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Democracy, Governance and Service Delivery

Financial Literacy in South Africa:

Results from the 2015 South African Social Attitudes Survey (SASAS) round

Report Prepared for

The Financial Services Board (FSB)

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List of Acronyms

AgriSA	Agriculture South Africa
ANOVA	Analysis of Variance
CEO	Chief Executive Officer
CFB	Considered Financial Behaviour
CMFDWA	Confidence to make financial decisions without advice
CPI	Consumer Price Index
CSPro	Census and Survey Processing System
FLQ	Financial Literacy Quiz
FNB	First National Bank
FSB	Financial Services Board
FSA	Financial Services Authority
GDP-R	Gross Domestic Product by Region
HDI	Human Development Index
HSRC	Human Sciences Research Council
INFE	International Network on Financial Education
LSM	Living standard measure
NCFE	National Consumer Financial Education
NT	National Treasury
OECD	Organisation for Economic Co-operation and Development
PSU	Primary sampling unit
RMB	Rand National BankRMFD Research to make financial decisions
SAL	Small Area Layer
SASAS	South African Social Attitudes Survey
SPSS	Statistical Package for the Social Sciences

EXECUTIVE SUMMARY

THE AIM OF THE SURVEY

This report draws from the 2010 financial literacy pilot study that followed the conceptual framework of the Organisation for Economic Co-operation and Development (OECD) initiative. It is designed to be comparable to previous financial literacy reports. This report is thus part of the ongoing study of financial literacy in South Africa and its objective is to provide the Financial Services Board (FSB) with information about the financial knowledge, attitudes, skills and behaviour of adult (aged 16 and older) South Africans. Such information will assist the FSB Consumer Education programme to help South African consumers to achieve sound financial management. The primary goal of the report is to determine levels of financial literacy in South Africa by providing composite measures of financial knowledge, attitudes and behaviour for the recent period. Such measures will allow researchers to identify financially illiterate groups. Furthermore, the information provided by this report can be used to inform public policy and assist in developing strategies to improve financial literacy.

The executive summary presented here summarises financial capability in South Africa. It is important to note that financial literacy is a complex multi-dimensional concept that combines awareness, knowledge, skills, attitudes and behaviour. This combination can be exemplified by investigating four financial domains: (a) financial control; (b) choosing and using appropriate financial products; (c) financial planning; and (d) knowledge and understanding. Based on the conceptual and methodological approach of the OECD, the 2015 financial literacy report is subdivided into the themes of (i) money management; (ii) financial knowledge and understanding; (iii) attitudes towards finances; (iv) prudent financial behaviours; (v) making ends meet; (vi) saving behaviour; and (vii) choosing financial products.

RESEARCH METHODOLOGY

A total of 2,940 people were interviewed for the 2015 financial literacy report. Using an advanced statistical algorithm, this sample was weighted to be representative of 36,778,675 South African adults. To achieve the nationally representative sample desired by the FSB, a sample 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 FSB financial literacy survey was individuals aged 16 and over who lived in South Africa, specifically comprising people living in households, hostels and other structures. To ensure that the sample was also representative in terms of the ethnic and cultural diversity of the country, the HSRC's geo-demographic categories, which have been developed from the 2011 census data, were used as the implicit stratification variable. Small Area Layers (SALs) from the 2011 Census formed the primary sampling unit (PSU), of which five hundred SALs were selected throughout South Africa. Within each PSU or SAL a total of 7seven visiting points or households were selected for interviewing, using random sampling. These geo-demographic categories reflect the diversity of the South African population based on their rural/urban, income, education, race and geographic characteristics. One household member aged 16 years or older was selected randomly as the respondent to complete the questionnaire in the language of his or her choice. The fieldwork took place in October and November 2015.

MANAGING MONEY

Household financial decision-making is an important area of study. This section looks financial decisions in the household over the period 2010-2015 with a focus on which groups participate in household financial decision-making.

HOUSEHOLD BUDGETS

To better understand the nature of financial control, respondents were asked if they had a household budget to guide the allocation of funds to spending, saving and paying debts. Most adult South Africans in 2015 indicated that they had a budget that helped them make their daily financial

decisions. Approximately three-fifths (59%) of those aged 16 years and older said that they had a household budget. This represents an increase in budget-holding between 2012 and 2015. In 2012, roughly half (53%) the adult population reported the existence of a household budget with 43% suggesting otherwise and 4% uncertain or refusing to answer. Of those with a tertiary education, 79% reported having a budget, indicating the positive relationship between budget-holding and educational attainment. Socio-economic class is, unsurprisingly, also a strong predictor of financial control with the poor and uneducated less likely to have a household budget.

PERSONAL INVOLVEMENT IN MONEY MANAGEMENT

In South Africa, responsibility for day-to-day money management has traditionally been considered the province of the household head, often the patriarch of the family. However, in the contemporary period, financial decisions are increasingly made jointly by the family. We found that about a quarter (26%) of the adult public managed household finances themselves, two-fifths made financial decisions jointly with someone else while a third stated that they played no role in making financial decisions. Of those who were employed, half (48%) managed their household jointly and 35% were solely responsible for daily household money management. There has been a remarkable shift between 2011 and 2015 amongst Black African households on money management. In 2011 almost half (46%) of Black African married men managed household finances without the involvement of their partner. By 2015, less than a third (30%) of Black African married men managed their households in this way.

FINANCIAL KNOWLEDGE AND UNDERSTANDING

In order to understand financial literacy in South Africa, it is necessary to understand the extent of the financial knowledge that an individual possesses. As part of the financial literacy score, the research team designed a module to measure South Africans' understanding of inflation, risk, interest and consumerism.

BASIC ARITHMETIC

A core component of the financial literacy survey was a set of questions administered as a quiz, in order to assess the familiarity and proficiency of South Africans with basic financial concepts. This quiz was used to examine how South Africans understand the financial world. An overwhelming majority of respondents were able to supply the correct numerical answer to the first quiz item on mathematical division. The question asked 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?" In 2015, only small percentages of respondents provided incorrect or irrelevant answers (7% and 1% respectively), with number (5%) reporting that they did not know the answer. Reviewing the results over the period 2010-2015, more people answered this question correctly in 2015 when compared with 2010.

UNDERSTANDING OF INFLATION

The second item explored knowledge of inflation by asking people to answer the following question: "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?" Of the adult public, only two-fourteenths (14%) chose the response that was expected (i.e. the brothers would be able to purchase less in a year than today), with almost two-thirds of the population (61%) stating an incorrect answer. There has been a decline in the share of the population giving a correct answer between 2010 and 2015. In an additional inflation-related question, respondents were asked whether they felt the statement, "Inflation means the cost of living is increasing rapidly", was true or false. An estimated 87% considered this a truthful assertion. If 2015 is compared with 2011, it is apparent that more people answered this question correctly in 2015 when compared with 2011. Therefore, we can say that most seems to grasp the basics of inflation as a concept and the poor showing on the first inflation question may be a result of the cognitive effort involved in calculating inflation.

UNDERSTANDING OF INTEREST AND COMPOUND INTEREST

The other quiz items relate to interest and interest rates. The statement read by interviewers was 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 70% of the adult population responded correctly. To this question, 18% of the population gave incorrect answers, 2% irrelevant answers and around a tenth (9%) was uncertain. 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 (43%) of the adult population gave a correct response to this question, approximately a quarter (28%) answered incorrectly, 2% gave irrelevant answers and a quarter said they did not know. Finally, to test compound interest, respondents were asked a follow-up question to the original interest rate question: "And how much would be in the account at the end of five years?" About three-eighths (36%) gave a correct response, roughly a third (34%) gave an incorrect answer, 2% gave irrelevant answers and 27% said they did not know. The proportion of adult South Africans giving incorrect answers to these questions was lower in 2015 than it was in 2010.

SUBGROUP DIFFERENCES ON THE FINANCIAL QUIZ

When examining the responses to the financial literacy items outlined above by subgroup, it is clear that there is a highly varied distribution of responses with some groups differing distinctly from one another. Marked differences are noted along socio-economic divides with better-educated, wealthier individuals more likely to answer correctly. Members of the White and Indian minority groups were more far likely than their Black African and Coloured counterparts to give correct answers. Interestingly, there were wide differences in financial knowledge between provinces. People living in KwaZulu-Natal and the Western Cape had high financial quiz scores compared to residents of other provinces.

UNDERSTANDING INVESTMENT RISK AND RETURN

Three questions in the quiz were designed to find out about respondents' ability to weigh up risk and return on investments. It would seem that South Africans are quite sceptical about potential investments that offer the prospect of getting rich quick, with 70% believing that if someone offers them the chance to make a lot of money it is likely that there is also a chance that you will lose a lot. Regarding risk and savings, it is clear that the adult population is somewhat divided on the matter of risk and savings. In 2015, more than half (56%) thought it was true that only saving in one pace was a risk while a third (33%) thought that statement was false. In 2015, respondents were asked if they agreed or disagreed with the statement: "I am prepared to risk some of my own money when saving or making an investment". About half (46%) of the adult public agreed with the statement, roughly one-third (35%) disagreed and the (16%) remainder said 'neither agree nor disagree' or did not know.

It is important to consider risk-aversion amongst important sociodemographic subgroups. To accomplish this, we constructed a Risk-Aversion Scale. Responses to our risk-aversion questions were coded onto a single 0-100 scale with 0 indicating the lowest level of reported level of risk aversion and 100 the highest. It was notable that South Africans in the 65 and over age cohort tended to be more risk-averse than their younger counterparts. The more educated an individual, the less likely that individual will be to be risk-averse. This may reflects the greater economic resources available to the educated and therefore the lower costs to risk-taking.

ATTITUDES TOWARDS FINANCES

Attitudes can have an effect (or at least a relationship) with behaviour, and consequently examining attitudes towards finances is important. This section looks at attitudes towards spending and saving and the relationship between attitudes and evaluations of financial position.

Since 2010, SASAS respondents have been asked about their attitudes towards saving. They were asked: "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 (42%) agreed with the statement while 46% disagreed.

Attitudes towards monetary expenditure have not changed significantly since these questions were first asked in 2010. When asked if they agreed or disagreed with the statement: "I tend to live for today and let tomorrow take care of itself", more than half (55%) of the adult population disagreed while less than a third (32%) agreed. When asked if they thought that money was there to be spent, 46% of adult South Africans in 2015 agreed. A smaller share (35%) disagreed and the remainder (19%) remaining neutral. To sum up, it would appear that many people in the country report that have a robust sense of financial self-control.

In 2015, the SASAS research team introduced new questions to probe more effectively how ordinary South Africans saw their financial position. Respondents were asked if they agreed or disagreed with the following statements: (i) my financial situation limits my ability to do the things that are important to me; (ii) I tend to worry about paying my normal living expenses; and (iii) I have too much debt right now. Most people worried about paying for normal living expenses (51% of men and 56% of women). Similar percentages of women (68%) and men (63%) felt that their financial situation limits their ability to do the things important to them. A relatively small proportion, 19% of men and 21% of women, felt that they were indebted.

PRUDENT FINANCIAL BEHAVIOUR

Understanding prudent financial behaviour is fundamentally important. In order better to understand whether South Africans are responsible in their financial behaviour, the SASAS research team has been collecting data on attitudes towards money management since 2010.

CONSIDERED APPROACH TO PERSONAL FINANCES

A majority (57%) of the adult public acknowledged that they always carefully considered whether they could afford a purchase, with an additional quarter (24%) suggesting that they do this often. Attitudes towards prudent spending have not changed significantly since 2010 when the question was first asked. Although this is a broadly reassuring message, South Africans tend to be less likely to pay their bills on time in 2015 than they were in 2010. Only a minority (37%) indicated that they are always diligent in making such payments in 2015. An even smaller proportion (35%) said they always keep close watch over their personal finances in that year. Responses show that the 16-24 age cohort exhibited more financially imprudent behaviour than their elders did. Significant differences in reported financial behaviour were also observed between different economic strata, suggesting that economic status is a salient factor underlying financial behaviour.

RESEARCH AND ADVICE SEEKING

The survey allowed the researchers to inquire about the confidence of South Africans in their ability to make decisions without financial advice and the level of research done before decisions are made. Many South Africans displayed confidence in their ability to make financial decisions without consulting financial advisers. Of all adult South Africans, 52% agreed that were confident of their financial knowledge without seeking financial advice, compared to a third who said they were not confident. This represents an increase in confidence since 2011 when only 44% of the adult population indicated that they had a clear idea of the sorts of financial products or services that they needed without consulting a financial adviser.

