(0.94)
2	Inflation rates	23	(1.06)	23	(1.30)	21	(1.25)	14	(0.92)	16	(1.13)
3	Interest calculation	64	(1.23)	64	(1.40)	65	(1.48)	71	(1.30)	65	(1.35)
	Interest on deposit	48	(1.29)	45	(1.44)	38	(1.42)	44	(1.50)	46	(1.46)
4	Compound interest	39	(1.21)	41	(1.38)	35	(1.35)	36	(1.36)	35	(1.35)
5	Interest loan determinant									19	(1.15)
6	Credit rates									61	(1.43)

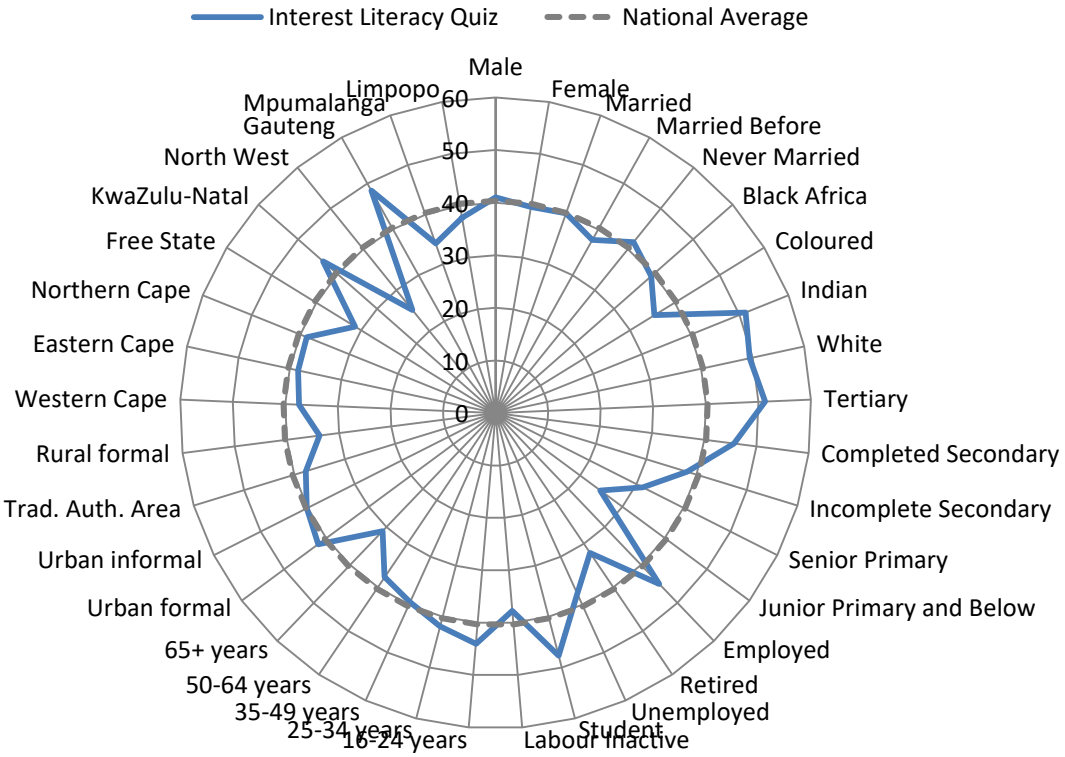
Source: South African Social Attitudes Survey (SASAS) 2010-2013; 2015; 2017
Note: 1. Figures depicted in the table reflect the share of the population that answered the quiz item correctly; and 2. Standard errors in parenthesis.

Let us discuss the results of the financial literacy quiz one question at a time. First, consider responses to the basic arithmetic question. Only a small minority of the adult public did not know the answer to this question and this has not changed significantly over the period under consideration. The public understanding of inflation was relatively poor. Less than one-sixth (16%) of the adult population were able to answer the inflation question accurately in late 2017. It would appear that the share of the population which gives a correct answer has not improved over the period under investigation and has in fact greatly decreased since 2011. It may be that respondents' answers are being influenced by

significant degrees of price volatility that have affected certain types of consumer products and services in the last few years. In Section 3.2 we will return again to the question of inflation using a more direct question about the impact of inflation on prices.

It is clear that many South Africans do not understand how interest works. The first interest rate quiz item read as follows: "You lend R25 to a friend one evening and he gives you R25 back the next day. How much interest has he paid on this loan?" Approximately 65% of the adult population issued a correct response to the paying of interest on a loan. Respondents were then asked to estimate how much would be in a savings account after a year, assuming a 2% rate on an initial R100 deposit. Around two-fifths (46%) of the adult population issued a correct response to this question'. Finally, in order to test compound interest, respondents were asked a follow-up question on the previous quiz item: "And how much would be in the account at the end of five years?" About a third (35%) of the general population gave a correct answer to this question.

Figure 3-1: Mean Interest Literacy Quiz score (0-100) by socio-demographic attributes, 2017



Source: South African Social Attitudes Survey (SASAS) 2017

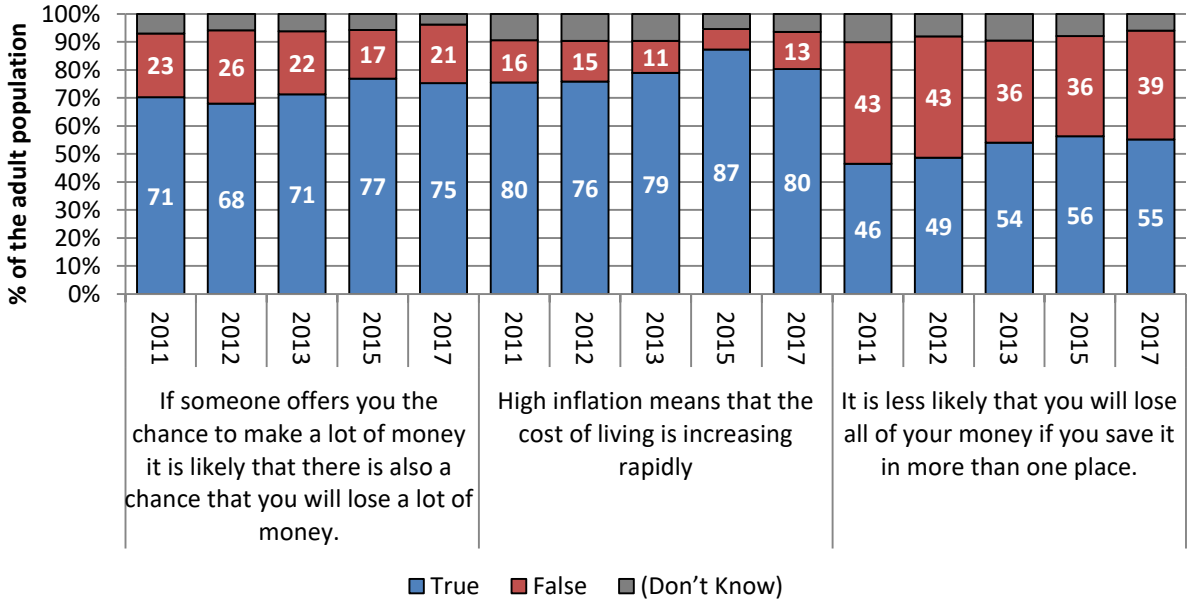
If we review how people answered the interest questions over the period 2011-2017, then it would appear that there has not been a significant improvement in how well the public understands the function of interest in the economy. Although the proportion of adult South Africans giving correct answers to the question on compound was lower in 2017 than it was in 2013. To provide a thorough understanding of which subgroup comprehends interest, we created an Interest Literacy Quiz Index. To produce this index, we combined the correct answers from questions Q36, Q37, Q38 and Q43. The index scale has been constructed so that values range from 0 to 100, with higher values indicating a greater level of knowledge about how interest works. The results are depicted in Figure 3-1.

White and Indian South Africans were, on average, more far likely than other population groups to give a correct answer to the quiz questions. Younger South Africans also tended to have, on average, a better number of correct answers on the Interest Literacy Quiz than other cohorts. This may be linked to the well-known decline in cognitive function associated with old age. On the other hand, it could be related to improvements in mathematics and economics education in South Africa at the school level. Unsurprisingly the SASAS research team found a strongly salient relationship between educational attainment and financial knowledge. Those with a better level of formal education were found to be, on average, more likely to answer the quiz questions correctly. Educational attainment inequalities may help explain the marked differences between population groups noted in Figure 3-1. Further research on this important question is required.

3.2. Multiple Choice Questions

The big theme in financial markets over the last year or so has been uncertainty. It is not enough to merely test South Africans on their financial knowledge, it is necessary to better understand how adults in the country approach risk. Are South Africans risk-adverse and sceptical of get-rich-quick schemes and cautious in how they save and invest money? Individuals who are less concerned about the risks involved may become victims of disreputable financial schemes and fraud. In order to better understand risk aversion in the country, the SASAS research team designed two questions to measure attitudes to risk in savings and investment. Reflecting on the poor responses to our inflation question that we observed in Section 3.1, the SASAS research team introduced a simplified multiple choice question on inflation. Here respondents were asked about the impact of inflation. Responses to these three questions are presented in Figure 3-2 for the period 2011-2017.

Figure 3-2: Answers to the multiple choice questions, 2011-2017 (%)



Source: South African Social Attitudes Survey (SASAS) 2010-2013; 2015; 2017

Looking at the responses to our multiple choice questions, it is apparent that South Africans are quite cynical about potential investments that offer the prospect of getting rich quick. In 2017 nearly than

four-fifths (75%) of the adult public thought it was true that if someone offers them the chance to make a lot of money it is likely that there is also a chance that they would lose a lot. Only about a fifth (21%) of the adult population thought this statement was false. On the second risk item, which concerned risk and savings, it is clear that the adult population is somewhat divided on the question. In 2017, more than half (55%) of the general population thought it was true that only saving in one pace was a risk while about two-fifths (39%) thought that statement was false. We will return again to our discussion of risk and savings when we look at savings behaviour in Chapter 6.

Now let us turn to the inflation question. Almost eight-ninths (80%) of the adult population indicated that the inflation statement in Figure 3-2 was true, indicating a greater understanding of inflation than could be discerned from Section 3.1. The failure to adequately answer the other inflation questions in SASAS may be related to the poor ability of many South Africans to answer non-basic mathematical questions. If we follow this logic then we may say that this lack of mathematical ability would explain (or, at least, offer a partial explanation for) the poor showing on the Interest Literacy Quiz. The observed difference between educational attainment groups noted in the previous section may then be related to the fact that better educated individuals in South Africa are better at mathematics than their less educated counterparts. We will return to this issue in Chapter 10 when we will discuss inequalities in financial knowledge in more detail.

3.3. Sources of Learning

In the 2017 round of SASAS, respondents were asked where they have learnt the most about personal finance. The general population listed a variety of different places and people where they learned the most from and no source that was mentioned by a majority of the general population. The popular answer was 'learned by yourself' and 19% people said they had taught themselves about personal finances. More than a quarter of the public listed members of their social networks with 16% cited their parents and/or family and 11% indicated their friends as the main source of learning. About an eighth (13%) of the adult public listed school as the place they learnt the most about personal finance. Of all the answered given by people, the least popular was the workplace –only 2% of the public giving this answer to our question.

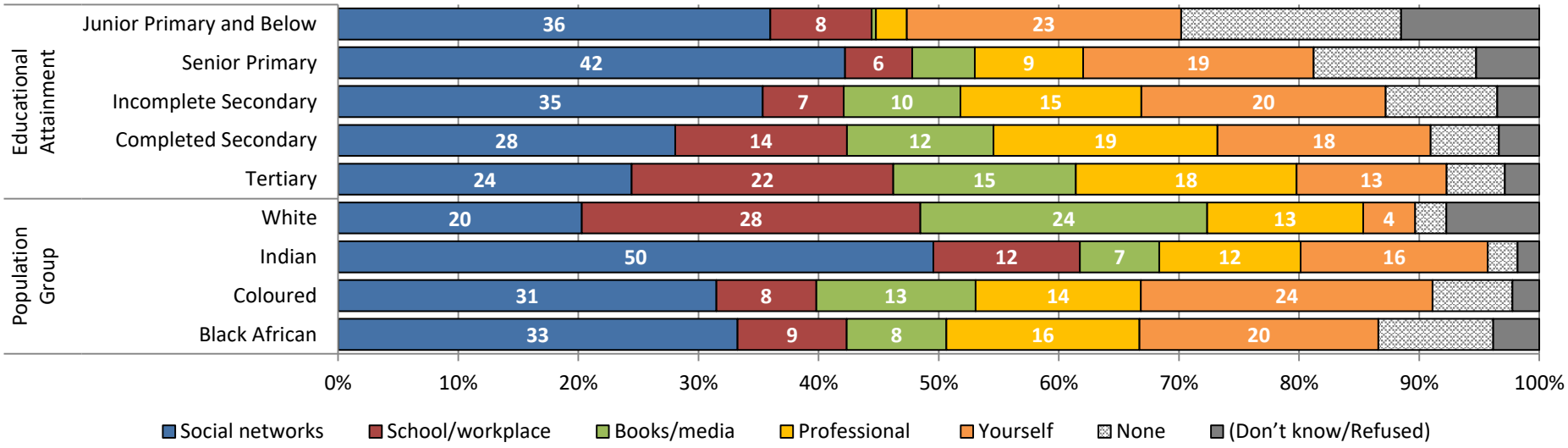
Who people learn from can be influenced by their position within the economic hierarchy. Those at the top will have greater access to different types of learning opportunities than those at the bottom. To explore the relationship between learning and economic status further we present the main sources of learning for personal finance across our four Living Standard Measurement Groups (Table 3-2). Two-fifths of the High LSM group identified financial professionals as the main source of learning and this group was more than twice as likely as other LSM group in the table to give this answer. The High LSM group was also much more apt to say that the internet was a main source of learning. Approximately a tenth (11%) of this group listed the internet when answering this question compared to 3% of the Low LSM group and about a twentieth of the middle LSM groups. Poorer people in the country were more likely to say that their friends were the people who taught them the most about personal finances. Almost a fifth (17%) of the Low LSM group cited their friends as sources of learning compared to just about a twentieth of the High LSM group.

Table 3-2: Most influential learning sources, by living standard level (LSM) (%)

	Low		Lower Middle		Upper Middle		High		Total	
From your parents or at home	7	(2.36)	15	(1.83)	18	(1.72)	15	(1.66)	16	(1.01)
From the internet	3	(2.14)	5	(1.32)	5	(1.06)	11	(1.86)	6	(0.76)
From a financial professional	7	(4.10)	6	(1.39)	9	(1.57)	20	(2.41)	11	(1.01)
From self-help books or media	0	(0.20)	3	(0.89)	4	(0.84)	5	(1.54)	4	(0.59)
From school	7	(3.48)	14	(2.12)	12	(1.52)	15	(2.47)	13	(1.09)
At work	3	(1.95)	3	(1.22)	2	(0.62)	3	(0.76)	3	(0.48)
From friends	17	(4.64)	16	(2.10)	11	(1.27)	5	(1.65)	11	(0.92)
Spouse or partner	4	(1.72)	5	(1.29)	5	(0.87)	5	(1.05)	5	(0.59)
Learned by yourself	20	(4.83)	16	(1.90)	23	(1.89)	13	(2.35)	18	(1.16)
None of these/Other	19	(5.17)	11	(1.57)	8	(1.33)	3	(0.70)	8	(0.78)
(Don't know)	14	(5.31)	4	(1.05)	1	(0.32)	2	(0.63)	3	(0.41)
(Refused)	0	-	2	(0.89)	0	(0.13)	3	(1.15)	1	(0.38)

Source: South African Social Attitudes Survey (SASAS) 2017
Note: Standard errors in parenthesis.

Figure 3-3: Most influential learning sources, by educational attainment and population group, 2017 (row percentages)



Source: South African Social Attitudes Survey (SASAS) 2017

To further investigate how an individual's socio-economic rank can influence a person's choice of information sources, we wanted to look at the most influential learning sources amongst important subgroups in the country. In Figure 3-3 we see that there were definitive differences in which learning sources were identified by different educational attainment groups. The tertiary-educated were much more likely than other attainment groups to say that their main source of learning was school or the workplace. This is unsurprising given that this group has greater access to these institutions than their less educated peers. As a source of learning, social networks were cited much more often by those at the bottom of the educational attainment ladder than those at the top. Consider that 42% of those with some senior primary education listed social networks as an influential source compared to only 28% of the tertiary-educated. The less educated were also far more likely to describe themselves as self-taught when it comes to personal finances.

Looking at differences amongst population groups in Figure 3-3, we found that adult members of the Indian community were, on average, more likely to list social networks as learning sources than other population groups. Of the four population groups, members of the white minority were the least likely to cite social networks (i.e. friends and family) as an influential source. Remarkably, the white population was more apt than any other group in Figure 3-3 to name self-help books and other media as a major basis of learning. Almost a quarter (24%) of this group listed this type of media as a main source. It is curious to note that white people are the least likely to say that they are self-taught when it comes to personal finances. Out of all the population groups in the figure, members of the Coloured minority are the most likely to describe themselves as self-taught. Examining population groups more closely we found that Indian men were three times more likely to cite financial professionals as a major source than Indian women. This significant gender differential suggested to us that there may be other gender biases on seeking help on personal finances from professionals in South Africa.

Table 3-3: Percentages of selected who cited financial professionals as a main source of learning

	Male			Female		
	%	SD	Scheffe Sig.	%	SD	Scheffe Sig.
Marital Status						
Married	0.20	0.40	ref. group	0.14	0.35	ref. group
Married before	0.10	0.30	*	0.09	0.28	**
Never married	0.11	0.32	***	0.05	0.23	***
Employment Status						
Employed	0.22	0.41	ref. group	0.15	0.36	ref. group
Unemployed	0.08	0.27	***	0.06	0.24	***
Labour inactive	0.10	0.31	***	0.08	0.27	***
Age group						
16-29 years	0.10	0.30	ref. group	0.07	0.25	ref. group
30-49 years	0.18	0.38	*	0.10	0.29	
50+ years	0.16	0.37		0.11	0.31	
Geographic type						
Urban	0.15	0.36	ref. group	0.12	0.33	ref. group
Rural	0.13	0.34		0.11	0.32	

Source: South African Social Attitudes Survey (SASAS) 2017

Note: Reported levels of statistically significant are based on ANOVA testing. The signs *, **, *** indicate that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

The percentages of selected subgroups who listed financial professionals as a major learning source by gender are depicted in Table 3-3. We found that married women (14%; SE=0.350) were less likely to list financial advisors than their male counterparts (20%; SE=0.402). A similar gender disparity was observed amongst those who never married but amongst those who had been previously married there was no disparity. Employed men (22%; SE=0.413) were also more likely to cite financial professionals as a major learning source than working women (15%; SE=0.362). One of the largest gender discrepancies in the table concerned the 30-49 age cohort. Women in this age group (10%; SE=0.294) were much less likely to have financial professionals as their most influential source of learning than their male counterparts (18%; SE=0.381). This result seem to suggest interesting levels of gender bias in how different groups engage with the financial profession in South Africa.

3.4. Monitoring Financial Markets and Indicators

An important part of financial knowledge is staying up to date on financial news and events. Keeping informed on important financial news means following changes in key financial markets and indicators. The SASAS research team wanted to track how observant people were when it came to news of this type. In SASAS 2017, South Africans were asked which financial markets and indicators they kept an eye on. The research team chose eight key markets and indicators and then asked the general population which of these they personally watched. This was a multiple response question so researchers could both see which types of financial news respondents followed as well as how many different types they kept track of. First we will look at which financial markets and indicators people monitored and then we will turn our attention to how many they monitored.

Table 3-4: Monitoring financial markets and indicators, by living standard level (LSM) (multiple response table)

	Low	Lower Middle	Upper Middle	High	Total
Changes in the housing market	2.3	6.2	7.6	20.0	10.1
Changes in the stock market	2.7	5.2	9.5	19.9	10.7
Changes in interest rates	5.6	6.6	12.8	30.4	15.2
Changes in inflation	11.8	15.2	21.8	33.8	22.6
Changes in taxation	1.7	5.6	8.5	20.3	10.4
Changes in the job market	4.6	13.9	13.7	14.0	13.5
Changes in state pension, benefits and tax credits	4.5	6.5	9.1	13.3	9.3
Best buys in financial products	7.4	6.3	6.6	10.8	7.6
(None of these)	66.8	55.5	52.3	37.0	49.9
(Don't know)	8.7	5.7	1.8	1.3	3.0
(Refused)	0.0	0.8	0.5	4.1	1.5

Source: South African Social Attitudes Survey (SASAS) 2017

It is disturbing to note that half of the adult population did not monitor any financial markets or indicators. The most popular financial indicator that the population watched was changes in inflation with 23% of the adult pubic indicating that they kept an eye on changes in inflation. Given recent price rises on basic goods and services in the country over the last few years, it would make sense that a significant share of the public was concerned about this metric of economic health. The financial markets that people were most likely to scrutinise were the job market and 14% of the adult public said that they monitored this market. The indicator that was the least likely to be watched was best buys in financial products. This is, perhaps, unsurprising given the lack of exposure most people in the country have towards financial markets.

We anticipated significant disparities in how certain economic groups monitored financial markets and indicators. To understand these disparities, responses to our monitoring question are displayed across different LSM groups in Table 3-4. It is clear that poor individuals are less likely to watch the types of economic markets and indicators displayed in the table. Approximately two-thirds of those in the Low LSM group said that they did not monitor any such markets and statistics compared with 56% in the Lower Middle, 52% in the Upper Middle and 37% of those in the High LSM group. People at the top of the economic ladder told fieldworkers that they were most interested in were: (i) inflation; (ii) interest rates; and (iii) taxation. Compared to the Middle LSM groups, the High LSM group was not more likely to monitor the job market. However, the High LSM group was found to be much more prone to watch the housing and stock markets than their peers in the Lower and Upper Middle groups. This disparity can be, perhaps, explained by the greater exposure the more affluent have to property markets.

Table 3-5: Mean Financial Markets Monitoring Index (0-8) scores by selected subgroups (mean scores, standard deviations and statistically significant differences)

	Male			Female		
	M	SD	Scheffe Sig.	M	SD	Scheffe Sig.
Education level						
Tertiary	1.96	1.86	ref. group	1.73	1.92	ref. group
Completed secondary	1.24	1.60	***	1.27	1.55	**
Incomplete secondary	0.99	1.47	***	0.76	1.16	***
Primary and below	0.67	1.27	***	0.55	0.99	***
Employment Status						
Employed	1.48	1.83	ref. group	1.41	1.57	ref. group
Unemployed	1.02	1.32	***	0.85	1.27	***
Labour inactive	0.90	1.42	***	0.85	1.35	***
Age group						
16-29 years	0.89	1.30	ref. group	0.87	1.30	ref. group
30-49 years	1.39	1.86	***	1.04	1.41	
50+ years	1.21	1.44	*	0.94	1.45	
Population group						
Black African	1.06	1.52	ref. group	0.88	1.28	ref. group
Coloured	0.91	1.38		0.91	1.45	
Indian	1.72	1.88	***	1.52	1.74	***
White	1.73	1.81	***	1.84	1.99	***
Geographic type						
Urban	1.25	1.66	ref. group	1.13	1.52	ref. group
Rural	0.90	1.33	**	0.63	1.00	***

Source: South African Social Attitudes Survey (SASAS) 2017

Note: Reported levels of statistically significant are based on ANOVA testing. The signs *, **, *** indicate that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

We were interested in the number of financial markets and indicators an individual kept an eye on. We developed a 0-8 Financial Markets Monitoring (FMM) Index with the higher number indicating the greater number of markets and indicators an individual watched. The mean index score was 1 (SE=0.027) and the distribution on this measure is skewed towards the right. We observed that the right tail on the index is very long relative to the left tail and the distribution also has heavy tails. We can conclude that few people keep an eye on multiple financial markets and indicators. In order to understand how our FMM Index differs across important subgroups, we present the mean index outcomes for selected

subgroups in Table 3-5. ANOVA results are shown in the table to help understand whether observed differences are statistically significant.

Significant population group differences were noted. Members of the Indian (M=1.72; SE=1.88) and white (M=1.73; SE=1.81) population groups had significantly higher FMM index scores than members of the Coloured (M=0.91; SE=1.38) and Black African (M=1.06; SE=1.52) groups. This may reflect inequalities in economic and educational attainment between population groups. Consider, for instance, how mean FMM Index scores differed by formal educational achievement. People with high levels of educational attainment were found to have substantially higher average FMM Index scores. The gap between the tertiary-educated (M=1.96; SE=1.86) and those with primary education or less (M=0.67; SE=1.27) was particularly large. We also noted a gap between rural and urban areas in the table. This observed dissimilarity could be the result of the fact that rural areas are less exposed to financial markets. We tested this thesis using a multivariate regression technique[2] and found that, controlling for economic status, rural residence was not a determinant of the FMM Index at the 5% level of significance. This suggests that educational and economic inequalities between rural and urban dwellers explain observed differences in mean FMM Index scores between these groups.

4. Prudent Financial Behaviours and Attitudes

Speaking on the subject of financial management, Lloyd Buthelezi, General Manager at Nedbank Financial Planners, said: “Full knowledge of your own financial situation, from budgeting and current circumstances to clear goals and objectives are basic things that every individual should know and manage” (Mail & Guardian 02/05/2014). He went on to say that this required discipline, focus and sacrifice. Like many financial leaders in the country, Lloyd Buthelezi wants his follow South Africans to adopt prudent financial behaviours such as financial planning and household budgeting. And he is not the only one. When giving advice to South Africans on property ownership, Adrian Goslett Regional Director and CEO of RE/MAX of Southern Africa, said that the only realistic approach to ensure future prosperity is through financial discipline (News24 05/07/2018). Imprudent financial behaviour and attitudes leads individuals to make bad fiscal decisions about debt and saving that can be disastrous in the long run. Good financial decisions come from prudent financial behaviour, self-control and consciousness.

In order to better understand whether South Africans are responsible in their financial behaviour, the SASAS research team has been collecting data on prudent fiscal activities and practices since 2010. At the time of writing, the SASAS research team has collected six waves of survey data on a range of financial behaviours and attitudes. This allows for an informative trend analysis on whether people are following pragmatic financial practises. The chapter is split into three sections. Section 4.1 offers a detailed analysis of this data with a focus on how budget holding differs between different socio-economic groups in the country. Section 4.2 investigates the frequency of prudent financial behaviours with a focus on financial self-control. This section will look at such across important subgroup categorisations in South African society. In Section 4.3 we look at attitudes towards spending money using the Prudent Money Value Index –this composite metric measures attitudes towards

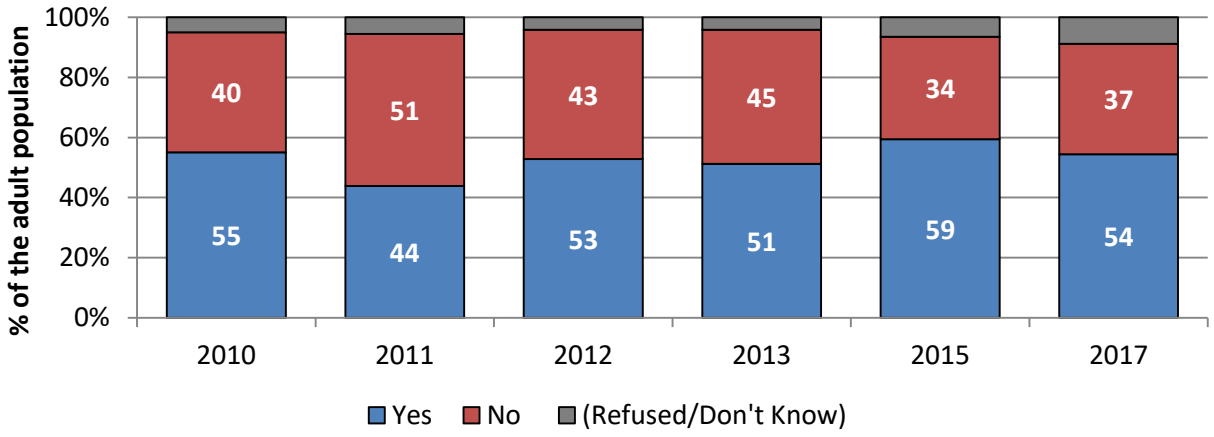
[2] Given the character of the FMM Index, we used an ordered logistic regression model here. The model controlled for gender, population group, marital status, Living Standard Measure, formal educational attainment, labour market status, provincial residence and whether an individual lived in a rural area.

spending and saving. Finally, in Section 4.4, we will scrutinise individual propensity to engage in long-term financial goal setting.

4.1. Presence of a Household Budget

One of the most central aspects of financial control and money management for any household is the use of a *plan* of monetary operations based on a specific time period –in other words, a budget. As Arrowsmith and Pignal (2010) remark, the presence of a budget is suggestive of a positive awareness relating to financial management (also see Mitchell and Lusardi 2011). The SASAS research team has been tracking the presence of a budget in households since 2010 (see Figure 4-1). The team's findings show that a budget is present in a majority of South African households although a considerable minority still do not have a household budget. In 2010 about half (51%) of the adult population reported the presence of a household budget and this share has remained relatively unchanged in subsequent years. Approximately 54% of the population indicated the presence of such a budget in 2017 and it is concerning that so many do not practice this type of financial planning. It is clear that more must be done to promote sensible financial planning in South African households.

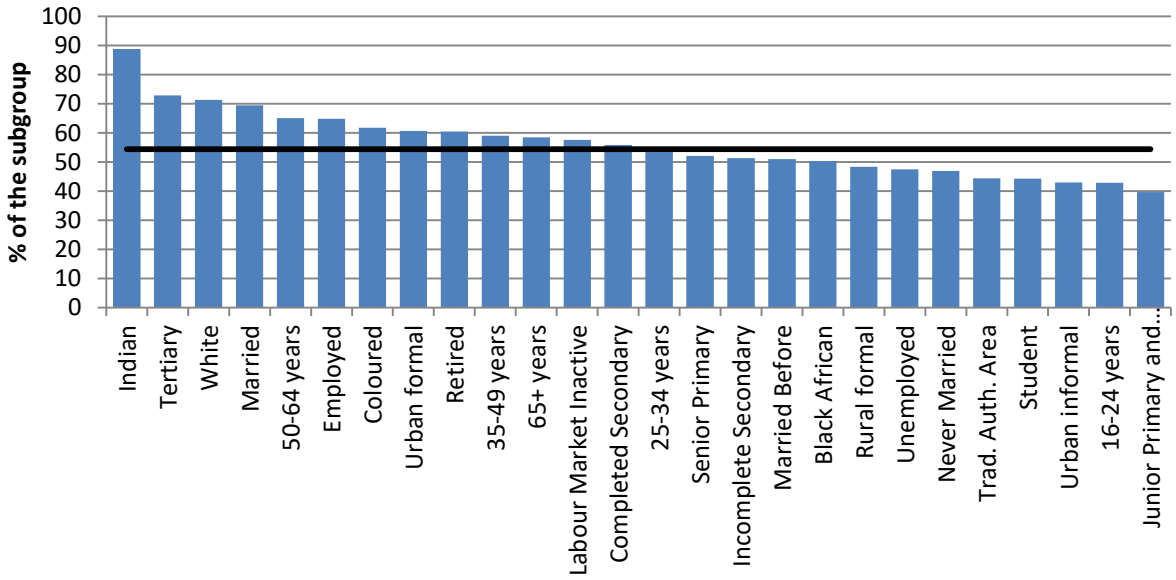
Figure 4-1: Share of South Africans who had a household budget (column percentages), 2010-2017



Source: South African Social Attitudes Survey (SASAS) 2010-2013; 2015; 2017

Which groups in South Africa live in a household with a budget? Figure 4-2 indicates the presence of a household budget by key social and demographic characteristics. Married people were more likely to live in a household with a budget when compared to those who had never been married. This may be because the financial pressures faced by married people are often greater than those of the unmarried. Substantial differences in budget holding were observed based on labour market status and educational attainment. If we examine the distribution of budget holding, therefore, it is apparent that those higher on the socio-economic ladder tend to be more apt to report the presence of a household budget. As can be observed from the figure, there is a considerable gradient of difference by population group. Members of the Indian and White minority groups were found to be significantly more likely than other groups to have a household budget.

Figure 4-2: Share living in a household with a budget, by socio-demographic attributes (percentage)



Source: South African Social Attitudes Survey (SASAS) 2017
Note: The horizontal line represents the national average (54% with a budget).

The differences noted between population groups in the figure may be explained by the well-known nature of the country unequal economy which highlighted in the first chapter of this report. To test whether the propensity to have a household budget depends on an individual's financial resources, we use multivariate regression analysis. Logistic regression was selected as this is a common method used to model dichotomous outcome variables. The likelihood ratio chi-square of 804 with a p-value of 0.0001 tells us that our model as a whole fits significantly better than an empty model[3]. Controlling for years of formal schooling and economic status, we found that differences between population groups were not statistically significant at the 5% level. In our model, socio-economic ranking were better determinants of the dependent than population group status. This confirms our hypothesis that the inclination to have a household budget hinges on an individual's monetary resources and not their racial identity.

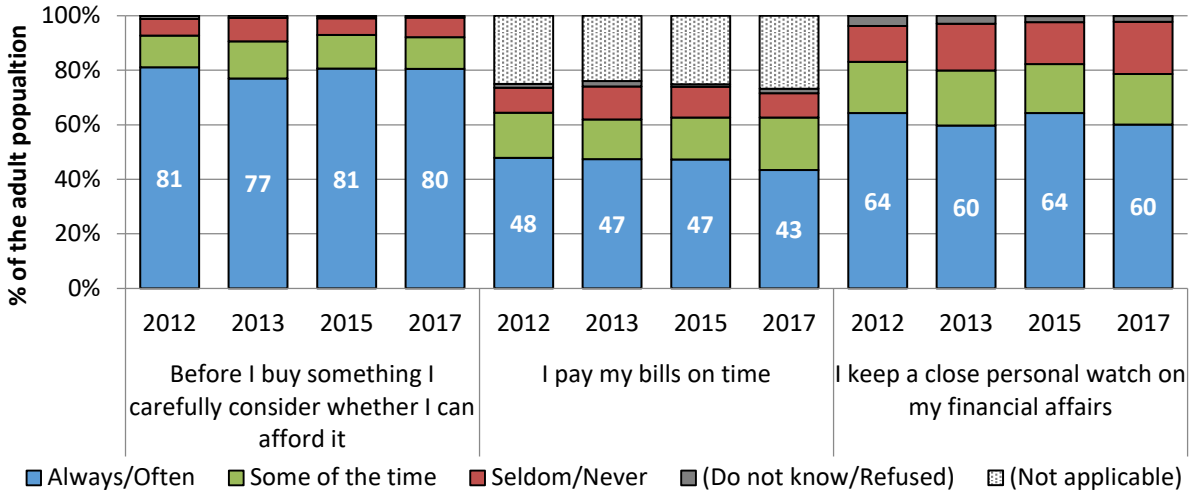
4.2. Considered Approach to Personal Finances

Failure to always or often practice considered and prudent financial discipline will undermine financial wellbeing, exposing more South Africans to economic vulnerability In a recent interview, Head of Financial Education at Old Mutual, John Manyike reminded ordinary South Africans that the "more organised you are, the more in control you are. You want to be in control of your finances – not the other way around" (Moneyweb 02/09/2017). The SASAS research team has always been very interested in prudent financial behaviour. In 2010, respondents were asked: “Please can you tell me how often you do these things or not. (i) Before I buy something I carefully consider whether I can afford it?; (ii) I pay my bills on time?; and (iii) I keep a close personal watch on my financial affairs?” Responses to these questions are displayed for the period 2012-2017 in Figure 4-3. As can be seen, a

[3] We used a logistic regression approach to determine which factors predict having a household budget. The model controlled for a variety of different economic and demographic variables including gender, population group, marital status as well as living standard measurement and years of formal educational attained.

large share (80%) of the adult public in 2015 acknowledge that, prior to making a purchase, they usually carefully consider whether they can afford it. If we compare how people responded to this question in 2012 and 2017 then we note little change amongst the general population.

Figure 4-3: Financial self-control and expenditure behaviour, 2012-2017 (column percentages)



Source: South African Social Attitudes Survey (SASAS) 2010-2013; 2015; 2017
Note: Only those who paid bills answered the 'timeous' question and about a quarter of the adult population did not answer this question.

Approximately two-fifths (43%) of the general population said that they regularly pay their bills on time in 2017. Adult South Africans were less likely to state that they timeously paid their bills in 2017 than in 2012. The share of the adult public who said that they pay their bills some of the time increased over this same period. Three-fifths of the adult public told fieldworkers that they kept a close watch over their personal finances in 2017 and 19% said that they seldom or never kept a careful watch. The share who report not keeping a close eye on their finances in 2017 was at its lowest level since 2012. To get a better understanding of which South Africans are practicing prudent financial behaviour, we created an index called the Considered Financial Behaviour (CFB) Index. To produce the index, responses to the three items in Figure 4-3 were combined onto single 0-100 scale with 0 indicating the lowest level of reported financial responsibility and 100 the highest[4]. People who have no bills to pay are excluded from the index.

The national mean CFB Index score was 73 (SE=0.294) in 2017 and this score was not noticeably different from what was observed in 2015 (M=75; SE=0.292), 2013 (M=74; SE=0.316) or 2012 (M=77; SE=0.275). The skewness of the distribution on the CFB Index is negative (-0.875) and the kurtosis (3.708) is higher than the expected value. A significant share (33%) of the general population scored above 90 on this index, indicating that many people in the country practice very cautious financial behaviour. In order to more adequately investigate this behaviour, mean scores on the index are examined by selected subgroups. To understand how levels of shrewd fiscal behaviour may have changed in recent years, data from SASAS 2012 and 2017 is presented in Table 4-1. Reviewing the outputs, we found relatively little differences between the groups under discussion with the exception of educational attainment groups as well as population groups.

[4] Using inter-item correlations (covariances) and Cronbach's alpha (0.691) we were able to confirm that the items loaded well onto a single index.

Table 4-1: Mean Considered Financial Behaviour (CFB) Index scores by selected subgroups (mean scores, standard deviations and statistically significant differences)

	2012			2017		
	M	SD	Scheffe Sig.	M	SD	Scheffe Sig.
Education level						
Tertiary	84.2	17.9	ref. group	82.5	18.1	ref. group
Completed secondary	78.8	19.7	*	73.1	21.3	***
Incomplete secondary	74.3	22.5	***	72.9	22.1	***
Primary and below	69.5	21.6	***	73.0	20.7	***
Employment Status						
Employed	81.0	18.5	ref. group	75.9	21.1	ref. group
Retired	80.4	20.2		79.6	19.2	
Unemployed	72.9	21.8	***	70.5	21.5	***
Student	69.6	24.1	***	68.4	24.1	**
Labour Inactive	75.5	21.3	**	77.1	21.1	
Population group						
Black African	73.7	21.3	ref. group	72.6	21.6	ref. group
Coloured	76.5	20.3		72.8	22.2	
Indian	81.4	19.1	***	82.6	17.7	***
White	88.1	16.3	***	79.3	19.9	***
Geographic type						
Urban formal	79.2	19.2	ref. group	74.2	22.0	ref. group
Urban informal	70.4	20.8	***	67.0	21.0	*
Trad. Auth. Area	71.0	23.3	***	73.8	19.9	
Rural formal	76.6	25.4		74.2	23.8	

Source: South African Social Attitudes Survey (SASAS) 2012; 2017

Note: 1. A higher score on the index indicate more considered and responsible financial behaviour; 2.People who have no bills to pay are excluded; and 3.Reported levels of statistically significant are based on ANOVA testing. The signs *, **, *** indicate that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

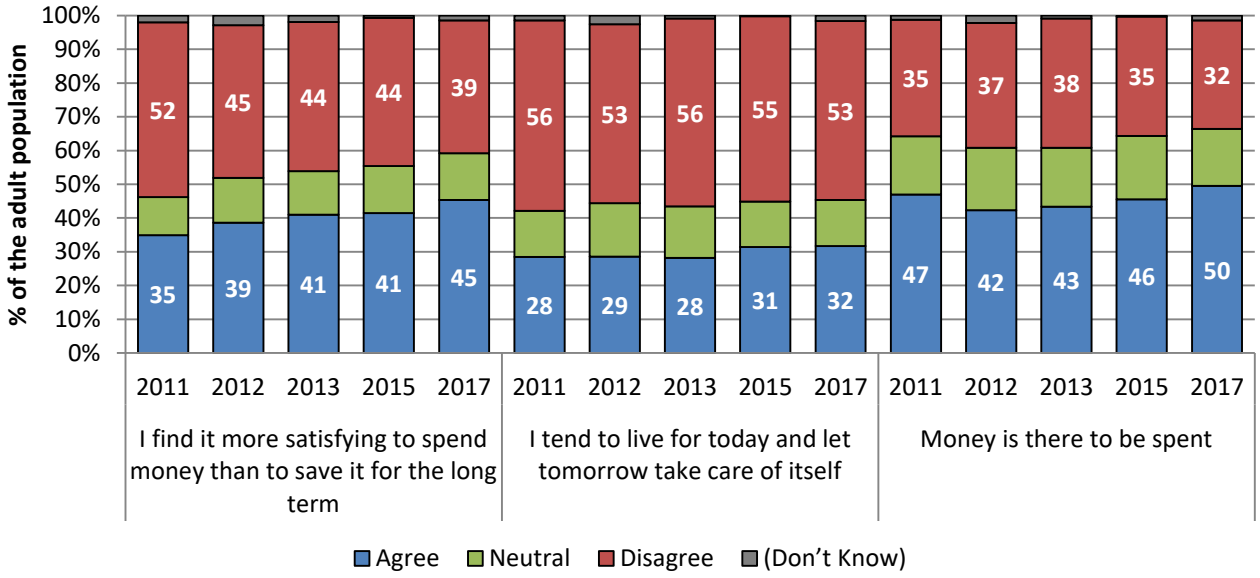
Significant differences were observed between educational attainment groups in both 2012 and 2017. It would appear that the tertiary educated are conducting their financial affairs more responsibly than their less educated counterparts. Indeed, the tertiary-educated appeared to be more financially savvy than other groups in Table 4-1. Disturbingly, fiscal prudence amongst the employed seem to have declined between 2012 and 2017. The average CFB Index score of this group deteriorated from 81 (SE=18.5) in 2012 to 76 (SE=21.1) in 2017. There were significant differences between population groups in the table with members of the white minority tending to have higher mean CFB Index scores than the Black African majority. Differences between population groups were much smaller in 2017 than in 2012. The reason for this reduction in difference is a decline in prudent financial behaviour observed amongst the white minority. Amongst this minority group, the mean CFB Index score fell from 88 (SE=16.3) in 2012 to 79 (SE=19.9) in 2017.