Many South Africans claimed that they researched thoroughly before making a financial decision. Of the adult population, about half (52%) claimed they had researched thoroughly, compared to a third who admitted to not doing so. Unlike the results for the confidence measure above, the tendency to research financial decisions has not changed significantly since 2011. This indicates that the growth in confidence noted above is not due to a greater propensity to do financial research. These findings corroborate the results from the 2010 baseline study which found of those individuals who had recently acquired financial products, nearly half (48%) maintained that they had considered several products from different companies before deciding which product they preferred.

ATTITUDES TO 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 2015, roughly a quarter (27%) of all adult South Africans said that they always set long-term financial goals and work hard to achieve them. Around two-fifths (42%) 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. Self-reported financial planning has remained relatively stable over the period for which we have data. Those near the top of the economic pyramid were more likely to plan financially. Those who occupy the upper layers of the economic pyramid were more likely to engage in financial planning Full-time employees were, in addition, considerably more likely than the unemployed or those outside the labour market to set such goals.

MAKING ENDS MEET

We need to understand how ordinary South Africans manage financial vulnerability. To comprehend financial vulnerability better, we use SASAS data to look at financial resilience in 2015.

FINANCIAL RESILIENCE AND VULNERABILITY

In 2015, the SASAS research team introduced a question into the questionnaire on how long an individual's household could cover expenses (without borrowing money or moving house) if that household lost its main source of income. When answering this question, nearly a sixth (15%) said less than a week and almost a fifth (19%) said at least week but not a month. About a fifth (21%) thought their household could cover expenses for at least a month but not three months and roughly a tenth (11%) thought at least three months. Less than a seventh (13%) believed that their household could continue meeting expenses for six months and more. Compared to the Black African majority, much higher proportions (27%) of the White and Indian (27%) minorities lived in households who could survive for six months or more. Interesting variations were noted between different provincial residences. The least financially resilient of the different provincial residents in the figure were those from the Eastern Cape and Limpopo.

VULNERABILITY TO A MAJOR EXPENSE

In 2015, for the first time the SASAS research team asked whether a respondent could cover a major expense, defined as equivalent in cash terms to their monthly income, without borrowing money or asking friends and family for help. When defining the size of the expense, interviewers told respondents that it was equivalent –in cash terms –to their monthly income. When answering this question, aAbout a fifth (22%) of all adult South Africans said yes and roughly four-ninths (44%) said no. A significant group (28%) thought that the question did not apply because they did not have a personal income. The remainder either did not know (4%) or refused to answer (1%). This indicates that many South Africans live on the edge financially unable to respond to a major expense, making them vulnerable to any sudden crisis in their finances. Using multivariate regression analysis, we found that economic status, rather than population group, seems a better predictor of self-reported capacity to meet a major expense. Even controlling for economic position, the more educated the individual the less vulnerable they are to the shock of a major expense.

EXPERIENCING AND COPING WITH A FINANCIAL SHORTFALL

Since 2010, respondents had been asked whether in the year before being interviewed they had personally experienced a situation where their income did not cover their living costs. In 2015 almost half the population questioned (48%) reported that they had experienced such a situation, with the remainder indicating that this had not happened to them. This was different from the 2013 response when only 41% of adult South Africans reported experiencing a financial shortfall. This is a worrying finding as it indicates that many still struggle to make ends meet. Discouragingly, those households with many children to support were significantly more likely to face a financial shortfall as compared

to those with no dependent children. Using multivariate regression analysis, we found that even controlling for socio-economic status a dependent child increases the chances of an individual's income not quite covering living costs. Multivariate analysis showed that older people were more vulnerable to financial shortfalls than their younger counterparts.

Since 2010, respondents who experienced a shortfall have been asked how they coped with it. Responses help us understand the strategies South Africans employ to get through times of financial duress. The most common strategies were: (i) to access credit by using existing contacts or resources; and (ii) to draw on existing resources. Specifically, more than half (55%) of those who experienced a financial shortfall borrowed from friends and family, and almost half (48%) cut back on their spending. Few people reported turning to formal credit options (like credit cards or loans from a formal financial service) which shows that such bodies are not readily accessible to households in financial duress. This may be due to the entry barriers involved.

In order to obtain a deeper understanding of individual responses to financial duress, respondents who had undergone financial shortfalls were asked which coping strategy was most important to them during the previous year. It is evident that the most important coping mechanism in 2015 was to draw on existing resources (37%) with cutting back on expenditure or doing without (29%) following. This represents a shift from 2011 when the primary coping mechanism was credit from existing contacts (45%). Worryingly the share of South Africans who relied on cutting back as their primary stratagem in the event of a shortfall increased by 62% between 2011 and 2015. This may represent a response to prolonged economic difficulties which would have strained social networks traditionally utilised for financial credit.

SAVING BEHAVIOUR

South Africa needs to build a culture of saving. This section will look at savings behaviour to try to understand why South Africans tend not to save.

PLANNING FOR FINANCIAL EMERGENCIES

It is important to assess whether South Africans have made adequate financial provision to ensure that, beyond meeting daily needs, survival can continue in the face of financial shocks or emergencies. To this end, respondents were asked to report whether they set aside emergency funds that would cover expenses for three months in case of sickness, job loss, economic downturn or other emergencies. In 2015, just over two-thirds of respondents (69%) reported that they would not be able to cover expenses for three months in case of an emergency. Comparing 2013 and 2015, there has been a moderate improvement in the proportion of individuals who have access to emergency funds. When compared to the poor and uneducated, setting aside an emergency (or rainy day) fund was more common amongst the economically affluent and the well-educated.

MAKING PROVISION FOR THE FUTURE

When asked about personal savings in the year before being interviewed, it emerged that paying money into a bank account was one of the most popular forms of saving among adult South Africans. Even so, less than a fifth (19%) of adults aged 16 years and older used a savings account to provide for future needs and 17% stated that they tried to accumulate money in their bank accounts. Approximately a seventh of South Africans (13%) declared that they saved by keeping cash at home or in their wallet. A minority (10%) saved through an informal savings club. Our analysis shows that many South Africans found it difficult to save. This may be explained by limited access to employment and income and the high cost of living. There is evidence that more affluent South Africans are saving less in 2015 than in 2012.

RETIREMENT PLANNING

To find out how confident the average unretired South African is in their retirement plan, the SASAS research team used the following question: "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?" Responses show that a significant share (40%) of the adult population had no retirement plan in 2015. Many were either not confident or neutral about their preparations for retirement and only about one-seventh (14%) of the public had confidence in their retirement planning. This, shockingly, suggests that the majority (86%) 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 have a good plan are the wealthy, white South Africans and those with a tertiary education. Multivariate analysis suggests socioeconomic status is associated with having a good retirement plan.

HOW DO WE PLAN FOR RETIREMENT

In a follow-up question to the retirement plan question, respondents were asked: "And how will you - or do you - fund your retirement?" Affluent South Africans indicated that they tend to rely on workplace and private pension plans rather than family and adult children. Private pension plans were particularly popular among those at the very top of the economic ladder. . The people at the top of the economic ladder were also more than likely other groups to mention income generated from assets or selling assets as a way to fund their retirement. Poorer South fund their retirement through the government pension and social networks (i.e. friends and family). Those in metropolitan areas cited government pensions more frequently than did those in rural areas. Multivariate analysis showed that a workplace and/or private pension plan strongly correlated with economic status. The log odds of mentioning social networks as a retirement plan were statistically associated with ethnic background but not socio-economic status.

CHOOSING FINANCIAL PRODUCTS

It is important to understand not only financial management and planning but product awareness and usage. Understanding this aspect of financial management is important for understanding their financial literacy. It also assists with analysing the popularity of certain kinds of products among the population. The study identified four primary financial product areas: (a) banking, (b) credit and loan, (c) investment and savings and (d) insurance. By focusing on these areas, the research team was able to investigate which financial products South Africans were using and which they were aware of.

BANKING PRODUCTS

The most common banking product that South Africans are aware of is a saving account, mentioned by 90% of the population in 2015. This was followed by an ATM card (77%) and credit card (68%). Other products familiar to more three-fifths of the adult population were an Mzansi account (63%) and a debit card (62%). Public awareness of post office savings accounts declined over the period 2011-2015. Awareness of cell phone banking products (such as Vodacom's mobile-phone based money transfer and micro-financing service) grew significantly over this period. If we turn our attention to product holding, it is apparent that a sizeable share of the public (27%) indicated that they possessed none of the banking products listed. The most widespread form of banking products held by adults was a savings account, with more than half (52%) holding such a product in 2015. Over one-third (36%) of the adult public had an ATM card, a substantial change from what was found in 2013 when only 28% held this product.

CREDIT AND LOAN PRODUCTS

The most common formal credit and loan products that South Africans are aware of lay-byes, store cards and loans from micro-lenders, with more than 70% having heard of these products. Other formal products familiar to more than half of those surveyed were vehicle or car finance through banks and hire purchase. The most common informal credit and loan products that they were aware of were loans from friends and family and loans from mashonisas or informal moneylenders. However, in general the respondents did not hold even informal credit and loan products of this type. Store cards and lay-byes were the most widespread form of credit and loan products held by South Africans. The informal credit and loan products most frequently held by ordinary South Africa was a loan from friends or family.

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 clubs. More formal investment and savings products were less widely known and fewer than three-fifths of the population had heard of an education policy or provident, for example. Less than half were familiar with unit trusts, provident funds or investment policies. Investment, retirement and savings products were held by less than one-fifth of the adult public. However, the percentage of people keeping investments in informal savings clubs grew by 60% over the period 2013-2015. This suggests that this form of saving is still considered an attractive investment despite a dour economic macro-environment.

INSURANCE PRODUCTS

Most South Africans are aware of life insurance (or life cover) products, followed by vehicle or car insurance and medical aid schemes. With regard to informal insurance products, the majority had heard of burial societies as a form of funeral insurance. Less well-known forms of insurance include homeowners' insurance, insurance covering the deceased's debts and funeral cover from stokvels. A majority (62%) of the adult public held at least one insurance product. The most popular insurance product held was an account with a burial society. Societies of this type have always been popular in South Africa and serve as a form of social protection to the most vulnerable. Burial societies have played a major role in providing for dignified funerals and form an important part of Black African culture. More than a quarter (28%) of the adult public held an account with a burial society, with the share of respondents with such an account having grown over the period 2011-2015.

DECISION-MAKING AND REGRET

Even the best researched financial decision can be wrong and we must ask, do South Africans regret their financial decisions? Respondents were asked if they had made any financial decision in the previous 12 months that they regretted. In late 2015, the vast majority (80%) of South Africans reported that they did not regret any financial decision during the previous 12 months. The decision(s) most regretted related to savings or investments, with the share of people regretting such decisions standing at 9% in 2015. In closing, we must remember the problem of social desirability bias. It is not possible to be sure whether this means that they did not make decisions they regretted or whether they are unwilling to admit that they did so.

MEASURING FINANCIAL LITERACY

Since 2011, it has been possible to create an index for financial literacy in South Africa. The methodology used to create the financial literacy score used the OECD/International Network on Financial Education (INFE) methodology. This is an international benchmark with well-researched criteria and thoroughly tested methodologies. The use of this methodology would enable the results from South Africa to be compared at cross-national level, meeting a key requirement of the FSB. From the methodological perspective, the OECD measurement variables were centred on a specific set of questions. The multidimensionality of the index allows the research team to capture the complexity of the financial literacy in the context of the modern period.

The Financial Literacy Index was by the SASAS research team using the 2010 baseline survey. Certain questions were isolated and transformed into core measures of financial literacy for the 2012 Financial Literacy Report. The same process has been followed in the present report, and focuses on four principal domains: (a) financial control, (b) financial planning, (c) choosing appropriate products and (d) financial knowledge and understanding. The scores for each and the overall financial literacy scores for the respondents were calculated and are given in the table below. The financial literacy score is an important means of understanding levels of financial literacy and how they differed between 2011 and 2015.

Table 1: Financial literacy scores (mean scores on a 0-100 scale)

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

Levels of educational attainment, and economic status, cannot be understated in analysing financial literacy. An individual's access to economic resources plays a considerable role in determining the financial domain scores and the financial literacy score. Across all domains created for this report, there is a clear socio-economic class bias. The groups with the highest financial literacy score were: (i) the tertiary educated, (ii) the wealthy, (iii) those in full-time employment and (iv) those living in formal urban areas. Interestingly, and perhaps unsurprisingly, student and young subgroups had relatively high knowledge and understanding domain scores but generally scored low in all other domains. Possibly, due to their limited access to financial resources and their lack of a regular income, young people in South Africa appear to be inexperienced in relation to financial products

To understand the relationships between the variables that affect the financial domain scores and to control for the effect of variables on each other, a regression of each of the domains with select socio-demographic variables was undertaken. Economic status and educational attainment were positively associated with financial literacy. Multivariate analysis suggests that even controlling for all other factors related to economic and human capital position, marital status has a robust correlation with financial literacy. With the exception of the Product Choice regression, population group was an insignificant determinant of financial literacy if we control for socio-economic status. Labour market status was positively correlated with financial literacy, suggesting a strong association between employment and financial literacy. Students are significantly less financially literate than all other labour market categories. Such findings make it possible to consider which population groups to target for financial consumer education programmes.

1 Introduction

In academia, financial literacy has gained the attention of a wide range of scholars who recognise the value of financial knowledge and experience (Huston 2010; Jappelli 2010; Remund 2010; Lusardi and Mitchell 2011). Not only does financial illiteracy affect the individual's or family's day-to-day money management; it also influences their ability to save for long-term goals and become financially independent at retirement. In South Africa, the issue of financial literacy has occupied the attention of government for almost a decade now. This is reflected in the 2009 speech by the Minister of Finance, Pravin Gordhan, when he said 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, the Finance Minister recognised that the growing diversification of the South African financial marketplace has complicated financial decision-making for ordinary people. This increasing complexity makes enhancing consumers' financial knowledge and capability an essential national goal.

One important response to this need was the decision to map financial literacy in the country. This was done using the multi-dimensional International Network on Financial Education (INFE) using the Organisation for Economic Co-operation and Development's (OECD) approach (see Atkinson and Messy 2011 for a discussion of this approach). This instrument was commissioned by the South African Financial Services Board (FSB) and was administered by the Human Sciences Research Council (HSRC) under the South African Social Attitudes Survey (SASAS) rubric in 2010. Initial results showed that a substantial proportion of the country's population were 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 clearly showed the urgent need for a sustained and robust response to financial illiteracy in South Africa.

Based on a 2010 pilot study, the first comprehensive OECD INFE instrument employing a multidimensional approach to measuring financial literacy was used 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 measuring financial literacy in South Africa. The work completed by the HSRC highlighted the need for targeted interventions and consumer education programmes to 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 evaluations are required to identify target groups and their changing needs and to monitor the cumulative effect of interventions to produce a more financially capable citizenry. The FSB realised the value of such evaluations of financial literacy in the country and periodically conducted surveys for this purpose. This approach allowed a very valuable database of financial literacy data to be developed between 2010 and 2015.

In the National Consumer Financial Education (NCFE) Strategy, the National Treasury of South Africa summarises its mission for comprehensively empowering consumers to engage with financial services. The aim of the 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."

To support the achievement of this aim, the HSRC has assisted the FSB by generating data on financial adult literacy in the country using a survey instrument consistent with emerging international best practices. The HSRC's significant contribution has been recognised by the NCFE Committee, which has used the information generated by the HSRC to evaluate financial literacy in the country and to measure the progress of interventions to improve financial knowledge and capacity.

In 2015, following consultation and discussion with international partners, the FSB commissioned an expanded OECD INFE instrument. This enabled more in-depth investigation of key financial attitudes and behaviours in South Africa. The broad objectives of this expanded FSB 2015 study were:

- To determine the 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 was to generate information about levels of awareness, knowledge and understanding of financial literacy in South Africa. As 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 FSB in terms of challenges faced.

2 Research Methodology

This section presents information on the details of the survey, including questionnaire design and the sampling framework. Reading this, the client must remember that the research team values coordination with the client as an important part of the research process. The research team provided frequent feedback and updates regarding research processes and progress made. The frequency of this feedback was determined by the deliverables. The research team was available for performance meetings as well as *ad hoc* meetings when deemed necessary. As stipulated in the reporting schedule, the client was kept up to date on progress made. Upon request, senior members of the research team prepared reports to representatives of the client as well as to other relevant stakeholders identified by the client.

2.1 Research Universe

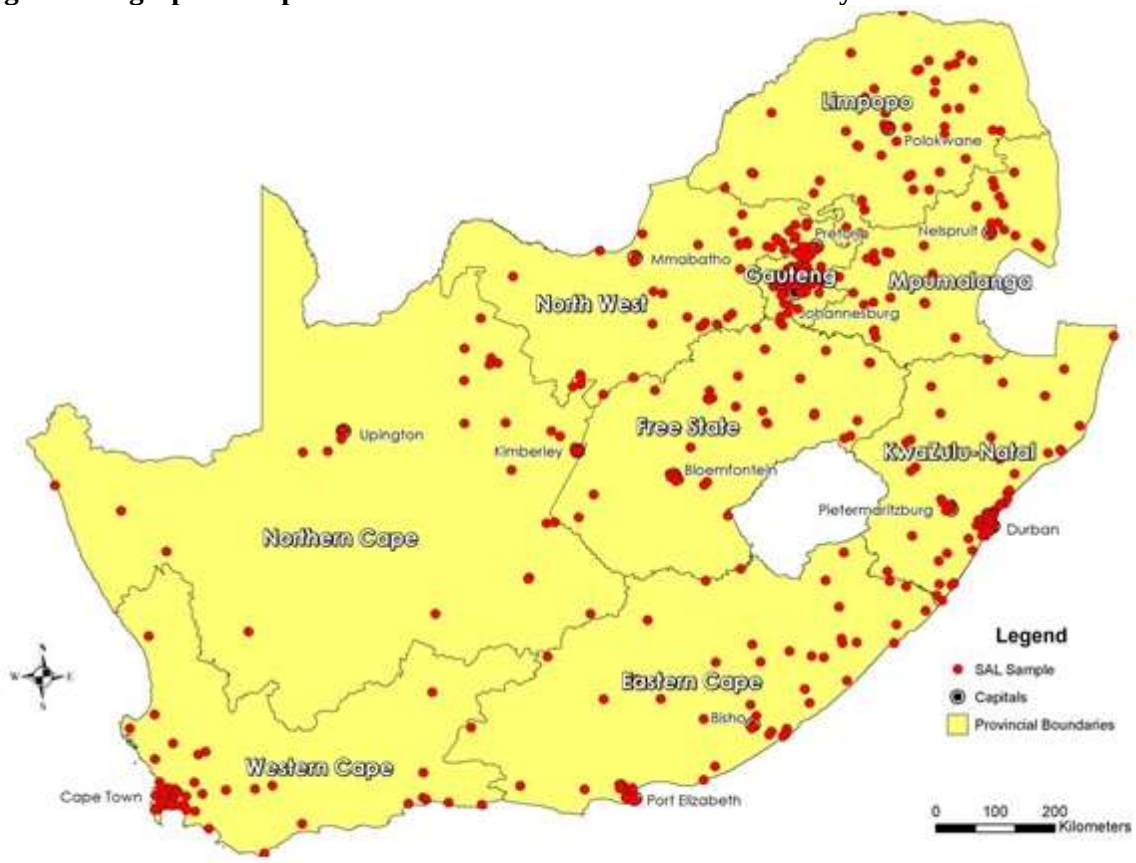
The target population for the South African Social Survey (SASAS) is individuals aged 16 and over who live in South Africa in households, hostels and other structures. People living in special institutions such as hospitals and prisons were excluded from the sample. In the view of the research team, including such people would compromise the random selection procedure. In addition, experience has shown that access to people in these institutions is extremely difficult since obtaining permission can be cumbersome and complex.

2.2 The sample design

The survey was designed to yield a representative sample of 3500 adult South African citizens aged 16 and older (with no upper age limit), in households geographically spread across the country's nine provinces. The sampling frame used for the survey was based on the 2011 census and a set of small area layers (SALs). Estimates of the population numbers for various categories of the census variables were obtained per SAL. In this sampling frame, special institutions (such as hospitals, military camps, old age homes, schools and university hostels), recreational areas, industrial areas and vacant SALs were excluded prior to the drawing of the sample.

Small area layers (SALs) were used as primary sampling units and the estimated number of dwelling units (taken as visiting points) in the SALs as secondary sampling units. In the first sampling stage, the primary sampling units (i.e. the SALs) were drawn with probability proportional to size, using the estimated number of dwelling units in a SAL as a measure of size. The dwelling units as secondary sampling units were defined as "separate (non-vacant) residential stands, addresses, structures, flats, homesteads, etc." In the second sampling stage, a predetermined numbers of individual dwelling units (or visiting points) were drawn with equal probability in each of the drawn dwelling units. Finally, in the third sampling stage, a person was drawn with equal probability from all 16 years and older persons in the drawn dwelling units.

Figure 1: A graphical representation of the 500 selected small area layers



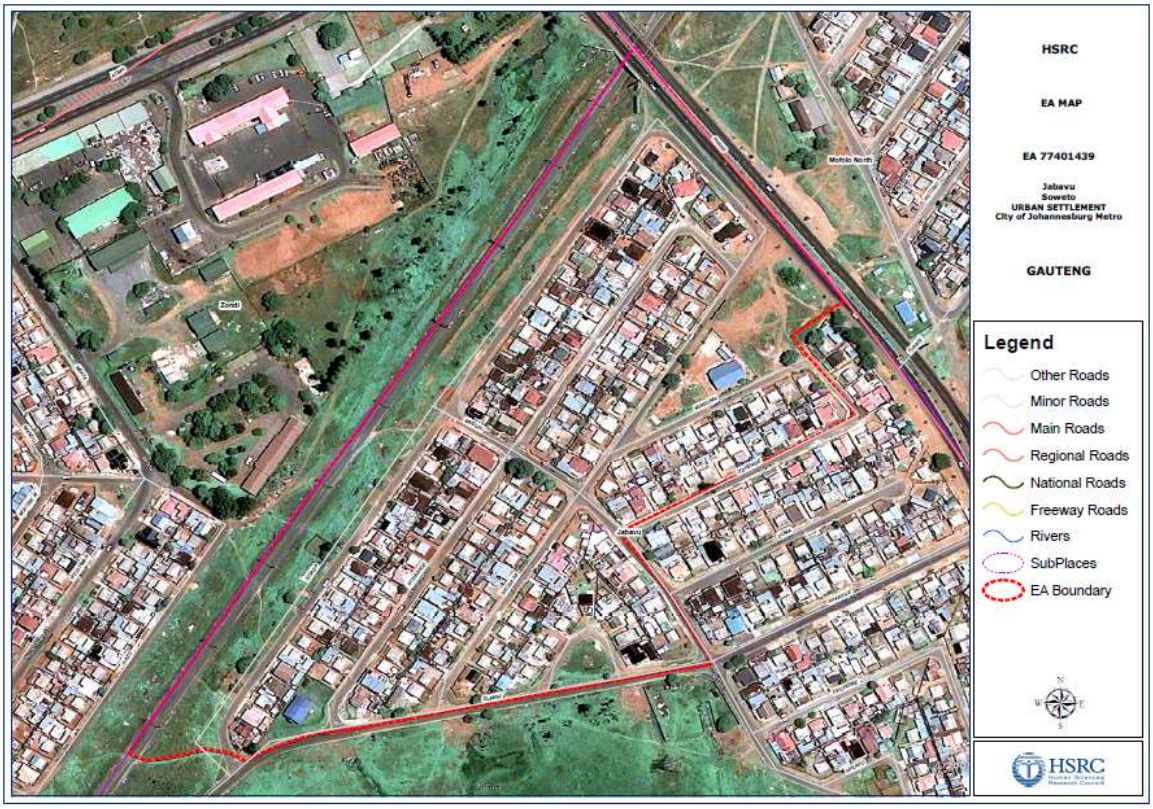
Three explicit stratification variables were used: province, geographic type and majority population group. As stated above, within each stratum the allocated number of primary sampling units (which could differ between different strata) was drawn using proportional to size probability sampling, with the estimated number of dwelling units in the primary sampling units as a measure of size. In each of these drawn primary sampling units, seven dwelling units were drawn. This resulted in a sample of 3500 individuals. A list of the 500 SALs was drawn up and given to geographic information specialists to map. The maps generated for each of the 500 areas indicated navigational beacons such as schools, roads and churches.

2.2.1 Navigation to the selected areas

Once the sample of 500 SALs was selected, a navigational toolkit was 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 to 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 and hospitals. These maps included latitude-longitude and GPS coordinates indicating the centroid of the SAL.

Figure 2: An example of a SAL map used to assist the field teams to navigate to the correct areas



2.2.2 Introduction of the project to the authorities and communities

A month before the start of the SASAS study, Agri South Africa (Agri SA) and all police commissioners in the nine provinces were informed of the study. Before starting the interviewing process, supervisors were instructed to visit the police stations, Indunas, traditional leaders or other role players in the various areas to ensure that the authorities were aware of the project and to inform the communities of their intent. 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 to ensure the safety of the fieldwork teams.