4.3. Attitudes towards Spending Money

At the time of writing, the people of South Africa had been facing a few years of difficult economic conditions. The FNB/Bureau of Economic Research Consumer Confidence Index for the final quarter of 2017 was -8 (News24 01/02/2018). The index was below zero for 2017 overall and 2017 was the third consecutive year that the index registered below the zero mark. At times like this, South Africans need to practice fiscal self-control. A number of studies have found that being more 'forward-looking'

is positively correlated with saving behaviour and the ability to cope with financial stress (see, for example, Lea, Webley, and Walker 1995; Walker 1996, Lamdin 2011). This subsection will look closely at spending attitudes in South Africa. In 2010, SASAS respondents were asked three questions about their attitudes towards saving. These items were repeated in subsequent rounds of the survey.

Figure 4-4: Financial time preference attitudes, 2011-2017 (column percentage)



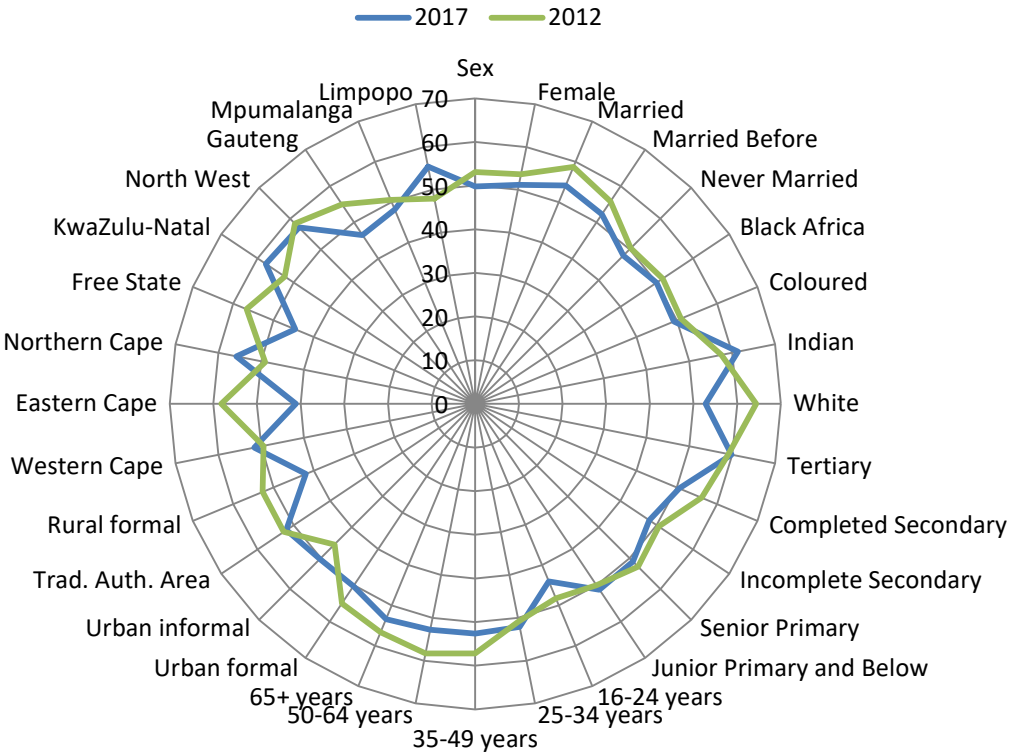
Source: South African Social Attitudes Survey (SASAS) 2010-2013; 2015; 2017

Figure 4-4 shows how the adult South African population answered these questions over the five different survey waves. In 2017 half of the public believed that money was there to be spent and roughly a third (32%) didn't worry about tomorrow and only thought about today. Approximately two-fifths (45%) found it more satisfying to spend money than to save it for the long-term. In previous rounds, the SASAS research team has tested these time preferences across personal attributes to identify significant differences in attitudes towards spending between subgroups. Based on this previous work, the research team expects that time preference will vary between different demographic and economic groups within South African society. In particular, the research team expects differences by age cohort to emerge as fiscal self-control tends to develop later in the life cycle.

In order to test how attitudes towards monetary spending differ by certain economic and social fault lines in South Africa, the research team created the Prudent Money Values (PMV) Index. The scale is based on three questions on financial self-control outlined in Figure 4-4. Tests of statistical validity and reliability have shown that these questions load well together[5]. Responses to these questions were combined into a single 0-100 scale with 0 indicating the lowest level of reported financial prudency and 100 the highest. Mean scores on this index by selected subgroup are showcased in Figure 4-5 for both 2012 and 2017. The level of variation between the subgroups was less than may have been expected and it would appear that attitudes did not shift markedly during the period.

[5] Reliability checks on the items, using inter-item correlations (covariances) and Cronbach's alpha (0.714), found that the items loaded satisfactory onto a single index.

Figure 4-5: Attitudes to Prudent Money Values Index, by socio-demographic attributes (mean scores, 0-100 scale)



Source: South African Social Attitudes Survey (SASAS) 2012; 2017

We were able to note a significant life cycle effect on public attitudes towards spending money. It seemed that more mature South Africans scored, on average, higher on the PMV Index than their younger counterparts. The degree of difference between age cohorts on the index was not as large as may have been anticipated though. People in the 65 and above age cohort had an average PMV Index of 53 (SE=2.015) which was less than ten points below the average score for those in the 16-24 age cohort. There were significant differences in how dissimilar population groups scored on the Index. In both 2012, members of the South Africa's white minority had a much higher average index score (M=64; SE=2.008) when compared with other population groups. The attitudes of White South Africans towards spending had become more reckless over the period, however, and in 2017 the attitudes of the white minority were more or less similar to those of other groups. Out of all population groups in 2017, Indian South Africans were the most responsible in their attitudes towards spending money.

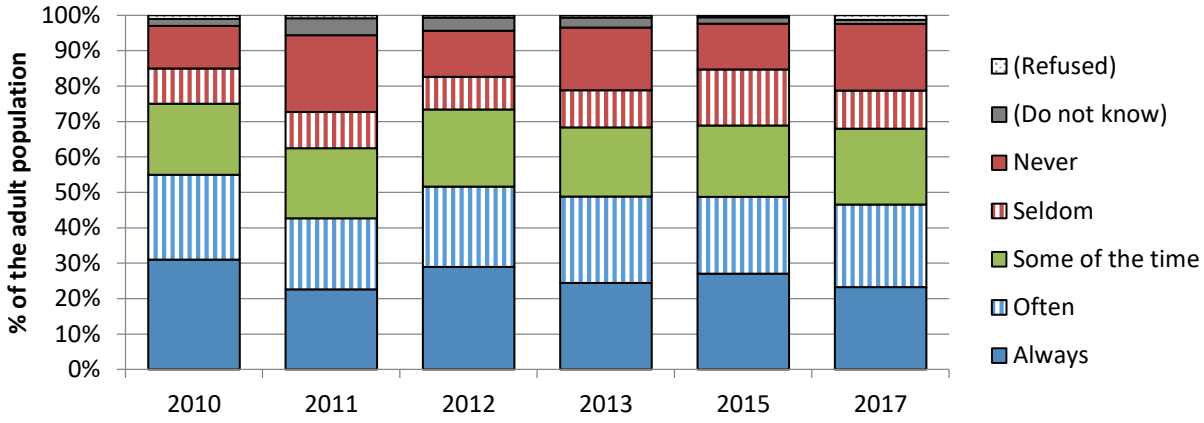
We can note a positive educational attainment gradient on the PMV Index in Figure 4-5. The more formal education an individual had, in other words, the more likely that individual was to practice fiscal self-control. If we tested this relationship further we found that the positive correlation observed holds even when controlling for economic status. This suggests formal education is driving the formation of prudent attitudes towards spending money. Marked differences were noted between provinces in Figure 4-5. Of all the provinces in 2017, residents of the KwaZulu-Natal (M=58; SE=1.593) and the North West (M=57; SE=2.188) had the highest mean PMV Index score. We observed a significant level of decline in the mean index scores in the Eastern Cape and the Free State –in both those provinces, the average index score of provincial residents decreased by more than ten points between 2012 and 2017. This suggests that residents of these provinces are becoming less responsible

in their attitudes towards spending. This could be related to souring economic conditions in those provinces and further research must explore the relationship between macro-level conditions and prudent monetary attitudes.

4.4. Planning Ahead

In the 2010 Financial Literacy Pilot study, the SASAS research team found that the majority of South Africans were predisposed towards setting planning for their financial future. When asked how often they set long-term financial goals and work hard to achieve them, the adult population tended to give positive answers. In 2010, more than half of the adult population indicated that they either always or often engage in financial planning (Figure 4-6). Only a minority reported that they seldom or never pursued long-term financial goals. As the SASAS research team gathered new data on attitudes towards planning ahead in subsequent rounds of SASAS, it was evident that there have been some changes in how people practiced financial planning. In 2017, less than a quarter (23%) of all adult South Africans said that they always set long-term financial goals and work hard to achieve them. Around a fifth (21%) of the adult population reported they set long-term goals often or some of the time and only a minority (29%) said that they set such goals infrequently or never.

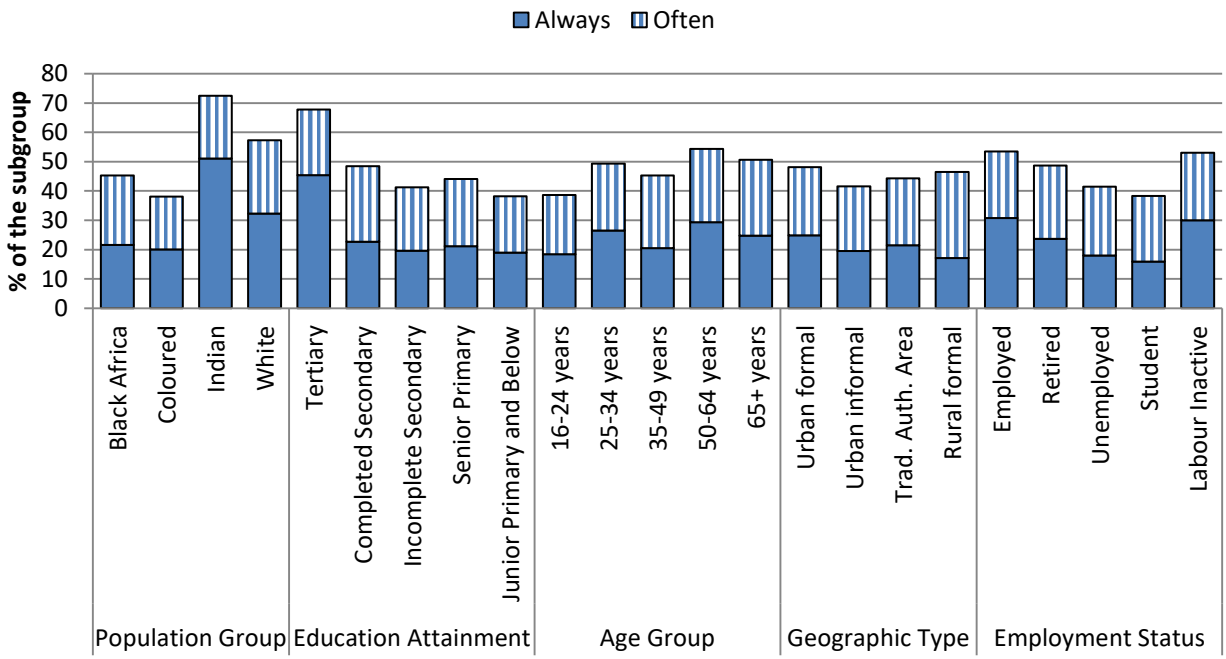
Figure 4-6: Frequency with which South Africans set long-term financial goals and work hard to achieve them, 2010-2015 (percentage)



Source: South African Social Attitudes Survey (SASAS) 2010-2013; 2015; 2017

As can be observed in Figure 4-6, the share of the general population that said they set long-term goals always or often declined from 55% in 2012 to 46% in 2017. This is a troubling finding and suggests that South Africans are becoming less sensible in their financial preparation. The work of SASAS research team over the last four years on financial planning suggests that the propensity to set long-term goals is unevenly distributed amongst the population. Previous research by our team has shown that poor households do not have surplus economic capital that can be used in long-term financial plans for saving or investments. Moreover, a lack of regular secure income in many poor households makes most forms of financial planning problematic and impractical. As a result, we expect to observe a wide disparity between those on the lower and upper rungs of the South African socio-economic ladder when it comes to planning behaviour.

Figure 4-7: Attitudes towards planning ahead, by socio-demographic attributes, 2017 (percentage)



Source: South African Social Attitudes Survey (SASAS) 2017

The percentage of who regularly engage in financial planning is depicted across different socio-demographic groups in Figure 4-7. As can be seen, those who inhabit the upper tiers of the economic pyramid were more likely to engage in financial planning. About half (45%) of the tertiary-educated, for instance, said that they always set long-term goals and 22% told interviewers that they set goals often. In contrast, less educated people were much less likely to practice this type of long-term planning. An individual's age seemed to have a strong impact on the frequency with which South Africans set long-term financial goals. Those in the 16-24 age cohort were considerably less likely than other age cohorts to report setting long-term objectives of this type. Interestingly, we did not detect substantial differences in goal setting between rural and urban dwellers.

From what we observed from Figure 4-7, members of the Indian minority group were more likely than other population groups to set financial goals. Approximately three-quarters (73%) of this group said that they always or often made such goals compared to 38% of the Coloured, 45% of the Black African and 57% of the white group. We wanted to understand whether this finding could be ascribed to socio-economic dissimilarities between the four population groups. We used multivariate regression analysis to determine whether population group differences existed here[6]. In our analysis, we controlled for economic factors like labour market status, formal education and living standard. Using this method we were able to confirm that belonging to the Indian minority improved the log odds of frequently setting fiscal long-term goals. However, the size of the correlation was small and other factors (such as formal schooling and economic ranking) were found to be more robust determinants here.

[6] Given that planning behaviour is measured on five-point categorical scale, we used an ordered logistic regression approach.

5. Financial Decision-Making

Democracy, and the corresponding liberalisation of the economy, has opened up a world of opportunity for fiscal consumers in South Africa. Opportunities can, of course, be exploited for personal gain or squandered and, therefore, it is important for consumers to make good decisions. The ability to make good financial choices is an important area to cover in any study of financial literacy. In fact, financial decision-making is one of the most crucial subjects in the analysis of financial behaviour. Individuals, naturally, need information to make informed decisions and the types of information an individual is exposed to will shape their decision-making. If consumers had access to good fiscal advice and data, they could make better-informed choices for themselves, their families and their communities. This chapter will look at how people in the country make financial decisions and here the SASAS research team will focus on how those decisions are made and what the consequences of those choices are.

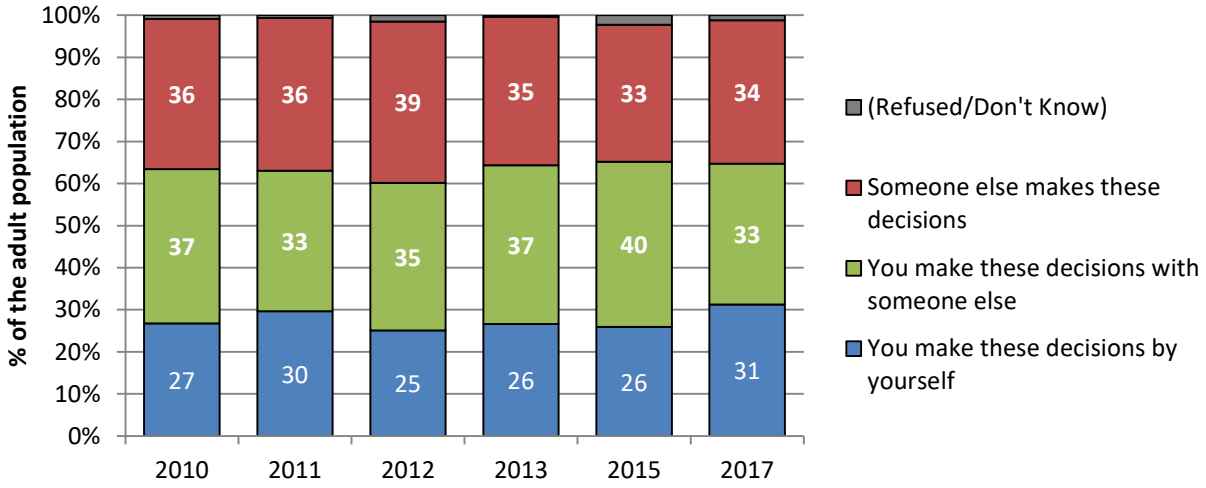
The chapter is divided into four parts, each of which look at a different but an important aspect of financial decision-making. Section 5.1 investigates who makes financial judgments in the household during the period 2010-2017 and focuses on which groups participate in household financial decision-making the most. Section 5.2 investigates how people in the country make financial determinations and if these determinations are informed by research and advice seeking. In Section 5.3 we turn to the question of which sources of information people utilise the most to make monetary choices. Finally, in Section 5.4, we will examine the share of South Africans who suffered regret from financial decisions and which types of decisions were driving remorse of this kind.

5.1. Personal Involvement in Household Finances

Traditionally responsibility for day-to-day household decisions concerning money management has been the province of the family patriarch. However, following the sexual and cultural revolutions of the last five decades, we as a society have rethought who should be involved in the money management of their household. The current thinking is that all adults, particularly women, should be involved in the management of household finances. Data gathered over the period 2010-2015 indicates that a majority of South African adults have been involved directly in the management of their household's finances (see Figure 5-1). In 2017 approximately a third (31%) of all adult South Africans made day-to-day household financial decisions alone and another third made such decisions in collaboration with someone else. A final third played no role in such day-to-day decisions in their household. As can be observed, the distribution of responsibility for daily household management has remained more or less the same over the five SASAS rounds.

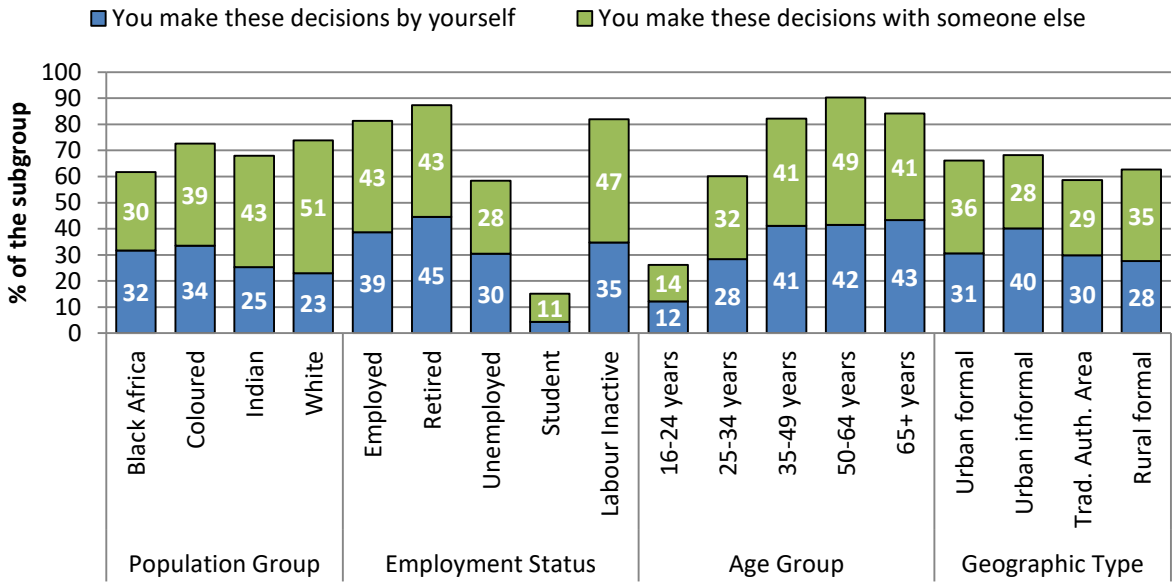
Previous research using SASAS data suggested that certain demographic groups – in particular the youth–do not play a direct role in daily household money management. More recent data on responsibility, showcased in Figure 5-2, for household money management confirms this earlier finding. Less than an eighth (12%) of the 16-24 age cohort made day-to-day financial decisions in their household themselves and only 14% shared this responsibility with someone else. This reflects, no doubt, the limited earning power of this age group in comparison to others in the household. We found that involvement in day-to-day household fiscal management did not differed by population group. The same appeared to be true of geographic type with urban and rural South Africans not diverging on this issue.

Figure 5-1: Responsibility for daily household money management, 2010-2017 (percentages)



Source: South African Social Attitudes *Survey* (SASAS) 2010-2013; 2015; 2017

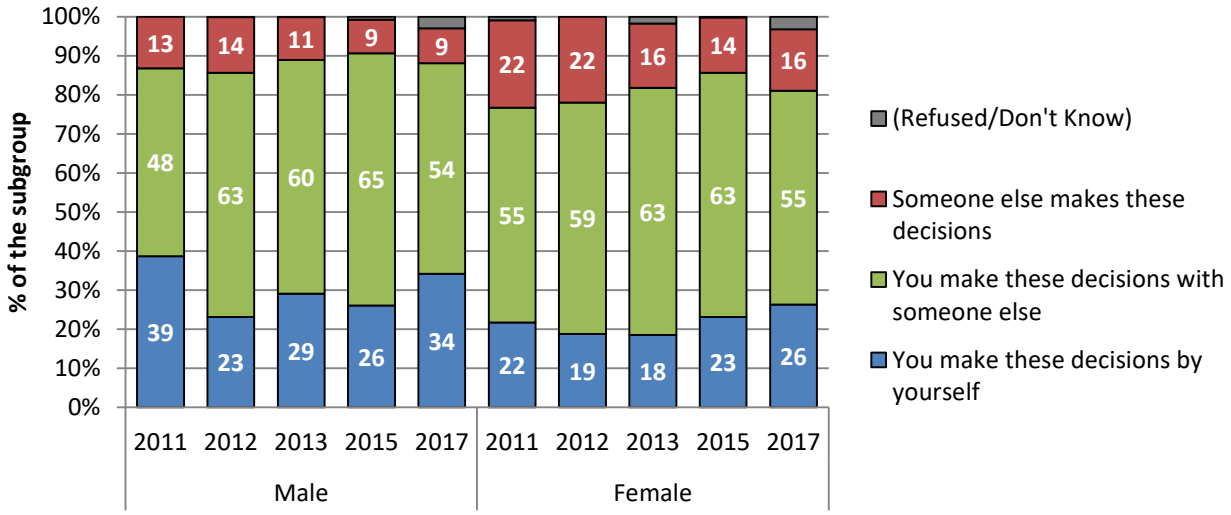
Figure 5-2: Responsibility for daily household money management, by socio-demographic attributes, 2017 (percentages)



Source: South African Social Attitudes Survey (SASAS) 2017

Earlier SASAS studies on financial literacy found that personal involvement in money management did not vary greatly when examined by economic position. Labour market participation, in contrast, has been found to have an impact on personal involvement in money management. Employed individuals in the households are likely to be breadwinners) and, therefore, tend to take an active role in money management. Recent findings from 2017 on who is responsible for day-to-day money management support these findings. Of the labour market groups in Figure 5-2, the unemployed had relatively low levels of control over money management decisions in their household. Unsurprisingly, students also reported low levels of involvement in household money management. Financial dependence and age may explain why personal decision-making in household finances amongst students is so low.

Figure 5-3: Responsibility for daily household money management among married men and women, 2011-2017



Source: South African Social Attitudes *Survey* (SASAS) 2010-2013; 2015; 2017

In a traditional patriarchal household, a married woman would have little say in day-to-day fiscal decisions. In our modern world, a significant number of women sadly still live in this type of household. However, the share of women who live this way declined, between 2012 and 2017. More than a fifth (22%) of married women had no say over day-to-day financial management in their household at the start of the period while only 16% had no say at the end. Most married women in the country had some involvement in how financial decisions were made in their household in 2017. More than half (55%) shared decision-making and 26% had sole control over money management in their household. In fact the share of women taking exclusive control of this aspect of household management has grown since 2012 when only 18% of married women played this role.

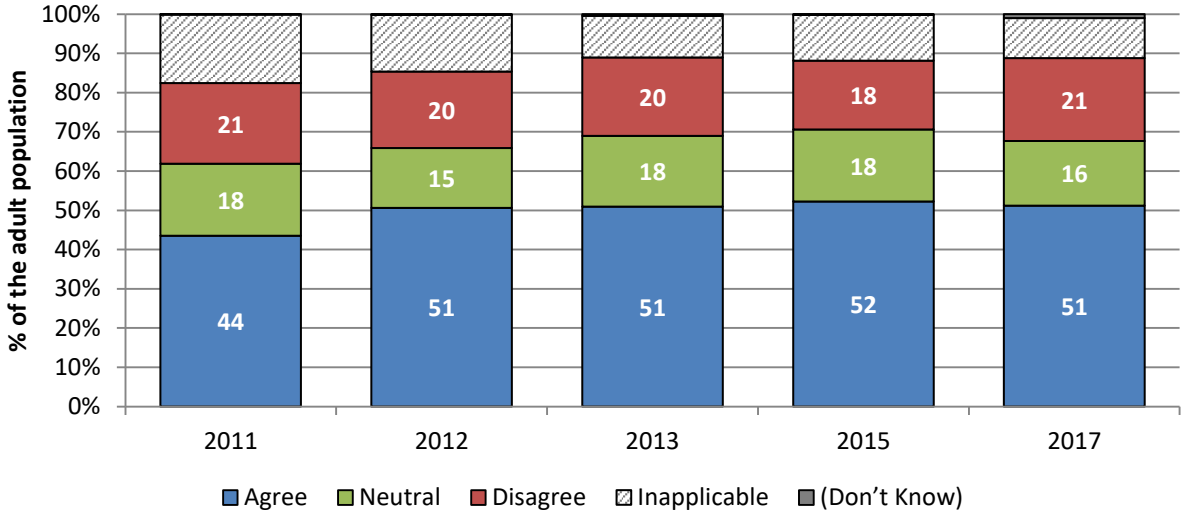
Given the results above, we wanted to map the degree to which marital status effected involvement in fiscal household management. We used a multinomial logit model to predict the association between the dependent and individual characteristics and attitudes. This logistic regression technique was considered appropriate because the goal was to investigate which characteristics were associated with a selected nominal outcome variable. One model was run for only women and one for only men. The base outcome in each model was no involvement in financial decision-making. Amongst women, being married improved the log odds by 1.032 (SE=0.109) of making the fiscal household decisions with someone else (versus having no decision-making power). A similar affect was observed amongst men with marriage improving the log odds of shared decision-making by 1.400 (SE=0.156). This suggests that even when controlling for economic and socio-demographic characteristics, marital status influences the composition of household fiscal decision-makers.

5.2. Research and Advice Seeking

Since the 2011 Financial Literacy Baseline study, the SASAS research team has investigated whether adult South Africans feel the need for advice when making financial decisions. In other words, the research team has been tracking the demand for financial advice in the country over the period 2011-2017 (Figure 5-4). Before this data is discussed, some methodological caveats must be acknowledged. Approximately a fifth of the adult population did not answer the question in 2011 and 2012 while a

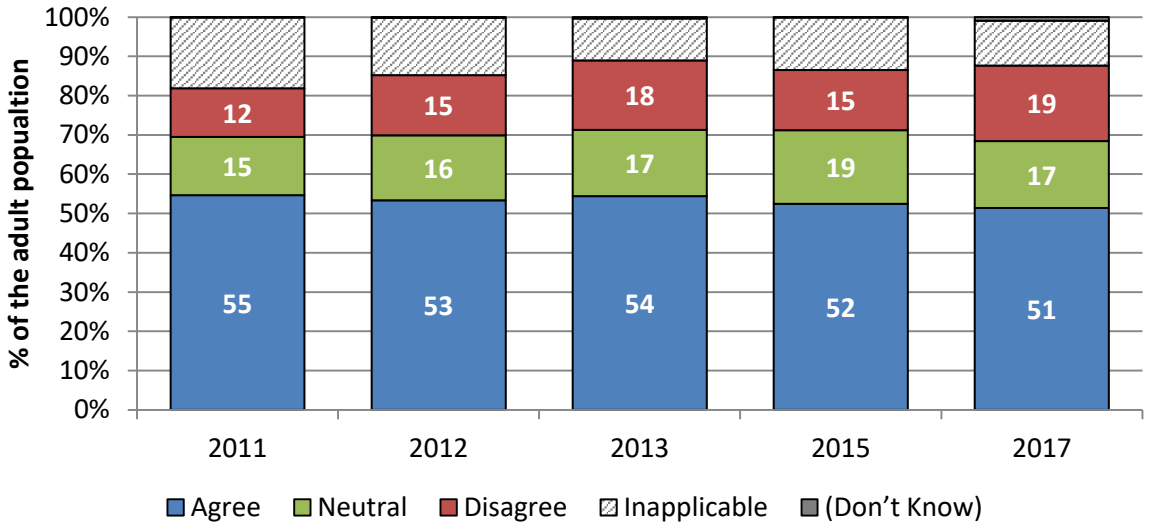
sixth did not answer in other rounds. Instead, this share of respondents either stated 'not applicable' or responded 'don't know'. This suggests, presumably, that a sizeable minority of South Africans feel that they do not make regular financial decisions. Given that many South Africans lack a stable economic income and are financially dependent on household breadwinners, this is perhaps not surprising.

Figure 5-4: Public confidence in ability to make financial decisions without advice, 2011-2017 (percentages)



Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

Figure 5-5: Informed decision-making: Researching options before making financial decisions, 2011-2017 (percentages)



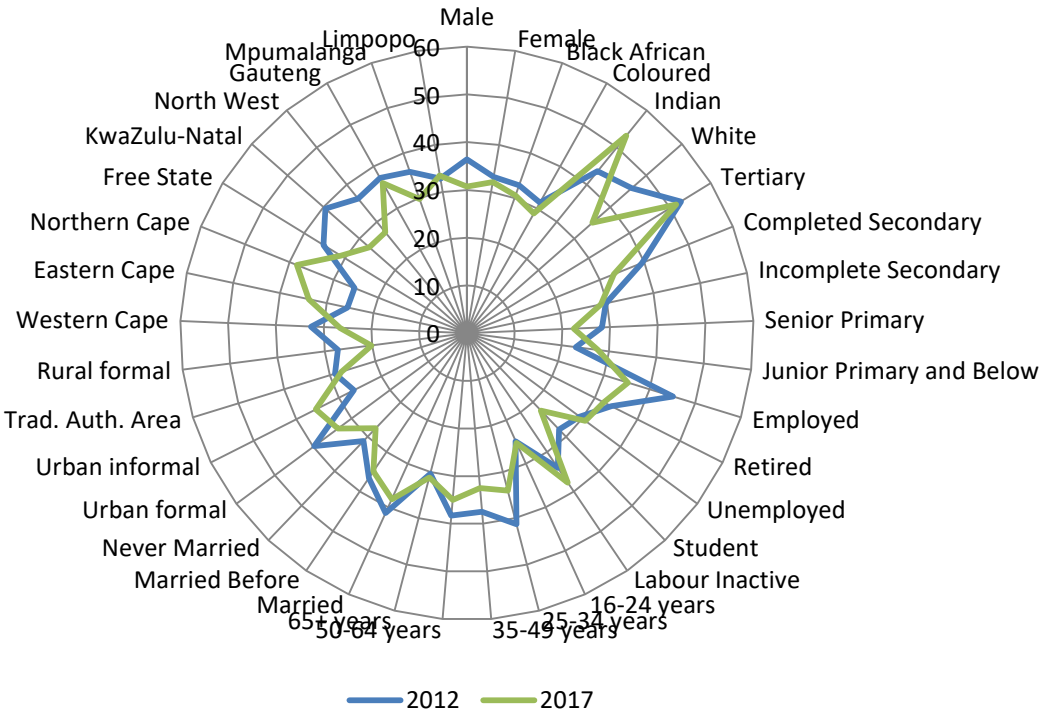
Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

Of all adult South Africans, a majority said that they were confident of their financial knowledge without seeking financial advice, compared to a minority who were not confident. The 2011 Financial Literacy Baseline study found that people in the country seek financial advice from a variety of sources including family, friends and churches as well as professional financial advisors. More than half (51%) of the population said that they can make fiscal choices without advise. The share of the adult public

which is confident of making financial decisions this way has not grown since 2012. Conducting adequate research before making a financial decision speaks to a certain level of financial competency. In a number of studies the role played by such research has been acknowledged as critical to the outcome of a range of different fiscal decisions (see, for example, Donkers and van Soest 1999; Parker and Fischhoff 2005; van Rooij, Lusardi, and Alessie 2011). If individuals place a high value on researching financial decisions, such individuals will be more likely to make prudent fiscal decisions.

In the 2011 Financial Literacy Baseline study, the SASAS research team examined self-reported financial decision-making to ascertain the value placed by the adult public on financial research and advice seeking. The results of the different rounds of SASAS data are displayed in Figure 5-5. It can be observed that many did not answer the self-reported decision-making research question indicating, again, that a substantial minority of South Africans think that they do not make financial decisions. The results shown in Figure 5-5 suggest that when making decisions about financial products the majority of the adult public, on balance, make an effort to undertake some research before acquiring such a product. The propensity to conduct research before making a decision and demand for financial advice are inversely related. In other words, those who feel confident in making a decision of this type without advice are also more likely to conduct thorough research than those who are not confident.

Figure 5-6: Public Informed Product Decision-Making Index (0-100), 2012 and 2017 compared (mean scores)



Source: South African Social Attitudes *Survey* (SASAS) 2012; 2017

Responses to the two questions on making informed financial decisions was combined into a single 0-100 scale with 0 indicating the lowest level of reported of informed decision-making and 100 the highest. We labelled this index the Informed Product Decision-Making (IPD-M) Index[7]. The national IPD-M Index score was 31 (SE=0.600)

[7] Reliability checks on the items, using inter-item correlations (covariances) and Cronbach's alpha (0.729), established that the items loaded onto a single index at an acceptable level.

and this is somewhat lower than what was observed in 2012 when the national IPD-M Index score was 35 (SE=0.703). It would be instructive to know which groups in South Africa experienced the greatest decline in the IPD-M Index. Figure 5-6 looks at the mean index scores for particular sociodemographic subgroups in 2012 and 2017. It is clear that South Africans living on commercial farms had the lowest mean IPD-M Index score out of all the groups in the figure. Students and young people also reported relatively low mean scores

We noted a significant educational attainment gradient in Figure 5-6 with better educated individuals much more likely to make informed financial decisions than their less educated peers. Considered that, in 2017, the tertiary-educated had an average IPD-M Index score of 51 (SE=3.049) compared to an average of 33 (SE=1.718) for those with completed secondary education. Even lower mean scores were noted for those educational attainment groups who had never completed their secondary schooling. Significant population group differences were also observed. In 2017, for instance, members of the Indian minority had a much higher IPD-M Index score (M=53; SE=3.333) than their white (M= 35; SE=3.300), Coloured (M=29; SE=1.894) or Black African (M= 31; SE=1.083) counterparts. It is interesting to note that Indian South Africans report a much greater propensity to make informed financial decisions in 2017 than in 2012. On the other hand, the opposite seems true of the white minority.

We observed a significant weakening in the mean IPD-M Index score of the employed in South Africa over the period under review. Between 2012 and 2017, the average IDP-M Index amongst the employed deteriorated by ten points. A similar deterioration was not observed for other labour market groups. It would appear that there has also been a decline on the mean IPD-M Index score for men between 2012 and 2017 but not for women. The average male IPD-M Index score dropped from 36 (SE=1.532) in 2012 to 31 (SE=1.504) while no decline was observed for women. This raises questions about the role that gender plays in financial decision-making. In order to better comprehend the factors that determine such decision-making for men and women we turn to multivariate regression analysis.

To identify the gender differences in the determinants of the IPD-M Index, we utilised order logistic regression. For our analysis, we produced two models –one model was completed for men and one for women. Table 5-1 presents the results from the coefficients of the ordered logit models predicting the association between the dependent and individual characteristics and attitudes. The logistic regression coefficients depicted indicate the variation in the log odds of the outcome for a one-unit increase in the predictor variable. We did not detect much dissimilarity in how different factors predicted good decision-making between men and women. The only noteworthy difference detected was the fact that, relative to the Black African majority, belonging to the Coloured community was negatively correlated (*r* =-0.297; SE=0.107) with the dependent in the second model. A similar finding was not observed in the first model. This may indicate that cultural factors within the Coloured community are having an effect on how women in that community make financial choices. Nevertheless more research is needed to substantiate this hypothesis.

As can be seen in the table, there were some statistically significant variations in decision-making by Living Standard Measure for both men and women. For every one unit change on this indicator, the log odds of covering such an expense increases by 0.178 (SE=0.030) for men and 0.190 (SE=0.026) for women. Even accounting for economic status, years of formal schooling increased the likelihood of making an informed decision when purchasing financial products in both products. Never having been married reduces the log odds of making wise choices for both sexes –by 0271 (SE=0.104) for men and

by 0.278 (SE=0.077) for women. Labour market status was also found to be a statistically significant predictor on the dependent in Table 5-1. Regardless of gender, and even accounting for a range of other variables, being in employment improved an individual's IPD-M Index score.

Table 5-1: Ordered logistic regression of the Informed Product Decision-Making Index (0-100)

	Male			Female		
	Coef.	**Std. Err.**	**Sig.**	**Coef.**	**Std. Err.**	**Sig.**
Age	0.006	0.004		0.002	0.003	
Marital Status (ref. Married)						
Married Before	-0.159	0.140		0.037	0.093	
Never Married	-0.271	0.104	**	-0.278	0.077	***
Population group (ref. Black African)						
Coloured	-0.112	0.118		-0.297	0.107	**
Indian	0.179	0.139		-0.185	0.146	
White	-0.233	0.150		-0.243	0.125	
Geographic Type (ref. Urban formal)						
Urban informal	0.504	0.182	*	0.219	0.138	
Trad. auth. Area	0.220	0.121		0.112	0.092	
Rural formal	-0.253	0.184		-0.112	0.167	
Living Standard Measurement	0.178	0.030	**	0.190	0.026	***
Educational Attainment	0.105	0.014	***	0.080	0.012	***
Employment (ref. employed)						
Retired	-0.449	0.147	**	-0.307	0.144	*
Unemployed	-0.470	0.104	***	-0.477	0.080	***
Student	-1.050	0.156	***	-0.812	0.143	***
Labour inactive	-0.029	0.134		-0.259	0.097	**
Number of obs.	5020			7715		
/cut1	1.693	0.324		1.459	0.274	
/cut2	2.513	0.325		2.203	0.276	
/cut3	3.583	0.328		3.303	0.281	
/cut4	4.414	0.334		4.246	0.284	

Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

Notes: 1. A positive coefficient indicates more informed approach to make financial product decisions; 2. Data is weighted to be nationally representative of the adult South Africans; 3.The model controls for the provincial residence of respondents and the survey wave; and 4. Signs *, **, *** indicates that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

5.3. Sources that Influence Fiscal Decision-Making

People need information when making financial decisions and there are many places where they can get this information and these sources influence their decision-making. The SASAS research team was interested in where people drew this information about finances from. So a question was introduced, in the 2017 SASAS round, which asked participants to name the source they felt most influence their decisions about the financial investments they made. Respondents selected from a wide variety of different sources and no one source emerged as dominant. The most popular was radio or television, followed by advice from a financial advisor or a knowledgeable friend. Advertisements were also popular amongst many people. The sources that were cited the least by the general public were magazines, the internet and newspapers. About a sixth (16%) of the adult public said that none of these influenced their decisions, 4% told fieldworkers they didn't know and one percent refused to answer.

The research team was interested in which sources influenced the decisions of the country's different economic classes. Previous investigations into financial knowledge have shown that there is a substantial class gradient to this kind of knowledge with wealthier people having greater stocks of information. In order to better understand how different wealth groups sourced data on fiscal matters, we looked at how different economic groups answered our question on most influential source of information used. The results are shown in Table 5-2 and we see from the table that different LSM groups reported different sources of data as most influential. More affluent individuals were, for example, more likely to say the internet was an influential source than their less prosperous counterparts. People in the poorer LSM groups were more likely than other LSM groups to say that none of the sources listed were used to make financial decisions. This shows that the underprivileged struggle to access financial knowledge and to make decisions regarding money management.

Table 5-2: Most influential sources of decision-making information, by living standard level (LSM)

	Low		Lower Middle		Upper Middle		High		Total	
	%	s.e.	%	s.e.	%	s.e.	%	s.e.	%	s.e.
Advertisements	9	(3.51)	7	(1.63)	14	(1.77)	7	(1.22)	10	(0.97)
Magazines	2	(1.55)	4	(1.35)	3	(0.78)	6	(1.56)	4	(0.64)
Newspapers	7	(4.14)	3	(0.92)	8	(1.25)	8	(1.49)	7	(0.73)
Radio or Television	24	(5.66)	33	(2.60)	26	(1.92)	20	(2.84)	26	(1.32)
Internet	2	(0.99)	3	(0.87)	5	(1.09)	14	(2.10)	7	(0.76)
Advice from a Financial Advisor	5	(2.02)	8	(1.42)	10	(1.37)	23	(2.37)	13	(0.94)
Advice from a knowledgeable friend	12	(4.32)	11	(1.89)	11	(1.40)	8	(1.88)	10	(0.94)
Other	1	(0.61)	2	(0.95)	1	(0.43)	2	(0.99)	2	(0.41)
(None of the above)	25	(5.24)	21	(2.09)	17	(1.60)	8	(1.41)	16	(1.00)
(Don't know)	14	(5.06)	6	(1.27)	4	(0.93)	1	(0.50)	4	(0.59)
(Refused)	1	(0.84)	2	(0.92)	0	(0.15)	3	(0.92)	1	(0.35)

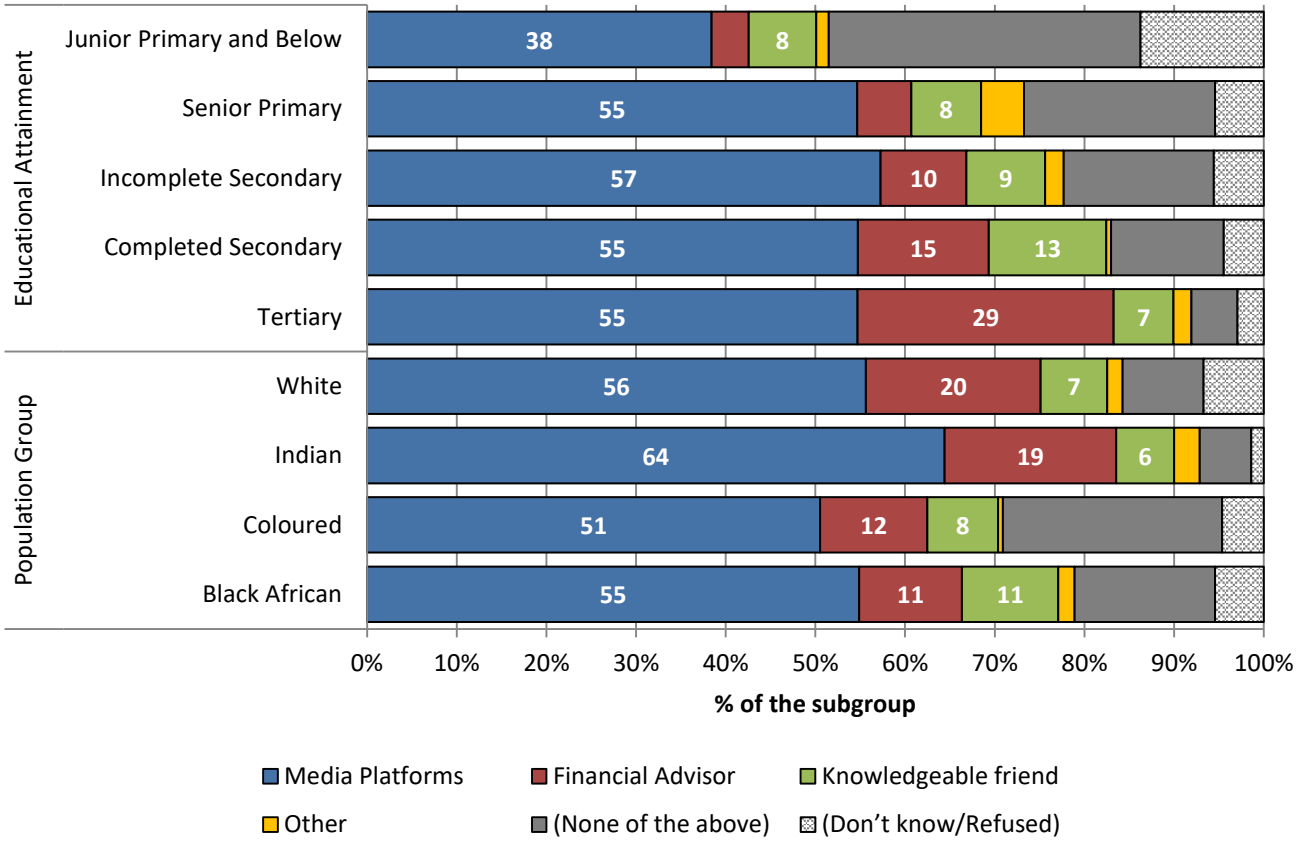
Source: South African Social Attitudes Survey (SASAS) 2017

Advice from a financial advisor was identified by 23% of the High LSM group as the most influential source of information. This can be compared to 5% of the Low LSM, 8% of the Lower Middle and 10% of the Upper Middle LSM groups. This shows the limited level of access that economically disadvantaged South Africans have to financial markets and the finance industry. In order to better understand access to financial advisors, we look at most influential sources of information by two important subgroups: (i) educational attainment and (ii) population group in Figure 5-7. It would appear that better-educated people are prone to cite financial advisors as sources of information. The less educated are, by contrast, more apt to obtain their information from media platforms (e.g. newspaper, television and the radio). We also found that members of the white and the Indian minority group were more likely to list financial advisors as an influential source than other population groups. This may suggests that professional advisors are more accessible to these groups and this difference may be due to the how the financial industry, as a whole, targets certain groups.

Interestingly, we found that 26% of white women cited financial advisors as the most influential source of information when making financial decisions compared to just 16% of white men. Remarkably, the opposite seems to be true of the Indian minority group. Almost a quarter (23%) of Indian men cited financial advisors as the most influential source while only 15% of Indian women made a similar claim. To discern if there was any other gender differences in information seeking from financial advisors, we wanted to investigate the degree to which certain subgroups listed financial advisors as the most

influential source of information by gender. We observed a number of distinct and, perhaps surprising, gender disparities in whether different groups identified a financial advisor as their primary source of information.

Figure 5-7: Most influential information sources, by educational attainment and population group, 2017 (row percentages)



Source: South African Social Attitudes Survey (SASAS) 2017

The percentages of selected subgroups who listed financial advisors as their most important source of information when making financial decisions are portrayed in Table 5-3. We found that married women (M=0.16; SE=0.36) were less likely to list financial advisors than their male counterparts (M=0.22; SE=0.41). No similar gender disparity was observed amongst those who were not married. When compared to working women (M=0.17; SE=0.37), employed men (M=0.22; SE=0.41) were also more likely to seek information from this type of professional. One of the largest gender disparities in the table concerned the 30-49 age cohort. Women in this cohort (M=0.11; SE=0.13) were much less apt to list financial advisors as their most influential source when compared to men (M=0.21; SE=0.41) in this cohort. This result seems to suggest interesting levels of gender bias in how different age groups engage with financial advisors in South Africa.

Table 5-3: Share who are most influenced by financial advisors to make financial decisions, by selected subgroups

	Male			Female		
	M	SD	Scheffe Sig.	M	SD	Scheffe Sig.
Marital status						
Married	0.22	0.41	ref. group	0.16	0.36	ref. group

Married before	0.10	0.30	**	0.11	0.31	
Never married	0.11	0.32	***	0.10	0.30	**
Employment Status						
Employed	0.22	0.41	ref. group	0.17	0.37	ref. group
Unemployed	0.08	0.27	***	0.11	0.31	*
Labour Inactive	0.12	0.33	**	0.10	0.30	**
Age group						
16-29 years	0.09	0.29	ref. group	0.13	0.34	ref. group
30-49 years	0.21	0.41	***	0.11	0.32	
50+ years	0.15	0.36		0.11	0.31	
Geographic type						
Urban	0.15	0.36	ref. group	0.12	0.33	ref. group
Rural	0.13	0.34		0.11	0.32	

Source: South African Social Attitudes Survey (SASAS) 2017

Note: Reported levels of statistically significant are based on ANOVA testing. The signs *, **, *** indicate that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

5.4. Analysis of Financial Grief and Distress

When it comes to financial decision-making, we all do things we aren't satisfied with. Some mistakes can be remedied, of course, but the longer you wait the hard it becomes to fix past errors. Consider, for example, a recent set of Bitcoin investment scams which have been negatively affected many South African investors. The notorious BTC Global scam showcases how easily financial consumers can be cheated out of their hard earn money (Times LIVE 25/05/2018). Thousands of investors have lost more than R1 billion in an alleged investment scam according to the Hawks spokesperson Brigadier Hangwani Mulaudzi. It might be distressing but, in most cases, some redress now can make up for past monetary sins. That is one of the reasons that people need to do a financial inventory and make sure that all the products in that inventory are suitable to their needs. This section of the chapter looks at regret that arise from bad financial decisions in South Africa.

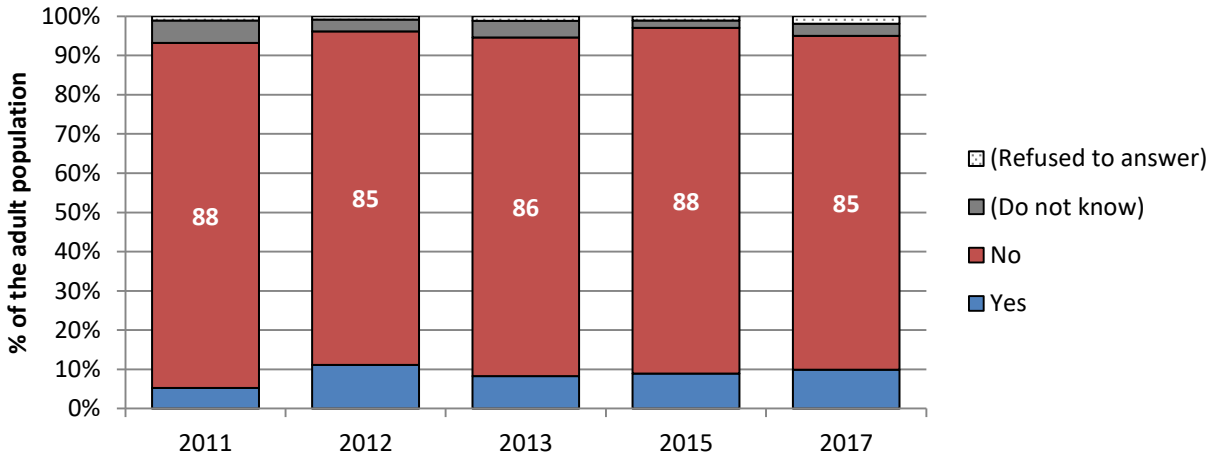
In order to better understand financial regret and distress in South Africa, the section looks at two types of financial mistakes. First, we investigate who has discovered that they had been paying for a financial product that was clearly unsuitable for your needs in Subsection 5.4.1. Then we examine the portion of South Africans who made a recent financial decision that they later regretted in Subsection 5.4.2. This subsection will focus on the types of financial products that led to regret amongst different groups in the country.

5.4.1. Detecting Unsuitable Financial Products

The SASAS research team had been, since the 2011 Financial Literacy Baseline study, asking respondents whether they had in the last five years discovered a financial product that they had been paying for, but was unsuitable for their needs. The results of the last five SASAS rounds of data are shown in Figure 5-8 and reveal that only a minority of the adult population in 2017 indicated that they had discovered an unsuitable financial product in their portfolio in the last five years. When reviewing the findings presented in this subsection, it is essential that the reader remember that respondents may be embarrassed to report an inappropriate a product in their fiscal portfolio. In other words,

there may be underreporting of this kind of error. In addition, we must also be cognisant of the fact that most South Africans do not have a financial portfolio.

Figure 5-8: Share who reported having an unsuitable financial product in their portfolio in the last five years, 2011-2017 (percentages)



Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

We wanted to have a look at how different groups discovered an incongruous product in their financial portfolio in the last few years during the period 2012-2017. In the subgroup analysis, Table 5-4 presents significance test results based on Analysis of Variance (ANOVA) by socio-demographic attributes. Married people were more likely to find an incongruous product than those were who previously married and those who had never married. This may be because married individuals tend to have larger financial portfolios than their unmarried counterparts. The findings presented indicate, perhaps not surprisingly, that students were less likely, on average, to find an unsuitable product in their portfolio. Students lack financial resources to purchase financial products and most (especially those in the 16-24 age cohort) tend to be outside formal employment.

We found that the tertiary-educated were more likely to discern an incompatible product in 2012 than in 2017. About an eighth (13%) of this group detected such a product in 2012 compared with about a fifth (21%) in 2017. On the issue of regret some interesting differences were noted amongst the country's population groups. Racial minorities were much more likely to have founded an unsuitable product than the Black African majority. Interestingly, it would appear that white adults were more likely to find such a product in 2012 (M=0.15; SE=0.36) than in 2017 (M=0.07; SE=0.26). These observed population groups could be related to the country's infamous interracial inequalities. In order to better understand population group differences on this important issue we turned to multivariate analysis[8].

We found that, even when accounting for economic status and formal educational attainment, belonging to one of the country's minority groups reduced the log odds of an individual finding a discordant product in their portfolio. Relative to the Black African majority, the log odds of finding an

[8] We used a logistic regression analysis because our dependent variable was a binary variable (1=found an unsuitable product; 0=did not find). The model accounted for a wide assortment of different demographic and economic characteristics including population group, marital status, and labour market.

acrimonious product was reduced by 0.463 (SE=0.215), 0.664 (SE=0.228) and 0.965 (SE=0.236) if an individual belonged to the Coloured, Indian and white minorities respectively. This suggests that belonging to one of these racial minorities reduced the likelihood of making financial mistakes of this type. It is not clear what accounts for this observation. It may be that minority communities are more likely to receive financial advice than the Black African majority even controlling for economic status. Such outcome is consistent with what was seen in Sections 5.2 and 5.3 of this chapter. On the other hand, it could be that this result reflects different cultures of money management amongst population groups in the country. More research on this important issue is needed.

Table 5-4: Share who reported having an unsuitable financial product in their portfolio in the last five years, by selected subgroups

	2012			2017		
	M	SD	Scheffe Sig.	M	SD	Scheffe Sig.
Education level						
Tertiary	0.21	0.41	ref. group	0.13	0.33	ref. group
Completed secondary	0.10	0.31	***	0.12	0.32	
Incomplete secondary	0.08	0.27	***	0.09	0.28	
Senior primary	0.10	0.30	***	0.07	0.26	
Junior primary and below	0.06	0.24	**	0.08	0.27	
Employment Status						
Employed	0.16	0.37	ref. group	0.13	0.33	ref. group
Retired	0.08	0.27	**	0.09	0.29	
Unemployed	0.08	0.28	***	0.11	0.31	
Student	0.05	0.22	***	0.02	0.13	***
Labour Inactive	0.17	0.37		0.10	0.30	
Population group						
Black African	0.11	0.32	ref. group	0.11	0.31	ref. group
Coloured	0.08	0.27		0.07	0.25	
Indian	0.05	0.21	*	0.10	0.30	
White	0.15	0.36		0.07	0.26	
Marital status						
Married	0.14	0.35	ref. group	0.12	0.33	ref. group
Married Before	0.06	0.24	***	0.08	0.27	*
Never Married	0.09	0.28	***	0.09	0.28	*

Source: South African Social Attitudes Survey (SASAS) 2017

Note: Reported levels of statistically significant are based on ANOVA testing. The signs *, **, *** indicate that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

5.4.2. Experiencing Regret

Making decisions about personal finances is often a challenging and demanding process, and individuals do not always make the correct decisions. A recent scam in Vryheid is a good example of how this can happen. The company Donafin (Pty) Ltd asks its clients for a R1 500 application fee in return for claiming money from the labour department on their behalf. However, Donafin is an unregistered business and providing advisory and intermediary services without the necessary authorisation (The Citizen 07/06/2018). In this case the consumers targeted in this scam lost all their money. We look closely at the predictors regret in financial decision-making in this subsection. Remorse in financial decision-making was closely examined during the 2011 Financial Literacy Baseline study and (to a lesser extent) the 2010 Financial Literacy Pilot study. Following these studies, the SASAS research team has crafted a series of questions to measure remorse from financial decision-

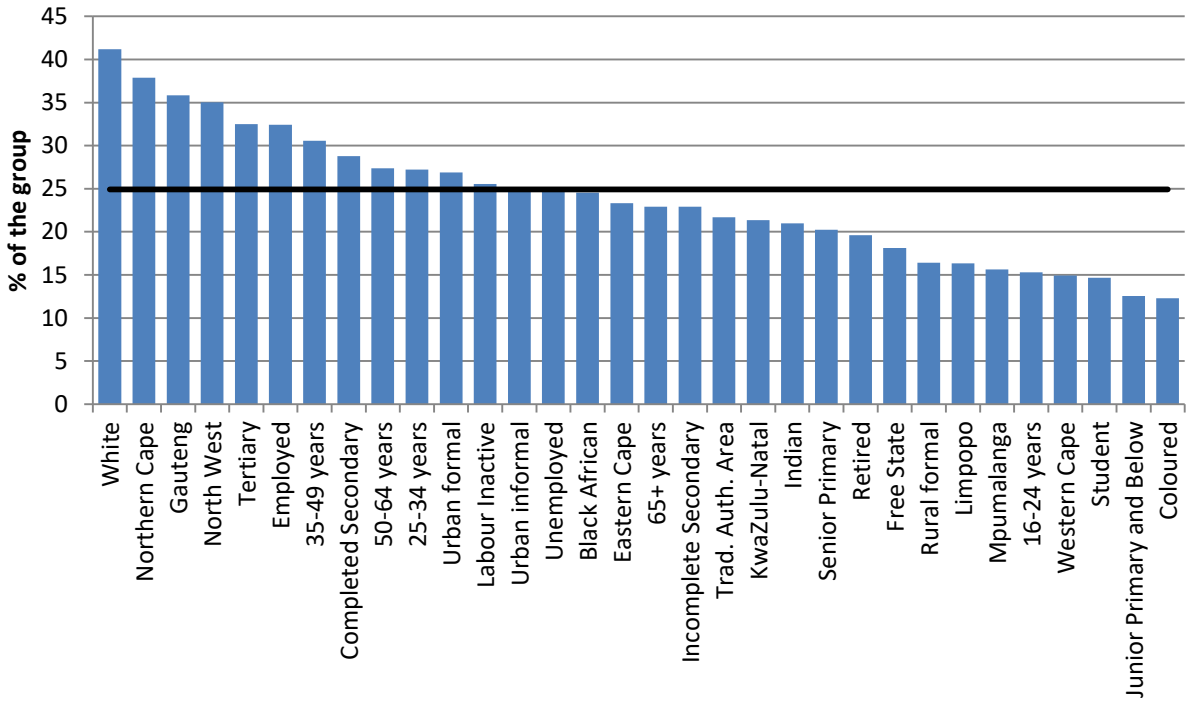
making. The following section will showcase results from these questions and provide insight into which South Africans make mistakes when it comes to personal finances and investments.

Table 5-5: Share who regretted a financial decision in the last 12 months by decision type (percentages multiple responses)

	2012	2013	2015	2017
Savings or investments	6.9	6.8	8.8	10.2
Taking out a home loan	2.6	1.3	1.5	3.8
Taking out a loan or credit agreement	4.1	3.2	3.2	5.4
Insurance of any type	2.6	2.1	2.1	3.2
Tax	1.2	1.6	2.3	3.3
Managing credit/debt	4.7	1.7	4.2	5.1
(None of the above)	79.6	82.4	79.6	73.7
(Don't know)	2.8	4.0	1.3	2.1
(Refused)	0.6	1.7	2.8	2.0

Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

Figure 5-9: Share who regretted a financial decision in the last 12 months, by socio-demographic attributes (percentages, ranked high to low)



Source: South African Social Attitudes *Survey* (SASAS) 2012; 2017
Note: The horizontal line represents the national average (25% who regretted a financial decision in the last 12 months).

The SASAS research team has evaluated financial decision regret from the retroactive perspective of the respondent since the 2011 Financial Literacy Baseline study. Respondents were asked if they had made any financial decision in the last 12 months that they had regretted (see Table 5-5). In the period 2011-2017, we found that the vast majority of South Africans reported that they did not regret a financial decision. This either indicated that the majority of the adult public had not made any financial decision in the last 12 months that they regretted or perhaps they felt reluctant to admit to recent mistakes. It was apparent that a greater share of people had regretted one or more financial decisions

in 2017 than in in 2012. The share of people who regretted such a decision grew from 20% at the start of the period to 25% at the end.

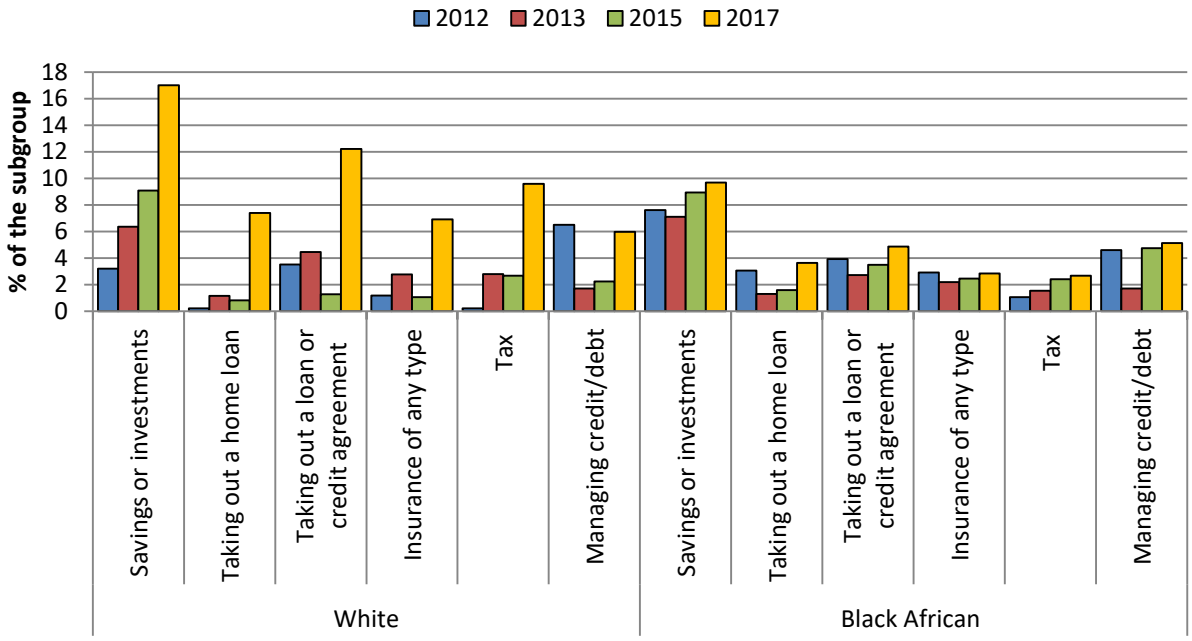
The type of financial choice that was most regretted by ordinary South Africans was a saving or investment decision. The share of the adult public who regretted such a decision increased from seven percent in 2012 to ten percent in 2017. The types of decision that was regretted the least was insurance –the portion of general population who lamented making such a choice in the twelve months prior to the 2017 SASAS interview was only three percent. To better understand which subgroups in the country were most prone to experiencing remorse over a recent financial decision, we looked at the portion that were unhappy with a recent financial decision by selected socio-demographic group in Figure 5-9. We can note a distinct geographic division in our results with residents of the following provinces much more likely to experience regret than other provincial residents: (i) Northern Cape; (ii) Gauteng; and (iii) North West. It may be that scammers are targeting people in these provinces and this would explain the relatively high levels of financial remorse reported in these areas.

It would appear that groups with greater financial resources tend to be more likely to report regretting a recent financial decision. For instance, the tertiary-educated were more apt to report regret than their less educated counterparts. A third of this educational attainment group said that they had experienced regret recently compared to just 29% of the completed secondary group, 23% of the incomplete secondary group, 20% of the senior primary group and 13% of those with junior primary or below. In addition, the employed were also much more likely to tell fieldworkers that they have recently suffered fiscal remorse over a decision than people outside employment. This finding may reflect the fact that those with the financial resources to make multiple financial decisions will have the most opportunities to experience regret.

Of all the subgroups in Figure 5-9, members of the Coloured community were the least likely to report fiscal regret. Less than an eighth (12%) of this population reported feeling regretful over a recent fiscal choice of this kind. In contrast, the group that was the most apt to reporting grief over a recent decision were members of the white minority. In 2017 more than two-fifths (41%) of this group said that they had experienced this type of remorse. This is almost twice the national average and suggests that this population group has experienced some difficulty as of late. The high level of recent fiscal remorse amongst the white minority deserves special attention and in Figure 5-10 we present the type of decisions that the white minority has regretted between 2012 and 2017. For comparison, the figure also portrays the types of regret experience by the Black African majority.

Between 2015 and 2017, white adults reported an increase of regret on all the types of financial decisions listed. The largest growth on remorse during this short period was on loan and credit. The portion of the white population that felt regret on a recent loan or credit decision grew from one percent of in 2015 to 12% in 2017. If we compare the white minority to the Black African majority on this issue then we can note no similar change in the patterns of regret during this period. It may be that the recent dour macro-economic conditions have had a more negative effect on the white minority than other groups. On the other hand, it could be that the white community has been particularly targeted by financial fraudsters. Further research is required to better understand this intriguing and unexpected finding.

Figure 5-10: Type of recent decision regretted among white and black African adults, 2012-2017 (percentages, multiple response)



Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

6. Saving Behaviour

A proclivity to save and the ability to invest are related and, consequently, saving is essential for long-term wealth creation for individuals as well as national economic growth. A culture of saving at all layers of our society is, therefore, vital to the financial wellbeing of South African citizens and to the sustained health of our national economy. We should all be concerned about South Africa's current culture of saving. The national savings rate was only 16.1% of the country's Gross Domestic Product (GDP) in 2017, according to the World Bank. This is down from 18% of GDP in 2010 and is low compared with other emerging-market economies like China and India. South Africans' propensity to save has declined for the past seven years in a row according to the Investec and the Gordon Institute of Business (GIB) Savings Index. At the end of 2017, the Investec-GIBS Savings Index was at a historical low of 60 points –ten point below what it was in 2010 (Investoec 2018). The SA Reserve Bank in December 2017 revealed that household savings to disposable income was at 0.2% per month.

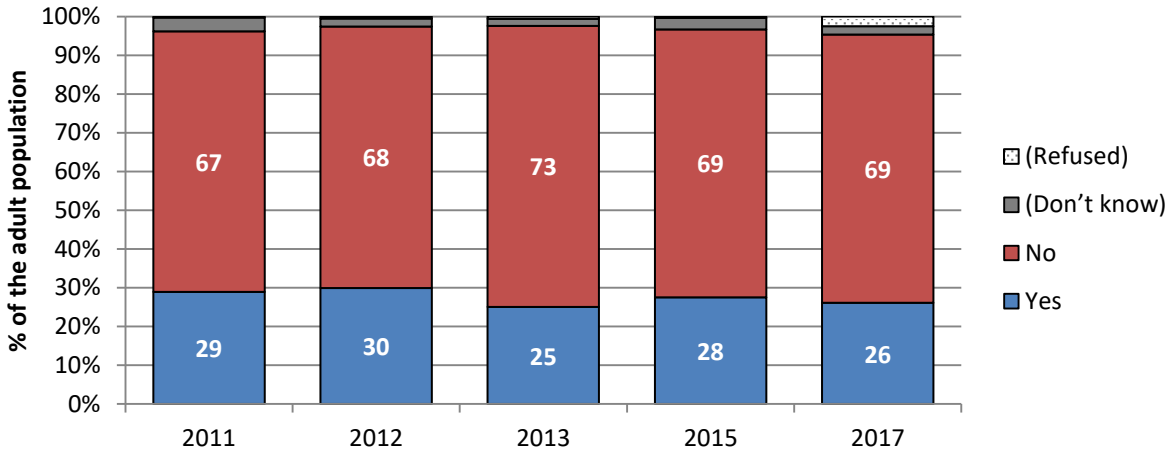
The South African Savings Institute (SASI) is concerned about the savings habits of ordinary South Africans and wants to ignite a much-needed savings mentality in the country. Every July the SASI launches its Savings Month which the organisation uses to encourage ordinary people to develop a culture of savings. At the launch of the 2018 Savings Month, SASI CEO Gerald Mwandiambira warned against the country's poor saving habits, calling them a "systematic developmental issue" (News 27/06/2018). In particular, SASI is concerned that many people in the country are abandoning good saving habits and are becoming locked into a self-destructive cycle of short-term debt. This chapter will look at savings behaviour in South Africa to try and understand why much of the adult public does not practice good savings behaviour. Section 6.1 will look at how people in the country plan for financial emergencies. Section 6.2 will scrutinise individual's ordinary savings behaviour and

Section 6.3 investigates belonging to saving clubs and informal saving practices. Finally, Section 6.4, will examine how people save for their retirement.

6.1. Planning for Financial Emergencies

It is important to assess the adequacy of ordinary South Africans' personal savings. If a financial shock occurred in a household –such as loss of employment for the household's breadwinner –would that household have enough savings to sustain them until things turned around? We imagine that many people live in households that do not have emergency funds but how many exactly? Using SASAS data we can answer this important question. The SASAS research team has been asking members of the South African public whether have set aside emergency or rainy day funds that they would cover their expenses for three months in case of sickness, job loss, economic downturn or other emergencies since the 2011 Financial Literacy Baseline study. Currently, the SASAS research team has five rounds of data collected on how well prepared, South Africans are to cope with financial duress.

Figure 6-1: Share of South Africans who have at least three months' worth of emergency funds set aside, 2010-2015 (percentage)



Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

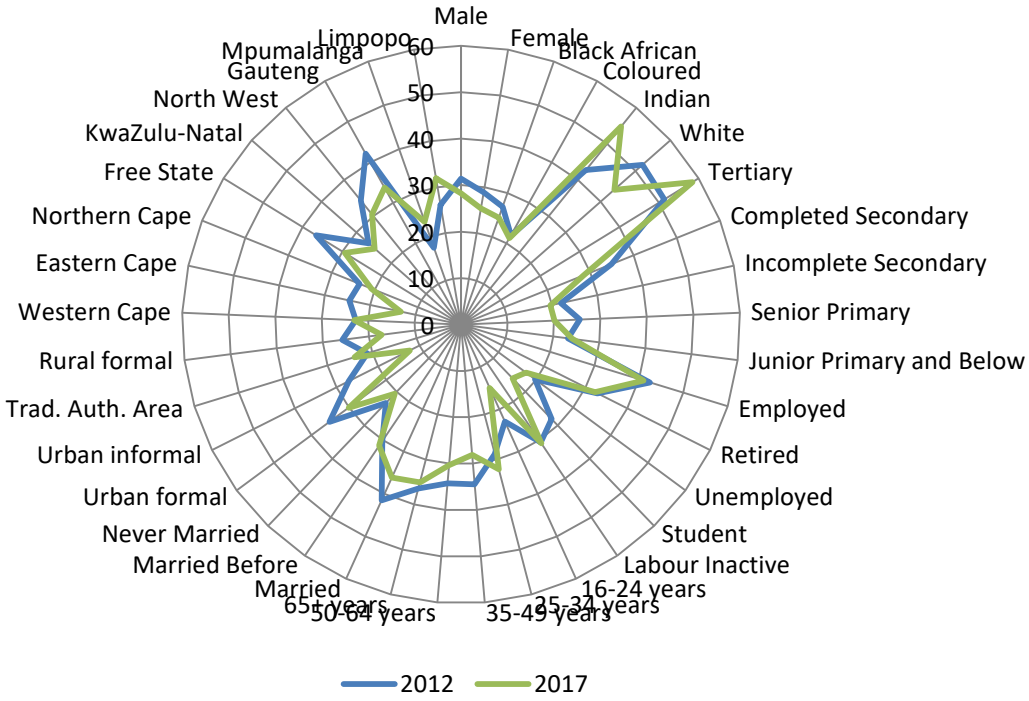
In 2017 more than two-thirds of the adult population (69%) reported that they would not be able to cover expenses for three months in case of an emergency (Figure 6-1). This suggests that a financial shock will lead to an immediate livelihood deterioration for many people. If we compare 2011 and 2017, there has been has no real improvement in the share of individuals who have access to emergency funds. Using subgroup analysis we can investigate whether the propensity to have an emergency fund has changed amongst certain subgroups between 2012 and 2017. Looking at the results of this analysis, it is clear that certain groups are better prepared to fund emergency situations than others and this has not change considerably during the five year period (Figure 6-2).

We noted some interesting variations in saving behaviour across different provincial geographies in South Africa. Roughly an eighth (13%) of adult residents of the Eastern Cape reported having set aside a three-month emergency fund in 2017. This can be contrasted to what was observed in 2012 in the province when 25% of residents had such a fund. A similar (if somewhat less severe) decline was witnessed in Gauteng and the Free State where the share having an emergency fund fell by almost ten percent points between 2012 and 2017. In the Mpumalanga, on the other hand, we note some positive growth in savings behaviour.

At the start of the period under review only 18% of Mpumalanga residents held a rainy day fund but at the end of the period 23% said that they had such a fund.

Significant population group differences were observed in Figure 6-2. Compared to other population groups, a greater share of the White and Indian minorities had an emergency fund set aside. However, the percentage of the White people who have an emergency fund declined between 2012 and 2017 by eight percentage points. In contrast, the portion of adults in the Indian community who had a rainy day fund grew by twelve percentage points over the period. Adults living on commercial farms are particularly vulnerable to financial shocks as the recent droughts have shown. But we found that most people in rural areas did not have an emergency fund. Only about a quarter (26%) of people living on commercial farm residents had an emergency fund in late 2012 and this had shrunk to 17% by late 2017. It would appear that this group is becoming more susceptible is to financial shocks.

Figure 6-2: People with at least three months' worth of emergency funds set aside, by selected subgroups (percentages)



Source: South African Social Attitudes Survey (SASAS) 2012; 2017

There were significant age group differences on holding emergency saving funds. It would appear that the share of the youth who held such a fund declined by eight percentage points between 2012 and 2017. Approximately a seventh (15%) of those aged 16-24 had an emergency fund in 2017 compared to 32% of those aged 25-34. People in the older age cohorts were found to be more likely to save for an emergency. But do these age group differences reflect a life cycle effect or do they indicate socio-economic differences (in terms of asset resources and access to employment) between age groups? In order to answer this question, a multivariate regression analysis was conducted to determine which factors are associated with possessing an emergency fund. Logistic regression was selected as this is a common method used to model dichotomous outcome variables. Three models were created, one for each major age group –outputs of these models are presented in Table A- 1 in Appendix A.

Reviewing the results of multivariate regression analysis we could discern some clear differences between different age groups on what was driving an individual's inclination to a have a rainy day fund for emergencies. We note that age had a statistically significant effect on the propensity to have a rainy day fund for the people aged 16-24. One year increased the log odds of holding such a fund by 0.053 (SE=0.020) for this age group. No similar effect was observed for other age groups. We noted that our Living Standard Measurement indicator had a statistically significant effect in all three models. The size of the effect was more robust for 30-49 age cohort and weakest for the 16-29 cohort. Labour market status had a greater effect on the likelihood of young people to have an emergency fund than it did for older people. In particular, the negative effect of unemployment was larger for the youth (*r*= -1.102; SE=0.153) or those aged 30-49 (*r*= -0.701; SE=0.120) and for the 50 years and older age cohort (*r*= -0.540; SE=0.218). In addition, we observed some unexpected population group effects in our multivariate analysis. Given their unanticipated nature, we recommend further analysis to discern the origin of this outcome.

6.2. Recent Saving Behaviour

In 2011, respondents in the Financial Literacy Baseline Study were asked: "In the past 12 months have you been saving money in any of the following ways?" The fieldwork then read out a list of different formal and informal types of saving behaviour. The team found that many people saved using methods that would not be captured by metrics like the Investec-GIBS Savings Index. Many people saved by keeping cash at home or gave money to their family to save on their behalf. Using this question, we can understand what strategies the adult public use to save even if the methods used were informal. Currently, we have five rounds of data collected on formal and informal savings behaviours in South Africa. The results are showcased in Table 6-1. As can be observed in the table, paying money into a savings account emerged as the most common type of saving method employed in the country. In 2017, nearly a quarter (24%) of all adults 16 and older engaged in this practice sometime in the twelve months prior to the SASAS interview. Building up a balance of money in a bank account was also a common practice and approximately one-sixth of the adult public saved this way in 2017.

We created two binary variables to account for whether an individual engaged in an informal and formal saving behaviour in the twelve months proceeding to the SASAS interview. In our analysis, formal savings behaviour is defined as either: (i) paying money into a savings account; (ii) building up a balance of money in your bank account; or (iii) buying financial investment products (other than pension funds). Informal savings behaviour, on the other hand, is delineated as either: (i) saving cash at home or in your wallet; (ii) giving money to family to save on your behalf, and (iii) saving in a stokvel or any other informal savings club. The mean scores on these two variables are presented across selected subgroups in Table 6-2. An Analysis of Variance (ANOVA) was used to determine whether the subgroup differences observed differed significantly from one another.

Table 6-1: Forms of saving during the last year, 2011-2017 (multiple response table, percentages)

	2011	2012	2013	2015	2017
Building up a balance of money in your bank account	25	16	12	17	16
Paying money into a savings account	26	23	21	19	24
Saving cash at home or in your wallet	30	20	22	13	16
Giving money to family to save on your behalf	9	6	7	6	7
Saving in a stokvel or any other informal savings club	11	7	6	10	11
Buying financial investment products, other than pension funds	5	4	2	3	5

Or saving in some other	4	3	2	2	3
(None of the above – has not been saving actively)	17	47	45	50	48
(Do not know)	8	1	2	1	1
(Refused to answer)	0	2	3	3	3

Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

Table 6-2: Forms of saving in the last year, by socio-demographic attributes, 2017 (mean percentage based on cases)

	Informal Savings			Formal Savings		
	M	SD	Scheffe Sig.	M	SD	Scheffe Sig.
Education level						
Tertiary	0.21	0.41	ref. group	0.64	0.48	ref. group
Completed secondary	0.28	0.45		0.40	0.49	***
Incomplete secondary	0.28	0.45		0.26	0.44	***
Senior primary	0.34	0.47	**	0.17	0.37	***
Junior primary and below	0.33	0.47		0.13	0.34	***
Employment Status						
Employed	0.29	0.46	ref. group	0.47	0.50	ref. group
Retired	0.35	0.48		0.30	0.46	***
Unemployed	0.28	0.45		0.29	0.45	***
Student	0.17	0.38	**	0.19	0.39	***
Labour Inactive	0.32	0.47		0.32	0.47	***
Population group						
Black African	0.31	0.46	ref. group	0.31	0.46	ref. group
Coloured	0.13	0.33	***	0.24	0.43	*
Indian	0.27	0.45		0.49	0.50	***
White	0.18	0.38	***	0.50	0.50	***
Geographic type						
Urban formal	0.28	0.4	ref. group	0.37	0.48	ref. group
Urban informal	0.27	0.4		0.32	0.47	
Trad. Auth. Area	0.31	0.5		0.26	0.44	***
Rural formal	0.11	0.3	***	0.30	0.46	

Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

Note: Reported levels of statistically significant are based on ANOVA testing. The signs *, **, *** indicate that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

Looking at formal savings behaviour we can note a robust economic gradient. Those groups that have traditionally been at the top of the economic ladder in South Africa were the most likely to report engaging in this type of saving behaviour recently. Consider, for example, differences between educational attainment groups. Almost two-thirds (64%) of the tertiary-educated reported participating in formal saving behaviour during 2017 compared with 17% of those with a senior primary education and 13% of those with only junior primary schooling or below. We also observed important differences between urban and rural dwellers in the country. Approximately a quarter (26%) of those living in traditional authority areas reported formal saving behaviour in 2017 compared to 37% of formal urban dwellers. This could indicate that banking services in those areas are poor or it could reflect socio-economic disparities between the former homelands and urban spaces.

Can the observed differences in Table 6-2 be explained by inequalities in access to economic assets and regular income? In order to answer this question, a multivariate regression analysis was conducted to determine which factors are associated with an (i) informal savings strategy and (ii) formal savings strategy. Logistic regression was selected as this is a common method used to model

dichotomous outcome variables. Here we were particularly interested in how life cycle may affect saving behaviour. In order to understand the role of life cycle effects, we examined how the determinants of this type of savings behaviour differed by age cohort. The cohorts under review are: (i) aged 16-29; (ii) 30-49 and (iii) 50 years and older. The coefficients and the standard errors from the logit model predicting the association between formal saving behaviour in the twelve months and individual characteristics and attitudes are depicted in Appendix Table A-2 in Appendix A.

We noted some similarities across the three models in our analysis. Regardless of age group, economic status was a powerful predictor of behaviour with this indicator positively associated with practising a formal savings strategy. For all age groups, a unit change in the Living Standard Measurement Indicator increased the log odds of having saved using a formal strategy in the twelve months prior to the SASAS interview. Educational attainment also had a positive effect on whether an individual had engaged in formal savings behaviour for all three groups. In addition, labour market status was found to be a statistically significant determinant of the dependent. Using employed as the reference group, being unemployed or outside the labour market reduced the likelihood that an individual would engage in formal savings behaviour. Perhaps surprisingly, living in a rural area was not a statistically significant predictor.

Some interesting differences were noted between the models in our multivariate analysis. Amongst the youth, age was correlated with the dependent in our analysis at the 0.01% level of significance. For this age cohort the log odds of formal saving grew by 0.069 (SE=0.019) for every year aged. A similar effect was not observed for the other age groups in our analysis. Controlling for a range of different socio-economic variables, and using Black African as the reference group, belonging to the Coloured community reduced the propensity to save formally. But the size of this effect differed by age group. The effect was larger amongst the 50+ age cohort (r=-0.780; SE= 0.160) than the 16-29 (r= 0.734; SE= 0.203) and 30-49 (r=-0.678; SE= 0.209) cohorts. Finally, it is worth noting that the variables in our regression models explained variance in formal saving behaviour better for middle and older age cohorts than for younger cohorts.

In order to understand what factors are driving informal savings behaviour amongst different age groups in South Africa, we replicated the models created above. However, we adjusted these models so that our informal saving behaviour measure was the dependent variable in each case. The results of these adjusted models are presented in Table A- 3 in Appendix A. Compared to our unadjusted models, the adjusted models have lower explanatory power which indicates that standard socio-demographic variables are poor predictors of whether an individual engages in informal saving behaviour. Indeed, we can note that economic status and years of formal schooling were weak determinants of this type of behaviour. Compared to the Black African majority, racial minorities were less likely to engage in informal saving activities. Statistically significant population group differences were largest amongst the middle and older age cohorts. This difference may be explained by the longstanding tradition of informal savings clubs amongst the Black African majority.

6.3. Saving Clubs and Informal Saving Practices

Population group differences noted in Section 6.2 may be related to the popularity of informal saving clubs and other informal practices amongst the Black African population. Consider, for example, stokvels which are a popular group savings scheme in the country. This group scheme has evolved from simple small home-based savings initiatives for the unbanked into a large and complex industry. Currently, according to the National Stokvel Association of South Africa (Nasasa), an estimated R49bn is held by stokvels. Nasasa approximates that there are 800,000 such groups across the country. For

consumers, stokvels represent opportunities for savings, investments as well as the cross-sell of insurance and other financial solutions (for further information on the history of stokvels in the country, see Nasasa 2018). To better understand the use of such clubs in South Africa, we present the share that was aware of and practiced informal saving methods in the period 2012-2017 in Table 6-3.