2.2.3 Selecting a household and individual

After driving through the SAL and introducing the project to the local authorities, supervisors had to identify the selected households. A household was selected using a random starting point and counting an interval between households. The interval was calculated using the number of households in the SAL. Once the selected household had been identified, a household member was selected randomly as respondent. This household member (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. (See Kish Grid on Page iii of the Questionnaire – Appendix A).

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 area. The purpose was twofold: (a) to increase the safety of fieldworkers and (b) to reassure respondents, especially the elderly or suspicious, that the survey was official.
- Supervisors were advised to inform the Inkosi 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 met and informed about the study before work started in the area.

- They were also 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 there were queries.
- Consent forms had 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 nametags 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.

2.4 Training

Two-day training sessions were held in various provinces. The main training session took place in Pretoria and covered the Northern provinces: Gauteng, Limpopo, Mpumalanga and North West. All relevant remarks and instructions discussed during the training session were included in the training manual. Other training sessions were held in East London, Durban, Kimberley and the Cape Town. The training sessions included sessions on selection and sampling households; fieldwork operating procedures; research protocol; and ethical considerations. The questionnaire was discussed in detail. As far as possible, the training was participatory, practical and interactive, and gave fieldworkers the opportunity to seek clarification of questions. A training manual was also developed as part of the training toolkit. Fieldwork started in October 2015 and ended in December 2015. 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 the project.

2.5 Quality control

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 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 the respondents in the households. 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.

2.6 Data capturing and cleaning

The data-capturing was conducted by the HSRC's Data Capturing Unit. This unit has the capacity to design capturing templates and capture data quickly and effectively. All questionnaires were double captured in Census and Survey Processing System (CSPRO) to ensure that there were no capturing errors. The final dataset was converted into SAS and SPSS and a data manager carried out a data-cleaning exercise. Data was checked and edited for logical consistency, permitted ranges, reliability on derived variables and filter instructions.

Table 2: Sample realisation

Province	Number of replaced SAL	Ideal sample (N Households)	Realised sample (N Households)	% Realisation
Western Cape	3	455	383	84%
Eastern Cape	0	455	332	73%
Northern Cape	0	259	199	77%
Free State	0	266	237	89%
KwaZulu-Nata	3	651	571	88%
North West	0	259	227	88%
Gauteng	3	581	475	82%
Mpumalanga	0	266	240	90%
Limpopo	0	308	276	90%
Total	9	3500	2976	85%

After data cleaning, the analytical team received the realisation rates of the survey. As can be seen from the table above, a realisation rate of 85% was achieved. This is a high realisation rate and was achieved partly owing to the fact that communities were well informed about the survey and partly because of the data collection methodology: face-to-face interviews.

2.6.1 Data weighting

The data were 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: visiting point (address), household and individual. In order to ensure representativity of smaller groups, such as Northern Cape residents or Indian/Asian people, weights needed to be applied.

Table 3: Sample (Unweighted and Weighted)

	Unweighted N	Percent	Weighted N	Percent
South Africa	2,940	100	36778675	100
Gender				
Male	1120	38	17676294	48
Female	1820	62	19102381	52
Age Group				
16-19 years	190	7	3514223	10
20-24 years	319	11	5926944	16
25-34 years	712	24	9044814	25
35-44 years	494	17	6625039	18
45-54 years	429	15	5067042	14
55-64 years	384	13	3601659	10
65+ years	412	14	2998955	8
Race Group				
Black African	1813	62	28680095	78
Coloured	496	17	3387303	9
Indian/Asian	302	10	1031483	3
White	329	11	3679794	10
Geographic Type				
Urban formal	2092	71	24602411	67
Urban informal	119	4	2933218	8
Rural trad. auth. area	593	20	8030915	22
Rural farms	136	5	1212132	3
Province				
Western Cape	383	13	4392147	12
Northern Cape	332	11	4268335	12
Eastern Cape	199	7	816935	2
Free State	237	8	1933502	5
KwaZulu-Natal	571	19	6807682	19
North West	227	8	2476410	7
Gauteng	475	16	9657697	26
Mpumalanga	240	8	2784279	8
Limpopo	276	9	3641688	10

Person and household weights were benchmarked using the SAS CALMAR macro and province, population group, gender and five age groups (16-24, 25-34, 35-49, 50-59, and 60 and older). These benchmark variables for persons, 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 the 2014 mid-year population estimates published by Statistics South Africa. The estimated South African population was therefore used as the target population. A total of 2 940 people were interviewed during the study. When weighted, this represents 36 778 675 South Africans

aged 16 years and older. The final data set (unweighted and weighted) is disaggregated in Table 4 by key demographic variables.

3 Managing Money

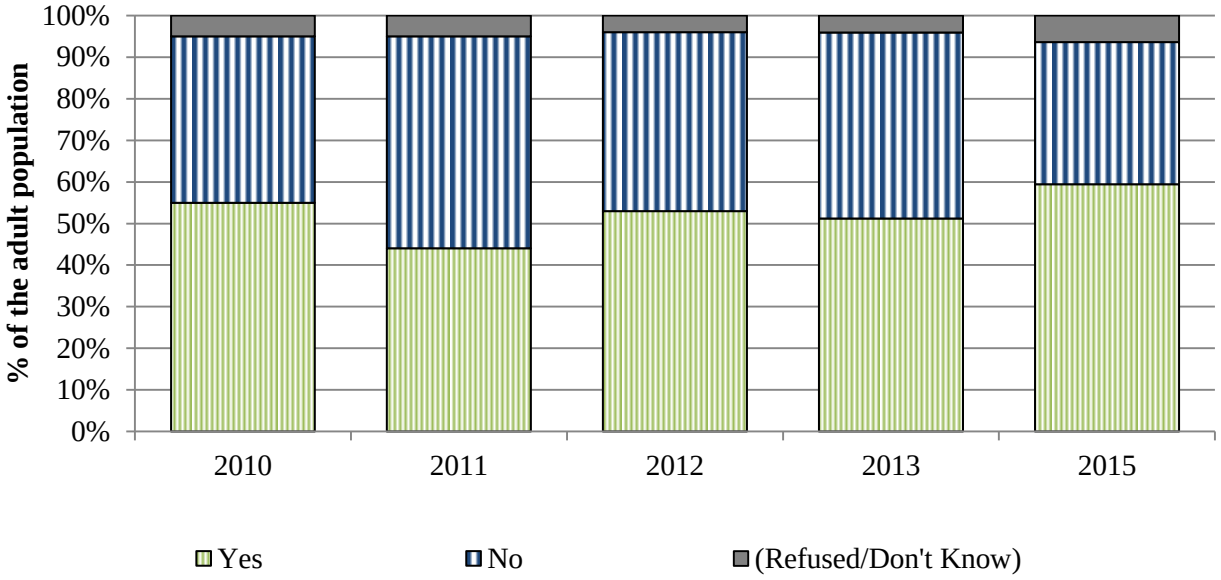
Since the 2010 Financial Literacy Pilot study, the SASAS research team has given special attention to day-to-day money management in its assessment of financial capacity. Informed by the international scholarship on financial aptitude and behaviour (such as Lea, Webley, and Walker 1995; Walker 1996; Atkinson et al. 2007), the research team constructed a series of questions on money management that have been rigorously tested for validity and reliability. In particular, the research team was interested in whether ordinary South Africans have a household budget, as this is an important indicator of responsible financial behaviour. The SASAS research team had available to it five years of survey data (2010-2013 and 2015), allowing for a trend analysis of whether respondents kept a budget. Subsection 3.1 offers a detailed analysis of this data with a focus on how budget-holding differs between different socio-economic groups in the country.

Household financial decision-making is an important area of study. In a North American study by Lusardi and Mitchell (2008), women were found to be more financially illiterate than men. A reason for this may be patterns of household decision-making. In another North American study, Fonseca et al. (2012) found that married men who make the household's financial decisions tend to specialise in acquiring financial knowledge while their wives concentrate in other household functions. Because these men are investing in this form of human capital, they tend to have higher levels of financial knowledge than their partners do. This is indication of the importance of understanding who is involved in financial decision-making in the household. Subsection 3.2 looks at who made household financial decisions over the period 2010-2015 with a focus on which groups participate in this decision-making.

3.1 Presence of a Household Budget

A key aspect 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 suggests 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 South African households since 2010 (see **Figure 3**). The team's research shows that a budget is present in a majority of South African households in 2015, although with a considerable minority not having such a budget. In 2010, about half (51%) of those surveyed reported the presence of a household budget; this share remained relatively unchanged in subsequent years. In 2015, approximately 59% of the adult population reported the presence of a budget in their households. A significant share (34%) of adults lived households in the country without a budget in 2015. This is a concerning finding, and promoting 'budgeting' behaviour is one of the key mandates of the recently released the National Consumer Financial Education Strategy.

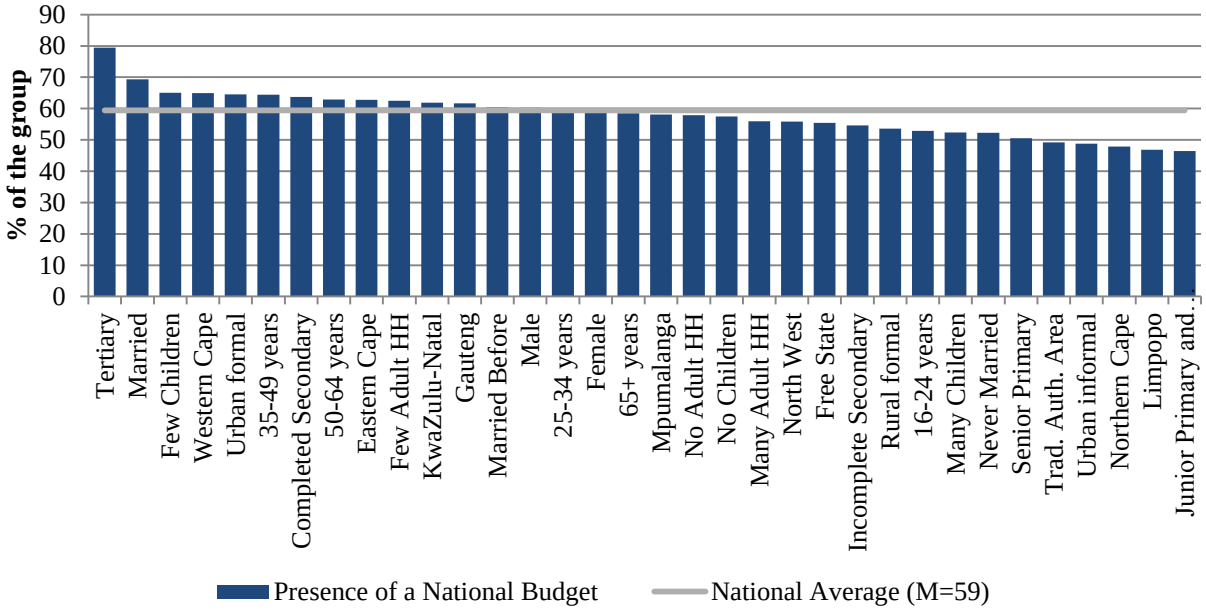
Figure 3: Share of South Africans who had a Household Budget (column percentages), 2010-2015



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

Which households in South Africa hold a household budget and what are the characteristics of those households? **Figure 4** indicates the presence of a household budget by key social and demographic characteristics. Differences in budget holding were observed between age cohorts –of all age cohorts, those in the 35-49 age cohort were most likely to have a budget. These differences were found to be statistically significant at the 5% level. Noted differences between rural and urban dwellers on budget presence were also found to be statistically significant. Many in the primarily rural provinces of Limpopo and the Northern Cape reported no household budget. Residents of the predominantly rural Eastern Cape were, on average, more likely to report the presence of a household budget than were residents of Limpopo and the Northern Cape.