Table 6-3: Belonging to an informal saving club, 2012-2017 (multiple response table, percentages)

		Stokvel or other savings club	Giving money to someone	Keep cash at home	Other savings club	Burial society
HEARD OF PRODUCTS	2012	58.6	35.9	45.6	9.0	59.7
	2013	58.8	40.3	49.7	8.7	57.6
	2015	68.6	37.4	41.4	6.9	65.9
	2017	68.4	34.1	41.3	6.3	64.3
HOLDING PRODUCTS	2012	12.6	2.5	13.0	1.6	22.8
	2013	9.3	4.5	20.0	0.9	21.3
	2015	15.9	4.2	11.6	1.0	27.8
	2017	16.2	2.0	11.5	1.9	27.0

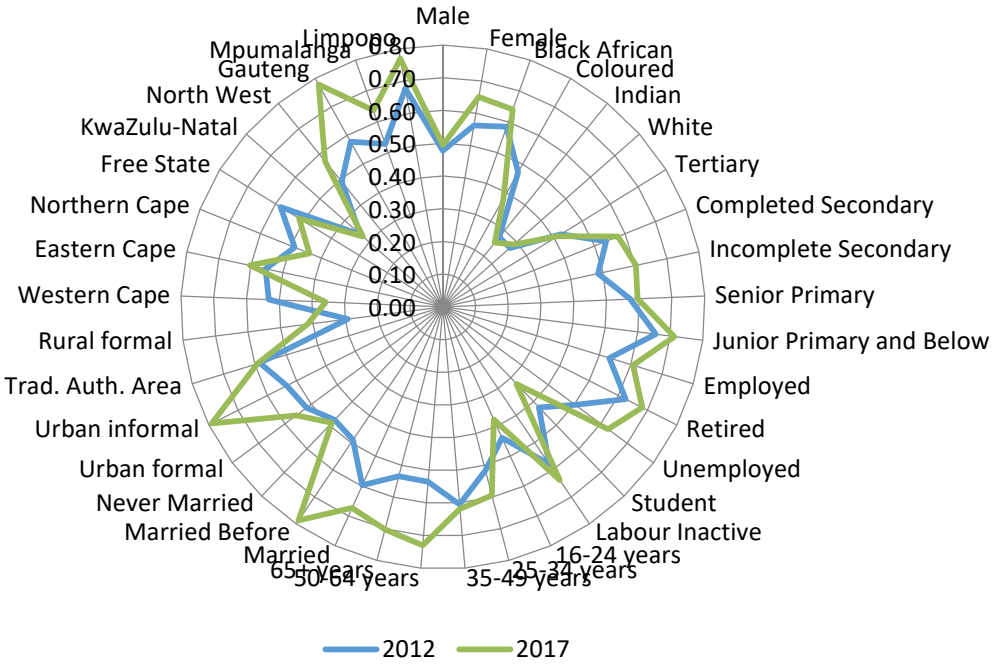
Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

Out of all the informal practices listed in the table, the public was most aware of stokvels and burial societies. Although the public has become more aware of certain informal practices (i.e. investing with informal savings clubs) over the period 2012-2017, on the whole, awareness of informal saving practices have declined. In particular, the public has become less aware of keeping money at home. This signals, perhaps, that the public is becoming more cognisant of the opportunities offered by formal financial providers. The general population was not prone to keeping their money under lock and key in their homes and this unwise saving practice has declined over the period. Only 16% of the public was keeping cash at home in 2017 compared with 30% in 2011. This may reflect concerns about crime or this may be the result of a lack of disposable income to save.

In each year under review, we note that a sizeable minority of the adult population told fieldworkers that they belonged to either a stokvel or a burial society. More people belonged to informal saving clubs in 2017 than in 2012 and the same is true of burial societies. In late 2017 more than an eighth (16%) of the adult public belonged to a stokvel and 27% belong to a burial society. This indicates that

informal savings clubs can still attract investment even during periods of economic downturn. We found that about a third (35%) of the general population belonged to such an organisation in 2017. In order to better comprehend the patterns of informal saving behaviour in South Africa, we looked at the mean number of informal saving practice types across the main fault-lines in the country. We can note that the level of variation on this measure was not as large as may have been anticipated given the results outlined in Section 6.2. It is clear that economic status is not a good predictor of whether an individual will engage in an informal saving practice.

Figure 6-3: Mean number of informal saving behaviours, by socio-demographic attributes (mean scores, 0-5)



Source: South African Social Attitudes Survey (SASAS) 2012; 2017

We found that the group with the highest mean number of informal practice types used were the informal urban dwellers. The mean number of informal practices among this group increased from 0.53 (SE=0.056) in 2012 to 0.79 (SE=0.107). The groups in Figure 6-3 with the lowest mean scores were the white and Indian minority groups –this is unsurprising given what we observed in previous sections of this chapter. We noted that young people were less likely to engage in informal saving than their older counterparts. This may be related to the life cycle effect that we identified in Sections 6.1 and 6.2. The mean number of informal practices reported by people aged 16-24 declined from 0.44 (SE=0.042) in 2012 to 0.38 (SE=0.047) in 2017.

Noteworthy geographic differences in the predilection to engage in informal saving practices were observed in Figure 6-3. Levels of informal saving was lower than expected in KwaZulu-Natal where the average number of types of informal saving practiced was only 0.33 (SE=0.033) in 2017. The provinces where informal saving was the most common were Gauteng and Limpopo. Both provinces also experienced an increase in informal saving behaviour between 2012 and 2017. It is unclear whether these observed differences may be related to differing attitudes towards saving clubs by the country's diverse Black African ethnolinguistic groups. In order to further explore what factors predict belonging to an informal savings club (such as burial society or a stokvel) amongst the Black African majority in South Africa, we created a binary saving club variable. Using this variable as the dependent, we ran a logistic regression model to identify the determinants of belonging to a saving club amongst the Black African majority. Racial minorities were excluded from this model. The outputs of this model are presented in Table 6-4.

Indicators of socio-economic status were not good predictors of whether a Black African individual was a member of an organisation of this kind. We found that labour market status effected a person's decision to join an informal savings club. Compared to the employed, the unemployed (r= -0.446; SE=

0.102) and students (*r*= -0.879; SE= 0.171) were less likely to be part of such clubs. Demographic characteristics were found to be important predictors of membership in an informal saving club among the Black African majority. Interestingly, gender was a significant determinant of the dependent in the table with the log odds of belonging greater (*r*= 0.435; SE= 0.082) for women than men. Age was also a predictor in our model with the log odds of membership in a saving club increased by 0.018 (SE=0.004) with every year older an individual is.

Table 6-4: Logistic regression predicting belonging to an informal saving club over the 2012-2017 period

	Coef.	Std. Err.	Sig.
Female (ref. male)	0.435	0.082	***
Age	0.018	0.004	***
Marital status (ref. Married)			
Married Before	-0.288	0.122	*
Never Married	-0.446	0.097	***
Population group (ref. isiZulu)			
isiXhosa	0.226	0.194	
Sesotho	0.044	0.157	
Setswana	-0.147	0.212	
Other	-0.367	0.157	*
Geographic type (ref. Urban formal)			
Urban informal	0.072	0.146	
Trad. Auth. Area	0.248	0.102	*
Rural formal	-0.542	0.188	**
Living Standard Measurement	-0.032	0.031	
Educational attainment	0.014	0.014	
Employment (ref. employed)			
Retired	-0.272	0.174	
Unemployed	-0.446	0.102	***
Student	-0.879	0.171	***
Labour Inactive	-0.071	0.151	
Number of obs.	6057		
Wald chi^2 (28)	394.9		
Pseudo R^2	0.102		

Source: South African Social Attitudes Survey (SASAS) 2012; 2013; 2015; 2017

Note: 1. Data is weighted to be nationally representative of the adult South Africans; 2. Racial minorities are excluded in each model; 3. The model controls for the provincial residence of respondents; and the survey wave; and 4. Signs *, **, *** indicates that the differences in mean scores are significantly different at the 5 percent (p<0.05), 1 percent (p<0.01) and 0.5 percent (p<0.001) level respectively.

Marital status was a notable predictor in Table 6-4. Even controlling for a range of different demographic and economic characteristics, married individuals were more likely to belong than those who were never married (*r*= 0.435; SE= 0.082) or previously married (*r*= 0.435; SE= 0.082). Ethnic group identity was not found to be a powerful determinant of whether an individual joined an informal savings organisation. Although the Zulu group was not significantly different from the other major linguistic Black African groups, we did detect a difference between the Zulu and minor linguistic groups. Compared to the Zulu, membership of a minor group reduced the log odds of belonging to an informal saving club by 0.367 (SE=0.157). We explored this unanticipated finding further and we found that the African ethnolinguistic groups that were the least likely to belong to a club of this type were the Venda and the Pedi. More research on these two groups must be done to understand what is driving this difference.

6.4. Planning for Retirement

In 2010, Sanlam conducted a survey on retirement and found many –sixty percent –of the pensioners that interviewed did not have adequate funds to live on. Of those without sufficient funds for retirement, almost two-thirds (64%) had to cut back on their living expenses and nearly a third (31%) had to continue working. Speaking about the results of the survey in August 2010, co-author of the survey Dawie de Villiers, Chief Executive of Sanlam Structured Solutions, believed that the problem will only worsen (Mail & Guardian 12/08/2010). But has retirement planning worsened in South Africa since the release of that 2010 Sanlam Study? To answer this question, the SASAS research team looks at questions on retirement that have been included in the SASAS survey since the first baseline study in 2011.

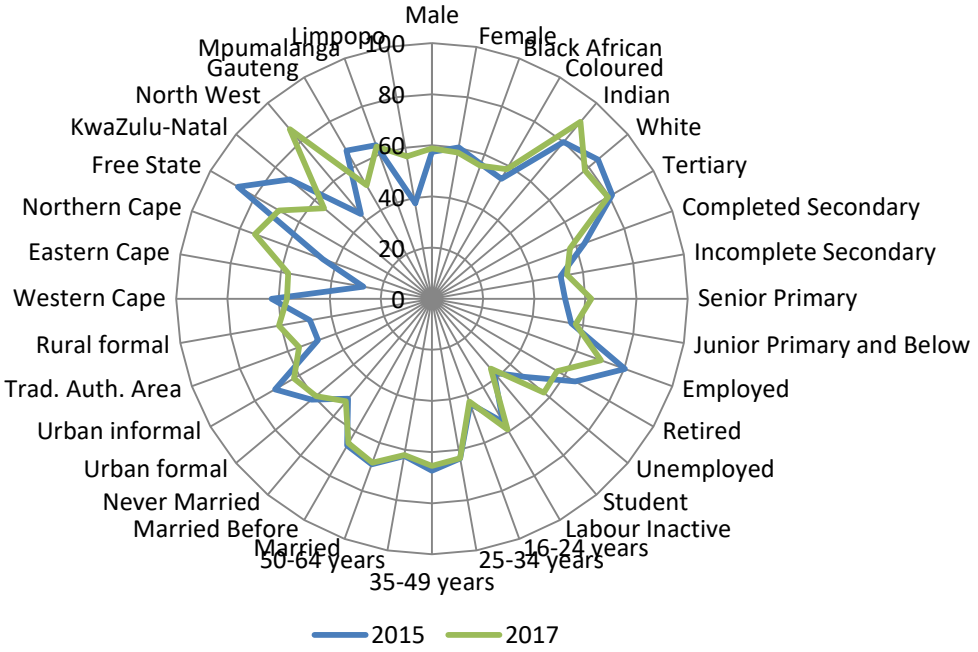
The following section will focus on working age adults as we are interested in how these people are planning for retirement. The need to plan for retirement assumes that people need to save for old age and, therefore, the necessity for retirement savings depends greatly on a country's public pension system. The state pension system in South Africa is more generous than what is found elsewhere in Africa. However, the cost of living in the country makes it very difficult for people in retirement to live comfortably off the state pension. Subsection 6.4.1 will look at which working age South Africans have a retirement plan. Then we will look at the propensity to own different retirement product types during the period 2012-2017 in Subsection 6.4.2. Finally, in Subsection 6.4.3, we will discuss the degree to which people in the country are confident that they are adequately planning for retirement.

6.4.1. Who is Retirement Planning?

In an interview discussing the results of the 2010 Sanlam Study, Dawie de Villiers expressed his concerned that many people were unaware of the challenges of retirement. His concern provokes the question, how confident is the average working aged South African in their retirement plan? In order to answer this intriguing question, the SASAS research team used the following item: "Overall, on a scale of 1 to 5 where 1 is very confident and 5 is not at all confident; how confident are you that you have done a good job of making financial plans for your retirement?" A significant share (42%) of the adult population told interviewers that they had no retirement plan in 2017. Before we can consider whether people are confident in their retirement planning, we need to discern who those without a retirement planning are. The percentages of different key subgroups with a retirement plan are displayed in Figure 6-4 for both 2015 and 2017.

We were able to discern interesting differences in how residents of some provinces in South Africa planned for retirement in comparison to others. In the Northern Cape almost three-quarters of the general population reported having a retirement plan in 2017. This marks a substantial increase from 2015 when only 45% of residents of this province had such a plan. A similar level of growth was seen in the North West and the Eastern Cape which suggests that financial practitioners have been successful in promoting sensible retirement planning behaviour in those provinces. There were distinct dissimilarities in the share of different educational attainment stratums that had a retirement plan in the figure. We found, for instance, that four-fifths of the tertiary-educated had a retirement plan in 2017. This can be contrasted, unfavourably, with other educational attainment groups. Less than three-fifths, on average, of the non-tertiary educated had a retirement plan. Given the findings of our analysis of saving behaviour in other sections of this chapter, this outcome is not a surprise.

Figure 6-4: Share with a retirement plan, by selected sociodemographic groups, 2015 and 2017 (percentages)



Source: South African Social Attitudes Survey (SASAS) 2015; 2017
Note: Figure excludes all respondents aged 65 and over.

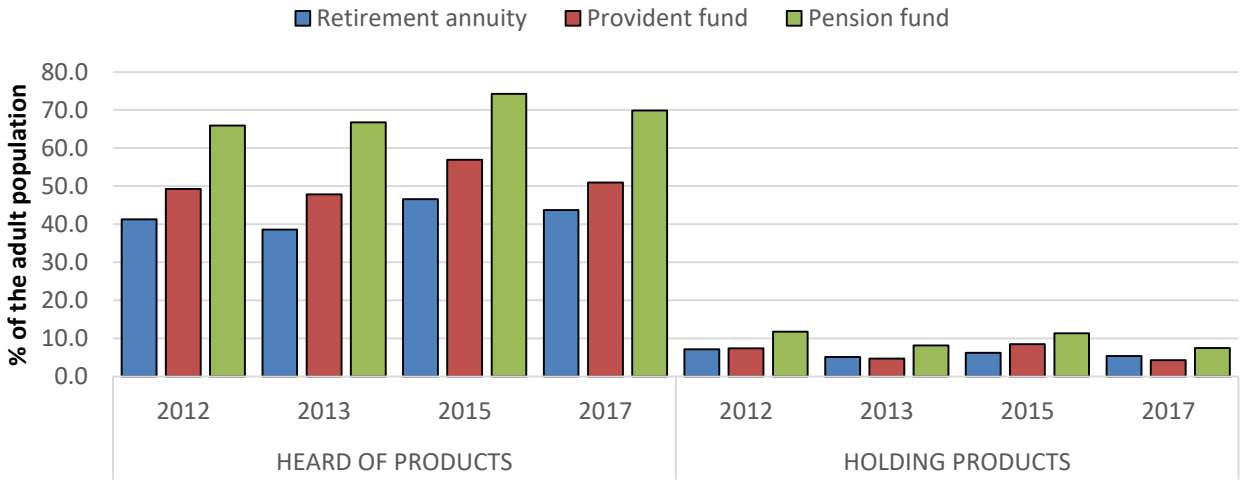
We observed substantial population group differences in Figure 6-4. These differences may be explained by differing levels of economic resources available to each group. However, labour market differences may also help explain variances in retirement planning by population group. The employed were found to be more likely to have a retirement plan in both 2015 and 2017. Many workers have access to retirement through their employer. Disturbingly, however, we found that the share of the employed with a plan of this type declined from 80% in 2015 to 70% in 2017. This may reflect the difficult financial conditions that many working people face in these grim economic times. To better understand observed population group differences, we turned to multivariate regression analysis. Using this method we looked at which characteristics helped predict having a retirement plan.

In our regression analysis we found some interesting and unanticipated provincial effects. We found that living in the Free State (r=1.314; SE=0.273), North West (r=0.891; SE=0.235), Mpumalanga (r=0.600; SE=0.218), and KwaZulu-Natal (r=0.534 SE=0.210) improved the log odds of having a retirement plan relative to residence in the Western Cape. Even if we controlled for economic status, we found that belonging to the Indian and the white minority improved the log odds of having a plan. Using Black African as the reference group, we found that belonging to the Indian minority (r=0.794; SE=0.253) had a larger effect than belonging to the white minority (r=0.620; SE=0.245). It is difficult to explain this outcome and it may suggest that retirement companies are specially targeting their marketing campaigns to these groups. We will explore differences in retirement product holding and awareness in the next subsection.

6.4.2. Retirement Product Types

Financial experts in South Africa are worried about a looming “retirement crisis” in South Africa. Results from the 2017 Old Mutual Corporate Retirement Monitor seem to confirm these fears. Malusi Ndlovu, head of Old Mutual Corporate Consultants, has said that the crisis will intensify if the issue isn’t addressed (Moneyweb 08/03/2018). The financial industry is particularly worried that young people are not purchasing formal retirement products. A 2017 survey by 10X Investments had concluded that only 35% of 2,200 millennials — or those born between 1981 and 1996 — surveyed were saving towards long term retirement and only 44% trusted the retirement industry. 10X Investments Senior Analyst Chris Eddy said that "there is an existing shortfall in retirement savings" in the country (BusinessDay 03/07/2018). He urged industry to better service South Africans who do not have formal retirement products. But, aside from the youth, who are these South Africans? This subsection will attend to answer this difficult question.

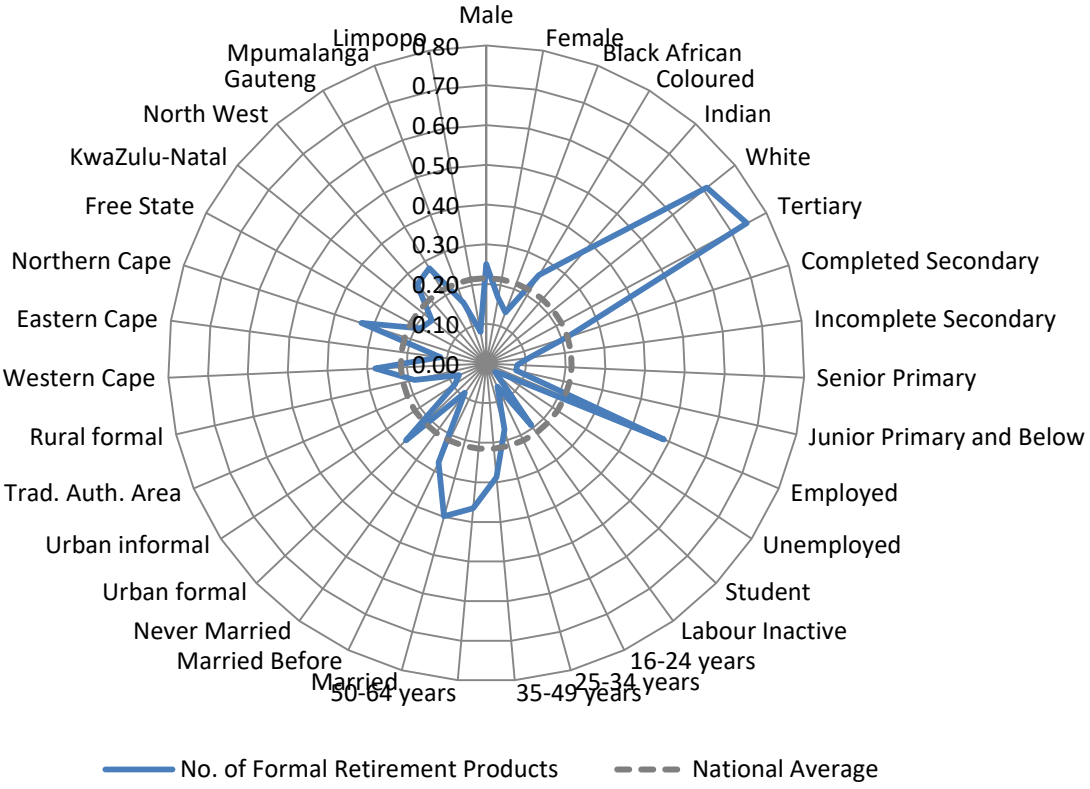
Figure 6-5: Awareness and holding of different types of retirement products (multiple response, percentages)



Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

Since 2012, questions on which kinds of retirement product people owned, and were aware of, have been included in financial literacy surveys. Responses to these questions for the period 2012-2017 are portrayed in Figure 6-5. Retirement is becoming more and more important to ordinary South Africans and public awareness of pension funds has grown over the period. During the last survey round, more than two-thirds (70%) of the public was aware of a pension fund. Other types of formal retirement products have also been gaining popularity. People have become more aware of retirement annuities and provident funds over the period although the observed level of growth has been more muted when compared to pension funds. These findings show that people in South Africa had become cognisant of the three major retirement product types under consideration.

Figure 6-6: Mean number of retirement product types held, by socio-demographic attributes (percentages)



Source: South African Social Attitudes Survey (SASAS) 2012; 2017
Note: Figure excludes all respondents aged 65 and over.

A small share of the general population held formal retirement products and the share using such products has declined between 2012 and 2017. At the end of this period, the mean number of formal retirement product types held in South Africa was 0.17 (SE=0.012) down from 0.26 (SE=0.018) in 2012. Of those that did have such products, the most popular was a pension fund. However, it would appear that much fewer people owned such a fund in 2017 compared with 2012. This may be a response to the difficult financial conditions of the last few years. Usage of provident funds also declined over the period and the share of the population holding this type of product fell from 7.4% in 2012 to 4.3% in 2017. A much more subdued deterioration was observed for retirement annuities over the same period.

It would be instructive to look at how mean retirement product type usage differs across different socio-demographic groups in South Africa. Mean product number of retirement product types are presented in Figure 6-6 by selected subgroups. It is clear that formal retirement products usage is determined by an individual socio-economic status. Consider, for example, that the tertiary-educated have a mean number of product types of 0.74 (SE=0.043) while those with senior primary education or below have a mean score of 0.08. This suggests that poorer South Africans struggle to adequately save for their retirement and this finding supports what was observed in Sections 6.1 and 6.2. We can observe that members of the Indian minorities have, on average, a much lower mean number of product types (M=0.38; SE=0.035) than their white counterparts (M=0.71; SE=0.046). Given the results of Subsection 6.4.1, this finding is surprising and the reason for this disparity is not clear at this stage.

We noted a distinct and surprising gender difference on retirement product holding where men were far more likely to hold multiple retirement product types than women.

6.4.3. Doubt in Retirement Planning

In this subsection we are going to be looking at how confident people in South Africa are in their retirement plans. In Subsection 6.4.1 we noted that a substantial share of the adult population did not have such a plan. This subsection will only look at those who had a retirement plan. In addition, this subsection is only concerned with those individuals younger than the retirement age (i.e. 64 years and below) and only looked at those who are at this stage of the life cycle. Of those who had such a plan, we found that people tended to rate their plan 3.47 (SE=0.047) in 2017 on our one-to-five confidence scale. As you will remember, a rating of one is very confident and one of five is not confident at all. This shows that many in the country are doubtful that they have adequately planned for their retirement. This rating was not particularly different from what was observed in 2015 when our mean uncertainty rating was 3.47 (SE=0.052) out of five.

Table 6-5: Mean uncertainty in financial planning for retirement, by selected socio-demographic groups (mean scores based on a 1-5 scale)

	Male			Female		
	M	SD	Scheffe Sig.	M	SD	Scheffe Sig.
Education level						
Tertiary	2.84	1.246	ref. group	2.68	1.203	ref. group
Completed secondary	3.26	1.357	***	3.45	1.344	***
Incomplete secondary	3.61	1.246	***	3.71	1.225	***
Primary and below	4.04	1.066	***	3.98	1.074	***
Employment Status						
Employed	3.04	1.284	ref. group	3.05	1.305	ref. group
Unemployed	3.95	1.135	***	3.95	1.169	***
Labour Inactive	3.55	1.341	***	3.49	1.256	***
Age group						
16-29 years	3.56	1.304	ref. group	3.70	1.256	ref. group
30-49 years	3.33	1.257	*	3.49	1.302	*
50 + years	3.16	1.436	***	3.40	1.319	**
Population group						
Black African	3.48	1.304	ref. group	3.70	1.236	ref. group
Coloured	3.28	1.329		3.50	1.279	
Indian	2.92	1.324	***	2.88	1.426	***
White	3.09	1.310	***	2.49	1.172	***
Geographic type						
Urban	3.29	1.349	ref. group	3.46	1.312	ref. group
Rural	3.65	1.191	***	3.79	1.212	***

Source: South African Social Attitudes Survey (SASAS) 2015; 2017

Note: Reported levels of statistically significant are based on ANOVA testing. The signs *, **, *** indicate that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

We were interested in how men and women plan for retirement and we wanted to look at whether men were more confident than women in their planning. Table 6-5 looks at the subgroups more liable to express doubt about the retirement plans by gender. The subgroups that were the most buoyant about their retirement planning were those who had the greatest access to economic resources. This suggests that many of the poor are deeply worried about how they live when they are old and can no

longer work. Consider, for instance, that the better educated in the table were found to be more confident than their less educated counterparts irrespective of gender. Tertiary-educated men had a mean score of 2.84(SE=1.246) and women a score of 2.68 (SE=1.203) in the table. This level of uncertainty is far below what was observed for other educational attainment groups. Similarly we noted significant differences between labour market status groups. We also detected that certainty about retirement planning grows with age although the level of difference observed was not as large as we had anticipated.

There were significant dissimilarities noted between the country's different population groups in Table 6-5. Members of the Indian and white minority members were, on average, far less anxious about their retirement planning than their Black African and Coloured counterparts. Interestingly, we found that white men had higher mean uncertainty scores (M=3.09; SE=1.310) than white women (2.49; SE=1.172). Other differences between population groups were far smaller. Do these observed differences reflect variations amongst these population groups in terms of economic resources, the level of education and access to employment? Or is this outcome caused by some aspects of the individual population group's culture? In order to answer these questions, a multivariate regression analysis was conducted to determine which factors are associated with confident retirement planning.

If we controlled for socio-economic status, belonging to the Indian or white communities did not improve confidence in retirement planning. Perhaps surprisingly, we observed that being part of the Coloured community reduced uncertainty in such planning. This is interesting finding although it is not clear why we see this outcome. We found that economic characteristics –such as living standard, formal educational and labour market status –were powerful predictors of whether an individual was uncertain about their retirement planning. The results confirm that poor, uneducated and unemployed individuals are far more likely to be doubtful about their planning. This suggests that, as we anticipated, the more affluent the individual, the more likely that they are to have a good plan for their retirement. To a limited extent, marital status was a significant predictor in our analysis multivariate. Relative to being married, the relative log odds of an individual being doubtful of their plan increased by 0.282 (SE=1.222) if that person was never married.

7. Experiencing and Coping with a Financial Shortfall

During the end of 2017 period, when the SASAS fieldwork took place, there was a marked decline in consumer vulnerability in South Africa. The Momentum/Unisa Consumer Financial Vulnerability Index (CFVI) was 52.6 points in the first quarter of 2018 according to the CFVI first quarter report. The index was up from 49.3 points in the fourth quarter of 2017 and from 46.9 points in the third quarter of that year. This improvement in the CFVI provides a clear indication that South African consumers feel more able to obtain the financial resources they require to sustain their livelihoods. The latest CFVI index results also show that consumer finances in South Africa are very sensitive to changes and that even a slight mishap can have a grave impact on the average consumer's ability to meet his/her financial commitments. Despite CFVI growth many people in the country are still vulnerable to a financial shock. In this chapter we look at how people respond to a financial shortfall in their lives. Here we define a shortfall as a period when an individual's income did not quite cover their living costs.

The experience of a financial shortfall may result in a decline in individual financial wellbeing and even a recession in living standards. Everything is contingent on how the individual responds to financial shortfalls and what strategies individuals can employ to help them cope with periods of duress. Since 2010, the research team have paid particularly close attention to how individuals adapt to financial

shortfalls. Currently, five survey waves of behavioural data on such adoption has been collected and this data provides us with a unique opportunity for analysis. The following chapter will present an examination of coping strategies over the period 2010-2017 in order to better understand the financial behaviour of South Africans. Section 7.1 will look at the propensity to experience a financial shortfall in the country while Section 7.2 will dissect the different strategies adopted by individuals to cope with a financial shortfall.

7.1. Experiencing an Inability to Cover Living Expenses

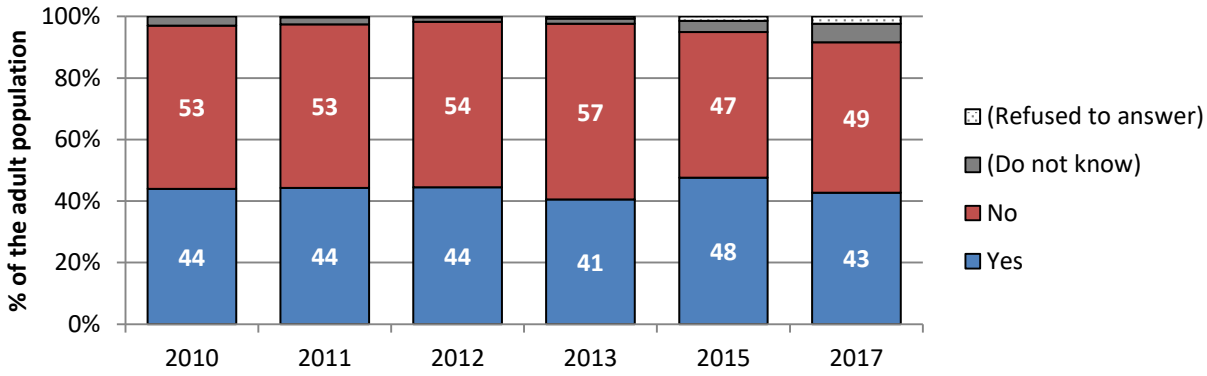
An individual's education levels, employment status and social networks should have a large effect on their income generating strategies and, consequently, their propensity to experience a financial shortfall. However, to better understand the size of these effects, it is necessary to look at how important socioeconomic factors influence an individual's proclivity to suffer an income deficit. We need to understand the strength of economic versus demographic factors in predicting whether an individual will experience such a deficit. In Subsection 7.1.1 we will explore incidences of financial shortfalls amongst the adult population for the period 2012-2017. This trend analysis will focus on differences between different socio-demographic groups. Subsection 7.1.2 will analyse the propensity to experience a financial shortfall using multivariate analysis. The emphasis of this analysis will be on how far economic inequalities can explain observed differences between different demographic groups.

7.1.1. Trend Analysis on Experiencing a Financial Shortfall

In 2010, during the Financial Literacy Pilot study, SASAS researchers collected data on whether an individual had personally experienced a situation whereby their income did not quite cover their living costs. More than two-fifths (44%) of the adult population had experienced such a shortfall in 2010, indicating that many South Africans do not lead economically sustainable lifestyles. There was little difference in the response of the average adult to this question between 2010 and 2017. The commonality in responses observed indicates that the question continues to work well, despite the sensitivity that is commonly involved in revealing financial difficulty. There was a relatively minor decline in the share of the population who had experienced a financial deficit between 2015 and 2017 (Figure 7-1). Almost half (48%) of the adult population had experienced an income shortfall in 2015 compared to just 41% in 2013.

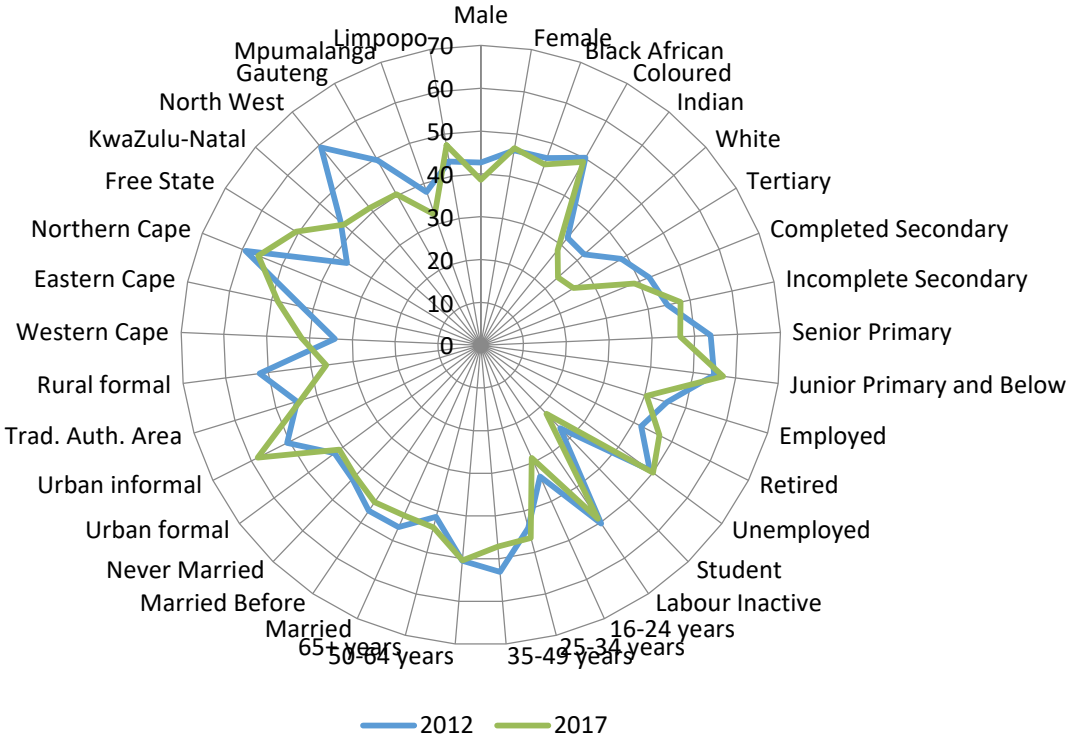
Of all the different socio-demographic groups in South Africa, which is the most likely to experience an income shortfall? Answering this question will help us better grasp how financial vulnerability in the country works. Figure 7-2 depicts the percentage experiencing a shortfall across selected important demographic and social groups. Roughly three-fifths (56%) of adults living the Northern Cape province reported a financial shortfall indicating the particularly high level of economic vulnerability that characterises that province. The Free State was another province where there was a higher than average proportion of residents had who suffered losses of this type. Comparing data from 2012 and 2017, the share of adult residents experiencing a financial shortfall in that province increased significantly. In 2012 only about a third (37%) of Free State residents reported experiencing an income shortfall compared to 51% in 2017. Amongst residents of the Western Cape, reports of financial shortfalls also grew considerably over the period. At the start of the period, approximately a third (34%) of people in the province experienced an income deficit of this kind compared to 42% in 2017.

Figure 7-1: Share of South Africans who experienced an income shortfall in last year, 2010-2017 (%)



Source: South African Social Attitudes Survey (SASAS) 2010-2013; 2015; 2017

Figure 7-2: Experienced an income shortfall in last year, by socio-demographic attributes (percentage)



Source: South African Social Attitudes Survey (SASAS) 2012; 2017

Educational attainment seemed strongly correlated with experiencing a financial deficit. A quarter of tertiary-educated adults reported an income shortfall in 2017 compared with 57% of those with junior primary education and less. A smaller portion of the tertiary-educated suffered a shortfall in 2017 than in 2012. This change could suggest that this group has become better at money management over the period. Finally, we noted some significant differences between population groups in Figure 7-2. Less than a third of the Indian and white minority groups reported an income deficit of this type in 2012. In contrast, half of the Coloured and Black African groups underwent a period when their income does not quite cover their living costs in 2012. This was not different from what was found

for these two population groups in 2017. Amongst the Indian and white minorities, on the other hand, the share who had experienced a shortfall declined during the period under review.

7.1.2. Logistic Regression of Financial Shortfall

Previous research by the SASAS research team on financial literacy found there were significant differences in the levels of fiscal duress suffered by the country's various Black African ethnolinguistic groups. In 2017 our research team wanted to take a closer look at which Black African subnational groups endured an income shortfall in the last 12 months. We were also interested in how different Black African economic class groups experiences of financial shortfalls. Here we look at what factors predicted experiencing such a deficit amongst this majority. A multivariate regression analysis was used to determine which variables are associated with experiencing an income deficit. Logistic regression was selected for this analysis as this is a common method used to model dichotomous outcome variables. We created two models, one for the poor and one for the non-poor. We defined these categories as the Living Standard Measure 1-5 and 6-10 respectively. In each model, the log odds of the outcome were modelled as a linear combination of the predictor variables.

Table 7-1 presents the coefficients from the logit model predicting the association between the dependent and individual characteristics and attitudes. In the table, we see the coefficients and their standard errors for the poor and non-poor. The logistic regression coefficients give the change in the log odds of the outcome for a one-unit increase in the predictor variable. In both models, it is clear that language is a poor predictor of financial behaviour. Now let us turn to the most important outputs from each model. In the first model, and despite controlling for a range of demographic and socio-economic variables, significant differences between men and women were observed. If a poor person was a woman, the log odds of suffering a financial deficit increased by 0.270 (SE=0.094). Gender was not a statistically significant determinant for the Black African non-poor. Living in a rural area also made a poor individual less likely to have undergone an income deficit. Similar outcomes were not observed in the second model.

Amongst the Black African non-poor, age was positively associated with the dependent in Table 7-1. For a one year increase in age, the log odds of falling victim to a financial deficit increased by 0.022 (SE=0.005). In other words, older poor Black African adults are more vulnerable to experiencing a financial shortfall than their younger counterparts. In the second model, economic position was a robust predictor of suffering a financial shortfall. For every one unit change in the Living Standard Measurement, the log odds of experiencing an income shortfall decreased by 0.275 (SE=0.049). To put it another way, the wealthier a non-poor individual the more unlikely that individual will be to fall into financial trouble. In contrast, the chances of a poor individual's expenses exceeding income were not affected by their level of wealth. Perhaps surprisingly, the employed were not more likely to experience an income shortfall although being a student was significantly (and negatively) correlated with such an experience in both models in Table 7-1. However, of the two models in the table, the size of the correlation was larger in the first model.

Table 7-1: Logistic regression predicting experiences of an income shortfall among poor and non-poor black African adults over the 2011-2017 period (pooled data)

	LSM 1-5			LSM 6-10		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	0.217	0.094	*	0.098	0.096	

Age	0.005	0.004		0.022	0.005	***
Marital Status (ref. Married)						
Married Before	-0.041	0.147		-0.158	0.158	
Never Married	0.189	0.114		0.184	0.123	
Language group (ref. isiZulu)						
isiXhosa	-0.007	0.242		0.431	0.224	
Sesotho	-0.221	0.214		0.127	0.175	
Setswana	-0.052	0.274		0.314	0.214	
Other	0.046	0.214		0.355	0.181	*
Geographic Type (ref. Urban formal)						
Urban informal	-0.126	0.167		-0.057	0.198	
Trad. Auth. Area	-0.605	0.126	***	-0.218	0.136	
Rural formal	-0.568	0.194	**	0.134	0.266	
Living Standard Measurement	-0.008	0.052		-0.275	0.049	***
Educational Attainment	-0.039	0.014	**	-0.002	0.017	
Employment (ref. employed)						
Retired	-0.249	0.197		-0.374	0.224	
Unemployed	0.027	0.122		0.013	0.118	
Student	-0.993	0.202	***	-0.523	0.182	**
Labour Inactive	0.125	0.167		0.124	0.169	
Number of obs.	3708			3928		
Wald chi^2 (29)	159.0			139.4		
Pseudo R^2	0.059			0.050		

Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

Notes: 1. Data is weighted to be nationally representative of the adult South Africans; 2.The model controls for the provincial residence of respondents; and the survey wave; and 3. Signs *, **, *** indicates that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

7.2. Strategies to Cope with Financial Shortfall

There is a growing fear in recent years that financial shortfalls among the general population may become even more common. Such fears are particularly relevant given recent increase in the cost of living (driven by rising interest rates, food prices and electricity tariffs). But, as has already been pointed out, how individuals respond to a shortfall is almost as important as whether they experience one. A poor response strategy can fundamentally undermine an individual's long-term financial wellbeing. To understand how individuals respond to a financial shortfall, Subsection 7.2.1 assesses different coping strategies. This subsection will look at the likelihood of practicing different strategies across important subgroups. After noting substantial differences, we examine the differences observed between these subgroups in Subsection 7.2.2. Here we employ multivariate regression analysis. This analysis allowed us to understand which important sociodemographic factors are correlated with a particular main coping strategy.

7.2.1. Multiple Strategies to Cope with a Financial Shortfall

Since 2010 the SASAS research team has investigated how South Africans respond to financial duress in an effort to understand the range and frequency of different coping strategies that are employed. For those that acknowledged financial difficulties during the last 12 months, a follow-up question was asked to respondents querying what strategies were adopted to cope with this shortfall. Discouragingly one of the most common strategies adopted by the adult public (see Table 7-2), in each

of the five years for which we have data, was cutting back on spending. In 2017 almost half (49%) of all those who suffered a financial shortfall cut back on their spending as a response. Another popular strategy was to borrow food or money from family or friends. Approximately half (48%) of those who experienced a shortfall in the last twelve months prior to the 2017 SASAS round told fieldworkers that this was what they did to make ends meet.

Only a small minority drew on formal credit organisations –such as banks, formal financial services and informal saving clubs. The fact that so few people accessed formal credit shows that such bodies are not readily accessible to households in financial duress (perhaps due to the entry barriers involved). In addition, it was interesting to see that non-familial means of informal credit were also unpopular. Few people indicated that they responded to economic hardship by relying on informal moneylenders or savings and loans clubs. In fat, as a coping strategy, loans from informal lenders became less popular between 2015 and 2017. We observe relatively little change in how people responded to monetary shortfalls over the period 2012-2017. It was interesting, however, to note that loans from friends and family members was utilised in 2017 than was in 2015.

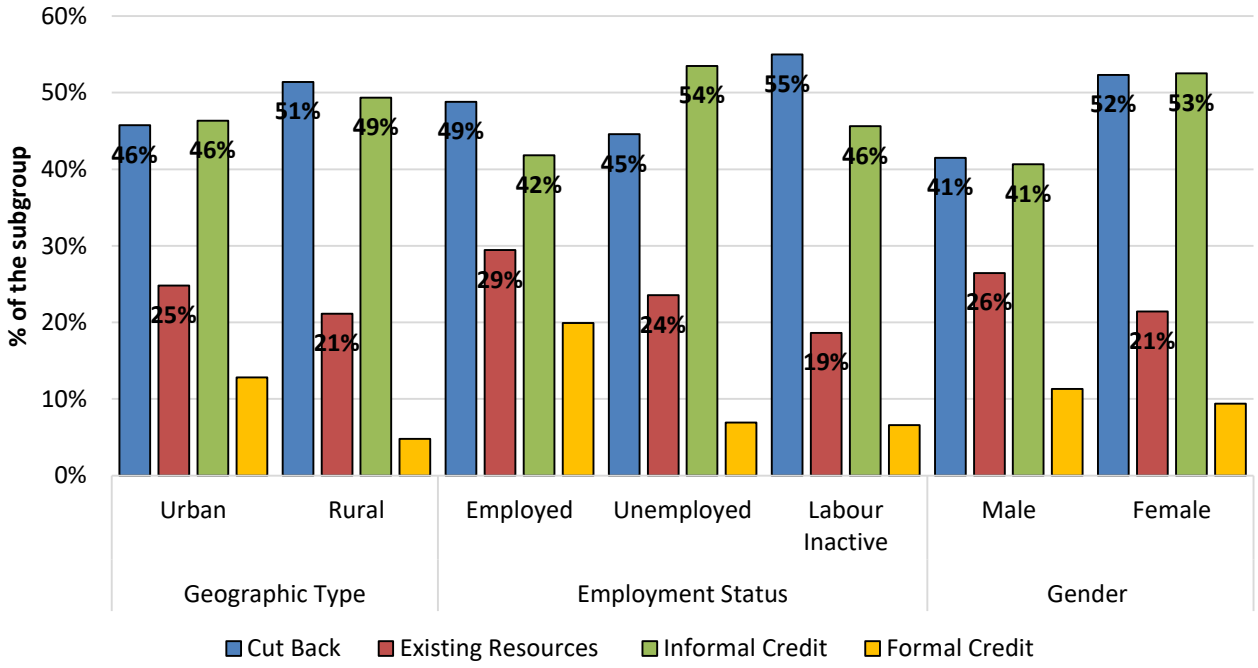
Table 7-2: Coping strategies employed to make ends meet, 2012-2017 (multiple response table, percentages)

	2012	2013	2015	2017
Draw money out of savings or transfer savings into current account	12.6	19.1	13.6	13.5
Cut back on spending, spend less, do without	41.1	36.7	47.1	48.5
Sell something that I own	7.4	7.2	11.7	10.5
Work overtime, earn extra money	11.9	8.1	12.9	13.2
Borrow food or money from family or friends	43.7	41.6	57.5	48.2
Borrow from employer/salary advance	4.0	3.7	3.7	4.2
Pawn something that I own	2.1	1.9	5.3	2.8
Take a loan from my savings and loans clubs	3.5	4.4	3.2	2.6
Take money out of a flexible home loan account	1.3	1.1	0.8	1.2
Apply for loan/withdrawal on pension fund	1.3	2.1	2.2	2.4
Use authorized, arranged overdraft or line of credit	0.5	0.9	0.8	0.4
Use credit card for a cash advance or to pay bills/buy food	1.6	1.7	2.2	1.4
Take out a personal loan from a formal financial service provider	2.4	2.8	3.0	2.4
Take out a payday loan (advance on salary from someone-not employer)	0.5	0.7	0.7	0.2
Take out a loan from an informal provider/moneylender	4.5	3.7	8.1	4.8
Use unauthorised overdraft	0.8	0.5	0.6	0.1
Pay my bills late; miss payments	10.1	5.8	7.9	6.0
Other (specify)	7.4	10.5	4.4	1.9
(Do not know)	3.2	3.8	0.4	0.4
(Refused to answer)	2.0	5.3	1.2	1.6

Note: People who have not experienced an income in the last twelve months are excluded.
Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017

The SASAS research team was able to identify the most common responses to financial duress in Table 7-2. Now the research team will examine subgroup differences in terms of the strategies adopted. As different population groups reported different incidences of income shortfall, we expect that different groups will also have dissimilar strategies to cope with such shortfalls. Four types of strategies were defined, these are: (i) cut back; (ii) draw on existing resources; (iii) informal credit and (iv) formal credit. The latter includes a personal loan from a formal financial service, salary advance, a payday loan, flexible home loan account, loan/withdrawal on pension fund, credit card for a cash advance and arranged overdraft or line of credit. Figure 7-3 show the proportion of different subgroups who adopted these four strategy types in 2017.

Figure 7-3: Coping strategies employed to make ends meet, by select subgroups (multiple response figure, percentages)



Note: People who have not experienced an income in the last twelve months are excluded.
Source: South African Social Attitudes Survey (SASAS) 2017

It is clear that coping mechanisms used varied by gender. More than half (52%) of women facing a shortfall put forward cutting back on spending as a response. In contrast, only about two-fifth of men tackling the same problem told interviewers that they reduced their spending in response. In other words, when confronted by a financial shortfall, men are less likely to cut back on spending. A similar gender difference was noted on informal credit with women more likely to utilise this type of credit when facing a financial crisis. Access to the labour market helped people cope with a financial shortfall. Of those employed individuals who faced a financial deficit in 2017, about a fifth said that they accessed formal credit markets as a response. It is apparent that people outside employment were unable to use similar strategies. We also noted from Figure 7-3 that people living in urban areas made more use of formal credit markets to sustain themselves in the event of financial adversity than their rural counterparts.

One of the main response strategies for all subgroups in Figure 7-3 was informal credit. It would appear that in times of hardship, South Africans tend to reach out to friends and family for assistance. We wanted to look at whether this type of strategy was used by all subgroups in South Africa. We found significant population group differences in how certain populations responded to financial difficulty. Informal credit was much less popular with the white and Indian minorities facing this type of difficulty than they were with other population groups. The Coloured and Black African groups, on the other hand, were much more likely to use informal credit systems when faced with a shortfall in income. This observation may be related to interracial economic inequalities that have already been discussed in this report. It could be that that wealthier people in the country simply respond to financial differently from their poorer counterparts. Consequently, we tested this thesis using multivariate regression

analysis and found that our thesis was valid. Accounting for economic status, observed differences between population groups were not statistically significant.

7.2.2. Main Strategy to Cope with Financial Shortfalls

In order to obtain a deeper understanding of individual responses to financial duress, respondents were asked which coping strategy was most important during periods of financial shortfalls experienced in the last year. This question was introduced in 2011 during the Financial Baseline Study and the responses to this question allow for a greater comprehension of primary coping strategies in the event of an economic shortfall. It is evident that one of the most important coping mechanisms for South Africans in 2017 was to draw on existing resources. Other popular responses were cutting back on expenditure and borrowing from family or friends. Interestingly, the latter was more popular in 2017 then 2012. At the start of the period only 26% of those experiencing financial distress listed borrowing from family and friends as the most popular strategy compared to 31% in 2017. This may represent a response to a prolonged economically difficult period which would have strained existing resource of economic capital.

Table 7-3: Main strategy relied on during times of financial distress in 2012 and 2017 (column percentages)

	2012		2017	
	%	Std.Err.	%	Std.Err.
Draw money out of savings	7	(1.34)	8	(1.15)
Cut back on spending, spend less, do without	31	(1.88)	31	(1.87)
Sell something that I own	4	(0.67)	3	(0.61)
Work overtime, earn extra money	8	(1.17)	9	(1.22)
Borrow food or money from family or friends	26	(1.70)	31	(1.94)
Borrow from employer/salary advance	2	(0.41)	1	(0.34)
Pawn something that I own	1	(0.29)	2	(0.47)
Take a loan from my savings and loans clubs	1	(0.38)	1	(0.49)
Take money out of a flexible home loan account	1	(0.50)	0	(0.14)
Apply for loan/withdrawal on pension fund	1	0.27)	1	(0.37)
Use authorized, arranged overdraft or line of credit	0	(0.24)	0	(0.16)
Use credit card for a cash advance or to pay bills/buy food	0	(0.18)	1	(0.30)
Take out a personal loan from a formal financial service	1	(0.33)	1	(0.42)
Take out a payday loan	0	(0.18)	0	(0.05)
Take out a loan from an informal provider/moneylender	2	(0.47)	0	(0.09)
Use unauthorised overdraft	0	(0.22)	2	(0.54)
Pay my bills late; miss payments	2	(0.53)	2	(0.54)
(Do not know)	4	(0.81)	1	(0.34)
(Refused to answer)	2	(0.46)	3	(0.78)

Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017
Note: Standard errors in parenthesis.

If differences in coping stratagems among the country's different population groups are examined, interesting variances are noted. Members of the Black African majority who had experienced a shortfall are more likely to rely on credit from social networks as their main coping strategy than their counterparts in the White and Indian groups. But do these observed differences reflect variations amongst these subnational groups in terms of economic resources and access to employment? In order to answer this question, a multivariate regression analysis was conducted to determine which factors are associated with a particular main coping strategy. Logistic regression was considered

appropriate because the goal was to investigate which characteristics were associated with the use of credit as the *main* response to a financial shortfall.

Table 7-4: Logistic regression predicting the use of credit as the primary response to an income shortfall in the last twelve months over the 2012 to 2017 period (combined data)

	Coef.	Std. Err.	Sig.
Female (ref. male)	0.146	0.103	
Age	0.007	0.005	
Marital Status (ref. Married)			
Married Before	0.313	0.152	*
Never Married	0.271	0.120	*
Population group (ref. Black African)			
Coloured	-0.108	0.155	
Indian	0.038	0.236	
White	-0.536	0.252	*
Geographic Type (ref. Urban)			
Urban informal	-0.456	0.194	*
Trad. Auth. Area	-0.292	0.139	*
Rural formal	0.018	0.236	
Living Standard Measurement	-0.227	0.044	***
Educational Attainment	-0.006	0.016	
Employment (ref. employed)			
Retired	0.181	0.209	
Unemployed	0.423	0.126	*
Student	0.505	0.238	*
Labour Inactive	0.076	0.172	
Number of obs.	3814		
Wald chi^2 (27)	138.9		
Pseudo R^2	0.054		

Source: South African Social Attitudes Survey (SASAS) 2012; 2013; 2015; 2017

Notes: 1. Data is weighted to be nationally representative of the adult South Africans; 2.The model controls for the provincial residence of respondents and the survey wave; 3. People who have not experienced an income in the last twelve months are excluded; and 4. Signs *, **, *** indicates that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

Table 7-4 presents the coefficients from the logistic model predicting the association between the dependent and individual characteristics. The likelihood ratio chi-square of 139 with a p-value < 0.0001 tells us that our model as a whole fits significantly better than an empty model (i.e., a model with no predictors). We found that economic position had a significant effect on how individuals responded to a monetary crisis. A one-unit increase in the Living Standard Measurement is associated with a 0.227 (SE=0.044) decrease in the relative log odds of using credit as the main response. It would appear that the odds of utilising credit as an individual's main response are increased if an individual is unemployed. Relative to employment, unemployment has a positive association (*r*=0.423; SE=0.126) with the dependent in the table. This suggests that labour market insecurity pushes people to draw on credit when faced with a financial deficit. This is probably because employed individuals are apt to stocks of existing economic resources than those outside employment and can draw on these in a crisis.

Even controlling for financial position, we still found statistically significant population group differences. Using Black African as the reference group, belonging to the white minority reduced the likelihood of using credit as a main reaction to a financial deficit. This may reflect a cultural preference against relying on credit from social networks and other sources during periods of economic reversals amongst this group. No other population group differences were statistically significant in Table 7-4. Interestingly, we found that marital status was associated with credit as a main response. Those who were not married were more likely to use credit than those who were married. It may be that marriage makes individuals more wary of taking on additional debt burdens. Perhaps unexpectedly, age was not associated with the dependent in the table at a significance level of 5% or greater.

8. Money Management

The ability to manage financial products is an essential area to cover in any study of financial literacy. It is, consequently, important to understand how South Africans approach managing their money through different financial products. Modern financial marketplaces are complex and there is currently a large array of different products available in these marketplaces. Because financial product markets are so complex, many people find navigating such markets difficult and challenging. This chapter will consider two important kinds of such products: (i) banking and investment as well as (ii) insurance and funeral cover. The first concerns the management of current monetary assets while the latter pertains to protecting an individual and their family's financial wellbeing in the case of accident or death. Many citizens struggle to access formal financial markets and make use of strategies that fall outside the formal financial sector. Indeed, previous research by the HSRC has shown that the country has a large 'unbanked' population. Given that so many in the country are unbanked, in this chapter we will examine how South Africans approach both informal as well as formal financial product types.

There are many financial products that deal with banking and insurance. In order to more accurately understand money management in South Africa, it is necessary to investigate the adult public's knowledge and usage of these diverse financial products. An understanding of the popularity of certain kinds of products among the general population is of great benefit to financial education researchers as well as to those working on consumer regulation. Given the importance of this topic the SASAS research team will present data on two important parts of money management: (i) banking and investment; and (ii) insurance and funeral cover. The former will be tackled in the first section of this chapter and the latter in the second.

8.1. Banking and Investing

During the SASAS interview, respondents were read a list of banking and investment product types. Participants were requested to state which of them they had heard of before. This helps to construct a general picture of levels of access to banking services and what kind of financial products that were the most popular. A subsequent question asked participants if respondents currently hold any of these types of these products in the list read out. In Table 8-1 we look at responses to these questions. Participants' answers are categorised into three categories of formal financial products types: (i) investment; (ii) bank accounts; and (iii) bank cards. The section is divided into two subsections. The first examines how product type awareness and holding has changed during the period 2012-2017. The second investigates subgroup differences in product holding in the country, looking at which factors are driving the propensity to hold multiple product types.

Table 8-1: Awareness and holding of different banking and investment product types, 2012 and 2017 (percentages)

	HEARD OF PRODUCTS			HOLDING PRODUCTS		
	2012	2017	Diff.	2012	2017	Diff.
Investment Products						
Unit trusts	35.3	29.5	-5.8	2.4	0.9	-1.5
Education policy or plan	55.1	54.7	-0.3	5.8	4.1	-1.7
Investment or savings policy	47.6	42.6	-5.0	8.0	5.3	-2.7
Shares on the stock exchange	37.7	33.5	-4.2	2.1	1.5	-0.6
Bank Accounts						
Mzansi account	69.4	51.7	-17.7	10.5	4.3	-6.2
Savings account	85.2	86.0	0.7	47.4	45.5	-1.8
Savings book at a bank	38.4	27.1	-11.3	1.7	0.4	-1.3
Current or Cheque account	54.6	52.5	-2.2	12.5	9.0	-3.5
Fixed deposit bank account	48.2	45.9	-2.3	5.4	4.3	-1.1
Cellphone account (e.g. M-PESA)	17.4	26.5	9.1	1.1	1.2	0.1
Post Office / Post Bank savings account	53.2	34.4	-18.8	3.6	2.6	-1.0
Bank and Store Cards						
ATM card	77.6	75.2	-2.4	33.6	36.0	2.4
Debit card or Cheque card	51.8	51.2	-0.6	13.4	12.9	-0.5
Garage card or petrol card	42.9	35.7	-7.2	4.4	1.2	-3.2
Other bank product	3.4	1.6	-1.81	1.05	1.2	0.1

Source: South African Social Attitudes Survey (SASAS) 2012; 2017

The formal investment and savings product that most South Africans are aware of is an education policy or plan. In 2017, roughly half (55%) of the public had heard of such a plan. Most other formal investment products were less well-known and awareness of many investment products was declining. During the period 2012-2017, public awareness of three of the investment product types had declined during the period under consideration. The largest levels of deterioration were for unit trusts and investment or savings policies. The former fell from 35% in 2012 to 30% in 2017 while the latter declined from 48% to 43% during the same period. This signals that the public is becoming less aware of formal investing products. This may be because the public becomes more wary of investment markets following several turbulent years. In addition, the growing complexity of financial markets may have made people more confused about different investment products.

The most well-known banking account product type in South Africa is the saving account, mentioned by more than four-fifths of the adult public in every year since 2012. The bank card that the general population was most aware of was the ATM card. Three-quarters of the general population were aware of this type of bank card in 2017 and this level of public awareness can be compared to 51% who were aware of debit cards and 36% who were aware of garage cards. The least well-known bank account product type was a cellphone banking products (such as M-Pesa, mobile-phone based money transfer and micro-financing service for Vodacom). Although public awareness of this type of product has grown over the period, less than two-sevenths of the adult population were aware of this type of account in late 2017.

There have been some noteworthy shifts in public awareness of banking and investment product types over the period. In 2017 roughly half (52%) of the public was aware of an Mzansi account and awareness of this product has been falling over the period under review. When it was launched, the Mzansi account was a major initiative

intended to provide banking services to the unbanked[9]. However, in recent years, most banks have experienced a shift away from the Mzansi account as clients' needs continued to change and more appropriate products have entered the market. Public awareness of post office savings accounts has also deteriorated substantially since 2012. At the start of the period, 53% of the general public had heard of this type of account but at the end of the period only 34% had. This is a decline in public awareness of 19 percentage points and indicates the general shift aware from post office banking in South Africa.

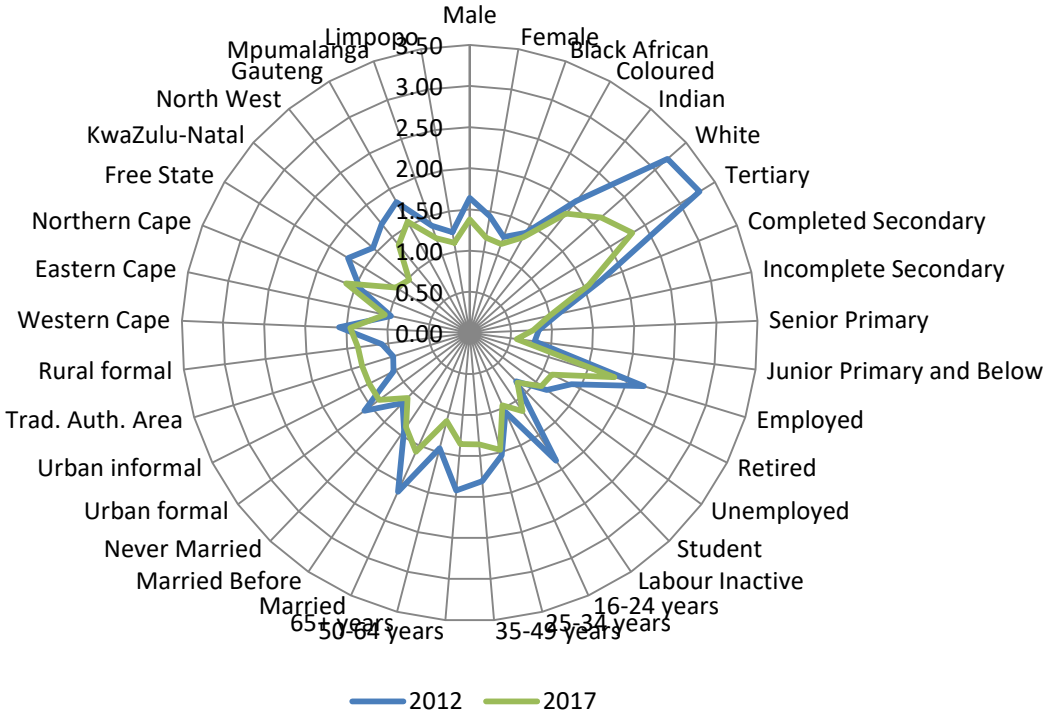
If we turn our attention to product holding, it is apparent that a sizeable share of the public indicated that they possessed none of the product types listed in Table 8-1. In fact, nearly a third (32%) of the general public reported not owning any of the listed products in 2017 which represents a growing disengagement from certain financial markets. Consider, for example, that the portion of the general public who said that they did not own any of the items in the table has fallen by six percentage points since 2012. On the whole, most adult South Africans do not hold investment products and none of the investment products listed in the table were held by more than one-fifteenth of the population. Banking products were more widely held and the most popular banking product type in the country was a savings account. More than two-fifths (46%) of the general population had a savings account in 2017. The bank card that was the most widely held in South Africa was an ATM card in 2017 with more than a third (36%) of the public owning such a card.

Looking at the product holding in Table 8-1 over the period 2012-2017 we can observe a general decline in investment and banking holding in the country. The only product of this type that had experienced growth in ownership was an ATM card although the increase on the product type was small. The product with the greatest level of decline noted was an Mzansi account –the share of the public holding such a product deteriorated from 11% in 2012 to 4% in 2017. Given the change in public awareness on this account, this shift in ownership is not surprising. The level of general weakening of product holding can be better understand if we look at the mean number of banking and investment product types (BIPT) held between 2012 and 2017. The mean score had declined from 1.535 (SE=0.045) at the start of the period to 1.273 (SE=0.035) at the end. The distribution on BIPT ownership in the country seems to resemble a Weibull distribution. The skewness on the BIPT distribution for 2017 was 1.764 and the kurtosis was 7.700.

In order to understand how BIPT holding differs between subgroups in South Africa, we present mean number of BIPT owned among key subgroups in Figure 8-1. The findings presented in the figure indicate, perhaps not surprisingly, that younger South Africans are less likely, on average, to hold multiple financial products. The youth lack financial resources to purchase financial products of this kind and most (especially those in the 16-24 age cohort) tend to be outside formal employment. However, middle age cohorts had higher product holding scores in the figure when compared to the elderly. The level of difference between the middling age cohorts and the elderly declined between 2012 and 2017. The employed were more likely to have multiple BIPTs than the unemployed, students or others outside the labour market. Given the financial needs of the employed, this disparity was anticipated and we could argue that product holding may reflect, to a large part, the fiscal requirements of the individual.

[9] The Mzansi intervention was a basic pre-entry level banking account and was intended for individuals who were previously excluded from the formal financial system. Leon Barnard, Director of Standard Bank Inclusive Banking has said that "Mzansi was loss-making …It had high cost origination in-branch, servicing was expensive and customer utilisation was very low" (Mail & Guardian 17/02/2012). For an indepth analysis of Mzansi accounts, see Kostov, Arun, and Annim (2014).

Figure 8-1: Mean number of banking and investment product types owned, by socio-demographic attributes (mean scores based on a 0-12 scale)



Source: South African Social Attitudes Survey (SASAS) 2012; 2017

Marital status was found to be associated with product holding here. Married people in the country are far more likely to own multiple banking and investment products than the non-married. The better educated and more affluent were much more likely to have many multiple financial products than other groups. Given that well-educated South Africans are over-represented amongst the upper economic strata, this particularly distinct difference may be explained by the observed differing levels of wealth held by the well-educated than the less educated. However, the tertiary-educated were much less likely to own BIPTs in 2017 (M=2.32; SE=0.125) when compared with 2012 (M=3.28; SE=0.200). This may be related to how wealthy individuals have redirected their financial portfolios to cope with poor macro-economic conditions. Members of the white minority were, on average, much more likely than other population groups to hold multiple BIPTs. We noted a marked weakening of product holding amongst this group between 2012 and 2017. The mean number of BIPTs holding amongst the white population had fell from 3.20 (SE=0.188) in 2012 to 2.12 (SE=0.121) in 2017.

The data presented in Figure 8-1 suggests that economic factors (such as educational attainment, employment status, and economic position) are the main determinants of this kind financial product ownership amongst adult South Africans. Nevertheless in order to confirm this hypothesis, we need to turn to multivariate analysis to discern the influence of economic factors on product holding. As the dependent variables that we are endeavouring to model are a continuous scale of number of BIPTs, we have chosen to make of standard linear regression techniques in our multivariate analysis. We were interested in how BIPT holding differed between rural and urban areas in the country, so we produced two models. The first just looks at BIPT ownership in urban areas while the second examines ownership in rural areas. Table 8-2 shows the coefficients and standard errors from our linear model estimating the correlations

between the two dependents and independent variables. To allow for a better comparison between independent variables, beta coefficient were used here.

Table 8-2: Linear (OLS) regression predicting the holding of formal banking and investment product types (BIPT)

	Urban				Rural			
	Coef.	Std. Err.	Beta	Sig.	Coef.	Std. Err.	Beta	Sig.
Female (ref. male)	0.010	0.047	0.003		-0.029	0.048	-0.014	
Age	0.008	0.003	0.085	**	0.004	0.002	0.067	
Marital Status (ref. Married)								
Married Before	-0.180	0.064	-0.037	**	0.059	0.077	0.018	
Never Married	-0.206	0.058	-0.067	***	-0.137	0.059	-0.064	*
Population group (ref. Black African)								
Coloured	-0.140	0.062	-0.030	*	-0.460	0.106	-0.077	***
Indian	-0.158	0.103	-0.021		(omitted)			
White	0.405	0.101	0.092	***	-0.606	0.410	-0.021	
Living Standard Measurement	0.224	0.017	0.263	***	0.154	0.021	0.202	***
Educational Attainment	0.090	0.009	0.188	***	0.078	0.008	0.281	***
Employment (ref. employed)								
Retired	-0.576	0.092	-0.111	***	-0.430	0.108	-0.121	***
Unemployed	-0.540	0.063	-0.169	***	-0.544	0.066	-0.257	***
Student	-0.908	0.089	-0.197	***	-0.978	0.087	-0.329	***
Labour Inactive	-0.474	0.093	-0.087	***	-0.478	0.097	-0.137	***
Number of obs.	7466				2604			
R-squared	0.303				0.257			
Root MSE	1.274				0.913			

Source: South African Social Attitudes Survey (SASAS) 2012-2017

Notes: 1. Data is weighted to be nationally representative of the adult South Africans; 2.The model controls for the provincial residence of respondents; and the survey wave; and 3. Signs *, **, *** indicates that the differences in mean scores are significantly different at the 5 percent (p<0.05), 1 percent (p<0.01) and 0.5 percent (p<0.001) level respectively.

Socio-economic indicators such as education, labour market and economic status were found to have salient associations with BIPT holding. It is evident from Table 8-2 that the LSM indicator had a weaker beta coefficient in the second model (*beta*=0.202; SE=0.021) compared to the first (*beta*=0.224; SE=0.017). On the other hand, educational attainment had a much larger correlation with the dependent in second model (*beta*=0.281; SE=0.008) when contrasted with the first (*beta*=0.188; SE=0.009). In other words, even controlling for a range of socio-economic variables, educational attainment was the most powerful predictor of formal financial product amongst the general public. Labour market status played a distinct role in predicting the number of formal financial product types an individual will own. Compared to all other labour market status groups, the employed were more likely to hold products than other groups and the size of the coefficient was greater in the first model in our table.

We found that the older an urban individual was, the more likely that person was to own numerous BIPTs. This type of relationship was not observed for rural dwellers. We were able to observe modest population group differences on BIPTs even when if we account for a range of economic characteristics. In contrast, we noted that belong to the white minority was moderately and positively associated (*beta*=0.092; SE=0.101) with holding multiple BIPTs in urban areas. It may be that companies selling financial

products are more likely to market their wares to the white minority and this explains this finding. Relative to the Black African majority, belonging to the Coloured community reduced the likelihood of holding BIPTs by a small margin. The size of this correlation is greater in the second model (*beta*=-0.077; SE=0.106) when assessed against the first (*beta*=-0.030; SE=0.062). This was an unanticipated finding and further research is required to understand this outcome.

8.2. Insurance and Funeral Cover

Insurance in some form has been the bedrock of economic activities for thousands of years. Insurance takes on particular importance in South Africa where people are vulnerable to a myriad of health and economic shocks. But how well insured is the average South African and how aware are South Africans of different insurance options available? In order to find an answer to these questions, respondents were read out a list of different insurance and funeral products. We found that only a minority of South Africans indicated that they did not possess at least one insurance or funeral cover product types. This shows the importance of this type of financial product in the lives of ordinary South Africans. For the purposes of this analysis, this list was subdivided into thee product categories: (i) short-term (asset) insurance; (ii) long-term (health) insurance; and (iii) funeral coverage. The current section is segmented into three subsections, each dealing with one category.

8.2.1. Short-Term Insurance

A trend analysis of public awareness and holding of different short-term insurance product types are displayed in **Table 8-3** for the period 2012-2017. The short-term insurance product that most South Africans are aware of was vehicle or car insurance with five-sevenths of the public aware of this product in 2017. Awareness of this product has risen over the 2012-2017 period by three percentage points and this can be paralleled with the growth in cellphone insurance over the same period. About half of the adult population is aware of household contents insurance and awareness of this short-term product weakened by six percentage points over the period. The short-term product that the public was the least aware of was homeowners insurance and public awareness of this product type also deteriorated over the period (albeit by a low margin).

Table 8-3: Awareness and Holding of Different Short-term Insurance Product Types

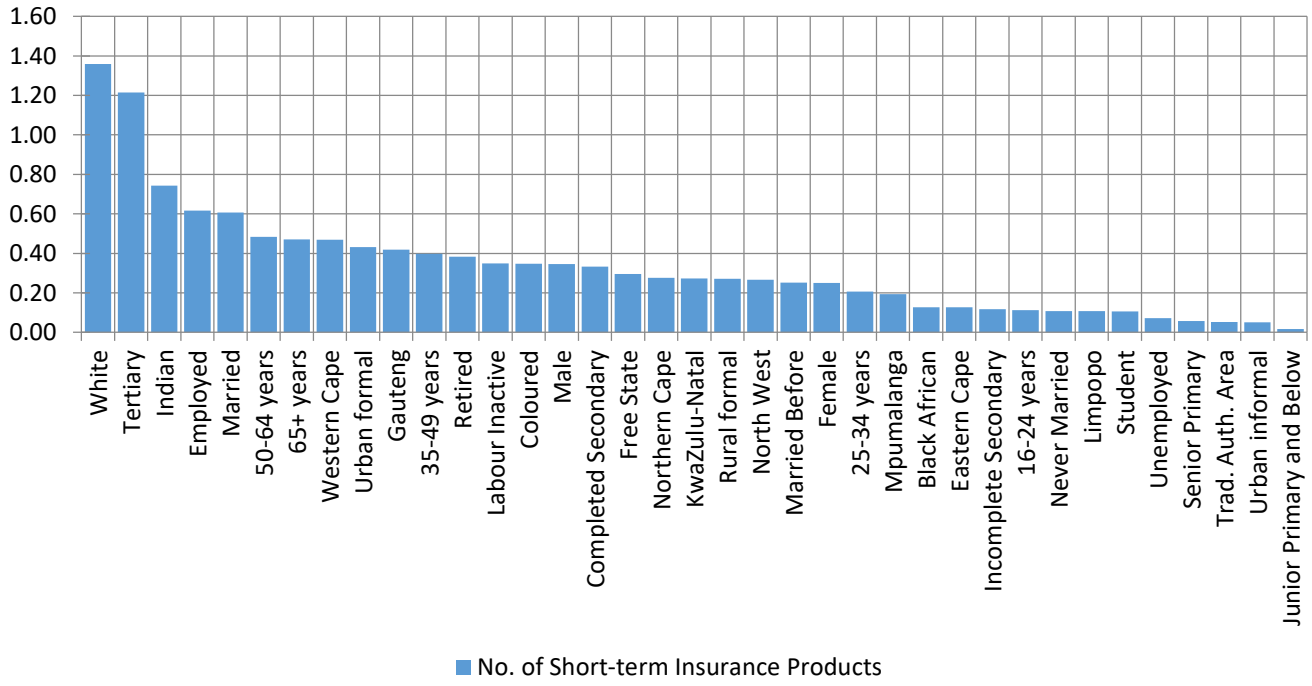
	HEARD OF PRODUCTS			HOLDING PRODUCTS		
	2012	2017	Diff.	2012	2017	Diff.
Vehicle or car insurance	65.9	69	3.1	12.2	9.7	-2.5
Household contents insurance	55.2	49.2	-6	10.8	5.4	-5.4
Homeowners' insurance on building	42.9	40	-2.9	7.4	3.4	-4
Cellphone insurance	59.5	65.2	5.7	8.5	7.3	-1.2

Source: South African Social Attitudes Survey (SASAS) 2012; 2017

Awareness of different insurance products is probably connected to asset ownership. Looking at public awareness of short-term insurance, we were able to confirm that an individual with more assets will probably be more aware of insurance policies designed to protect those assets. Using the LSM indicator as a measure of economic status, the SASAS research team found that those on the upper rungs of the economic ladder were much more likely to be aware of short-term insurance products than those further down the ladder. For instance, amongst those in the Low LSM group about two-fifths (44%) were aware of vehicle or car insurance compared to roughly nine-tenths (89%) of those in the High LSM group in 2017.

The majority of the adult population do not own short-term product types. Four-fifths of the general population had no short-term insurance products. The most widely held product type was vehicle insurance and only a tenth of the general public reported owning this type of product in 2017. Homeowners insurance was the least popular product in the table with less than four percent of the public holding this type of product. Looking at changes over the period, there seems to be a mild decline in ownership of this type of insurance product. The largest decline was on household contents insurance –we found that the portion of adult South Africans who held this type of product halved between 2012 and 2017. This may indicate a cost cutting response to the difficult financial environment of the last few years.

Figure 8-2: Mean Short-term Insurance Product Types Owned by Socio-Demographic Attributes (mean scores)



Source: South African Social Attitudes Survey (SASAS) 2012; 2017

To better comprehend insurance ownership in South Africa, we look at mean number of short-term insurance product types owned of particular sociodemographic subgroups in Figure 8-2. Educational attainment seemed to be associated with owning insurance products. The tertiary-educated, on average, owned 1.22 (SE=0.060) short-term products. Contrast this with the segment of those with completed secondary who owned, on average, 0.33 (SE=0.022) of such products. The role played by educational attainment may help explain the observed population group differences in Figure 8-2. Out of all the groups in the figure, we can note that white people were the most apt to own these kinds of product types. Being married was also associated with insurance ownership. The mean number of short-term product types held by married individuals was 0.61 (SE=0.027). This can be compared unfavourably to the mean number (M=0.11; SE=0.008) of product types owned by individuals who had never been married.

Interesting variations were noted between different provincial residents in Figure 8-2. The provinces with the lowest level of insurance product type holding in the country were the Eastern Cape and Limpopo. On average, Eastern Cape residents owned 0.13 (SE=0.019) short-term insurance product types while residents of Limpopo held, on average, 0.11 (SE=0.019) product types of this kind. In contrast, the provinces with the greatest level of insurance product type holding were the Western Cape and Gauteng. Product type ownership was relatively high, perhaps predictably, amongst the employed and low amongst other labour market groups. It could be that the stability provided by employment allows individuals to accumulate insurance product types.

8.2.2. Long-term Insurance

A trend analysis of public awareness and holding of different long-term insurance product types are displayed in Table 8-4 for the period 2012-2017. From the table it would appear that public awareness of some product types is greater than others. Of all the long-term product types under review, the most popular was life insurance. Roughly five-sevenths of South Africans had heard of this product type in 2017 and awareness of this product grew over the period. This indicates the growing attentiveness to this product type and the changing health concerns of the public. Medical aid was the second most popular product in Table 8-4 although awareness of this product had stagnated during the period under consideration. The long-term product type that people were least aware of was credit life insurance (i.e. insurance that pays off loans after death). Only two-fifths of the general population had heard of this type of insurance in 2017.

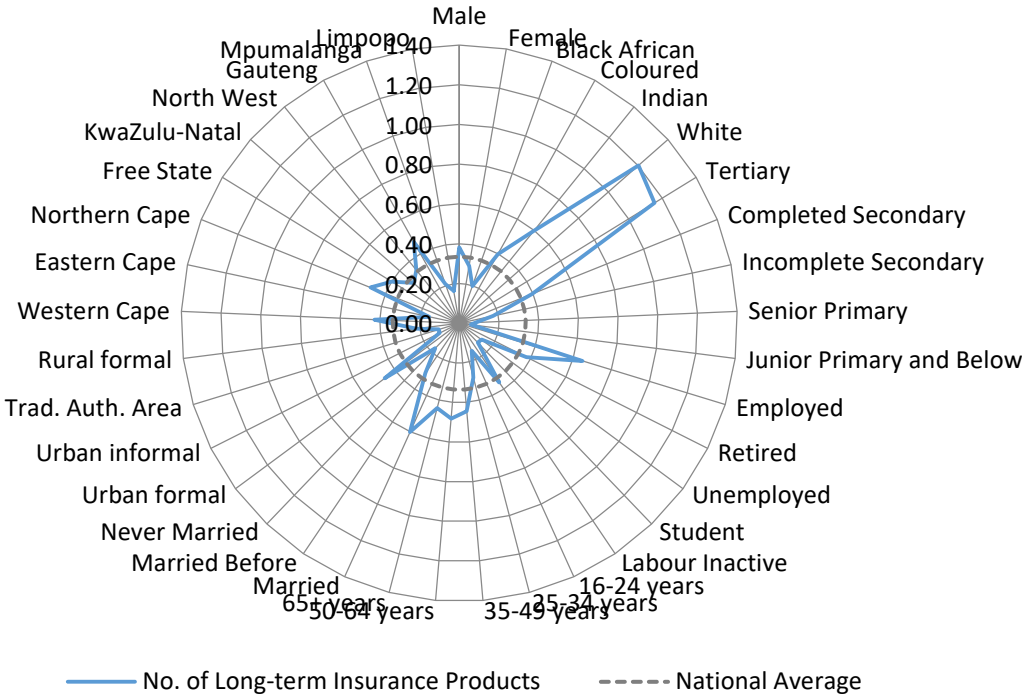
Table 8-4: Awareness and Holding of Different Long-term Insurance Product Types

	HEARD OF PRODUCTS			HOLDING PRODUCTS		
	2012	2017	Diff.	2012	2017	Diff.
Life insurance or life cover	63.7	68.2	4.5	16.2	14.5	-1.7
Insurance that pays your loan	37.3	32.8	-4.5	3.8	1.1	-2.7
Disability insurance or cover	42.7	41.4	-1.3	4.4	1.5	-2.9
Medical aid scheme	59.6	60.1	0.5	12.8	9.8	-3
Hospital cash plan	49.1	48.2	-0.9	4.3	2	-2.3

Source: South African Social Attitudes Survey (SASAS) 2012; 2017

In a fashion similar to what was observed in Subsection 8.2.1, awareness of long-term insurance products was found to be related to asset ownership. In fact an even starker level of difference was noticed when we look at some types of long-term insurance during the same period. Less than a quarter (23%) of the Low LSM group was aware of medical aid scheme compared to four-fifths of the High LSM group. The most widely held insurance in Table 8-4 was life insurance (or life cover) and this was followed by medical aid. The long-term product types that was the least popular in the country was disability insurance. Less than two percent of the population owns either of this type of product. Ownership of all long-term product types had declined over the period although the level of decline was quite marginal. To better understand long-term insurance product holding amongst different subgroups in South Africa, we depict the mean number of product types held in Figure 8-3.

Figure 8-3: Mean Long-term Insurance Product Types Owned by Socio-Demographic Attributes (mean scores)



Source: South African Social Attitudes Survey (SASAS) 2012; 2017

If we compare Figure 8-3 to Figure 8-2 in Subsection 8.2.1 then it would appear that the factors that determine ownership of short-term and long-term insurance product types are quite similar. In order to test this thesis, we turn to a multivariate regression analysis. The outputs of our regression analysis are portrayed in Table 8-5 where a positive coefficient indicates a greater likelihood to own more insurance product types. The first model looks specifically at short-term insurance products and the second at long-term insurance. The determinants of insurance product holding were not so different from what was observed on banking and investment in section 8.1. The Living Standard Measure, formal educational attainment and labour market status appear to be the primary drivers here.

Looking at the table, it is clear that the factors that drive short-term and long-term product type ownership are generally similar. However, some interesting differences could be observed. Our Living Standard Measurement indicator was a more robust determinant of short-term than long-term insurance product holding. A one unit change on this indicator resulted in a 0.631 (SE=0.042) change in the log odds in the first model compared to a change of only 0.466 (SE=0.036) in the second. Belonging to the Indian minority was correlated with owning more long-term but not short-term insurance product types. Even controlling for economic status and using Black African as the reference group, we noted that being a part of the Indian community reduced the log odds of owning multiple long-term insurance product types by 0.628 (SE=0.164). It is not clear why this should be the case although it may be that this type of financial product is not being effectively marketed to the Indian minority population.

Table 8-5: Ordered Logistic Regression on Long-term and Short-term Insurance Product Types Holding

	Short-term Insurance Products			Long-term Insurance Products		
	Coef.	**Std. Err.**	**Sig.**	**Coef.**	**Std. Err.**	**Sig.**
Female (ref. male)	-0.093	0.102		0.077	0.087	
Age	0.021	0.005	***	0.018	0.004	***
Marital Status (ref. Married)						
Married Before	-0.402	0.144	**	-0.261	0.124	*
Never Married	-0.644	0.127	***	-0.487	0.108	***
Population group (ref. Black African)						
Coloured	-0.034	0.157		0.099	0.134	
Indian	-0.240	0.167		-0.628	0.164	***
White	0.499	0.142	***	0.400	0.139	**
Geographic Type (ref. Urban formal)						
Urban informal	-0.092	0.371		-0.101	0.254	
Trad. Auth. Area	0.048	0.189		0.085	0.145	
Rural formal	0.192	0.244		-0.705	0.289	*
Living Standard Measurement	0.631	0.042	***	0.466	0.036	***
Educational Attainment	0.190	0.020	***	0.158	0.017	***
Employment (ref. employed)						
Retired	-0.905	0.176	***	-0.698	0.168	***
Unemployed	-1.181	0.158	***	-0.922	0.128	***
Student	-1.183	0.237	***	-1.105	0.198	***
Labour Inactive	-0.558	0.152	***	-0.558	0.128	***
Number of obs.	9965			9965		
Wald chi^2 (27)	1376.8			1180.9		
Pseudo R^2	0.297			0.214		

Source: South African Social Attitudes Survey (SASAS) 2012-2017

Notes: 1. Data is weighted to be nationally representative of the adult South Africans; 2.The model controls for the provincial residence of respondents; and the survey wave; and 3. Signs *, **, *** indicates that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

8.2.3. Funeral Coverage

In South Africa you can buy funeral cover from just about anywhere –churches, stokvels, undertakers, burial societies, banks and retailers. Danie Matthee, CEO of OUTsurance, has said that "Our research on funeral policies revealed that South Africans take out on average between three and four funeral policies in their lifetime, which is not ideal" (BusinessTeach 14/05/2018). Consumers are able to obtain cover but struggle to make the require payment and the cancellation rate is high. A trend analysis of public awareness and holding of different funeral cover product types are displayed in **Table 8-6** for the period 2012-2017. Amongst the different listed funeral product types, public awareness of funeral cover through an undertaker was the highest. Less than half the country was aware of funeral cover from a bank or an insurance company. Public awareness of cover through a stokvel or spaza shop was even lower. Levels of awareness of these products had not changed markedly over the period under review.