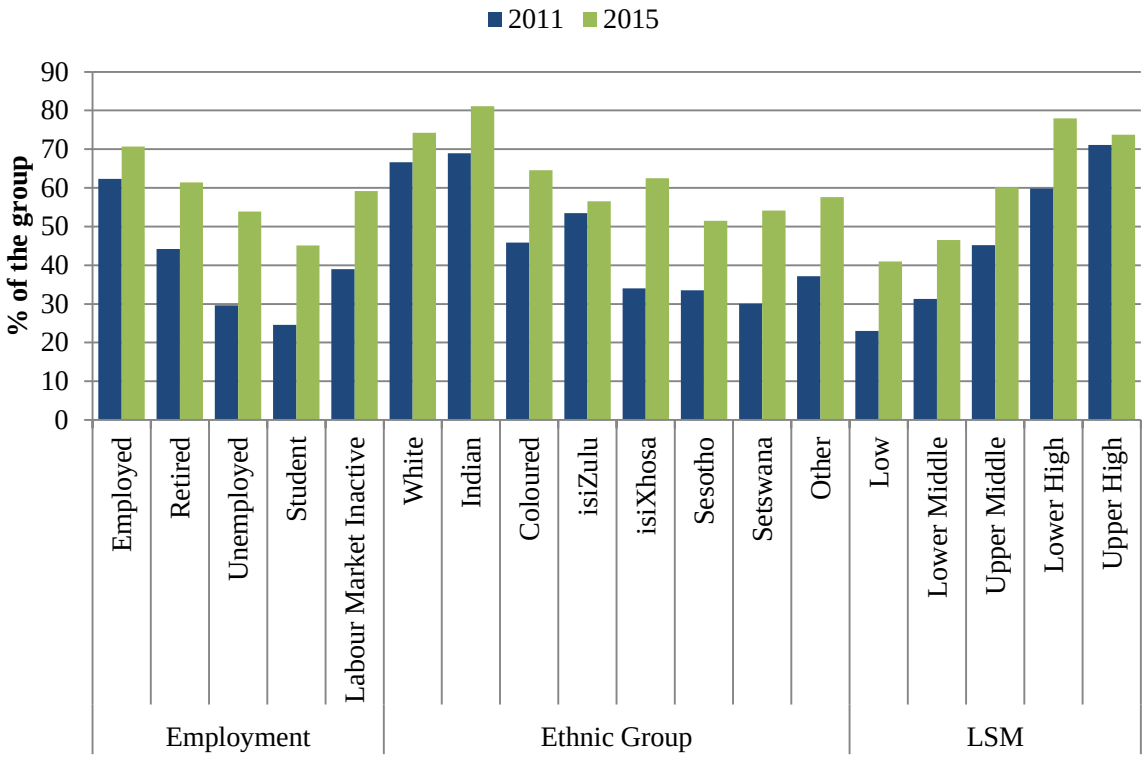
Figure 4: Presence of a Household Budget, by socio-demographic attributes (percentage)



Source: South African Social Attitudes Survey (SASAS) 2015

Married people were more likely to live in a household with a budget than those who had never been married. This may be because the financial pressures faced by married people are often greater than those by the unmarried[1]. Certainly, households with children (particularly households with large numbers of children) have different financial needs than households without. Households with many children tend to be more susceptible to economic vulnerability[2]. Only about half (52%) of households with three or more children had a household budget, six percentage points below the national average (see Figure **4**). This seems to indicate that such households are less likely to exercise proper financial planning than smaller households, and that more attention must be paid to improving money management in households with many children.

Figure 5: Presence of a Household Budget, by economic attributes (percentage)



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

As can be observed in **Figure 5**, there is a considerable gradient of difference by population group. Members of the Indian and White population groups were found to be significantly more likely than other groups to have a household budget. The differences between ethnolinguistic groups in the figure may be explained by the economic differences between them. International research has shown that the propensity to have a household budget depends on an individual's financial resources (see Perry and Morris 2005 who, using US survey data on adults aged 20-40, noted this relationship). **Figure 5**

[1] In a seventeen country study by Stack and Eshleman 1998), marriage was found to be correlated with individual happiness and marriage increased happiness equally among men and women. Marriage is thought to generate happiness through two intervening process: (i) the promotion of financial satisfaction and the (ii) improvement of health (also see more recent studies by Kim, Hyoun & McKenry 2002; Stutzer & Frey 2006).

[2] In developing countries, there is considerable evidence of a robust (and negative) relationship between household size and economic capital per person (often using income as a proxy, see Sundrum 1990). It is often concluded that people living in larger households are typically poorer although there has been some debate on which is the ‘cause' and which is the 'effect' in this observed relationship.

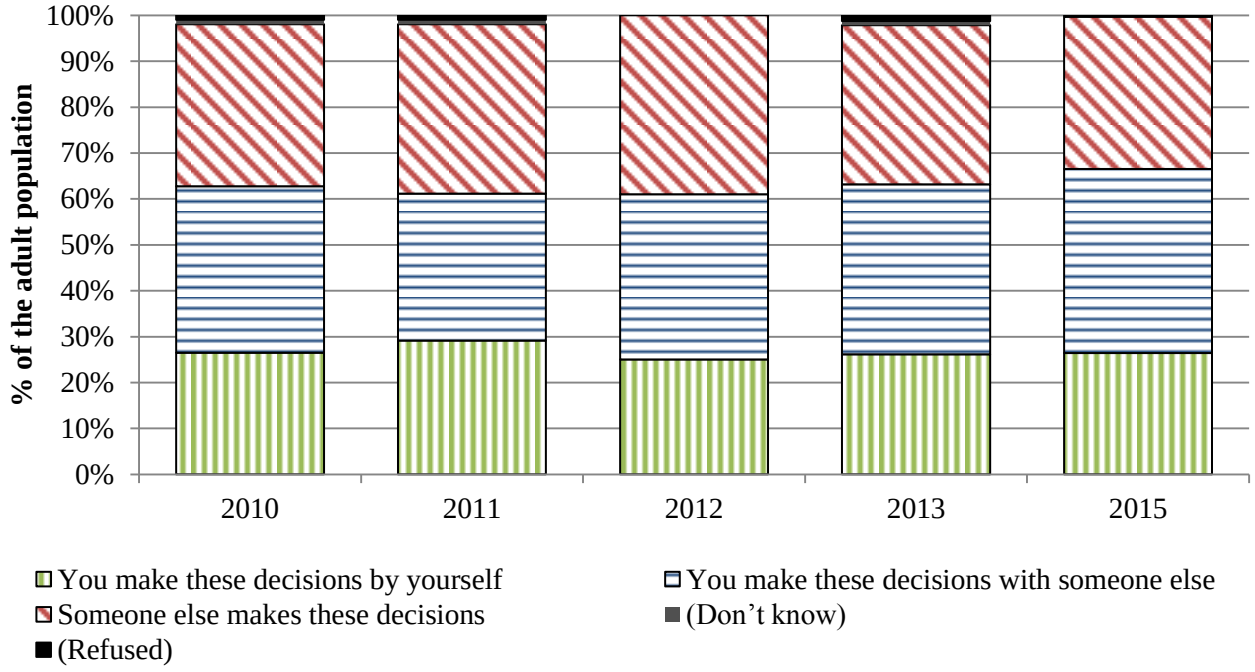
shows significant differences in budget holding based on labour market status and LSM categorisation. From an examination of the distribution of budget holding, it is apparent that South Africans higher on the socio-economic ladder are more likely to report the presence of a household budget.

It is apparent that between 2011 and 2015 budget holding increased amongst economically more disadvantaged groups, with those outside the highest LSM subgroup showing a significant increase in their propensity to have a household budget (see **Figure 5**). Black African linguistic groups were found to be similar in their propensity to have a budget in 2015. This represents a substantial change in financial behaviour amongst members of the Xhosa, Sesotho and Batswana linguistic groups. In 2011, budget holding amongst these groups was below three-eighths compared with more than half in 2015. The unemployed were much more likely to report living in a household with a household budget in 2015 than was the case in 2011. Many of the unemployed (44% in 2015) reported living in live in a household depended on social grants for their main source of income. About half of people living in a household dependent on social grants reported having a household budget in 2015 compared with a third (31% in 2011) four years ago.

3.2 Personal Involvement in Money Management

Traditionally, responsibility for day-to-day decisions concerning money management in developing countries has been seen as the province of the household head, often the patriarch of the family (Blumberg 1988). The SASAS research team sought to better understand changes in personal involvement in money management since 2010, focusing on the involvement of women and young people. Data covering the period 2010-2015 indicates that a majority of South African adults are directly involved in managing their households' finances (see Figure 6). In 2015, approximately a quarter (26%) of all adult South Africans made financial decisions themselves and two-fifths made such decisions in collaboration with someone else. Only a third played no role in day-to-day money management decisions in their households. As can be seen in Figure 6, the distribution of responsibility for household financial management has remained the same over the five years surveyed.

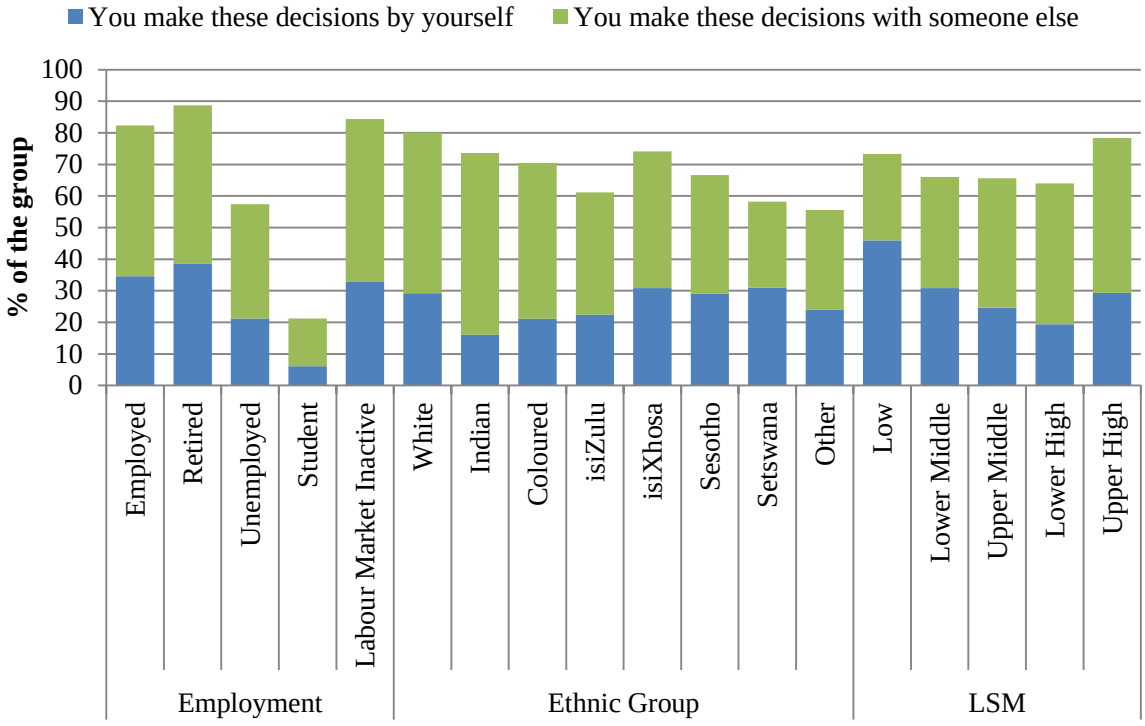
Figure 6: Responsibility for daily household money management (row percentages)



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

Previous research using SASAS data has found that personal involvement in money management did not vary greatly when examined by economic position. Market labour participation, in contrast, has been found to have an impact on personal involvement in money management. Findings from 2015 about who is responsible for day-to-day money management support earlier findings. Those not receiving an income from employment or retirement reported lower levels of sole control over money management decisions in their household. Comparing data from 2011 and 2015, in 2015 the retired are less likely to handle day-to-day financial management alone and more likely to share such responsibilities. Students generally tended to report low levels of involvement in household money management. Financial dependence and age may explain why personal involvement amongst students is no low. The poor were found to be more likely to conduct day-to-day money management themselves while wealthier groups shared this responsibility with others in the household. Indian households were more likely than other subgroups to share day-to-day money management decisions.

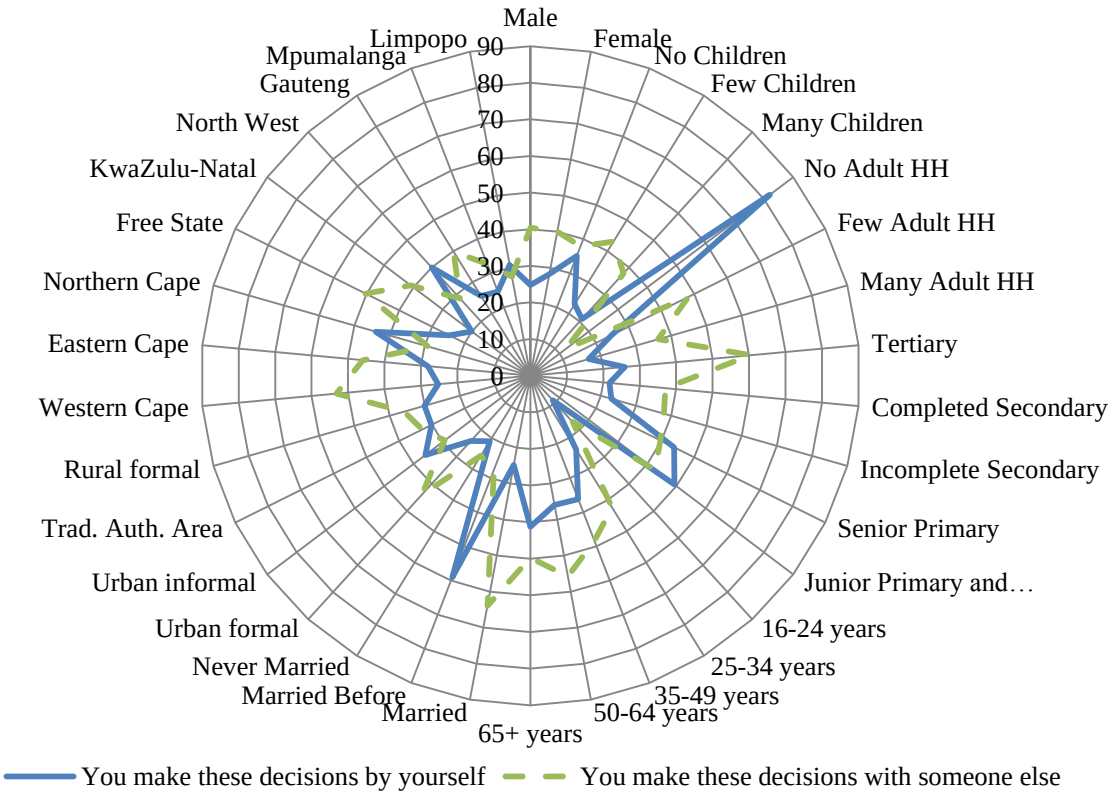
Figure 7: Responsibility for daily household money management by economic attributes



Source: South African Social Attitudes Survey (SASAS) 2015

Previous research using SASAS data suggested that certain demographic groups and in particular the youth do not play a direct role in daily household money management. 2015 data on household money management, shown in **Figure 8**, confirms this earlier finding. Most (74%) young adults lived in households in which daily financial management was conducted without their involvement. A comparatively low portion (17%) of this age cohort was involved with financial decisions in the households in which they lived. This reflects, no doubt, the limited earning power of these age groups in comparison to others in the household. It has been found that the involvement of young people in household money management can boost their propensity to save, exercise more cautious spending behaviour and increase their knowledge of financial products (Lamdin 2011). Involving the youth in financial decision-making at the household level may also inform them about financial concepts such as inflation. Given the benefits of such knowledge, more should be done to encourage participation by the youth in their households' financial management.

Figure 8: Responsibility for daily household money management by socio-demographic attributes



Source: South African Social Attitudes Survey (SASAS) 2015

People who live in households with other adults tend to share daily household money management. If the results shown in Figure 8 are disaggregated across marital status, it is apparent that married people tend to have different financial behaviour than those who are not married. Almost two-fifths (39%) of married men in South Africa in 2011 managed financial decision-making without the input of their partners, while 22% of married women managed the financial affairs of the household without the involvement of their partners. Few married men are inclined to manage the household's finances without their partner's help –roughly a quarter (26%) of married men conducted the day-to-day money management decisions in their household without their partner's input in 2015. The shift between 2011 and 2015 has been most evident in Black African households. In 2011, almost half (46%) of Black African married men managed household finances without the involvement of their partner. In 2015, less than a third (30%) of Black African married men managed their households in this way. This is a positive finding and suggests that married men in South Africa are becoming more progressive in how they share financial decision-making in the household.

4 Financial knowledge and understanding

To understand financial literacy in South Africa, it is necessary to understand the extent of financial knowledge that an individual possesses. Knowledge is the most common, and perhaps the most recognisable, element of the numerous definitions of financial literacy. Huston (2010, 302) found that almost half (47%) of the financial literacy studies she reviewed used "financial literacy" and "financial knowledge" interchangeably. Different elements of financial knowledge are covered by almost all surveys on financial literacy, with numerical skills considered important in building financial skills (also see Mason and Wilson 2000). Gerald Mwandiambira, CEO of the South African Savings Institute, says that many South Africans, even the highly educated, lack financial knowledge and has said that "basic money management skills are often not taught formally and hence many people struggle with personal finances, regardless of their earnings or level of tertiary education"

(Mail & Guardian 30/10/2015). Often, he says, poor financial education leads people to make bad financial decisions and to become burdened by debt.

Financial education can help improve financial knowledge and, consequently, financial behaviour. Shim et al. (2009), in their North American study, found that financial education at home and formal financial education at school can play an important role in shaping the financial knowledge, attitudes and behavioural intentions of young people (also see Gutter and Copur 2011). 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 methods used to assess financial knowledge is the Financial Literacy Quiz; subsection 4.1 examines responses to the quiz. The focus of this subsection is on responses across the period 2010-2015 as well as on subgroup differences. Another instrument included in this Financial Knowledge Module is the multiple-choice test, which asks respondents a series of multiple-choice questions. Subsection 4.2 looks at the responses to these questions and analyses how the questions were answered over the period 2010-2015.

4.1 Financial Literacy Quiz

This section explores responses to the Financial Literacy Quiz and examines the levels of financial knowledge at national and at subgroup level. Before discussing the results, it is important to understand how the module to measure financial knowledge was constructed. A number of different concepts were included, with the SASAS research team guided by the growing literature on measuring financial literacy. Numeracy was taken to be particularly important when designing the model, as a large body of literature shows that numerate individuals are better able to make financial decisions[3]. This growing body of scholarship suggests that numeracy is an integral component of any study of financial literacy. Subsection 4.1.1 looks at responses to the Financial Literacy Quiz over the period 2010-2015. Subsection 4.1.2 examines differences in quiz responses across key subgroups across important demographic, spatial and socioeconomic subgroup categorisations.

4.1.1 Quiz Trend Analysis, 2010-2015

A core component of the financial literacy survey was a set of questions administered in the form of a quiz, in order to provide an assessment of South Africans' familiarity and proficiency with basic financial concepts. The items test knowledge of concepts such as mathematical division, inflation, interest rates and compound interest. In order to test respondents' basic arithmetic ability, they were asked to answer the following question correctly: "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?" Only a small minority of the adult public did not know the answer (see **Table** 4). The share of the adult population answering correctly this question fluctuated between 2010 and 2015 but remained relatively stable.

Table 4: Responses to the Quiz Questions on Numeracy and Inflation 2010-2013; 2015

	Basic arithmetic (division)					Inflation				
	2015	2013	2012	2011	2010	2015	2013	2012	2011	2010
Correct	87	83	86	85	80	14	20	23	23	26
Incorrect	7	14	13	4	5	61	48	48	33	32
(It depends)	-	-	-	-	-	12	11	14	15	16
Irrelevant answer	1	1	1	1	4	1	2	2	3	3
Don't know	5	1	7	9	10	11	17	12	25	23
Refused	1	1	1	1	1	1	2	1	1	1
Total	100	100	100	100	100	100	100	100	100	100

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

[3] For example Banks and Oldfield (2007) found, using the English Longitudinal Study of Ageing, that numerical ability was positively associated with better understanding of pension plans, retirement saving and financial security (also see Smith, McArdle, and Willis 2010). In another example van Rooij et al. (2011) using a special module of the Dutch De Nederlandsche Bank Household Survey studied financial literacy by asking numerical questions.

Basic numeracy competency is a good indication of financial knowledge. However, studies of financial literacy (for example, by Van Rooij et al. 2011) also investigate knowledge about financial concepts such as inflation, as did those conducting other studies of financial knowledge (Hilgert, Hogarth, and Beverly 2003; Remund 2010). Given this level of scholarly attention, it seemed important to examine knowledge of inflation. To do this, the SASAS research team included a question which asked respondents to imagine that some brothers have to wait for one year to get their share of R1,000. They were asked if what the brothers would be able to buy in one year's time. The response options were, the brothers would be able to buy: (a) more with their share of the money than they could today, (b) the same amount or (c) less than they could buy today; (d) It depends on inflation; and (e) It depends on the types of things that they want to buy.

It is clear from the results shown in **Table 4** that many within the adult public do not understand how inflation works. In 2015, two-seventh (14%) chose the expected response (that the brothers would be able to purchase less in a year than today) and about three-fifths (61%) stated that the brothers would be able to buy more or an equivalent amount in a year's time. The share of respondents giving an incorrect answer has increase over the period under investigation and so has the share saying that they do not know what the correct may be. It may be that respondents' answers were influenced by price volatility that has affected some consumer products and services although further analysis will be needed to explain these observed changes. Section 4.2 examines the question of inflation using a more direct question about the impact of inflation on prices.

Aside from basic numeracy and inflation, the financial literacy quiz included three questions on interest. The first was, "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?" 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. Finally, to test knowledge of compound interest, respondents were asked a follow-up question to the original interest rate question: "And how much would be in the account at the end of five years?" The responses to these three questions are presented in **Table 5** and indicate that knowledge of interest rates and compound interest is quite low.

Table 5: Responses to the Quiz Questions on Interest, 2010-2013; 2015

		Correct	Incorrect	Irrelevant	(Don't know)	Refused	Total
Interest paid on a loan	2015	70	18	2	9	1	100
	2013	65	19	2	12	2	100
	2012	64	23	2	10	2	100
	2011	64	19	3	12	2	100
	2010	66	17	4	12	1	100
Interest rates	2015	43	28	2	25	1	100
	2013	37	25	2	34	2	100
	2012	45	24	3	26	2	100
	2011	49	15	3	30	2	100
	2010	45	17	8	28	2	100
Compound interest	2015	36	34	2	27	1	100
	2013	35	32	2	29	3	100
	2012	41	33	2	23	1	100
	2011	39	29	4	26	1	100
	2010	37	32	4	24	2	100

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

About two-thirds (70%) of the respondents were able to give the correct answer to the question about interest paid on a loan in 2015. It seems that understanding of this has increased, although not greatly, since 2011. Although many respondents understood simple interest, less than two-fifths (43%)

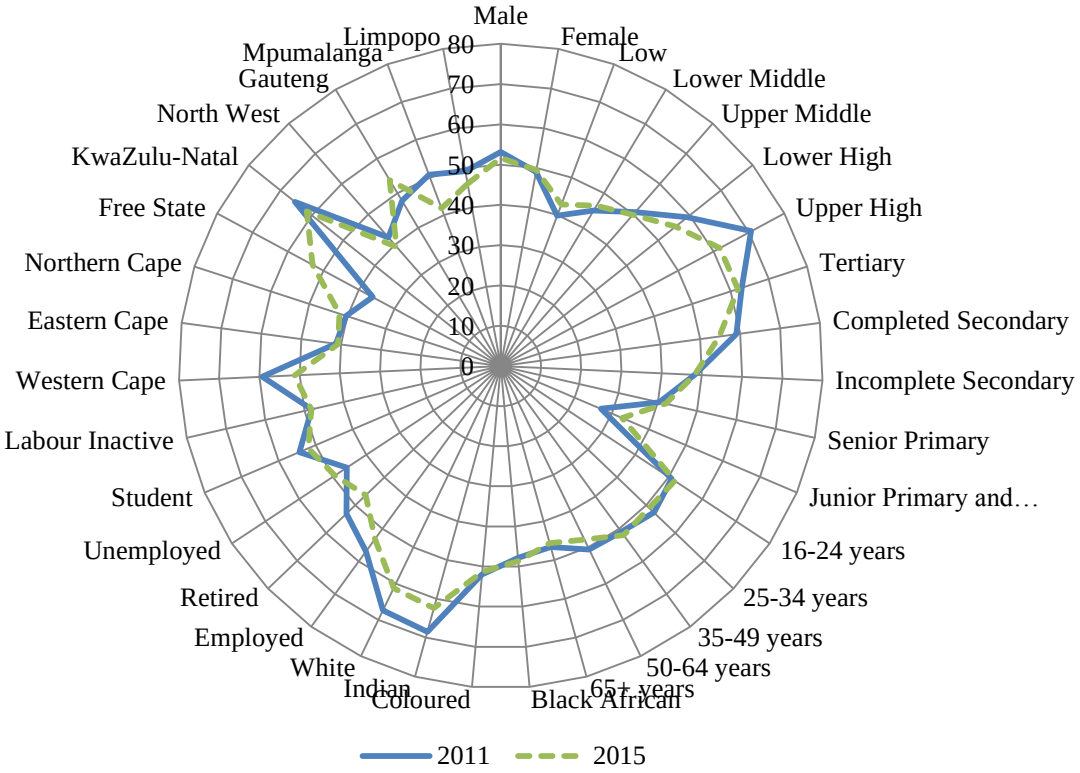
answered the interest rate question correctly and only 36% answered the compound interest question correctly. For the period 2010-2015, the quotient of correct answers to the interest rate questions fluctuated within quite a narrow band. The results presented in **Table 5** suggest that the public is struggling to conceptualise the *exact* effect that interest rates have on the marketplace. This is not to say that a majority of people know nothing about interest rates but that most struggle to understand enough to answer our straightforward questions.