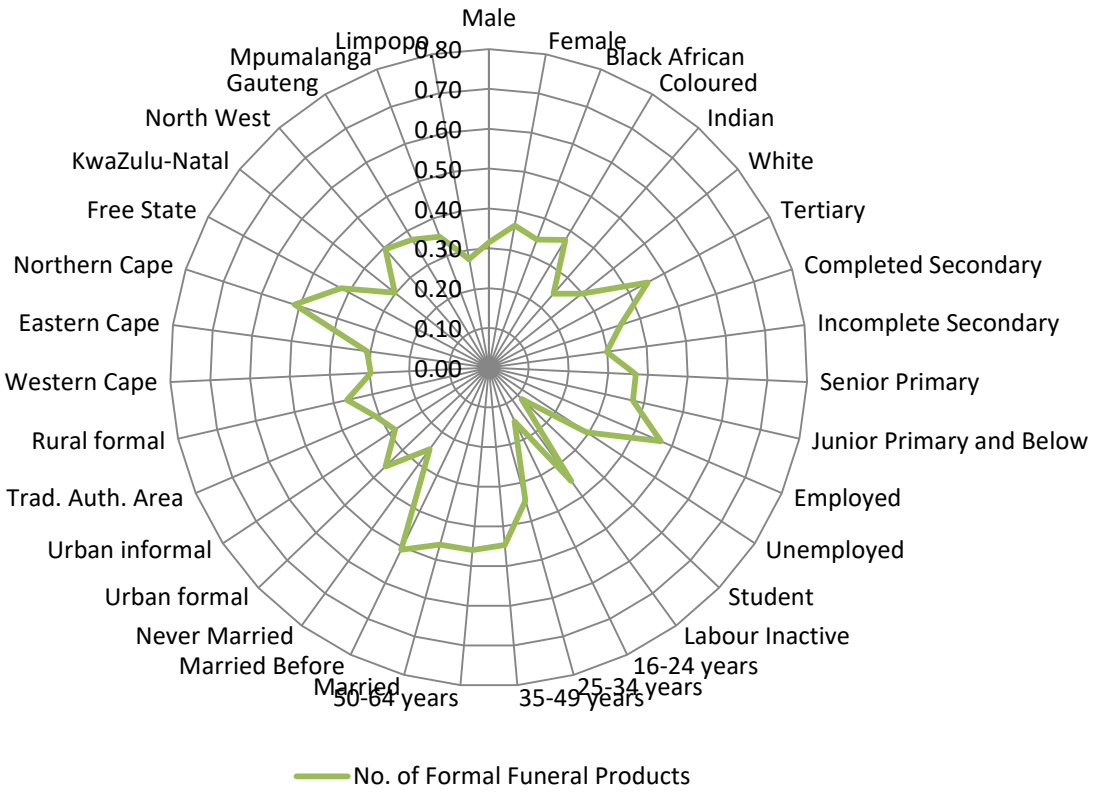
Table 8-6: Awareness and Holding of Different Funeral Product Types (multiple response table, percentages)

	HEARD OF PRODUCTS			HOLDING PRODUCTS		
	2012	2017	Dff.	2012	2017	Dff.
Funeral policy with a bank (including Post Bank)	49.0	43.9	-5.1	8.3	5.2	-3.2
Funeral cover through an undertaker	54.4	55.4	1	13.6	21.2	7.6
Funeral policy with an insurance company	46.2	43.6	-2.6	7.8	11.0	3.2
Funeral cover from an spaza shop or stokvel	20.5	20.2	-0.3	1.7	1.2	-0.4
Funeral cover from any other source	16.6	12.3	-4.3	1.7	1.1	-0.5

Source: South African Social Attitudes Survey (SASAS) 2012; 2017

In contrast to what was observed in the previous subsections, the average South Africa was far more likely to hold a funeral product of some sort. The mean number of formal funeral product types held in South Africa was 0.37 (SE=0.020) in 2017. Funeral coverage with an undertaker was the most widely held of all the funeral product types listed in the table. Interestingly, this represents an increase of 8 eight percent points since 2012. The portion of the adult public who have funeral cover through an insurance company has also grown although the scale of growth has been relatively smaller. During the period under review, funeral policies from banks have become less popular and the portion of the country holding such polices has fallen from 8% in 2012 to 5% in 2017. To better understand funeral cover holding in South Africa, we present the mean number of funeral cover product types held by selected subgroups in Figure 8-4.

Figure 8-4: Mean number of funeral products held, by socio-demographic attributes (percentages)



Source: South African Social Attitudes Survey (SASAS) 2012; 2017
Note: Figure excludes all respondents aged 65 and over.

We found that there was a distinct gender component to holding funeral cover. Women were found to be more likely than men to hold multiple types of funeral cover product types. It is clear that socio-economic status plays less of a role in usage of funeral cover. Although subgroups on the upper end of the socio-economic ladder were more likely to hold different funeral product types than those at the bottom of the ladder, the degree of difference was not as substantial as may have been expected. Interestingly, we noted that members of the white minority were just as likely to hold funeral cover as members of the Black African majority. Members of the Indian minority were the population group that was the least likely to hold multiple funeral cover product types. Some notable geographic differences were observed on funeral cover holding. Adult residents of the Free State (M=0.42; SE=0.029) and the Northern Cape (M=0.39; SE=0.0306) were the most likely to hold multiple types of funeral cover. Residents of Limpopo (M=0.28; SE=0.0216) were the least likely to have funeral cover.

9. Credit and Loan Behaviour

Government and financial watchdogs have been working hard to reduce indebtedness in South Africa. Household indebtedness as a share of disposable income has been on a downward trajectory since 2007. In June 2017 this metric was at its lowest level in a decade. The TransUnion Consumer Credit Index gauged overall consumer credit health to be improving with a score of 56 in the first quarter of 2018 according to a report from TransUnion (2018)[10]. This can be compared to 54 in the first quarter of 2012. Credit bureau data collected by the National Credit Regulator (2018) shows that the proportion of South Africans with impaired credit records has been falling since. At last count, the portion of credit consumers visible to the formal system that had an account overdue was 39% in 2017. The problem with the aggregate data from the country's financial institutions is that they are dominated by the relatively large and healthy debts of the affluent middle class. In other words, they hide the credit situation of the poor and working class majority. Many people in South Africa use forms of informal credit that does not show up in the NCR's dataset.

Accessing credit is an important component of financial activity, allowing individuals to start businesses, buy assets and recover from financial shortfalls. But many people in South Africa seem to feel the need to borrow at unsustainable levels –this kind of borrowing can permanently damage an individual's financial wellbeing. How ordinary people engage and use credit-related products is, therefore, an area of particular interest. As discussed in a previous chapter, most South Africans did not rely on formal saving products when faced with a financial deficit and this chapter will make a special effort to look at informal credit behaviours. This may suggest that few members of the adult public possess credit and loan products. Section 9.1 will look at public awareness and holding of certain credit and loan products while Section 9.2 will investigate self-reported credit ratings amongst the general population and Section 9.3 will appraise how individuals are keeping up with their credit commitments. Finally, Section 9.4 will examine subjective debt burden amongst different groups in the country.

9.1. Credit and Loan Product Types

The SASAS research team tracked the public awareness and usage of credit and loan products for the period 2012-2017. In order to ensure that our analysis is comprehensive, we made a distinction between informal and formal credit product types. During the SASAS interview, respondents were

[10] The CCI is a unique indicator of consumer credit health. It measures the ability of consumers to meet their credit obligations, given the constraints of their monthly household budget. The Index is based on a 100-point scale.

read a list of credit and loan product types and then participants were required to list which of them they had heard of before. A subsequent question asked participants if they currently own any of the product types listed. The results on public awareness and holding of any of the different credit and loan product types are shown in Table 9-1 . The subsection is separated into two parts. The first analyses how awareness and holding of different credit and loan product types has improved or worsened during the period 2012-2017. The second explores subgroup dissimilarities in product holding, looking at the determinants of individual predisposition to hold multiple product types in South Africa.

First, let us discuss public awareness of these product types. The general population has become more aware of credit or loan product types slightly over the period 2012-2017. A store card and a lay-bye and a loan from a micro-lender was two most common formal credit and loan products that South Africans are heard of. Interestingly, only about three-fifths (58%) of the general population had heard of a credit card. Hire purchase and vehicle (or car) finance were formal products that were familiar to more than half of the adult population. The share of the population that were aware of lay-bye credit has grown from 65% of the population in 2012 to almost three-quarters (73%) of the adult public in 2017. This shows the expansion of this type of formal credit in the country. In contrast, the degree to which the public is cognisant of hire purchase credit has declined by 5% between 2012 and 2017. Awareness of loans from micro-lenders has also weakened somewhat over the period under discussion. Given the potential for micro-loans to kick-start economic development –particularly via small enterprise loans –this finding is troubling.

Table 9-1: Awareness and holding of different types of credit and loan products, 2012 and 2017 compared (percentages)

	HEARD OF PRODUCTS			HOLDING PRODUCTS		
	2012	2017	Dff.	2012	2017	Dff.
Formal credit and loans						
Credit Card	61.3	57.9	-3.3	9.8	7.7	-2.2
Loan from a micro-lender	63.7	60.7	-3.0	6.1	4.2	-1.9
Vehicle or car finance through bank or dealer	47.1	44.8	-2.3	6.0	4.1	-1.9
Overdraft facility	36.5	32.7	-3.8	3.8	1.6	-2.1
Store card where you buy on account and pay later e	77.9	74.0	-4.0	22.2	20.8	-1.3
Home loan from a big bank	40.7	34.5	-6.2	4.3	1.8	-2.5
Lay-bye	65.0	73.7	8.7	9.6	15.6	6.0
Hire Purchase (HP)	50.7	45.7	-5.1	5.4	4.3	-1.1
Informal credit and loans						
Loan from friends or family	55.8	60.8	5.1	9.5	9.6	0.2
Loan from an informal money lender	52.7	52.8	0.0	1.1	1.5	0.4
Loan from a stokvel/umgalelo or savings club	41.3	47.0	5.7	2.3	3.9	1.6
Loan from local spaza	22.7	24.9	2.2	3.5	5.3	1.8
Store account with no card where you pay later	24.0	21.3	-2.7	1.4	1.4	0.0
Loan from an employer	16.1	13.8	-2.3	1.7	1.8	0.1

Source: South African Social Attitudes Survey (SASAS) 2012; 2015

A loan from friends and family was the informal credit and loan products of which South Africans are most aware of. Awareness this type of informal credit has grown in the last five years.

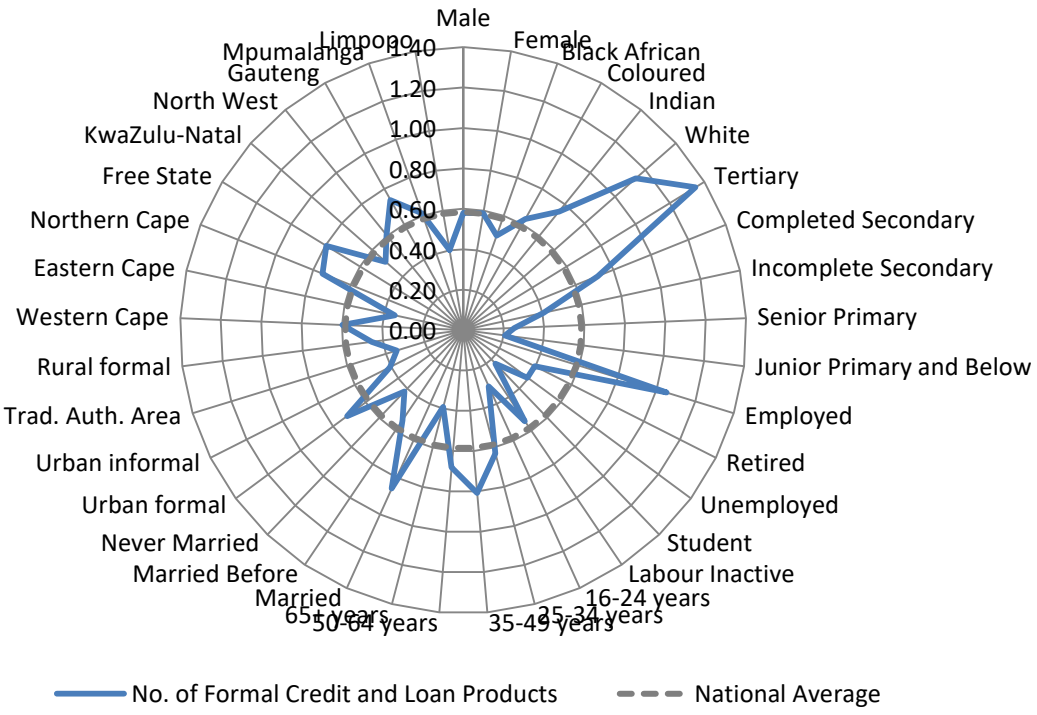
Most people were also aware of credit obtained through a saving club (e.g. stokvel). Public awareness of informal saving clubs (sometimes called *umgalelo*) has grown from about two-fifths of the population in 2012 to roughly half (47%) of adult South Africans in 2017. Public awareness of a loan from a local spaza shop has declined over

the period, falling from 24% of the general population in 2012 to 21% in 2017. Approximately half (53%) of the adult public were aware that credit could be obtained from a mashonisa or informal money lender. Cognisance of this type of informal credit has not changed amongst the adult public over the period.

In general South Africans do not hold formal credit and loan products. Only two of the product types listed in Table 9-1 was held by more than a tenth of the adult population. Store cards and lay-byes are the most widespread form of credit and loan product that was held by South Africans. Perhaps surprisingly, we found that less than a tenth of the adult public told interviewers that they held a credit card. The number of people holding formal credit and loan products has stayed the same over the period 2012 and 2017. However, the holding of many different formal product types has fallen. The largest decline was in the usage of overdraft facilities. Out of all formal products in Table 9-1, lay-byes were the only product to experience an upsurge in usage. The share of people using lay-byes has increased by 6% over the period –a relatively large expansion in usage.

Informal credit and loan products are used less than formal credit products. In 2017, only a fifth of the general population used informal credit and loan products compared to 38% who used formal products of this sort. However, the share of the public that uses informal products has grown by 4% between 2012 and 2017. A tenth of the adult public reported that they had a loan from friends or family and the share of the population with such a loan had not changed over the period. It was interesting to observe that few people reported having a loan from an informal money lender (e.g. mashonisa or loan shark), a local spaza or an employer. There may be some social desirability bias here –due to social stigma people could be disincline to admit to owning money to such an entity.

Figure 9-1: Holding of formal credit and loan products, by socio-demographic attributes (mean scores based on a 0-6 scale)



Source: South African Social Attitudes Survey (SASAS) 2012-2017

As is apparent from the Table 9-1, there is a huge disparity between awareness and holding of formal credit and loan products. The noted discrepancy may have arisen because only those on the upper rungs of the South African socio-economic ladder are able and willing to obtain multiple product types of this kind. In order to test the thesis that wealth is driving formal credit attainment, we look at the number of such product types across selected socio-demographic groups. Here we limit the number of formal credit and loans to the six outlined in Table 9-1. The mean numbers of credit and loan product types held are presented in Figure 9-1. Looking at the figure, we can see show distinct disparities in product holding between different socio-demographic groups. These disparities seem to be largely driven, unsurprisingly, by economic criteria.

The employed had a much higher mean score (M= 1.052; SE=0.031) than the unemployed (M=0.396; SE=0.017), the retired (M=0.396; SE=0.032), those outside of the labour market (M= 0.544; SE=0.041) or students (M=0.228; SE=0.024). Product holding seem to differ significantly by marital status with those who have never married (M=0.420; SE=0.016) reporting lower mean scores than their counterparts who were married (M=0.859; SE=0.027) or had been married before (M=0.538; SE=0.035). The largest differences in the figure were between different educational attainment groups. The tertiary-educated were much more likely to have many multiple credit and loan products than other groups. Given that this group is over-represented amongst the upper economic strata, this distinct difference may be explained by the observed differing levels of wealth held by the well-educated when compared to the less educated. To validate this thesis, we turn to multivariate regression techniques.

In our analysis, we looked at which factors were associated with an individual holding multiple credit and loan product types. Ordered logistic regression was selected as this is a common method used to model categorical outcome variables like the one under discussion. In Table 9-2 we see the coefficients and their standard errors of our regression model. The logistic regression coefficients give the change in the log odds of the outcome for a one-unit increase in the predictor variable. We note that, even controlling for economic status, educational attainment still had a statistically significant effect on the dependent. For a one year increase in completed formal schooling, the log odds of holding multiple formal credit and loan products increased by 0.114 (SE=0.004). It would appear that formal education makes people more likely to use credit and loan products even controlling for economic status. It could be that education improves understanding of credit markets and, therefore, makes people more likely to use products of this sort.

One of the most surprising findings to emerge from Table 9-2 concerned the population group differences observed. Relative to the Black African majority, belonging to the white (*r*= -0.295; SE=0.133) and Indian (*r*= -0.629; SE=0.136) minorities reduced the likelihood of holding formal credit and loan products. Given that the regression controlled for socio-economic status, it is not clear why these differences emerged. It may speak to a certain culture of frugality amongst these minority groups at least as far as it concerns acquiring credit and loan products. On the other hand, it could be that formal credit products are better marketed towards the Black African majority than the Indian and the white minority populations. Belonging to the Coloured community sis not have a statically significant effect on the dependent. Further research is needed to understand this unanticipated finding on product holding.

Table 9-2: Ordered logistic regression predicting the holding of formal credit and loan products over the 2012 to 2017 period (combined data)

	Coef.	Std. Err.	Sig.
Female (ref. male)	0.333	0.070	***

Age	0.011	0.004	**
Marital Status (ref. Married)			
Married Before	-0.288	0.105	**
Never Married	-0.448	0.085	***
Population group (ref. Black African)			
Coloured	-0.131	0.119	
Indian	-0.629	0.136	***
White	-0.295	0.133	*
Geographic Type (ref. Urban formal)			
Urban informal	-0.031	0.153	
Trad. Auth. Area	0.032	0.097	
Rural formal	-0.361	0.168	*
Living Standard Measurement	0.234	0.027	***
Educational Attainment	0.125	0.013	***
Employment (ref. employed)			
Retired	-1.425	0.151	***
Unemployed	-1.062	0.087	***
Student	-1.598	0.156	***
Labour Inactive	-1.047	0.110	***
Number of obs.	9952		
Wald chi^2 (27)	981.3		
Pseudo R^2	0.113		

Source: South African Social Attitudes Survey (SASAS) 2012-2017

Notes: 1. Data is weighted to be nationally representative of the adult South Africans; 2.The model controls for the provincial residence of respondents; and the survey wave; and 3. Signs *, **, *** indicates that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

9.2. Credit Rating

A credit rating is an appraisal of the credit risk of a potential debtor (in this case an individual). It helps creditors judge the ability of an individual to pay back a debt and is considered an implicit prediction of the likelihood of the debtor defaulting. Consequently, crediting ratings are a very important part of an individual's financial record in the modern world. Respondents in SASAS 2017 were asked to rate their credit rating as either good or bad. Most of the adult population said that their credit rating was good. Approximately one-fifth (21%) of the public stated that their rating was simply good and 24% claimed that it was very good. Only a quarter felt that their credit rating was about average and 14% said that they rating was bad. This indicates that many South Africans feel that they have good credit and are not in danger of being unable to access loans because of bad prior credit behaviour.

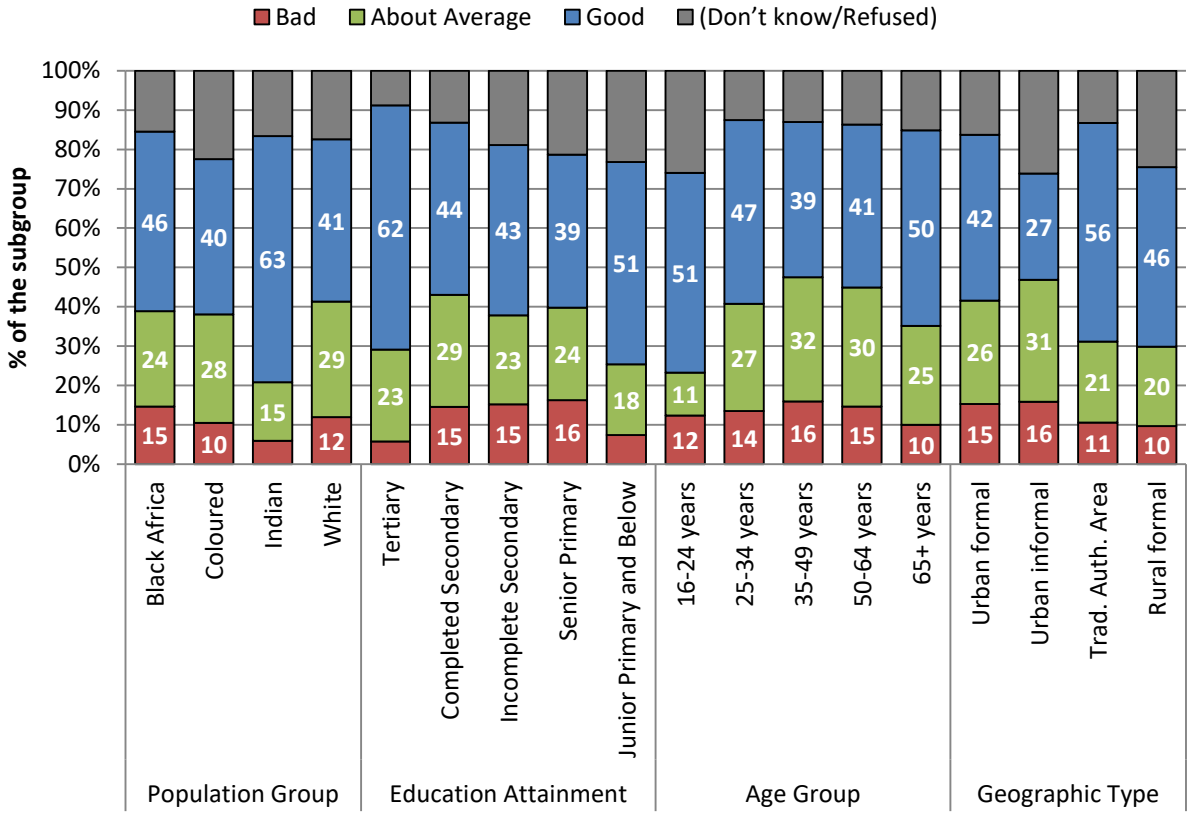
In order to discern how patterns of self-reported credit ratings differ across economic status, we depicted the perceived credit ratings of different Living Standard Measurement Groups in Table 9-3. As can be observed there are clear differences between those at the middle and those at the top of the country's economic pyramid. People in the middle were much more likely to say that their credit is bad than those at the top. Almost a fifth (19%) of those in the Lower and 14% of those in the Upper Middle LSM group described their credit as bad compared to just 9% of those in the High LSM group. This seems to suggest that those in the middle of the economic pyramid have enough resources to access credit but tend to struggle to maintain repayments. People in the Low LSM group do not have good access to credit and, therefore, tended to have better credit scores.

Table 9-3: Perceived credit ratings, by living standard level (LSM), 2017 (percentages)

	Low		Lower Middle		Upper Middle		High		Total	
	%	s.e.	%	s.e.	%	s.e.	%	s.e.	%	s.e.
Very bad	2	(0.95)	5	(1.19)	4	(0.86)	3	(0.93)	4	(0.55)
Bad	5	(2.01)	14	(2.14)	10	(1.44)	6	(1.65)	10	(0.97)
About average	12	(3.32)	20	(2.23)	28	(2.04)	26	(2.59)	25	(1.28)
Good	32	(6.51)	16	(1.81)	20	(1.76)	25	(2.58)	21	(1.16)
Very good	29	(5.68)	28	(2.57)	21	(1.90)	26	(2.70)	24	(1.30)
(Don't know)	18	(5.44)	16	(2.04)	14	(1.57)	10	(2.05)	14	(1.04)
(Refused)	2	(1.76)	1	(0.48)	3	(0.60)	4	(1.16)	3	(0.42)

Source: South African Social Attitudes Survey (SASAS) 2017
Note: Standard errors in parenthesis.

Figure 9-2: Perceived credit ratings, by selected subgroups (percentages)



Source: South African Social Attitudes Survey (SASAS) 2017

It would be instructive to consider how self-reported credit ratings varied across four other important socio-demographic fault lines in South Africa: (i) population group; (ii) educational attainment; (iii) age group; and (iv) geographic status. Results are displayed in Figure 9-2. The Black African majority was more likely to report a healthier credit rating than minority South Africans. However, significant differences were noted amongst minorities with a higher proportion of Indian (63%) minority reporting their credit rating as good. This compares unfavourably with what was observed for the Coloured (40%) or white (41%) minorities. There was an educational attainment gradient observed in Figure 9-2. More than three-fifths (62%) of tertiary-educated adults described their crediting rating as respectable. Only 44% of the completed secondary, 43% of the incomplete secondary and 39% of the senior primary education attainment groups gave a similar answer.

Variations in self-reported credit scores amongst different geographic groups were quite stark. People living in formal areas reported significantly better crediting ratings than those in informal urban spaces. Less than two-sevenths (27%) of informal urban dwellers described their crediting rating as reputable compared with 42% of those dwelling in formal urban areas. Finally, it is worth reflecting on age group differences in self-reported crediting ratings. Of all age cohorts, we found that people aged 35-49 had the worse self-reported rating. More than a seventh (16%) of this cohort told fieldworkers that their credit was bad, 32% said that their credit was about normal and 39% that it was good. This may be a life cycle effect whereby individuals at this stage are struggling to access good credit rates due to debt they had accumulated earlier in life.

9.3. Struggling to Keep Up with Commitments

Financial regulators in South Africa are worried that financial consumers are struggling to deal with debt and keep their heads above water. To better understand how people in the country feel about their credit commitments, respondents in SASAS 2017 were asked if they were keeping up with their commitments at the moment. A significant share of the adult population (46%) told fieldworkers that they did not have commitments of that nature. Of those who had commitments of this type, most said that they struggled to keep up. About a fifth (19%) of the adult public reported that they were keeping up but it was a struggle sometimes. Nearly a tenth (9%) felt that it was a constant struggle to keep up. Almost a tenth (8%) indicated that they had either fallen behind with some or many commitments. Less than a seventh (13%) of the general population thought that they were keeping up without difficulties. It would appear that many in the country are stressed and anxious about their current credit commitments.

Table 9-4: Struggling to keep up with credit commitments, by living standard level (LSM), 2017 (column percentages)

	Low		Lower Middle		Upper Middle		High		Total	
	%	s.e.	%	s.e.	%	s.e.	%	s.e.	%	s.e.
Keeping up without any difficulties	3	(1.73)	5	(1.06)	9	(1.24)	28	(2.57)	13	(0.91)
Keeping up but it is a struggle sometimes	8	(2.70)	13	(1.89)	19	(1.68)	28	(2.73)	19	(1.15)
Keeping up but it is a constant struggle	1	(0.98)	8	(1.42)	12	(1.60)	6	(1.40)	9	(0.89)
Falling behind with commitments	1	(0.85)	4	(0.92)	6	(0.89)	3	(0.96)	4	(0.52)
Having real financial problems	5	(2.02)	4	(1.04)	4	(0.97)	2	(0.60)	4	(0.54)
Don't have any commitments	76	(4.77)	61	(2.69)	46	(2.28)	28	(3.01)	46	(1.50)
(Don't know)	5	(2.78)	2	(0.64)	2	(0.48)	2	(0.65)	2	(0.33)
(Refused)	1	(0.68)	3	(1.09)	2	(0.46)	5	(1.05)	3	(0.45)

Source: South African Social Attitudes Survey (SASAS) 2017
Note: Standard errors in parenthesis.

The data shows that it is not the poor who are finding it very difficult to manage their credit commitments adequately. The poor tend not to have credit commitments and are, therefore, less likely to report having problems meeting those commitments. Almost three-quarters (76%) of those in the Low LSM group said that they did not have credit commitments in late 2017. This can be compared to 61% of the Lower Middle, 46% of the Upper Middle and 28% of the High LSM groups. It is those on the upper rungs of the economic ladder that struggle the most to meet their credit obligations. Approximately a fifth (21%), nearly a third (31%) and 34% of the Lower Middle, Upper Middle and High LSM groups respectively reported struggling to meet commitments. This can be

compared with 9% of their peers in the Low LSM group. It would appear that it is the middle class who is more likely to access credit and, therefore, more likely to be mired in difficult a credit situation. The tendency of the middle LSM groups to fall into unsustainable credit traps is consistent with what was observed in Section 9.2.

The research team detected unusual population differences on credit behaviour. Of all four population groups, adults belonging to the Indian minority were least likely to report trouble keeping up with credit commitments. Just looking at those who had commitments of this type, 59% of the Indian population said that they were keeping up without problems. In contrast, only 21% of the Black African, 23% of the Coloured and 37% of the white population groups gave the same answer. What can account for this unusual disparity? To better understand what factors are driving individuals to struggle to fulfil their credit commitments, we now turn to a multivariate regression analysis. Ordered logistic regression was selected as this is a common method used to model categorical outcome variables. In Table 9-5, the log odds of the outcome are modelled as a linear combination of the predictor variables.

Table 9-5: Ordered logistic regression predicting difficulty in keeping up with credit commitments

	Coef.	Std. Err.	Sig.
Female (ref. male)	0.169	0.151	
Age	0.005	0.007	
Marital Status (ref. Married)			
Married Before	0.210	0.264	
Never Married	0.395	0.191	*
Population group (ref. Black African)			
Coloured	0.038	0.206	
Indian	-0.981	0.293	**
White	-0.004	0.233	
Geographic Type (ref. Urban)	0.120	0.230	
Living Standard Measurement	-0.256	0.059	***
Educational Attainment	-0.109	0.031	***
Employment (ref. employed)			
Unemployed	0.240	0.183	
Labour Inactive	-0.378	0.227	
Number of obs.	1515		
/cut1	-4.035	0.620	
/cut2	-2.096	0.603	
/cut3	-0.961	0.605	
/cut4	0.011	0.620	

Source: South African Social Attitudes Survey (SASAS) 2017

Notes: 1. A positive coefficient indicates a failure to keep up with bills and commitments; 2. Data is weighted to be nationally representative of the adult South Africans; 3.The model controls for the provincial residence of respondents; and the survey wave; 4. Those who have no bills or credit commitments are excluded; and 5. Signs *, **, *** indicates that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

Controlling for a range of demographic variables, economic status was a statistically significant predictor of the dependent. For every one unit change in the Living Standard Measurement, the log odds of struggling to keep commitments were reduced 0.256 (SE=0.059). Even accounting for economic status, formal schooling was also found to have a negative association (r= -0.109; SE=0.031) with the dependent. This seems to suggest that education helps people avoid unreasonable credit

burdens. Even controlling for a range of other socio-economic characteristics, belonging to the Indian population group was negatively associated with the dependent in Table 9-5. Relative to the Black African group, the log odds of an individual keeping up with financial commitments improved by 0.981 (SE=0.293) if he/she belonged to the Indian minority. This finding was unanticipated and may suggest cultural practices around debt management which are unique to the Indian community. Further investigation into this intriguing result is needed.

9.4. Subjective Debt Burden

In 2015 the SASAS research team introduced a new question on debt burden to better understand how ordinary South Africans saw their debt level. We found that a fifth of the population in late 2015 thought that their debt level was too great. This was identical to what was found in 2017 and suggests that the general public does not feel that their level of indebtedness has changed significantly over the period. The SASAS research team expected that responses to this question on financial debt will diverge along distinct economic fault lines in South African society. Scholarship suggests that appraisal expectations pressure class groups to consume at levels beyond their means (see, for example, Burger et al. 2014 James, 2014). Consequently, we expect differences by economic class to emerge in our analysis of self-reported debt burden. We portrayed the subjective debt burden of different Living Standard Measurement Groups in **Table 9-6**. We are able to see significant differences between the country's different economic groups.

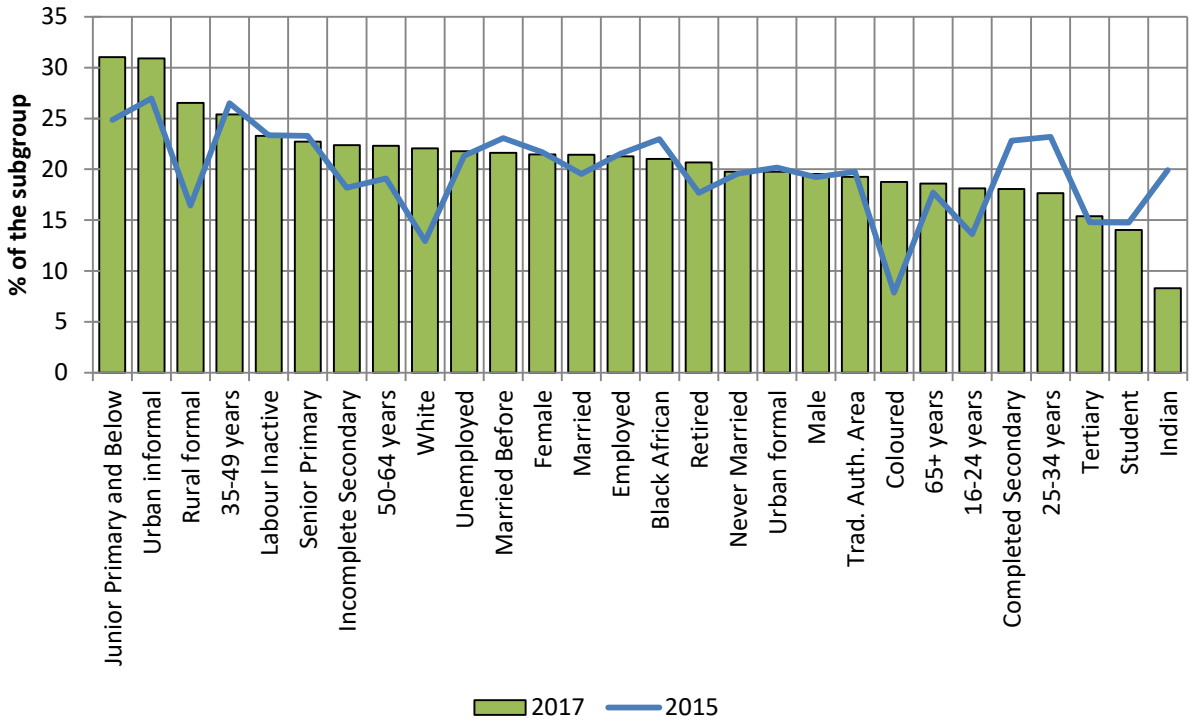
Table 9-6: Subjective debt burden, by living standard level (LSM), 2017

	Low		Lower Middle		Upper Middle		High		Total	
	%	s.e.	%	s.e.	%	s.e.	%	s.e.	%	s.e.
Completely agree	2	(3.64)	5	(1.25)	4	(0.95)	3	(0.69)	4	(0.59)
Agree	5	(6.09)	14	(1.81)	10	(1.65)	6	(1.91)	10	(1.03)
Neither Nor	12	(2.16)	20	(1.95)	28	(1.48)	26	(2.21)	25	(1.01)
Disagree	32	(5.54)	16	(2.57)	20	(2.18)	25	(3.00)	21	(1.42)
Completely disagree	29	(5.75)	28	(2.65)	21	(2.04)	26	(2.81)	24	(1.37)
(Do not know)	18	(3.25)	16	(0.54)	14	(0.61)	10	(0.61)	14	(0.36)
(Refused)	2	(0.68)	1	(0.85)	3	(0.61)	4	(0.63)	3	(0.39)

Source: South African Social Attitudes Survey (SASAS) 2017
Note: Standard errors in parenthesis.

We found that 35% of those in the Low LSM group agreed that their debt load was too high compared to 21% of those in the Lower Middle, 20% of the Upper Middle and 14% of those in the High LSM group. This suggests that, despite evidence of bad credit behaviour amongst the middle LSM groups observed in the previous sections, it is the poor that suffer the most from bad debt in South Africa. These results show the need for urgent action on this important issue. We wanted to better understand which other groups in the country reported high debt burdens. Figure 9-3 shows the portion of key socio-demographic groups who told fieldworkers that their debt load was too great in both 2015 and 2017. The level of variation between the subgroups was less than may have been expected although clear subgroup differences could be observed in the figure.

Figure 9-3: Share agreeing that their debt burden was too high, by socio-demographic attributes, 2015 and 2017 compared (percentage, ranked high to low based on 2017 results)

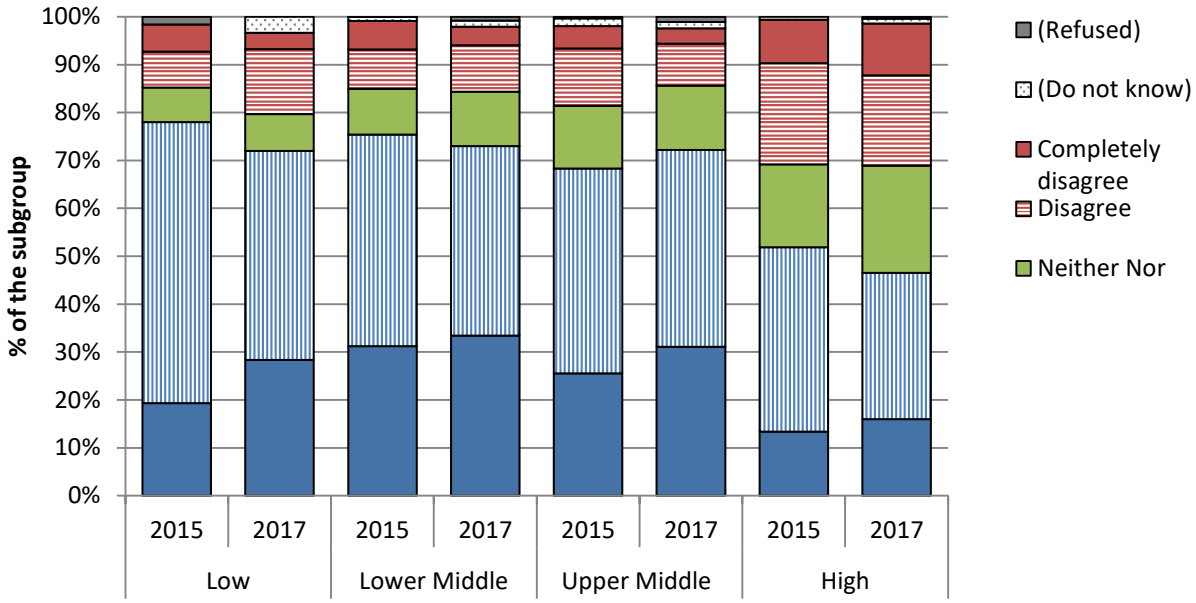


Source: South African Social Attitudes Survey (SASAS) 2015; 2017

The groups that were least worried were members of the Indian minority and the tertiary-educated. In fact there seems to be a steep educational attainment gradient in the figure. More educated people were found to be much less apprehensive about debt than their less educated counterparts. Of all the labour market groups included in Figure 9-3, students worried least about debt. This may be because many students were not indebted. Those outside the labour market were found to be anxious about their debt level and were, unexpectedly, more concerned about this issue than their employed or unemployed counterparts. Of all the population groups under consideration, members of the Coloured minority were the most troubled about their debt level. It was interesting to note that people who lived in urban informal and commercial farms were more anxious about their debt level than those who resided elsewhere. This may be related to the precarious credit markets that service people who live in these spaces.

In Figure 9-3 we can see how levels of concern over debt changed between 2015 and 2017 across important fault lines in South African society. We can observe that concern about debt amongst the Coloured population changed dramatically between 2015 and 2017, becoming much greater over this short period. A similar trend was observed amongst the white minority. In the two years under review, levels of apprehension over debt also increased amongst commercial farm residents. It may be that certain credit operators are targeting these rural communities and this may explain the observed changes we see here. Amongst the Indian minority, on the other hand, anxiety over debt decreased substantially during the same period. Further research is required to better understand the changes that we have observed over this short period.

Figure 9-4: Individual public evaluations of financial position, by living standard level (LSM), 2015 and 2017 compared (percentages)



Source: South African Social Attitudes Survey (SASAS) 2015 and 2017

It could be argued that subjective debt burden was correlated strongly with how an individual felt about their general financial situation. In order to understand if this was true, we use an item from SASAS on whether respondents felt their financial situation limits their ability to do the things that are important to them. This question was introduced in 2015 and was repeated in 2017. About two-thirds of the general population said that they agreed that their financial situation limited their personal liberty. About a seventh said that they either agreed or disagreed and about a fifth reported they did not agree with the statement. Examining the association between subjective financial position and self-reported debt burden, we found only a weak correlation between these variables. This seems to indicate that although debt burden has an impact on an individual's subjective fiscal situation, is not a strong predictor of financial freedom.

If debt burden does not have a strong correlation with subjective fiscal situation, it is important to understand what factors drive an individual's perceptions of their monetary freedom. It seems obvious that socio-economic status would have a significant impact on how people answered this question. Figure 9-4 shows how different living standard groups replied to this query and it would appear that our thesis was validated. Members of the High LSM group were, on average, much more likely to disagree that their economic situation limited them in what they want to do than middle and low LSM groups. To understand how living standard influences subjective financial position we used a multivariate analysis to examine the specific effect of economic status on self-reported financial freedom[11]. The log odds of feeling limited by your financial situation was reduced significantly (r=0.228; SE=0.032) by a one unit change in our living standard indicator. In other words, when holding other factors constant, economic status was strongly correlated with financial freedom. This seems to confirm our thesis that economic status is driving perceptions of fiscal liberty in South Africa.

[11]Subjective financial situation is captured on a five-point categorical scale and as a result we used an ordered logistic regression analysis. In this analysis we included controls for gender, population group, and provincial residence as well as a range of other socio-demographic factors.