4.1.2 Subgroup Analysis on Financial Quiz Questions

Survey over the past decade indicate that the adult populations in many countries know relatively little about finance and are unfamiliar with economic concepts such as inflation, interest compounding and risk diversification (for example, see Hilgert, Hogarth, and Beverly 2003; Atkinson et al. 2007; Jappelli 2010). These surveys also indicate that financial knowledge is highly unevenly distributed among a given population, and that key socio-economic characteristics, including education and income, are associated with financial understanding and knowledge. The SASAS research team tested subgroup differences to find out if the patterns of variation observed in other research contexts were found in South Africa. Based on responses to the five questions shown in **Table 4** and **Table 5**, a composite Financial Literacy Quiz (FLQ) index was created. The index ranges from 0 to 100 with '0' representing a failure to answer any of the five questions correctly and '100' that all five questions were answered correctly. Mean scores on the FLQ Index by socio-demographic attribute are shown in **Figure 9**, which also compares scores in 2011 with those in 2015.

Gender differences are apparent from a number of studies of financial literacy and research seems to confirm that gender has an impact on financial literacy. For instance, in their study of young people, Lusardi et al. (2010), in their study of young people, found that women were less likely than their male counterparts to answer financial literacy questions correctly. Similar results were found in a study using data from the Health and Retirement Survey (see Lusardi and Mitchell 2008). In an early study of attitudes towards money, Furnham (1984) found that men were more preoccupied with money than women were. Being female is also associated with lower financial knowledge in a number of European studies (see, for example, van Rooij, Lusardi, and Alessie 2011). Women in developing, especially in rural areas, experience cultural patriarchy in financial education and financial institutions (Sender 2002; Fletschner & Kenney 2014). However, as can be seen in **Figure 9**, men and women produced remarkably similar scores on the FLQ index. Further Analysis of Variance (ANOVA) tests showed, however, that there was a statistically significant difference on the index between men and women. This may suggest financial literacy differences between the sexes and this supposition should be explored further using analytical testing.

Figure 9: Financial Quiz Score (0-100) by socio-demographic attributes: 2011 2015



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

In the literature on differences in financial literacy between different demographic groups, a common finding is that educational attainment is associated with financial knowledge (see, for example, Lusardi, Mitchell, and Curto 2010; Lachance 2014). Unsurprisingly, the SASAS research found a strong positive relationship between educational attainment and financial knowledge, with the better educated on average more likely to answer the quiz questions correctly. There were marked differences along socio-economic divides, with wealthier individuals more likely to answer the interest rate questions correctly, as shown in **Figure 9**. Lusardi and Mitchell (2011) argue that the motivation to obtain financial knowledge is positively correlated with economic resources (also see Monticone 2010). This motivation may be related to the desire to use economic resources in financial behaviour such as saving and investment.

Older South Africans tended to give a lower number of correct answers to the financial knowledge, arithmetic and interest rate questions than other cohorts. This may be linked to the well-known documented decline in cognitive function associated with old age (Han et al. 2014; Gamble et al. 2015; Finke et al. 2016). The unemployed and the retired were less likely than the employed to answer financial quiz questions correctly. The connection between economic status and financial knowledge noted above may explain the race group differences shown in **Figure 9**[4]. White and Indian South Africans were, on average, far more likely than other population groups to give correct answers to the quiz questions. These respondents' scores were lower on the FLQ index in 2015 than in 2011 although the differences were marginal. There were wide differences in knowledge about interest

[4] In countries where ethnicity and financial literacy have been examined, the research seems to suggest differences between racial groups. Lusardi et al. (2010), for example, found racial differences in their United States study, with White respondents more likely than their African American and Hispanic counterparts to answer financial literacy questions accurately.

rates between provinces, with respondents living in KwaZulu-Natal on average scoring much higher on the FLQ indexes than those in other provinces in both 2011 and 2015.

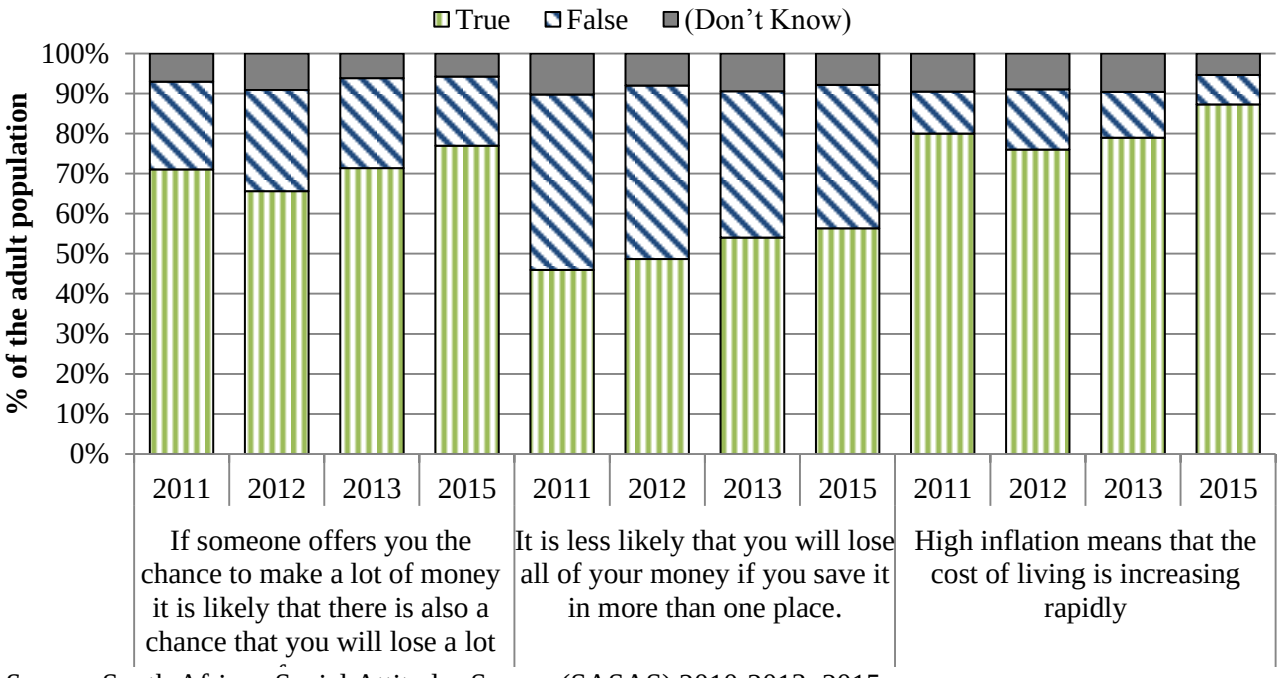
4.2 Multiple Choice Questions

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, sceptical of get-rich-quick schemes and cautious in how they understanding saving and investing money? Individuals who are less concerned about financial risk may easily 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. Responses to these questions will be explored in subsection 4.2.1 and following this analysis, we will look more specifically at risk-aversion in subsection 4.2.2.

4.2.1 Answers on the Multiple Choice Questions on Risk

The first question in the 2015 questionnaire relating to risk and finances asked respondents if they thought that, if they were offered the chance to make a lot of money, it was likely that they would lose a lot of money. The second asked if it is less likely that you would lose all of your money if you saved it in more than one place. The responses to these questions, introduced in 2011 for the Baseline study, are shown in **Figure 10**, which indicates that the respondents were quite sceptical about potential investments that offer the prospect of getting rich quick. In 2015, nearly than four-fifths (77%) of the respondents stated that it was true that the offer to make a lot of money is likely to mean that there is a strong chance of losing a lot of money. Only about a fifth (22%) stated that this statement was false.

Figure 10: Answers to the Multiple Choice Questions, 2011-2013; 2015



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

On the second question relating to risk and savings, it is clear that the adult population is somewhat divided. In 2015, more than half (56%) thought it was true that saving in only one pace was a risk while a third (33%) thought that statement was false. Over the period 2011-2015, it would appear that the public has become risk adverse. Given the low correct answer response to the inflation question in section 4.1.1, it is necessary to investigate whether South Africans really do not understand inflation. From an assessment perspective, this is complicated as inflation is not the only factor that affects how consumer prices change over a year.

Taking account of the complexity of the issue of inflation, the SASAS research team introduced a simplified question on inflation which asked respondents about their understanding of the impact of inflation. They were asked, "Do you think the following statement is true or false: High inflation means that the cost of living is increasing rapidly?" Almost eight-ninths (87%) of the adult public stated that this was true, indicating a greater understanding of inflation than suggested by the previously-discussed item. The failure to adequately answer the inflation question in section 4.1.1 may be related to a poor ability to answer non-basic mathematical questions. As with what was observed in section 4.1.2, the SASAS research team expects a degree of variation in responses to the multiple choice questions depicted in **Figure 10**.

Table 6: Share who Answered 'True' to the Multiple Choice Questions by socio-demographic attributes

	Investment and Risk		Savings and Risk		High Inflation	
	2011	2015	2011	2015	2011	2015
South Africa	70	77	45	56	79	87
Age cohort:	*	***	**			***
16-24 years	69	71	43	54	79	91
25-34 years	69	79	50	55	78	88
35-49 years	70	78	44	57	81	87
50-64 years	76	80	48	60	80	83
65+ years	66	79	37	60	73	84
Education:	***	***	***	***	***	***
Tertiary	81	88	55	68	93	96
Completed Secondary	75	82	48	57	84	91
Incomplete Secondary	68	71	43	53	79	86
Senior Primary	65	72	45	60	71	81
Junior Primary and Below	62	73	35	55	57	71
Employment status:	***	***	***		***	*
Employed	75	82	50	56	87	88
Retired	75	79	45	62	78	83
Unemployed	63	75	42	57	74	89
Student	72	67	43	54	81	86
Labour Market Inactive	74	78	47	51	71	84
LSM status	***	***	*		***	***
Low	61	68	41	57	59	80
Lower Middle	64	68	43	57	74	86
Upper Middle	72	76	46	55	83	87
High	81	88	49	59	90	91

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

Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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 ($p<0.001$) levels respectively.

To test this hypothesis, the research team investigated the quotients of those who answered 'true' to the two questions on risk across selected socio-demographic groups. The results are shown in **Table 6**, which indicates the share of the subgroups who said that the statements in **Figure 10** were true. The table compares the results from 2011 with those from 2015. It is clear from the table that, amongst almost all subgroups, there has been a shift towards greater risk aversion in savings and investments. It is also clear that those who with an aversion to savings risks also had an antipathy to investment risk. Further pairwise correlation testing found a statistically significant association between aversion to risk in savings and aversion to risk in investments. The size of the correlation (0.27) was, however, smaller than might have been anticipated.

People with high levels of educational attainment were not more confident about taking savings and investment risks. The gap between the well-educated and the less-educated decreased between 2011 and 2015 on the risk items with, in 2015, the well-educated giving similar responses on these items to the less well-educated. Those with high levels of educational attainment were more likely to be sceptical about risk and investment than those with low educational attainment. On the investment item, the gap between the rich and poor was quite wide. Both the poor and affluent were averse to risk on the savings item and observed differences between LSM groups on this item were not statistically significant. Young people were as antipathetic to financial risk as older age cohorts. This suggests that, despite a lack of financial experience, young people are cautious about risky financial behaviour.

On the question relating to high inflation, most subgroups gave the answer 'true'. There was a statistically significant relationship with educational attainment but observed differences between educational attainment groups were relatively small. In 2015, a majority (71%) of those with junior primary schooling or less were able to correctly identify the relationship between high inflation and a rapid rise in the cost of living. Comparing the 2015 results with those from 2011 indicates that the less well-educated have become more aware of the relationship between the cost of living and inflation over the five-year period. In 2011, about nine-elevenths (79%) of the 16-24 age cohort said that the inflation item was true compared to ten-elevenths (91%) in 2015. This suggests a growing awareness of the effects of inflation.