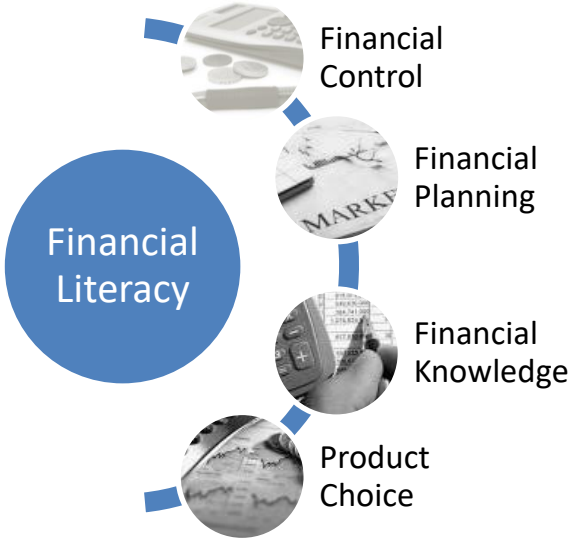
10. Financial Domains

Following the 2010 Financial Pilot study conducted by the SASAS research team, there was a growing concern about the average South African's financial understanding and their fiscal capacities. The 2010 study confirmed existing apprehensions about low financial literacy among the public and provoked a call from the FSCA for a single measure with which to comprehensively gauge the financial literacy of the public. This single score could be used to measure progress on consumer education interventions or to identify vulnerable groups. In 2011, the SASAS research team was commissioned to create a single financial literacy score that would encompass all the indicators across the four domains discussed in the opening chapter of this report. Using the SASAS data available to us, we were able to construct domain scores for the period 2012-2017. The conceptualisation of these domains, as well as a detailed description of how the different domains were constructed, will be outlined in Section 10.1. The outputs on each domain are then presented in Section 10.2. In this second section we will look at the correlates that predict financial literacy in the country.

10.1. Conceptualisation and Analytical Outline

In 2010, the research team developed a conceptual framework for measuring financial literacy. This framework was based on existing work conducted by OECD through their INFE Initiative. The OECD INFE definition of financial literacy states that financial literacy is comprised of a combination of awareness, knowledge, skills, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing. This definition is in line with the work of financial education scholars (for a review, see Lusardi and Mitchell 2011). Measuring financial literacy requires, therefore, a multi-dimensional score that would incorporate financial awareness, knowledge, skills, attitude and behaviour. This, the SASAS research team determined, demanded a sophisticated multifaceted methodological approach. The methodology adopted subdivided financial literacy into four domains. These domains are: (a) financial control; (b) choosing and using appropriate financial products; (c) financial planning; and (d) knowledge and understanding.

Figure 10-1: Conceptual framework for measuring financial literacy



The financial literacy score designed by the OECD INFE was a comprehensive measure designed to be replicable and comparable. The methodology used to create the score is such that (should there be sufficient information) another researcher would be able to achieve the same results using the same data. The current OECD INFE methodology has received internationally renowned from scholars and policymakers and is known for its well-researched criteria and thoroughly tested instruments (Atkinson and Messy 2011). Utilising this methodology the SASAS research team was able to monitor financial literacy with a very manageable and fairly low quotient of questions. This approach allowed us to provide cost-efficient high quality data to the FSCA. By using this methodology our analysis is comparable at a cross-national level. The intention was for the FSCA to monitor financial literacy on an annual basis (or at least periodically). Following the instructions of the FSCA, the SASAS research team has produced financial literacy data using this methodology for the period 2012-2017.

The OECD INFE methodology adopted specifies certain questions to be used in order to be able to determine scores on the following four domains: (i) Financial Control; (ii) Financial Planning; (iii) Product Choice; and (iv) Financial Knowledge. These questions have been successfully employed in a number of countries to discern financial literacy. In order to extract the data required for the creation of the index under review, and following the theoretical framework outlined above, the SASAS research team depended on the questions that the OECD isolated as important for the four domains. An additional advantage of using these questions was that they have been tested for analytical soundness, measurability and relevance to the phenomena being measured and their relationship to each other. The use of these questions, therefore, ensures that the data produced has international comparability and comparability over time.

Using the framework developed by the OECD, four domain scores were created to measure financial literacy in South Africa. A set of 22 core indicators spread across each of the aforementioned domains was then developed to accurately measure financial literacy. A number of questions were needed to produce these indicators. For the exact wording of these questions, please refer to Appendix C. These indicators sought to capture multiple forms of financial capability and knowledge. These indicators have been piloted in 12 low, medium and high-income countries exhibiting diverse characteristics (for further discussion, see Atkinson and Messy 2011). The construction of the four domains will now be outline subsequently in the four subsections below.

10.1.1. The Financial Control Domain

An individual with financial control is defined as someone who tends to be involved in daily financial decision-making processes, exhibits a careful approach to personal finances, prefers saving over spending money and lives in a household that budgets and is able to make ends meet. In order to measure financial control six indicators were used, the indicators and exact questions used are depicted in Box 1.

Information for Indicators 1 and 2 were captured as dichotomous variables (i.e. 1= personal involved in money management; otherwise =0 for Indicator 1 and 1 = presence of household budget otherwise =0 for Indicator 2). Answers to the questions on Indicator 3 were each captured using a five-point scale which ranged from 1 "Always" to 5 "Never". These responses were reversed and then summed together to produce a single score. Responses to Indicator 4 were coded as a three-point categorical variable with 1 representing ‘in debt due to financial shortfall’, 2 ‘not in debt due to financial shortfall’ and 3 ‘did not experience financial shortfall’. Finally, answers to Indicator 5 were captured using a five-point Likert scale with 1 representing "strongly agree" and 5 "strongly disagree". Indicator 5 was recoded in order to reverse this scale.

Box 1: Questions used to create the Financial Control Domain

Financial Control Domain		
1	Personal Involvement in Daily Household Money Management	Q**1**
2	Presence of a Household Budget	Q**2**
3	Considered Approach to Personal Finances * Careful Spending * Paying Bills Timeously * Monitoring Financial Matters	 Q**3** Q**6** Q**5**
4	Making Ends Meet * Making Ends Meet * Main Coping Response	 Q**7** Q**9**
5	Preference for Spending or Saving	Q**13**

10.1.2. The Financial Planning Domain

Good financial planning constituted setting financial goals and working hard to meet them, preferring to save for the long-term and worrying about tomorrow, having emergency funds in place and having saved recently (through a formal savings product or informal means). Financial planning was measured using five indicators which are displayed in Box 2.

Box 2: Questions used to create the Financial Planning Domain

Financial Planning Domain		
6	Tends to set and strive to achieve long term financial goals	Q**6**
7	Has emergency funds or rainy day funds	Q**10**
8	Preference for spending money vs long-term saving	Q**11**
9	Living for today vs long term provisioning	Q**12**
10	Saved money in last 12 months	Q**16**

Responses to Indicator 6 are measured using a five-point scale with 1 representing "Always" and 5 "Never". Indicator 6 was recoded in order to reverse this scale. Answers to Indicator 7 were captured dichotomously (1=had emergency funds 0=otherwise). Information captured was from Indicator 8 and 9 using a five-point Likert scale with 1 representing "strongly agree" and 5 "strongly disagree". Indicator 8 and 9 (like Indicator 6) were recoded in order to reverse this scale. Finally, responses to Indicator 10 were coded to be dichotomous and with 1 representing having saved through a saving product in the last 12 months and 0 representing have not done so.

10.1.3. The Product Choice Domain

The product choice domain measures individual (A) awareness of different types of banking, credit/loan, savings and investment, and insurance products; (B) holding of these product types; (C) confidence in understanding of product needs and propensity to undertake research before choosing products; (D) experiences of regrets about recent financial product decisions. To create the domain score a number of different indicators were used. In order to understand product awareness and holding, respondents were asked if they had heard of and were holding any of 50 selected financial product types. The list of products was subdivided into four categories (banking, credit and loan, investment and savings, and insurance) and included both informal as well as formal products of these types. Subsequent questions on decision-making behaviour and experience were also included in this domain.

The indicators used to measure the product choice domain are included in Box 3. Responses to the questions in Indicators 11 and 12 were converted into 0-100 scores based on the number of financial products that an individual was aware of and was holding. Answers to the questions on Indicator 13 were captured using a four-point scale with 1 representing "totally agree" and 4 "totally disagree". Indicator 13 was recoded in order to reverse this scale. Information for the questions on Indicator 14 was recoded into a 0-1 variable where 1 represented having not regretted a financial decision[12] in a recent period.

Box 3: Questions used to create the Product Choice Domain

Product Choice Domain		
11	Product awareness * Banking Products * Credit and Loan Products * Investment and Savings Products * Insurance Products	 Q**18** Q**20** Q**22** Q**24**
12	Product holding * Banking Products * Credit and loan Products * Investment and Savings Products * Insurance Products	 Q**19** Q**21** Q**23** Q**25**
13	Financial product decision-making * Have Clear Idea of Product Need * Informed Product Choice	 Q**26** Q**27**
14	Experience of regret about recent financial product choice * Does not Regret any Key Financial Decisions Made in Last Year * Did not Pay for an Unsuitable Product in Last Five Years	 Q**28** Q**29**

10.1.4. The Financial Knowledge Domain

Financial knowledge was defined as an individual's knowledge of numeracy and their understanding of a range of financial concepts. Each question was converted into a dichotomous variable with 1 representing a correct answer and 0 otherwise. The exact question numbers used are displayed in Box 4. In order to discern the data required for the creation of the domains, all the indicators listed in the domain tables were transformed to render them comparable. Each indicator was converted to a 0-100 scale to enable the authors to compare and plot findings of the various indicators on a single platform.

For SASAS round 2012, 2013 and 2015, only questions 15-22 were used. However, in SASAS 2017, the researchers added two new questions (i.e. 23 and 24). For purposes of comparison between waves, the research team combined questions 15-22 into the unadjusted domain score. This combined index was then converted into a 0-100 score. The higher the score the higher the financial knowledge and 0 represents the lowest possible score. The research team also created an adjusted domain score which included questions 15-24. This adjusted domain score had a similar range to its adjusted counterpart.

Box 4: Questions used to construct the Financial Knowledge Domain

Financial Knowledge Domain

[12] The different types of financial decisions were (i) savings or investments, (ii) taking out a home loan, (iii) taking out a loan or credit agreement, (iv) insurance of any type, (v) tax and (vi) managing credit/debt.

15	Basic mathematical division	Q**34**
16	Effects of inflation	Q**35**
17	Interest paid on loans	Q**36**
18	Interest on deposits	Q**37**
19	Compound interest	Q**38**
20	Risk of high return investments	Q**39**
21	Effects of inflation on cost of living	Q**40**
22	Risk diversification	Q**41**
23	Credit rates	Q**42**
24	Interest loan determinant	Q**43**

10.2. Results

The research team was interested in understanding of the determinants of financial literacy. In particular, the team wanted to understand if there may be different predictors of financial literacy at different stages of the life cycle. Numerous studies have confirmed that parental socialisation and formal education (particularly with respect to money) exert a positive influence on a child's efforts to acquire financial knowledge and skills (see, for example, Lyons, Rachlis, and Scherpf 2007; Shim et al. 2009; Jorgensen and Savla 2010). The theory of consumer socialisation proposes that individuals develop consumer skills and knowledge by interacting with various socialisation agents (such as peers, work and school)[13]. The theory of consumer socialisation, in other words, seems to suggest that the determinants of financial literacy will change depending on the life stage of the individual.

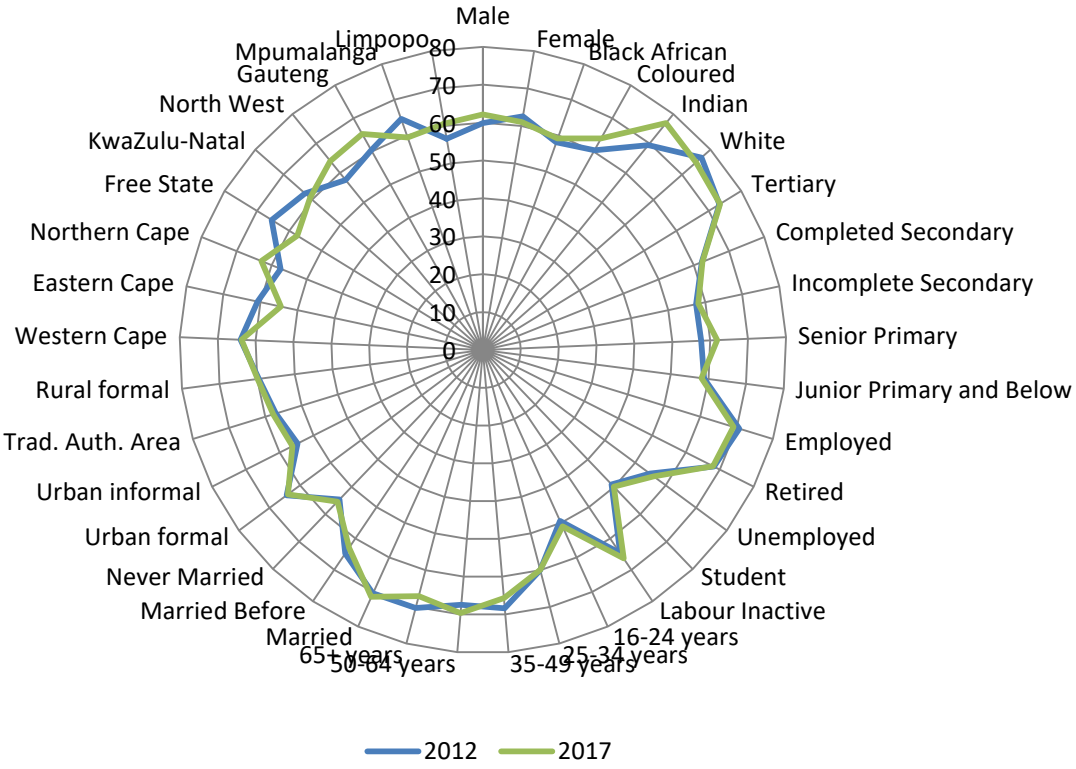
In order to test the hypothesis outlined above, we need to examine whether the predictive power of certain determinants of financial behaviour, knowledge and attitudes vary depending the age of the individual. We conducted various tests for each dimension of financial literacy and then for the overall financial literacy index. First, we describe how our different types of financial literacy vary across important socio-demographic subgroups. Then we used a multivariate (linear) regression approach to test whether determinants of financial acumen were dissimilar regardless of age group. For each multivariate test, three models were produced –one for each stage of the life cycle. The outputs of this multivariate analysis are presented in Appendix B. The goal is to better understand how people acquire financial literacy at different stages of their adult lives.

10.2.1. Financial Control

The national mean financial control domain score was 62 (SE=0.610) in 2017. This score has remained relatively static since 2012 when the national mean on this domain was 61 (SE=0.594). The average across the period 2012-02017 was 62 (SE=0.200). After examining the skewness (-0.170) and kurtosis (2.272) of the domain distribution, we confirmed that the distribution is symmetric with well-behaved tails. The distribution is clustered towards the right of the domain index's mid-point and only 15% of the general population scored below 40 on the financial control domain in 2017. This suggests that, on the whole, adult South Africans tend to be involved in daily financial decision-making, take a conscientious approach to their finances and live within their means. It would be instructive to investigate how mean financial control domain scores differ by selected subgroups. Figure 10-2 showcases financial control mean scores across important socio-demographic groups in South Africa.

[13] For a discussion of the theory of consumer socialisation, see Moschis and Churchill (1978) as well as Moschis (1987).

Figure 10-2: Financial Control mean scores, by selected subgroup, 2012 and 2017 compared



Source: South African Social Attitudes Survey (SASAS) 2012; 2017

It is clear from the figure that the less educated and those outside the labour market scored lower on the financial control domain than other subgroups. Out of all the subgroups showcased here, these groups are the least likely to have access to a steady source of economic capital. Given that access to this type of capital should have an effect on financial attitudes and behaviours, the observed differences are entirely anticipated. In fact, what is so surprising is that the observed subgroup differences were not even larger. In view of existing levels of economic inequality in the country, we may have expected greater domain score differences by socio-economic subgroup. The results suggest that certain financial attitudes and behaviours are common to most South Africans. Finally, it is worth noting that we did not observe substantial differences in subgroup mean scores between 2012 and 2017. It would appear that the level of financial control in the country has not undergone significant change in the last five years for any of the important groups under consideration.

In Figure 10-2 it is possible to detect a life cycle effect where younger people report lower levels of financial control than their older counterparts. In the introduction to this section, we outlined our main hypothesis. To test the validity of that hypothesis, as far as it pertains to financial control, we employed a multivariate regression analysis. The approach will also provide an adequate test of how an individual's economic status influences their financial control. This will allow us to confirm that the observed dissimilarities between certain subgroups in Figure 10-2 were due to differences to access to economic capital. We constructed three linear models estimating the correlations between the dependent (i.e. financial control) and the independent variables. One model was produced for each stage of the cycle and the outputs of these models are depicted in Table B- 1 in Appendix B.

After reviewing the findings of our linear regression analysis, we noted that determinants of financial control did differ across the three age groups. This seems to validate our thesis that life cycle effects inform the level of financial control amongst the adult population in South Africa. Let us now discuss some of the thought-provoking findings that emerged from our analysis. Age was a statistically significant determinant of financial control for individuals aged 16-29 and 30-49 but not for those aged 50 years and older. The SASAS research team found a correlation between financial control and gender amongst those aged 30-49. Even accounting for a range of other economic and social characteristics, women in this age group were found to have greater levels of financial control than their male counterpart. In addition, we noted that marital status played a statistically significant role in predicting variation on the dependent in all three models.

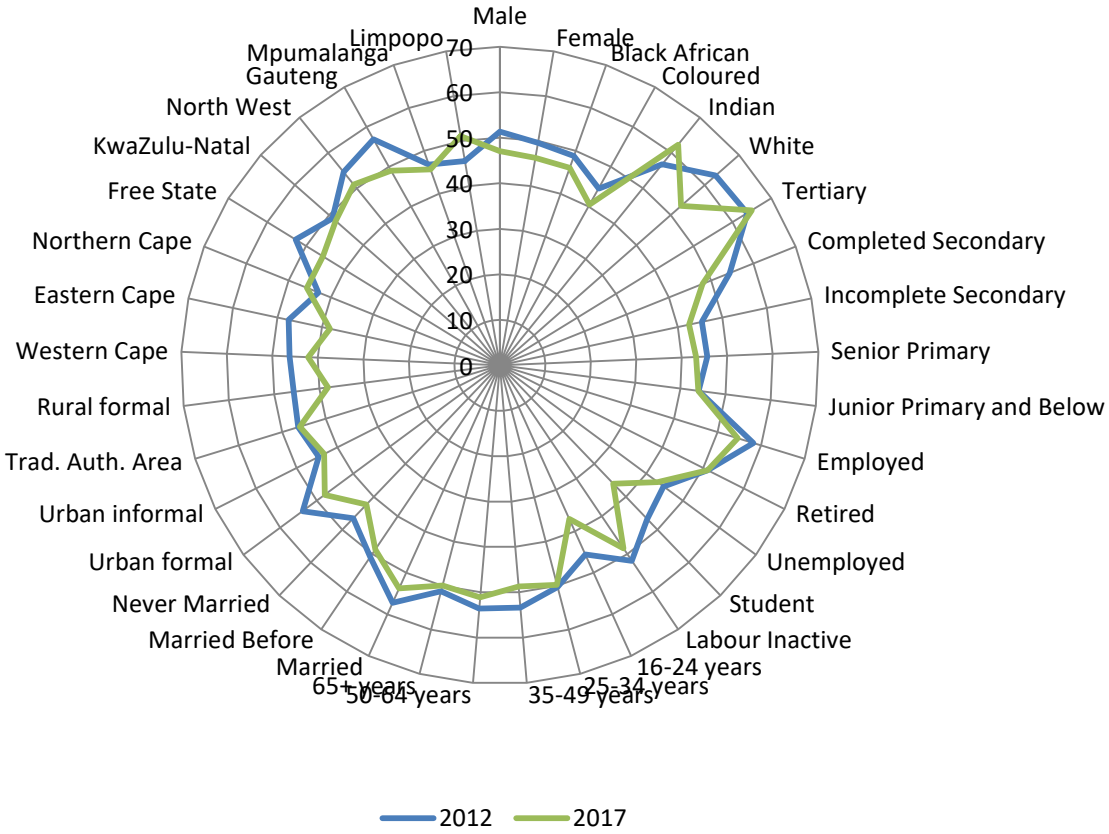
We were able to confirm that access to economic resources was partially responsible for the degree of variation we observed in Figure 10-2. Using LSM group status as measures of economic status, the SASAS research team found that this measure was a strong predictor in all three models in our analysis. The correlation between LSM and the dependent was stronger for those aged 50 and older (r= 2.090; SE=0.363) when compared with those aged 30-49 (r= 1.767; SE=0.339) and 16-29 (r= 1.099; SE=0.379). Educational attainment also played a role in predicting financial control and the size of the effect was similar across all three models. Even accounting for socio-economic position, labour market status was an important determinant in the table. Using the employed as the reference group, we found that those who were unemployed were much less likely to exhibit sound fiscal control. In comparison with the third model, the degree of correlation between unemployment and the dependent was substantially greater in the first (r= -8.349; SE=1.398) and second model (r= -9.794; SE=1.065). This may be because prolonged unemployment can worsen an individual's financial capabilities.

10.2.2. Financial Planning

The national mean on the Financial Planning domain was 47 (SE=0.679) in 2017 and this represents a slight decline from 50 (SE=0.619) in 2012. In comparison to what we observed in 2017, the distribution on this domain was somewhat more skewed in 2012 which indicates that the right-hand tail of the distribution was longer in 2012 than in 2017. Consider that 26% of the adult population scored below 40 on this domain in 2012 compared to 36% in 2017. This seems to show that the number of people who are setting financial goals and practicing prudent savings behaviour has declined over the period 2012-2017. In order to better understand this observed deterioration, it is necessary to examine how mean financial planning domain scores vary amongst different socio-demographic groups in the country. Figure 10-3 depicts financial planning mean scores across relevant social and demographic fault lines in South Africa.

Out of all the subgroups in Figure 10-3, it is apparent that levels of financial planning in 2017 were lowest amongst students (M= 36; SE=2.187) and those aged 16-24 (M= 37; SE=1.517). This seems to provide evidence that younger people find it more difficult to set financial goals and save when compared to their older counterparts. Indeed, people who were in the 50-64 (M= 51; SE=1.271) and 65 and older (M= 50; SE=1.756) age cohorts had much higher financial planning scores than their younger peers in 2017. As can be observed, most groups suffered a moderate decline between 2012 and 2017. The subgroups who reported the largest level of decline were students and those aged 16-24 years. White people also suffered a significant decline in the level of reported financial planning, falling from a domain mean of 63 (SE=1.956) in 2012 to 53 (SE=1.955) in 2017. The groups who suffered the lowest level of decline were the retired and the tertiary-educated.

Figure 10-3: Financial Planning mean scores, by selected subgroup, 2012 and 2017 compared



Source: South African Social Attitudes Survey (SASAS) 2012; 2017

The results of Figure 10-3 seem to point to clear a life cycle effect on the financial planning domain. It could be that the predictive power of certain determinants of fiscal planning varies depending the age of the individual. We hypothesise that life cycle efforts account for the observed age differences in financial planning noted above. To validate our hypothesis, we now turn to linear regression techniques similar to those employed in Subsection 10.2.1. For each stage of the life cycle, we produced a linear model which estimated the correlations between the dependent (i.e. financial planning) and a range of different social and economic characteristics. The outputs for the three models are portrayed in Table B- 2 in Appendix B.

Looking at how different determinants shaped financial planning across the three age groups, we were able to confirm that the determinants for those in the age group 16-29 were noticeably different from those of the other groups. Let us examine the determinants of financial planning amongst young people more closely. Age was found to be a good correlate of financial planning for this group. A one-year increase amongst the youth was associated with a 0.793 increase in this domain score. Even accounting for a variety of other characteristics, the likelihood that a young person will engage in sound fiscal planning is notably reduced if that young person is a student. Relative to being employed, the negative correlation for being a student (*r*= -9.633; SE=1.667) was larger than being unemployed (*r*= -8.497; SE=2.061). Unexpectedly, we found that belonging to the Indian community made an

individual aged 16-29 much more likely to have a sound financial planning domain score. This may be related to early socialisation in the Indian community and should be further investigated.

Educational attainment was found to be a statistically significant predictor of financial planning. The degree of difference here was smallest amongst those aged 16-29. Educational attainment had a greater effect on financial planning amongst this age group (*r*= 1.034; SE=0.276) than when compared to those aged 30-49 (*r*= 0.767; SE=0.189) and 50 and older (*r*=0.592; SE=0.173). One possible explanation for the mean domain score differences observed in Figure 10-3 could be differences in economic status. We found that economic status was a robust determinant of the dependent in all three models although the size of the correlation was weaker in the first model than it was in the other two. In order to understand whether the LMS indicator had a greater influence on the dependent than formal schooling, we adjusted the models in our analysis so that all the coefficients on the independent variables were standardised. A review of the beta coefficients in each of these adjusted models shows that LSM had a greater influence than years of formal schooling.

10.2.3. Product Choice

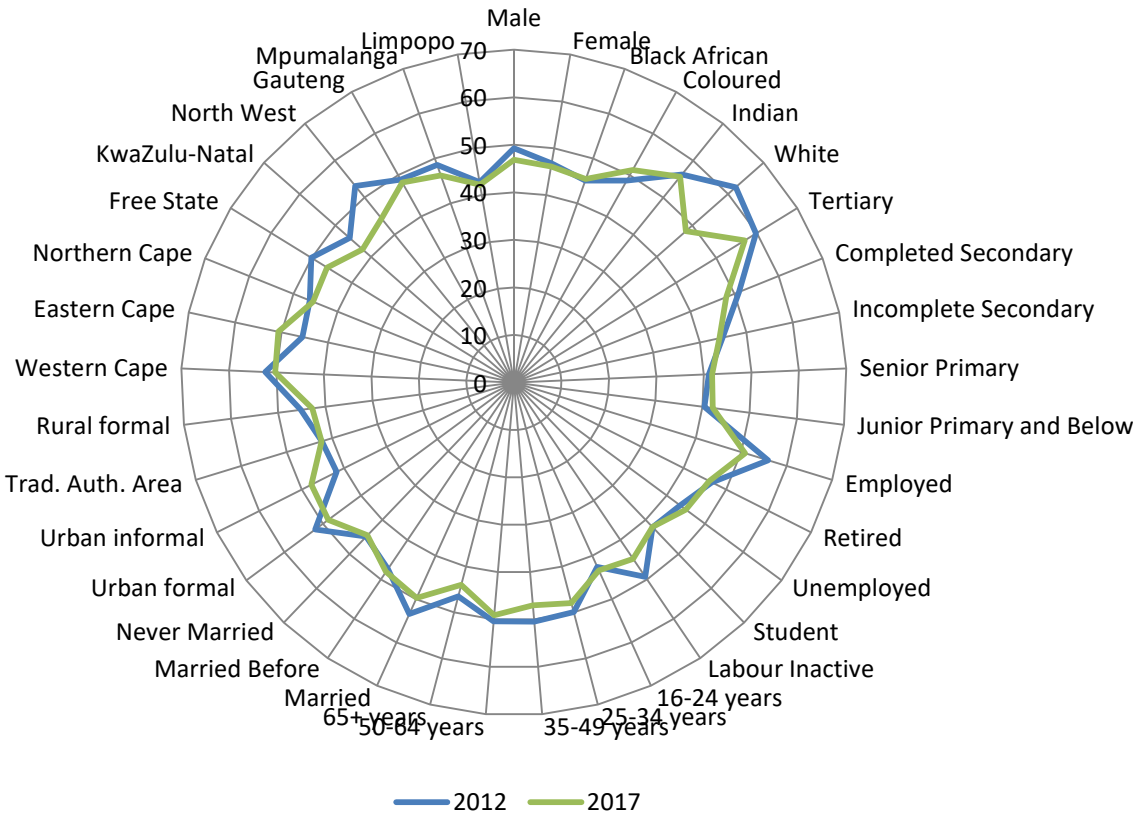
The national mean on the Product Choice domain was 48 (SE=0.392) in 2017 and the distribution on this domain was more leptokurtic than what was observed for the other financial domains under discussion. A significant share of the adult public was clustered in the middle of the distribution. In a fashion similar to what was seen in Subsection 10.2.2, it seems that the number of people who owned financial products and who were making good product choices had declined between 2012 and 2017. This may be a response to poor macro-economic conditions in the last few years although we do not have enough longitudinal data on financial literacy to substantiate this claim. However, one method to better understand the observed moderate decline would be to look at how mean scores on this domain changed for different subgroups in South Africa. Mean scores for key social and demographic subgroups are presented in Figure 10-4.

There were distinct economic inequalities in who made choices on financial products which seems similar to what was observed in Subsection 10.2.1. Those groups that have traditionally occupied the top of the country's socio-economic pyramid reported the highest product domain scores. The tertiary-educated, the employed and the formal urban dwellers all exhibited comparatively high mean domain scores. Of all the subgroups in Figure 10-4, the uneducated and those living in rural areas had the lowest average domain scores. In addition, members of the country's racial minority groups had, on average, much higher domain scores than the Black African majority. Of the three minority groups, white (M=48; SE=2.053) had lower domain scores than Indian (M=56; SE=1.996) and Coloured (M= 51; SE=1.090) adults in 2017. In terms of product ownership and decision-making, white adults suffered a distinct decline between 2012 and 2017 when their average score on this domain fell by 14 points.

As previously stated, in Subsections 10.2.1 and 10.2.2, the degree to which different factors effected financial behaviour and attitudes varied across different life stages. Will we observe a similar finding when we look at product choice? In addition, we need to better understand the dissimilarities between population groups noted above. Could these differences be the result of socio-economic disparities between these groups? In order to answer these questions, we used a linear regression analysis similar to what was used in the previous subsections. The results of these models are depicted in Table B- 3 in Appendix B. Unlike what was observed in the previous subsections, socio-demographic characteristics did not greatly differ by age group in terms of how they predicted outcomes on the

product choice domain. However, some important differences were noted and we will briefly sketch these out below.

Figure 10-4: Product Choice mean scores, by selected subgroup, 2012 and 2017



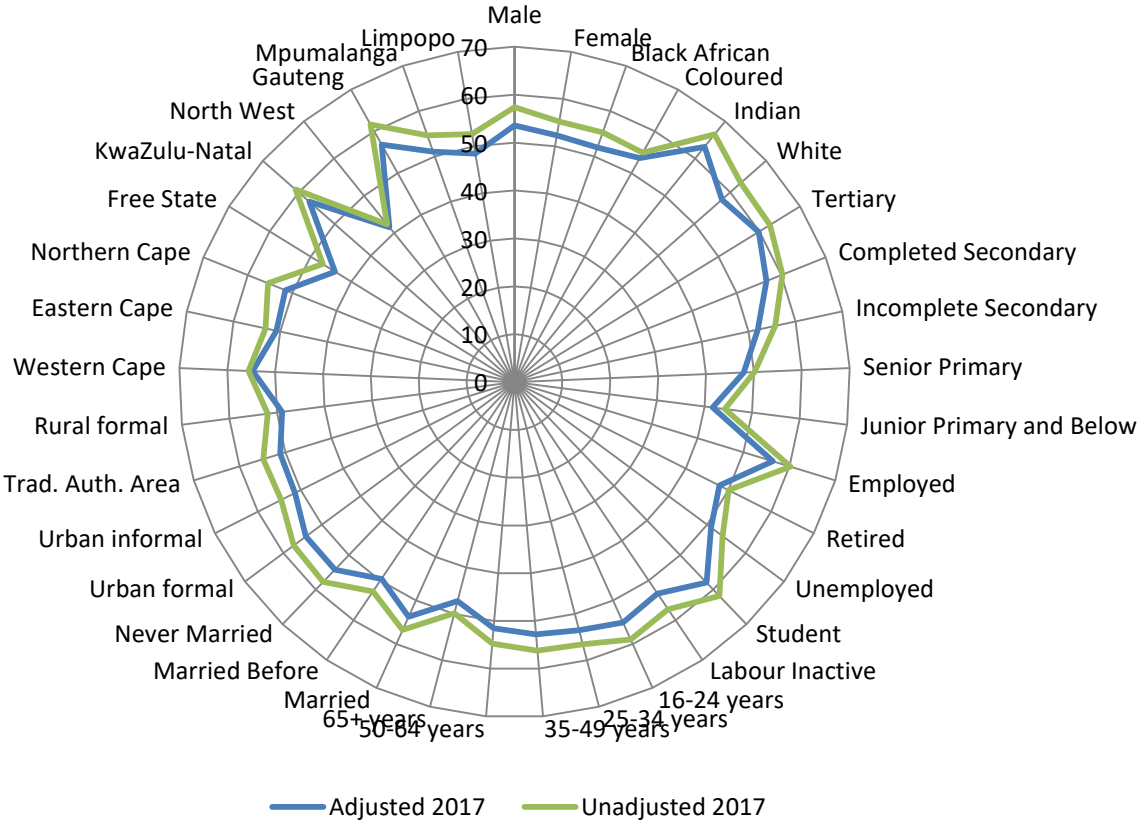
Source: South African Social Attitudes Survey (SASAS) 2012; 2017

The most interesting ways in which older cohorts departed from their younger counterparts in our analysis was on age and gender. In the first model, age was positively correlated with the dependent at the 0.01% level of significance. Assuming that all other variables in the model are held constant, we would expect a decrease of 0.588 (SE=0.839) in the domain score for every year older a person in the 16-29 age cohort was. Even controlling for socio-economic status, being a woman reduced the likelihood of owning financial products and making good product choices for those aged 50 and older. Population group status did not have a robust correlation with the dependent. In contrast, we found that socio-economic status was a much better predictor of this domain. This suggests that the population group differences observed in Figure 10-4 are the result of socio-economic inequalities between these groups. Interestingly, the effect of economic status -as measured via the LSM indicator -was a weaker determinant of product choice in the first model (r=1.725; SE=0.354) when compared to what was observed in the second (r=3.029; SE=0.378) and the third (r=3.025; SE=0.441) models.

10.2.4. Financial Knowledge

In South Africa the level of financial knowledge has improved to some extent between 2012 and 2017. At the start of the period, the national knowledge domain mean score was 55 (SE=0.474) and by the end of the period the national average was 56 (SE=0.376). This shows that knowledge of basic concepts (such as inflation, interest payments, compound interest and the effects of inflation) are becoming more well-known in the country. The degree to which the knowledge distribution is skewed has also changed over the period, becoming more negative over time. In contrast to 2012, when the distribution's skewness was-0.367, the knowledge domain's level of skewness was -0.714 in 2017. This indicates that, over time, the knowledge domain's distribution is acquiring more asymmetric tails which extend toward more negative values.

Figure 10-5: Financial Knowledge mean scores, by selected subgroup, adjusted and unadjusted 2017



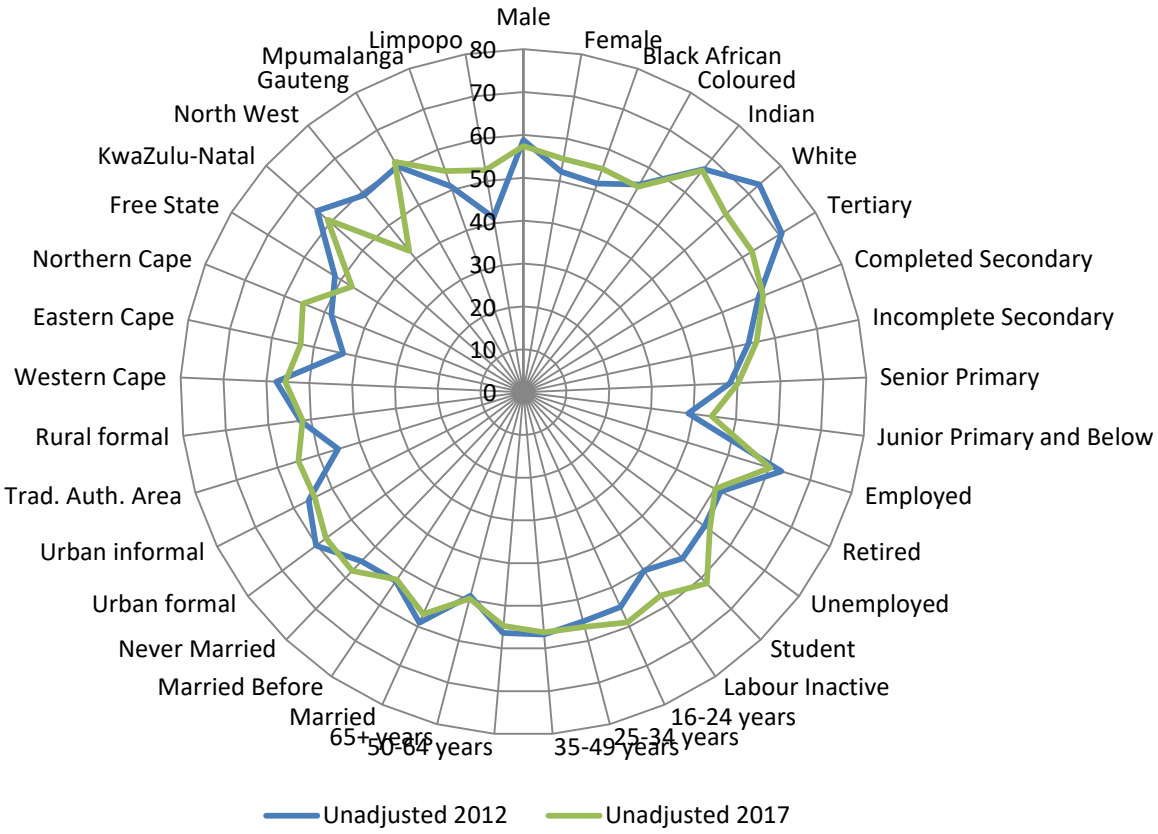
Source: South African Social Attitudes Survey (SASAS) 2017

To improve our understanding of financial knowledge (and as discussed in Subsection 10.1.4), we constructed adjusted and unadjusted financial knowledge domain scores. By comparing the results of the two scores we can check the validity of the unadjusted score to check its robustness as a measure. Figure 10-5 provides the mean scores on the unadjusted and adjusted knowledge domains for a range of different important subgroups. Here we will look at which subgroups have low levels of knowledge. Younger individuals reported higher unadjusted knowledge scores (M=59; SE=0.826) than those who are 65 years of age and older (M=50; SE=1.100). Encouragingly the youth were found to have financial knowledge levels similar to those age cohorts in their middling years. We also noted that members of the country's racial minority groups had, on average, much higher levels of financial knowledge than the Black African majority. This may be related to educational attainment inequalities between these groups. The better educated in society were found to have significantly greater

financial knowledge scores than those lower down on the educational attainment ladder. On the unadjusted measure, those with a tertiary education scored 19 points above those with only a junior primary (or below) education.

Comparing the mean scores on the adjusted and unadjusted domains in Figure 10-5, we can note many similarities. However, we can also note numerous divergences and it is these discrepancies that we would now like to outline. Including the questions on credit and loan payments deflated the knowledge scores of all groups under discussion. In particular, white adults had lower adjusted average scores (M=63; SE=1.033 adjusted vs. M=66; SE=1.096 unadjusted). In addition, the labour market inactive (M= 53; SE=0.924 vs. M=57; SE=1.087) and the employed (M=56; SE=0.569 vs. M=60; SE=0.639) also had much smaller adjusted average scores. For a number of groups, however, the degree of difference between the adjusted and unadjusted domains was quite small. The most notable of these non-differences were amongst the retired (M= 48; SE=0.863 vs. M=50; SE=0.911) and those with senior primary education (M= 56; SE=0.569 vs. M=60; SE=0.640).

Figure 10-6: Financial Knowledge mean scores, by selected subgroup, unadjusted 2012 and 2017



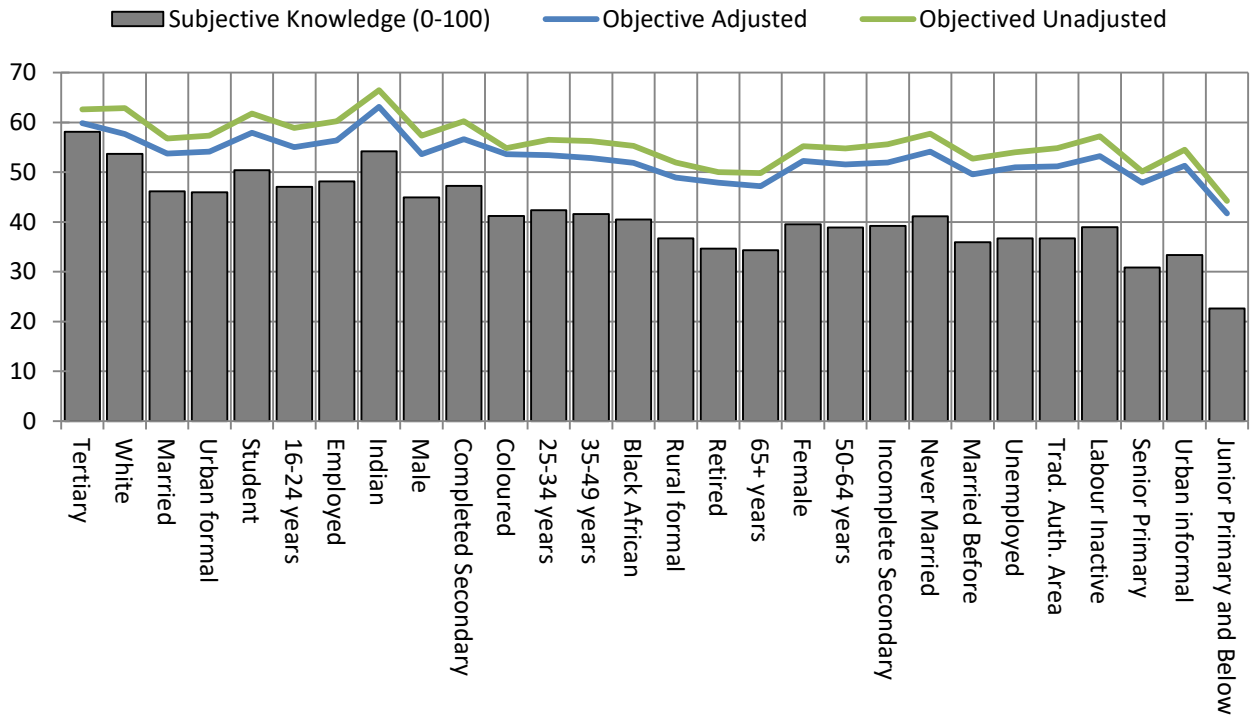
Source: South African Social Attitudes Survey (SASAS) 2012; 2017

As discussed above, the level of financial knowledge expanded somewhat between 2012 and 2017. To understand which subgroups experienced the largest expansion of knowledge, we look at unadjusted mean results in 2012 and 2017 in Figure 10-6. The largest degree of change was seen amongst rural dwellers. People in traditional authority areas had much higher levels of financial understanding in 2017 (M=54; SE=0.882) than in 2012 (M=45; SE=0.700). Students were another group which reported substantially better knowledge scores in 2017 (M=62; SE=1.007) than in 2012 (M=58;

SE=1.006). Although most groups saw their stocks of financial knowledge grow over the period, a few subgroups experienced a decline. Knowledge scores were, on average, lower amongst the tertiary-educated at the end of the period (M=62; SE=0.533) than at the start (M=71; SE=1.215). White people also saw a noticeable deterioration in their stocks of financial acumen during this period.

In this subsection we have only discussed objective financial knowledge. However, it is important to address the possible influence of subjective (or self-assessed) financial knowledge on objective knowledge. How does an individual's subjective financial knowledge compare with their objective knowledge? To answer this question, we utilise the following subjective financial knowledge question: "Could you tell me how you would rate your overall knowledge about financial matters compared with other adults in South Africa?" Respondents could rate their knowledge on a 1-5 scale with 1 representing 'very high' knowledge and 5 'very low'. Responses to this question were converted into a 0-100 Subjective Knowledge Scale with 0 representing the lowest level of self-reported knowledge and 100 the highest.

Figure 10-7: Subjective versus objective financial knowledge, 2017 (mean scores, 0-100 scale)



Source: South African Social Attitudes Survey (SASAS) 2017

Using a correlation matrix, we found that our subjective knowledge score had a weak (albeit statistically significant) correlation with both the adjusted and unadjusted knowledge scores. On the whole, people in South Africa had a tendency to underrate their level of financial knowledge. But which subgroup in South Africa was the best judge of their own knowledge? Mean scores on this scale are compared with mean objective financial knowledge scores in Figure 10-7. The better educated are the best judges of their own objective financial knowledge while those with low levels of formal educational attainment were found to be bad judges of their financial knowledge. Interestingly, women tend to be much worse assessors of their own ability to answer financial knowledge questions than men. Compared to their peers in formal urban areas, people living in rural and informal urban spaces were also found to be much more likely to under-evaluate their own knowledge of finances.

Now we will look at what factors predict financial knowledge in South Africa using multivariate analysis. In this subsection, we did not observe significant life cycle effects in our models. This seems to suggest that the determinants of financial acumen will be similar regardless of age group. To test this hypothesis, we utilised linear regression analysis. In a fashion similar to Subsection 10.2.1, we build a regression model for each age group and the outputs are displayed in Table B- 4 in Appendix B. All regression models used the unadjusted financial knowledge domain as the dependent. In contrast to what we observed in subsections 10.2.1 and 10.2.2, the power of socio-demographic characteristics to predict financial knowledge did not vary considerably between age groups. Nevertheless, some notable differences were observed between the three different models and the most interesting of these are outlined below.

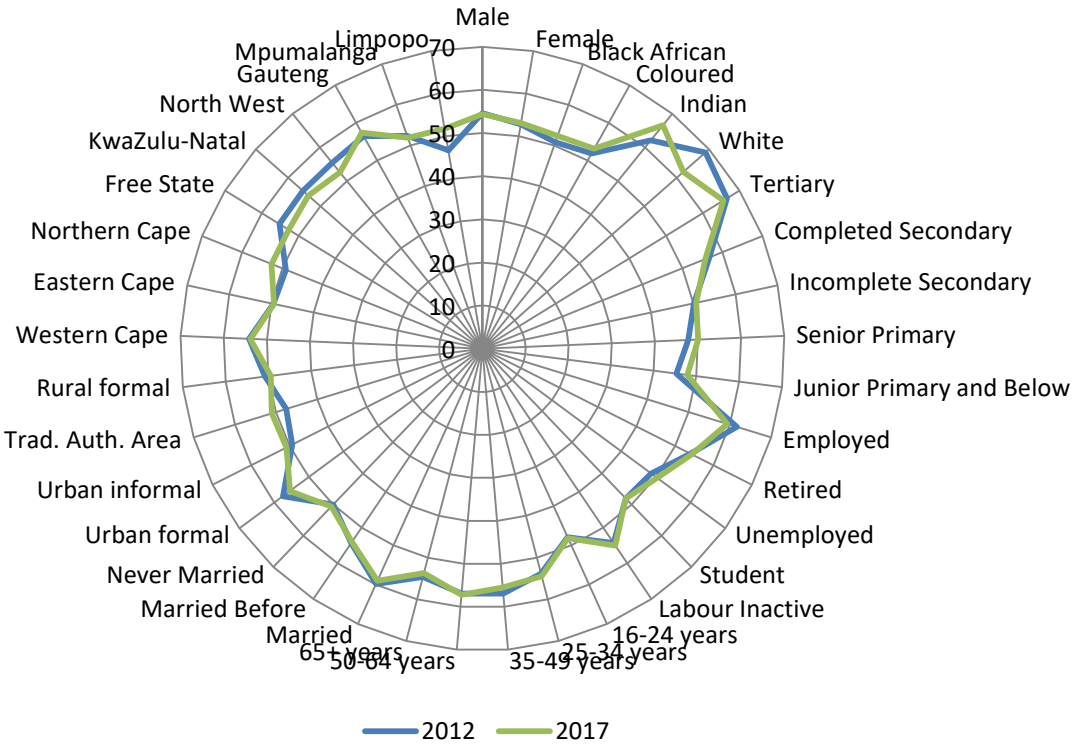
As was expected, educational attainment was a robust predictor of the dependent in our analysis. However, compared to the other two age groups, the effect was smaller for those aged 30-49. Amongst those aged 30-49, and assuming that all other variables are held constant, being a woman had a negative correlation (*r*=-2.642; SE=0.941) with the financial knowledge quiz. This was not observed for the other two age groups and the reason for this outcome was not clear. More research is required to understand this intriguing finding. Regardless of age group, statistically significant differences were noted between population groups. Relative to the Black African majority, belonging to the white minority improved an individual's financial knowledge even when controlling for socio-economic status. This finding may indicate certain types of racial inequality in South African education systems. Out of all the age groups in our regression analysis, the correlation was more robust for adults aged 16-29. This seems to point to how *current* inequalities in the educational system are reproducing racial differences in financial knowledge.

10.2.5. Overall Financial Literacy

Clear patterns have emerged in the preceding subsections but in order to obtain a holistic picture of the state of financial literacy in South Africa, the SASAS research team will now present data on the combined financial literacy score. The average South African scored 54 (SE=0.257) on this domain in 2017 which was not considerably different from what was observed in 2012 (M=54; SE=0.314). This level of consistency suggests the reliability of the measure and demonstrates that the OECD INFE methodology adopted is working well. The domain distribution of this overall index was symmetric in 2017 with well-behaved tails. Most of the population was clustered towards the middle of the graph and the left-hand tail was somewhat shorter than the right. To provide a final indication of which groups have the lowest financial literacy scores, Figure 10-8 depicts mean overall financial literacy scores across different selected groups.

As was observed in the previous subsections, those groups on the higher rungs of the country's socio-economic ladder tended to exhibit comparatively high financial literacy scores. The tertiary-educated, the formal urban dwellers and members of the White and Indian minorities reported the highest scores overall financial literacy scores. The youth reported lower financial literacy, on average than other age cohorts although the findings seem to suggest a nonlinear relationship between age and financial literacy. Relatively minor differences in literacy scores were noted between 2012 and 2017 though there were a few noted exceptions. White people reported a decline in financial literacy and experienced a seven point weakening of their fiscal acumen over the period. Members of the Indian population, on the other hand, underwent a mild incline in literacy, strengthening by four points during the period.

Figure 10-8: Financial Literacy score, by selected subgroup, 2012 and 2017 compared



Source: South African Social Attitudes Survey (SASAS) 2017

Based on the findings of the previous subsections, we hypothesise that determinants of financial literacy will differ across life course. This hypothesis is based on our thesis that life cycle effects inform the level of financial literacy in South Africa. In order to validate this thesis, we utilised a linear regression analysis and (much like with the other subsections) constructed three models to explain the determinants of financial literacy amongst our three age groups. The coefficients and standard errors of these models are shown in Table B- 5 in Appendix B. After going through the findings of our linear regression analysis, we able to confirm our life cycle hypothesis. Let us now examine some of the remarkable results that developed out of our analysis.

Despite what we may have expected (given what researchers like Lusardi and Mitchell 2008 have written on financial acumen), we not detect a strong gender effect in our analysis. This seems to indicate that gender differences in financial knowledge noted in Subsection 10.2.4 are the result of gender-based differences in access to education. We do not observe an inverse U-shaped age profile, like what the work of scholars like Monticone (2010) would have predicted. Age was statistically significant determinant (r=-2.642; SE=0.941) for those aged 16-29 but not in the other models. Marital status was correlated with the dependent in the table. Being married made individuals much more likely to exhibit greater financial literacy and shows the socialisation effect of that institution. This finding could be explained if we allow for the fact that marriage may encourage more responsible behaviour and cause individuals to be more forward thinking.

Economic status had robust influence on financial literacy in all three models in our regression analysis. Given what previous studies have found on the relationship between financial literacy and income (see, for example, Lusardi and Mitchell 2008; Lusardi, Mitchell, and Curto 2010; van Rooij, Lusardi, and Alessie 2011), this observation was not surprising. Educational attainment was found to be a strong predictor in all three models. The impact of educational attainment was greater for the youth than for other age groups. Labour market status had a particularly salient impact on the financial planning domain. We found that being outside employment reduced financial literacy even controlling for a range of socio-demographic characteristics. The effect of unemployment is weaker for those aged 50 and older than for other age groups. The negative impact that unemployment had on financial literacy was greatest for those aged 30-49 and these results show how damaging financial duress can be for financial literacy among the middle aged.

Population group differences were observed in our analysis. Even accounting for socio-economic status, belonging to the white minority improved financial literacy for those aged 16-29 and those aged 50 and older. In addition, we noted that belonging to the Indian community also enhanced financial literacy amongst the youth but not for the other age groups. This finding was not anticipated by the SASAS research team. In order to comprehend the comparative strength of these effects, we altered the models so that all the independent variables were standardised. In all three models, population group beta coefficients were smaller than that of the LSM indicator. This suggests that economic status was a better predictor of financial literacy in South Africa at all stages of the life course. Still, how can we explain the population group differences? It could be that certain types of socialisation and environmental factors unique to certain communities are driving these effects.

11. Conclusion

The need for improved financial literacy in South Africa is more pressing now than ever before. The nature and character of the national economy is set to change dramatically in the coming decades according to the Department of Science and Technology (2018) Science, Technology and Innovation White Paper. The Fourth Industrial Revolution was identified by the Science and Technology Minister Mmamaloko Kubayi-Ngubane, in this document, as an agent of sweeping change. Artificial intelligence, machine learning, the Internet of Things, additive manufacturing and biotechnology will transform the country completely in the next few decades. Certain of these trends, such as the automation and mechanisation of labour, are projected to have a significant impact on labour markets and the finances of workers. During a press briefing on the issue in September 2018, Minister Kubayi-Ngubane said that traditional commerce was already being disrupted by the rise of electronic commerce and services (Fin24 10/09/2018). South African households will need to be fiscally savvy to navigate the transformations taking place in the national economy.

As financial marketplaces change to cope with new technology, more financial consumers are being alienated –stressed by economic pressure and the unintended consequences of recent fiscal innovations. In this changing landscape, consumers need to become wiser fiscal risk-takers. Moreover, fiscal decision-making must happen at a much faster pace for consumers to adjust to this rapid change. Adult financial consumers also need to make good informed decisions about the knowledge that are being acquired by their children. Paul Scanlan, Huawei's Chief Technology Officer, once told an AfricaCom telecoms and technology conference panel that [t]he youth drives change and we have to put a focus on providing services for them. If we do not focus on the youth we miss opportunities"

(Fin24 09/11/2018). Practicing fiscal good decision-making requires, as numerous academic studies have shown, a good foundation in financial knowledge. Literacy in financial principles and practices can empower an individual to change the lives of their families and community as well as their own.

The data provided in this report is instructive for anyone who wants to better comprehend the state of financial literacy in South Africa. Using a unique research methodology from the OECD INFE, our research team has been able to successfully track different types of financial literacy between 2011 and 2017. We have found that a considerable portion of the country's adult population are not sufficiently financial literate and find fiscal matters challenging. Indeed, the past six waves of survey data show the persistence of financial illiteracy in certain South African communities. Furthermore, our research shows that the groups which have the highest level of financial illiteracy are young people, the uneducated and the poor. From a geographic perspective, it was clear that certain provinces also demonstrated much lower levels of literacy than others. Adult residents of Limpopo and Mpumalanga, it would appear, need special attention. In addition, we found that the financial capabilities of certain groups –in particular the middle class –have worsened over the period. The findings of the study, showcased in this report, lend support to FCSA's proposals for a more comprehensive and aggressive programme of financial consumer education that targets these groups.

The report has demonstrated that many people in South Africa have struggled to deal with the difficult financial conditions of the 2012-2017 period. At the time of writing, a majority of experts continue to be pessimistic about future macro-economic situations in the country. BankservAfrica's latest Economic Transaction Index (BETI) results for 2018 show why. The BETI shows that the average value per transaction declined for 15 consecutive months. Commenting on these results, Mike Schüssler, Chief economist at Economists Dotcoza, noted that the BETI increases made in the national economy in the second half of 2017 and early 2018 have been gone astray. In an interview, he told the press that "[t]he economy is caught between a slow growth and slow decline place and SA is not benefiting from the surge in economic growth currently being experienced in the rest of the world" (Fin24 17/08/2018). Many are still hopeful of an economic turnaround and this is certainly the perspective of the DescriptionPricewaterhouseCoopers a recent report (2018) on investment futures in South Africa for the next five years. However, there is a need to consider how financial literacy interventions can be designed to help consumers cope with a downward economic trajectory.

The future of financial literacy in South Africa is the youth and the focus of existing and future literacy interventions must prioritize this age cohort. Financial education is an enabler and can give young people opportunities to grow businesses and better navigate the labour market. The SASAS research team has provided a special focus on age cohort differences in this report. We have shown that certain factors predict fiscal knowledge and competencies differently for the youth than for older people. It was clear from our work that socio-economic conditions were less important predictors of financial literacy amongst the youth than amongst other age cohorts. Other variables were found to be more important drivers of good financial acumen and competency for the youth. Here education is critical –the right kind of consumer education interventions here will allow young people to innovate while still practicing safe financial behaviour. The research team detected a number of population group differences in financial literacy amongst young South Africans that could be related to racial inequalities in the education. The priority of consumer education must, therefore, be inclusive and empower the Black African majority. Providing this kind of education is not only about supplying people with information on financial services but about making sure that they know how they can leverage such services for success. The research team wants to encourage the FSCA to start thinking

creatively about how to approaches to consumer education and believes that all relevant stakeholders required together to help innovate positive changes in financial education.

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Appendix A

All tables use data that was weighted to be nationally representative of the adult South Africans. All data is from South African Social Attitudes Survey (SASAS) 2011-2013; 2015; 2017. All models in our tables controls for the provincial residence of respondents; and the survey wave. The coefficients in each model show the log odds of engaging in such behaviour. Looking at the likelihood ratio chi-square in each model, we found that all three models fit significantly better than an empty model. The signs in *, **, *** each model indicates that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

Table A- 1: Logistic regression predicting having three months' worth of emergency funds over the 2011-2017 period, by age group

	Aged 16-29			Aged 30-49			Aged 50 and More		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	0.196	0.125		-0.153	0.101		0.036	0.124	
Age	0.053	0.020	**	-0.014	0.009		0.002	0.001	
Marital Status (ref. Married)									
Married Before	0.190	0.309		0.055	0.152		-0.142	0.134	
Never Married	-0.324	0.183		-0.320	0.117	**	-0.292	0.192	
Population group (ref. Black African)									
Coloured	-0.395	0.213		-0.201	0.161		-0.605	0.202	**
Indian	0.367	0.283		-0.560	0.201	**	0.121	0.229	
White	-0.100	0.261		-0.243	0.191		0.086	0.221	
Geographic Type (ref. Urban formal)									
Urban informal	0.210	0.252		0.328	0.200		0.135	0.324	
Trad. Auth. Area	0.445	0.174	*	0.409	0.162	*	0.458	0.188	*
Rural formal	0.097	0.287		0.327	0.216		0.384	0.398	
Living Standard Measurement	0.236	0.048	***	0.384	0.042	***	0.330	0.052	***
Educational Attainment	0.088	0.034	**	0.059	0.022	**	0.100	0.021	***
Employment (ref. employed)									
Retired	(omitted)			(omitted)			-0.033	0.151	
Unemployed	-1.102	0.153	***	-0.701	0.120	***	-0.540	0.218	*
Student	-0.739	0.200	***	-0.753	0.703		(omitted)		
Labour Inactive	-0.576	0.254	*	-0.189	0.166		-0.160	0.178	
Number of obs.	3710			4714			4065		
Wald $chi^2(28)$	203.6			384.4			315.1		
Pseudo R^2	0.104			0.140			0.168		

Table A- 2 Logistic regression predicting formal savings behaviour over the 2011-2017 period, by age group

	Aged 16-29			Aged 30-49			Aged 50 and More		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	-0.120	0.110		-0.223	0.099	*	0.029	0.123	
Age	0.069	0.019	***	-0.006	0.009		0.001	0.001	
Marital Status (ref. Married)									
Married Before	-0.708	0.352	*	-0.120	0.157		-0.248	0.138	
Never Married	-0.263	0.180		-0.211	0.108		-0.309	0.192	
Population group (ref. Black African)									
Coloured	-0.734	0.203	***	-0.780	0.160	***	-0.678	0.209	**
Indian	-0.289	0.295		-0.781	0.201	***	-0.450	0.233	
White	-0.108	0.257		-0.475	0.199	*	-0.178	0.229	
Geographic Type (ref. Urban formal)									
Urban informal	0.266	0.241		0.519	0.225	*	-0.235	0.317	
Trad. Auth. Area	0.294	0.161		0.212	0.142		0.074	0.196	
Rural formal	-0.576	0.340		0.029	0.215		-0.365	0.374	
Living Standard Measurement	0.292	0.045	***	0.337	0.040	***	0.347	0.052	***
Educational Attainment	0.155	0.032	***	0.127	0.020	***	0.082	0.021	***
Employment (ref. employed)									
Retired	(omitted)			(omitted)			-0.549	0.154	***
Unemployed	-1.046	0.143	***	-0.996	0.111	***	-0.865	0.214	***
Student	-1.131	0.180	***	0.055	0.496		(omitted)		
Labour Inactive	-0.891	0.232	***	-0.244	0.146		-0.718	0.183	***
Number of obs.	3776			4826			4143		
Wald chi^2 (28)	327.5			438.2			383.3		
Pseudo R^2	0.143			0.171			0.188		

Table A- 3: Logistic regression predicting yearly informal savings behaviour over the 2011-2017 period, by age cohort

	Aged 16-29			Aged 30-49			Aged 50 and More		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	0.156	0.103		0.149	0.096		0.083	0.122	
Age	0.012	0.016		0.000	0.008		-0.005	0.008	
Marital Status (ref. Married)									
Married Before	-0.360	0.366		-0.210	0.154		-0.195	0.134	
Never Married	0.101	0.173		-0.131	0.104		-0.442	0.159	**
Population group (ref. Black African)									
Coloured	-0.418	0.194	*	-0.616	0.165	***	-0.866	0.227	***
Indian	-0.182	0.264		-0.651	0.184	***	-0.625	0.245	*
White	-0.389	0.294		-0.736	0.214	**	-1.150	0.247	***
Geographic Type (ref. Urban formal)									
Urban informal	-0.111	0.205		0.032	0.185		0.302	0.275	
Trad. Auth. Area	-0.009	0.146		-0.034	0.136		0.020	0.162	
Rural formal	-0.221	0.239		-0.721	0.237	**	-0.130	0.252	
Living Standard Measurement	-0.010	0.040		-0.094	0.036	**	0.008	0.044	
Educational Attainment	0.007	0.025		-0.031	0.017		-0.017	0.017	
Employment (ref. employed)									
Retired	(omitted)			(omitted)			-0.123	0.182	
Unemployed	-0.196	0.142		-0.460	0.112	***	-0.011	0.183	
Student	-0.176	0.178		-0.332	0.518		(omitted)		
Labour Inactive	-0.412	0.225		-0.128	0.152		0.120	0.206	
Number of obs.	3776			4826			4143		
Wald chi^2 (28)	130.3			141.2			167.4		
Pseudo R^2	0.047			0.041			0.074		

Appendix B

All data presented in this appendix is from a combined dataset that contains data from the following 2012, 2013, 2015 and 2017 rounds of SASAS. In each table, a positive coefficient indicates a positive domain score. Data is weighted to be nationally representative of the adult South Africans. All models presented contain controls for the provincial residence of respondents; and the survey wave. The Signs *, **, *** indicates that the differences in mean scores are significantly different at the 5 percent (p<0.05), 1 percent (p<0.01) and 0.5 percent (p<0.001) level respectively.

Table B- 1: Linear regression predicting Financial Control Domain scores over the 2011-2017 period, by age group

	Aged 16-29			Aged 30-49			Aged 50 and Older		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	1.110	0.959		1.859	0.905	*	0.867	0.978	
Age	0.833	0.156	***	0.178	0.083	*	0.014	0.010	
Marital Status (ref. Married)									
Married Before	-0.187	2.735		-4.414	1.254	***	-3.488	1.073	**
Never Married	-6.675	1.612	***	-6.823	0.945	***	-6.035	1.572	***
Population group (ref. Black African)									
Coloured	-4.550	1.707	**	-0.443	1.167		1.422	1.706	
Indian	5.460	2.405	*	2.955	1.641		-1.304	1.738	
White	4.238	2.355		3.068	1.782		5.435	1.561	***
Geographic Type (ref. Urban formal)									
Urban informal	-1.483	1.949		-0.414	1.809		0.890	3.081	
Trad. Auth. Area	-1.257	1.386		2.430	1.316		2.391	1.394	
Rural formal	-1.545	2.354		2.155	1.703		-4.059	2.746	
Living Standard Measurement	1.099	0.379	**	1.767	0.339	***	2.090	0.363	***
Educational Attainment	0.809	0.230	***	0.840	0.174	***	0.511	0.127	***
Employment (ref. employed)									
Retired	(omitted)			(omitted)			-2.146	1.127	
Unemployed	-8.349	1.398	***	-9.794	1.065	***	-5.561	1.359	***
Student	-6.902	1.658	***	-9.306	3.327	**	(omitted)		
Labour Inactive	-3.027	2.823		-3.883	1.369	**	-2.404	1.623	
Number of obs.	2620			3410			3111		
R-squared	0.174			0.255			0.233		
Root MSE	17.46			16.94			16.41		

Table B- 2: Linear regression predicting Financial Planning Domain scores over the 2011-2017 period, by age group

	Aged 16-29			Aged 30-49			Aged 50 and Older		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	0.973	1.155		-0.212	1.055		0.339	1.194	
Age	0.793	0.186	***	0.010	0.092		0.011	0.011	
Marital Status (ref. Married)									
Married Before	-0.863	2.739		-1.404	1.686		-2.423	1.360	
Never Married	-2.692	1.825		-4.904	1.085	***	-5.313	1.656	**
Population group (ref. Black African)									
Coloured	-6.270	2.028	**	-5.107	1.526	**	-8.537	1.925	***
Indian	7.364	3.370	*	-7.323	2.116	**	-4.456	2.262	*
White	-0.584	2.756		-1.766	2.104		0.034	2.140	
Geographic Type (ref. Urban formal)									
Urban informal	1.445	2.160		3.719	2.178		0.764	3.062	
Trad. Auth. Area	3.827	1.535	*	2.823	1.462		2.165	1.598	
Rural formal	-2.497	2.868		-1.305	2.058		0.051	2.686	
Living Standard Measurement	2.271	0.466	***	3.349	0.388	***	3.599	0.464	***
Educational Attainment	1.034	0.276	***	0.767	0.189	***	0.592	0.173	**
Employment (ref. employed)									
Retired	(omitted)			(omitted)			-3.829	1.540	*
Unemployed	-9.633	1.667	***	-9.378	1.224	***	-5.925	1.851	**
Student	-8.497	2.061	***	-4.655	4.006		(omitted)		
Labour Inactive	-6.531	3.229	*	-5.272	1.631	**	-3.741	1.952	
Number of obs.	2967			3714			3399		
R-squared	0.163			0.215			0.209		
Root MSE	21.31			20.57			20.96		

Table B- 3: Linear regression predicting Product Choice Domain scores over the 2011-2017 period, by age group

	Aged 16-29			Aged 30-49			Aged 50 and Older		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	0.884	0.839		0.360	0.876		-2.314	1.103	*
Age	0.588	0.141	***	-0.047	0.077		-0.028	0.074	
Marital Status (ref. Married)									
Married Before	-3.949	2.797		1.165	1.426		-0.267	1.129	
Never Married	-3.211	1.703		-3.154	0.999	**	-0.192	1.369	
Population group (ref. Black African)									
Coloured	1.033	1.300		0.247	1.405		0.533	1.772	
Indian	2.008	2.024		-0.722	1.726		-0.791	1.969	
White	-1.702	2.248		-2.273	2.231		-0.738	2.216	
Geographic Type (ref. Urban formal)									
Urban informal	3.703	1.959		3.245	1.838		2.215	2.224	
Trad. Auth. Area	-0.513	1.212		1.796	1.361		1.481	1.522	
Rural formal	-1.650	1.696		-0.895	2.241		-0.762	1.984	
Living Standard Measurement	1.725	0.354	***	3.029	0.378	***	3.025	0.441	***
Educational Attainment	0.783	0.191	***	0.598	0.174	**	0.765	0.146	***
Employment (ref. employed)									
Retired	(omitted)			(omitted)			-4.715	1.600	**
Unemployed	-4.582	1.297	***	-6.589	1.048	***	-2.760	2.033	
Student	-4.933	1.580	**	-3.406	3.446		(omitted)		
Labour Inactive	-6.448	1.902	**	-6.195	1.614	***	-5.214	1.750	**
Number of obs.	2850			3570			3254		
R-squared	0.125			0.179			0.214		
Root MSE	16.11			18.04			17.70		

Table B- 4: Linear regression of Financial Knowledge Domain scores over the 2011-2017 period, by age group

	Aged 16-29			Aged 30-49			Aged 50 and More		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	-1.465	0.991		-2.642	0.941	**	-1.674	1.162	
Age	-0.041	0.155		0.014	0.086		0.007	0.009	
Marital Status (ref. Married)									
Married Before	-2.508	3.942		-1.325	1.484		-0.116	1.416	
Never Married	0.513	1.589		0.170	1.120		-0.543	1.506	
Population group (ref. Black African)									
Coloured	5.846	1.612	***	1.772	1.330		-3.545	2.166	
Indian	4.752	2.011	*	4.621	1.646	**	3.308	1.933	
White	9.388	2.075	***	6.752	1.861	***	7.530	1.894	***
Geographic Type (ref. Urban formal)									
Urban informal	2.009	2.083		-0.628	1.588		-0.928	3.649	
Trad. Auth. Area	-0.006	1.425		0.834	1.468		0.566	1.774	
Rural formal	0.810	2.930		-1.889	2.169		2.405	2.630	
Living Standard Measurement	0.964	0.391	*	1.671	0.354	***	2.160	0.469	***
Educational Attainment	0.952	0.231	***	0.724	0.179	***	1.098	0.166	***
Employment (ref. employed)									
Retired	(omitted)			(omitted)			-1.269	1.590	
Unemployed	-2.560	1.341		-1.897	1.108		-1.036	2.000	
Student	-0.322	1.526		-2.443	4.765		(omitted)		
Labour Inactive	-2.924	2.753		-1.135	1.290		2.001	1.787	
Number of obs.	2967			3714			3399		
R-squared	0.119			0.151			0.264		
Root MSE	18.75			18.88			20.16		

Table B- 5: Linear regression predicting Overall Financial Literacy domain scores over the 2011-2017 period, by age group

	Aged 16-29			Aged 30-49			Aged 50 and More		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	0.200	0.602		-0.182	0.572		-0.487	0.726	
Age	0.601	0.098	***	0.073	0.052		0.000	0.012	
Marital Status (ref. Married)									
Married Before	-1.176	1.857		-1.684	0.908		-1.609	0.801	*
Never Married	-3.314	1.015	**	-3.457	0.653	***	-3.271	1.039	**
Population group (ref. Black African)									
Coloured	-0.931	1.003		-0.727	0.820		-1.709	1.178	
Indian	5.082	1.667	**	-0.256	1.129		-0.906	1.223	
White	3.145	1.471	*	1.872	1.193		3.508	1.294	**
Geographic Type (ref. Urban formal)									
Urban informal	1.314	1.259		2.202	1.011	*	3.909	1.878	*
Trad. Auth. Area	0.280	0.872		1.993	0.870	*	2.166	0.970	*
Rural formal	-0.565	1.600		-0.589	1.340		-0.195	1.374	
Living Standard Measurement	1.548	0.234	***	2.393	0.233	***	2.780	0.280	***
Educational Attainment	0.922	0.150	***	0.778	0.118	***	0.686	0.103	***
Employment (ref. employed)									
Retired	(omitted)			(omitted)			-2.800	0.995	**
Unemployed	-5.734	0.873	***	-6.822	0.701	***	-3.417	1.222	**
Student	-3.976	1.012	***	-4.158	2.702		(omitted)		
Labour Inactive	-4.347	1.697	*	-3.967	0.916	***	-1.720	1.121	
Number of obs.	2620			3410			3111		
R-squared	0.253			0.361			0.404		
Root MSE	10.86			11.18			11.79		

Appendix C

FSCA SASAS 2017 MODULE ON FINANCIAL LITERACY

I would now like to ask you some questions about your family and money matters. Please can you start by telling me:

1. Who is responsible for day-to-day money management decisions in your household?

You make these decisions by yourself	1
You make these decisions with someone else	2
Someone else makes these decisions	3
(Do not know)	8
(Refused to answer)	9

2. Does your household have a budget? A household budget is used to decide what share of your income will be used for spending, saving and paying bills.

Yes	1
No	2
(Do not know)	8
(Refused)	9

I am going to read out some behaviour statements. Please can you tell me how often you do these things or not. [*Showcard 28*]

		Always	Often	Some of the time	Seldom	Never	(Do not know)	(Refused)	(Not applicable)
3.	Before I buy something I carefully consider whether I can afford it	1	2	3	4	5	8	9	
4.	I pay my bills on time	1	2	3	4	5	8	9	10
5.	I keep a close personal watch on my financial affairs	1	2	3	4	5	8	9	
6.	I set long-term financial goals and work hard to achieve them	1	2	3	4	5	8	9	

7. Sometimes people find that their income does not quite cover their living costs. In the last 12 months, has this happened to you?

Yes	1	→ **Ask Q.8**
No	2	**Skip to Q.10**
(Do not know)	8	
(Refused to answer)	9	

8. **What did you do to make ends meet the last time this happened?**
9. **Of the things you mentioned, which does your household rely on the most?**

	Q.8	Q.9 [ONE OPTION]
Draw money out of savings or transfer savings into current account	1	1
Cut back on spending, spend less, do without	2	2
Sell something that I own	3	3
Work overtime, earn extra money	4	4
Borrow food or money from family or friends	5	5
Borrow from employer/salary advance	6	6
Pawn something that I own	7	7
Take a loan from my savings and loans clubs	8	8
Take money out of a flexible home loan account	9	9
Apply for loan/withdrawal on pension fund	10	10
Use authorized, arranged overdraft or line of credit	11	11
Use credit card for a cash advance or to pay bills/buy food	12	12
Take out a personal loan from a formal financial service provider	13	13
Take out a payday loan (advance on salary from someone-not employer)	14	14
Take out a loan from an informal provider/moneylender	15	15
Use unauthorised overdraft	16	16
Pay my bills late; miss payments	17	17
Other (specify)	18	18
(Do not know)	98	98
(Refused to answer)	99	99

10. **Have you set aside emergency or rainy day funds that would cover your expenses for 3 months, in case of sickness, job loss, economic downturn, or other emergencies?**

Yes	1
No	2
(Don't know)	8
(Refused)	9

I would like to know how much you agree or disagree with each of the following statements: [*Showcard 1*]

		Completely agree	Agree	Neither Nor	Dis-agree	Completely disagree	(Do not know)	(Refused)
11.	I find it more satisfying to spend money than to save it for the long term	1	2	3	4	5	8	9
12.	I tend to live for today and let tomorrow take care of itself	1	2	3	4	5	8	9
13.	Money is there to be spent	1	2	3	4	5	8	9

14.	My financial situation limits my ability to do the things that are important to me	1	2	3	4	5	8	9
15.	I have too much debt right now	1	2	3	4	5	8	9

16. In the past 12 months have you been saving money in any of the following ways? Please do not include pension savings in this question.

Building up a balance of money in your bank account	1
Paying money into a savings account	2
Saving cash at home or in your wallet	3
Giving money to family to save on your behalf	4
Saving in a stokvel or any other informal savings club	5
Buying financial investment products, other than pension funds	6
Or saving in some other way (including remittances, buying livestock or property)	7
(None of the above – has not been saving actively)	8
(Do not know)	9
(Refused to answer)	10

17. Overall, on a scale of 1 to 5 where 1 is very confident, and 5 is not at all confident; how confident are you that you have done a good job of making financial plans for your retirement?

1 2 3 4 5	Very confident Not at all confident
7	(Respondent has no retirement plan)
8	(Do not know)
9	(Refused)

PRODUCT CHOICE

I am going to start with products that people can get from banks.

18. **Please can you tell me whether you have heard of any of the following banking products?**
19. **And now can you tell me whether you currently hold any of these types of products?**

	18. Heard of banking products.	**19. Currently hold types of banking products**
Mzansi account	01	01
Savings account	02	02
Current or Cheque account	03	03
Fixed deposit bank account	04	04
ATM card	05	05
Debit card or Cheque card	06	06
Credit Card	07	07
Garage card or petrol card	08	08
Home loan from a big bank	09	09
Savings book at a bank	10	10
Post Office / Post Bank savings account	11	11
Cellphone account (e.g. M-PESA)	13	13
Other bank product (SPECIFY)	12	12
(None of the above)	97	97
(Refused)	98	98
(Don’t know)	99	99

I would now like to talk about various types of credit or loans.

20. **Please can you tell me whether you have heard of any of the following types of credit or loans?**
21. **And now can you tell me whether you currently hold any of these types of credit or loans?**

	20. Heard of type of credit or loan	**21. Currently hold type of credit or loan**
Formal credit and loans		
Loan from a microlender	01	01
Vehicle or car finance through bank or dealer	02	02
Overdraft facility	03	03
Store card where you buy on account and pay later e.g. Edgars	04	04
Lay-bye	05	05
Hire Purchase (HP)	06	06
Informal credit and loans		
Loan from friends or family	07	07
Loan from an informal money lender)	08	09
Loan from a stokvel / umgalelo or savings club	09	10
Loan from local spaza	10	11
Store account with no card where you pay later	11	12
Loan from an employer	12	08
(None of the above)	97	97
(Don’t know)	98	98
(Refused)	99	99

I would now like to talk about savings and investments.

22. **Please can you tell me whether you have heard of any of the following types of investment or savings products?**
23. **And now can you tell me whether you currently hold any of these types of investment or savings products?**

	22. Heard of any of investment or savings product.	**23. Currently has investment or savings product**
Formal products		
Unit trusts	01	01
Education policy or plan	02	02
Investment or savings policy	03	03
Shares on the stock exchange	04	04
Retirement products		
Retirement annuity	05	05
Provident fund	06	06
Pension fund	07	07
Savings clubs		
Stokvel / umgalelo / savings club	08	08
Giving money to someone to keep it safe	09	09
Keep cash or savings at home	10	10
Other savings club	11	11
(None of the above)	97	97
(Don’t know)	98	98
(Refused)	99	99

I would now like to talk about various types of insurance.

24. **Please can you tell me whether you have heard of any of the following types of insurance products?**
25. **And now can you tell me whether you currently hold any of these types of insurance products?**

	24. Heard of insurance product	**25. Currently has insurance product**
Short-term (asset) insurance		
Vehicle or car insurance	01	01
Household contents insurance	02	02
Homeowners' insurance on building	03	03
Cellphone insurance	04	04
Long-term insurance		
Life insurance or life cover	05	05
Insurance that pays your loan	06	06
Disability insurance or cover	07	07
Medical aid scheme	08	08
Hospital cash plan	09	09
Funeral		
Belong to a burial society	10	10
Funeral policy with a bank	11	11
Funeral cover through an undertaker	12	12
Funeral policy with an insurance company	13	13
Funeral cover from an spaza shop	14	14
Funeral cover from any other source	15	15
(None of the above)	97	97
(Don't know)	98	98
(Refused)	99	99

How much do you agree or disagree with the following statements?

		Totally agree	Tend to agree	Tend to disagree	Totally disagree	(Don't know)	(Not applicable)	(Refused)
26.	I've got a clear idea of the sorts of financial products or services that I need without consulting a financial adviser	1	2	3	4	5	6	7
27.	I always research my choices thoroughly before making any decisions about financial products or services	1	2	3	4	5	6	7

28. In the last 12 months, have you made a decision about any of the following that you later regretted?

Savings or investments	1
Taking out a home loan	2
Taking out a loan or credit agreement	3
Insurance of any type	4
Tax	5
Managing credit/debt	6
(None of the above)	7
(Don't know)	8
(Refused)	9

29. Within the last five years, have you discovered that you had been paying for a financial product that was clearly unsuitable for your needs? [This would include formal and informal products, covering savings, investments, credit or loans, as well as insurance]

Yes	1
No	2
(Do not know)	8
(Refused to answer)	9

30. Which one of the following statements best describes how well you [and your partner] are keeping up with your bills and credit commitments at the moment?

Keeping up with all bills and commitments without any difficulties	1
Keeping up with all bills and commitments, but it is a struggle from time to time	2
Keeping up with all bills and commitments, but it is a constant struggle	3
Falling behind with some bills or credit commitments	4
Having real financial problems and have fallen behind with many bills or credit	5
Don't have any bills or credit commitments	6
(Don't know)	8
(Refused)	9

31. How would you rate your current credit record?

Very bad	1
Bad	2
About average	3
Good	4
Very good	5
(Don't know)	8
(Refused)	9

FINANCIAL KNOWLEDGE AND UNDERSTANDING

32. Thank you. And, now something slightly different. Which, if any, of these things do you personally keep an eye on?

Changes in the housing market	01
Changes in the stock market	02
Changes in interest rates	03
Changes in inflation	04
Changes in taxation, e.g. income tax, capital gains tax	05
Changes in the job market	06
Changes in state pension, benefits and tax credits	07
Best buys in financial products	08
(None of these)	97
(Don't know)	98
(Refused)	99

33. Could you tell me how you would rate your overall knowledge about financial matters compared with other adults in South Africa?

Very high	1
Quite high	2
About average	3
Quite low	4
Very low	5
(Don't know)	8
(Refused)	9

The next few questions are more like a quiz. The questions are not designed to trick you so if you think you have the right answer, you probably do. If you don't know the answer, just say so

34. Imagine that five friends are given a gift of R1 000. If the friends have to share the money equally how much does each one get?

INTERVIEWER: READ OUT THE QUESTION AGAIN IF ASKED TO DO SO

Record response numerically - - -

R	

(Don't know)	998
(Refused)	999
(Irrelevant answer)	997

35. Now imagine that the friends have to wait for one year to get their share of the R1,000 and inflation remains the same. In one year's time will they be able to buy... (Read out)

More with their share of the money than they could today	1
The same amount	2
Or, less than they could buy today	3
(It depends on the types of things that they want to buy)	4
(Don' know)	8
(Refused)	9
(Irrelevant answer)	7

36. You lend R25 to a friend one evening and he gives you R25 back the next day. How much interest has he paid on this loan?

Record response numerically - - -

R	

(Don't know)	998
(Refused)	999
(Irrelevant answer)	997

37. Suppose you put R100 into a savings account with a guaranteed interest rate of 2% per year. You don't make any further payments into this account and you don't withdraw any money. How much would be in the account at the end of the first year, once the interest payment is made?

Record response numerically - - -

R	

(Don't know)	998
(Refused)	999
(Irrelevant answer)	997

38. And how much would be in the account at the end of five years? Would it be....

More than R110	1
Exactly R110	2
Less than R110	3
Or is it impossible to tell from the information given	4
(Don't know)	8
(Refused)	9
(Irrelevant answer)	7

I would like to know whether you think the following statements are true or false:

		True	False	(Do not know)	(Refused)
39	If someone offers you the chance to make a lot of money it is likely that there is also a chance that you will lose a lot of money.	1	2	8	9
40	High inflation means that the cost of living is increasing rapidly	1	2	8	9
41	It is less likely that you will lose all of your money if you save it in more than one place.	1	2	8	9

42. Which one of the following can hurt your credit rating?

Making late payments on loans and debts	1
Staying in one job too long	2
Living in the same location too long	3
Using your credit card frequently for purchases	4
(Don't know)	8
(Refused)	9

43. What can affect the amount of interest that you would pay on a loan? (one option)

Your credit rating	1
How much you borrow	2
How long you take to repay the loan	3
All of the above	4
(Don't know)	8
(Refused)	9

44. People get information about financial investments from many sources. What sources do you feel most influence your decisions about the financial investments you make?

Advertisements	01
Magazines	02
Newspapers	03
Radio or Television	04
Internet	05
Advice from a Financial Advisor	06
Advice from a knowledgeable friend	07
Other - Specify	08
(None of the above)	97
(Don't know)	98
(Refused)	99

45. Thinking about what you have learned about personal finance, where do you think that you learned the most? Was it…?

From your parents or at home	01
From the internet	02
From a financial professional	03
From self-help books or media	04
From school	05
At work	06
From friends	07
Spouse or partner	08
Learned by yourself	09
None of these/Other	10
(Don't know)	88
(Refused)	99