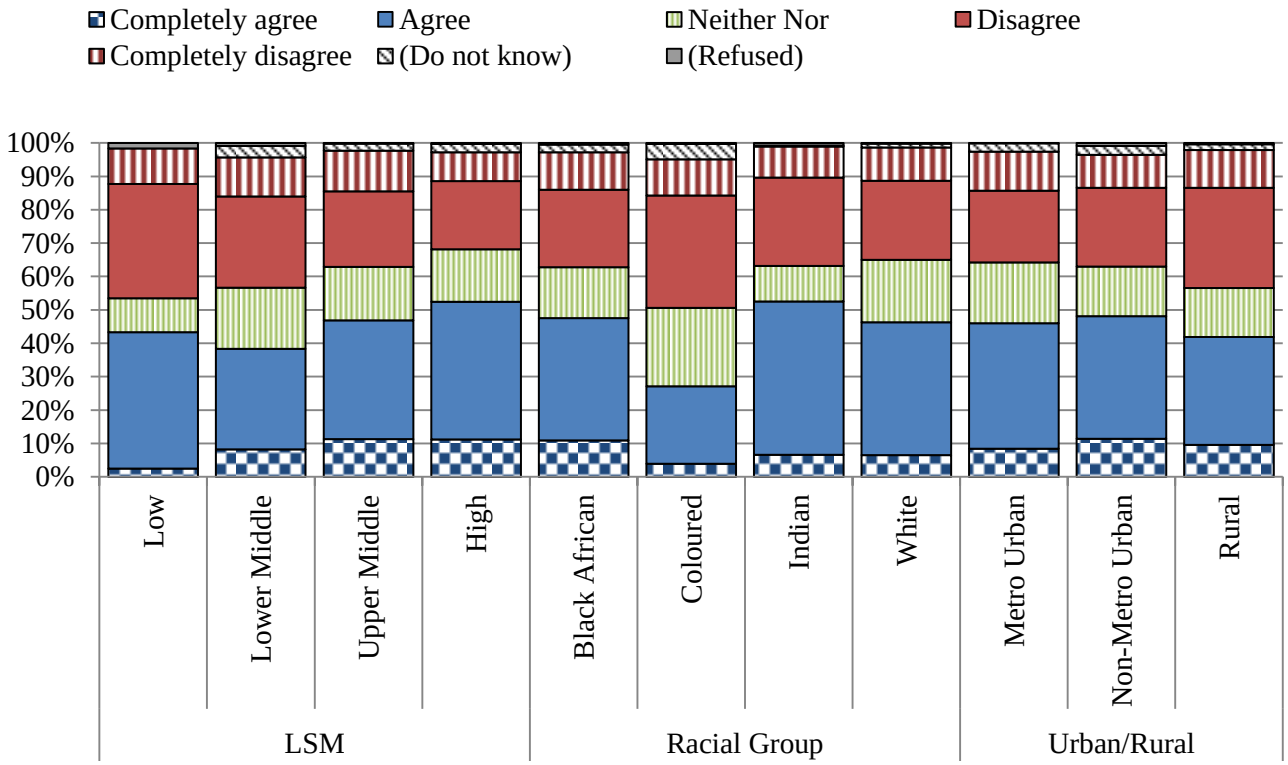
4.2.2 Risk-Aversion

The subsection above indicated that respondents were risk-averse, identifying risks in investments and savings. Diacon (2004) identified notable dissimilarities between financial experts and lay people on the issue of risk, with lay people more risk averse than the experts. This subsection looks more closely at the willingness of individual South Africans to take financial risks. The 2015 survey used a question on risk-taking, which asked respondents if they agreed or disagreed with the statement, "I am prepared to risk some of my own money when saving or making an investment". About half (46%) agreed with the statement, roughly two-sixth (35%) disagreed and the remainder (16%) were neutral or did not know.

To differentiate levels of individual risk-aversion in South Africa, responses to the question examined above should be examined across three important subgroup classifications: race, economic status and geographic location. Variances between these groups are shown in **Figure 11**, which indicates the most risk-averse groups. There was unambiguous dissimilarities between the three subgroups in the figure. Coloured South Africans were the most risk-averse of the four race groups shown in the figure, with only 27% of this group stating that they would risk some of their own money when making an investment compared with 53% of Indian, 47% of White and 48% of Black African adults. Wealthier South Africans indicated greater willingness to take financial risks in savings and investment. This result is probably due to the fact that the wealthy are not under constant threat of hunger and of losing their livelihood[5]. Rural and urban adult dwellers were similar in how they answered the question on risk-aversion.

[5] There has been much academic debate on the purported relationship between risk attitudes and household wealth (Guiso & Paiella 2008; Chiappori & Paiella 2011; Haushofer & Fehr 2014).

Figure 11: Attitudes towards Risk by selected socioeconomic subgroups



Source: South African Social Attitudes Survey (SASAS) 2015

How people think about risk is important to how they make financial decisions. A number of studies have argued that risk aversion may influence differences in financial decisions (see, for example, van Rooij, Kool, and Prast 2007; Van Rooij, Lusardi, and Alessie 2011; van Rooij, Lusardi, and Alessie 2012). In the view of von Rooij and his colleagues, risk tolerance is the most influent factor in pension decision-making. Given these findings, it is important to examine risk-aversion amongst major socio-demographic subgroups. To do this, the research team constructed a Risk-Aversion Scale. Responses to the risk-aversion questions were coded onto a single 0-100 scale, with 0 indicating the lowest reported level of risk aversion and 100 the highest. Mean scores (kurtosis and coefficient of variance) on this index by selected subgroup are shown in **Table 7**.

Table 7: Individual Risk-Aversion Mean Scores (0-100) by selected socio-demographic subgroups

	Mean	Std. Dev.	Co-Var.	Kurtosis
South Africa	50	30	0.6	1.9
Age cohort:				
16-24 years	50	30	0.6	1.9
25-34 years	46	29	0.6	2.0
35-49 years	48	31	0.6	1.9
50-64 years	50	30	0.6	1.9
65+ years	58	29	0.5	1.8
Education:				
Tertiary	43	30	0.7	2.1
Completed Secondary	46	30	0.6	1.9
Incomplete Secondary	52	30	0.6	1.8
Senior Primary	53	29	0.6	1.9
Junior Primary and Below	57	31	0.5	1.8
Employment status:				
Employed	46	30	0.7	1.9

Retired	55	29	0.5	1.9
Unemployed	50	31	0.6	1.8
Student	51	30	0.6	1.9
Labour Market Inactive	51	29	0.6	1.9
Marital Status				
Married	48	30	0.6	1.9
Married Before	53	31	0.6	1.8
Never Married	50	30	0.6	1.9

Source: South African Social Attitudes Survey (SASAS) 2015

The results shown in the table suggest that risk-aversion was common within the different subgroups and that variations between them were less than might have been expected. However, given the nature of financial markets during the period when the interviews were conducted, limited tendencies towards risk-taking might have been anticipated. It was notable that respondents in the 65 and over age cohort were more risk-averse than in the younger age-groups. There was a moderate association between educational attainment and risk-aversion, as shown in **Table 7**. The more educated an individual, the less likely that individual was to be risk-averse. This probably reflects the greater economic resources available to the educated and therefore the lower costs to risk-taking (Guiso & Paiella 2008; Chiappori & Paiella 2011; Haushofer & Fehr 2014). Differing access to economic resources probably explains why the employed are somewhat more inclined to risk-taking than those people outside employment (particularly the unemployed) did.

5 Attitudes towards Finances

Attitudes can have a strong effect on behaviour and this relationship has been established with remarkable validity. The degree of attitude–behaviour consistency is, of course, affected by factors related to the characteristics of the attitude itself, the individual performing the behaviour and the environment within which it is performed (Ajzen and Fishbein 2000). There is a significant and growing literature on *when* attitudes predict behaviour and *how* this process may occur (for an overview, see Ajzen and Fishbein 2005). Much of the literature is based on the Theory of Planned Behaviour, which hypothesises that attitudes are the major determinants of behavioural intentions (Fishbein and Ajzen 1975; Fazio 1986). The influence of attitudes (affect) on behaviour through mediating cognitive processes involves the individual's perceptions of and cognition about the attitude's 'object' (see Greenwald 1989). Even if the attitude-behaviour relationship is not always linear, it is nevertheless important to understand attitudes, with a number of researchers investigating financial behaviour making financial attitudes a central feature of study (see, for example, Furnham and Argyle 1998; Lamdin 2011).

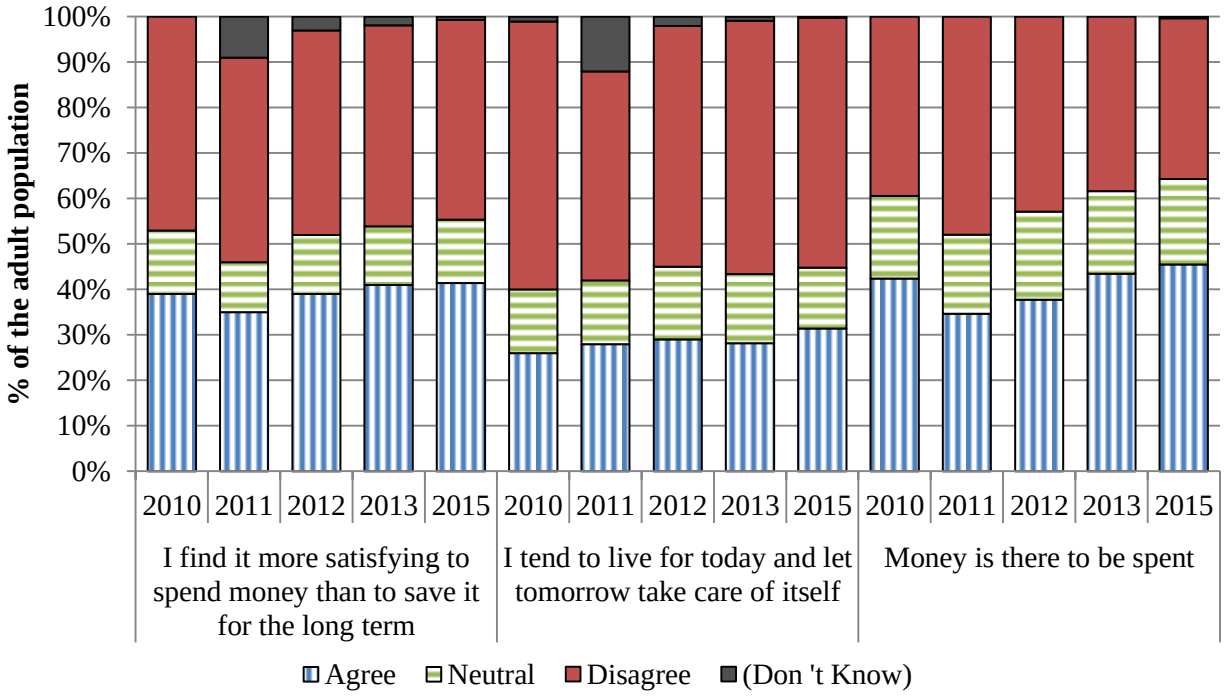
This section looks at the adult public's attitudes to spending and saving and explores the relationship between attitudes and evaluations of financial position. Subsection 5.1 deals with attitudes to spending money using the Extravagant Value Index, which measures attitudes towards spending and saving. The subsection considers if there is a relationship between extravagant values and religious affiliation. Subsection 5.2 looks at how respondents evaluated their financial position, across four important subgroup categorisations: age cohort, population group, employment status and living standard. The subsection uses a pairwise correlation matrix to examine the relationship between financial attitudes and evaluations of financial position.

5.1 Attitudes towards Spending Money

In 2010, SASAS respondents were asked about their attitudes towards saving. These items were repeated in 2011, 2012, 2013 and 2015. **Figure 12** shows how the adult South African population answered these questions. In 2015, about four-ninths believed that money was there to be spent with roughly a third (31%) stating that they did not worry about tomorrow and only thought about today. Approximately two-fifths (41%) found it more satisfying to spend money than to save it for the long-term. For Walker (1996, 792), the ability to exercise self-control has long been associated with financial decision-making and "the choice of whether to delay gratification, for example by saving, or to spend now, or even to borrow to buy now instead of waiting" is an important test of financial

responsibility. A number of studies have also found that being more 'forward-looking' is positively correlated with saving behaviour and the ability to cope with financial stress (also see Lea, Webley, and Walker 1995; Lamdin 2011). **Figure 12** indicates that many respondents reported that they lacked financial self-control.

Figure 12: Time Preference (column percentage)

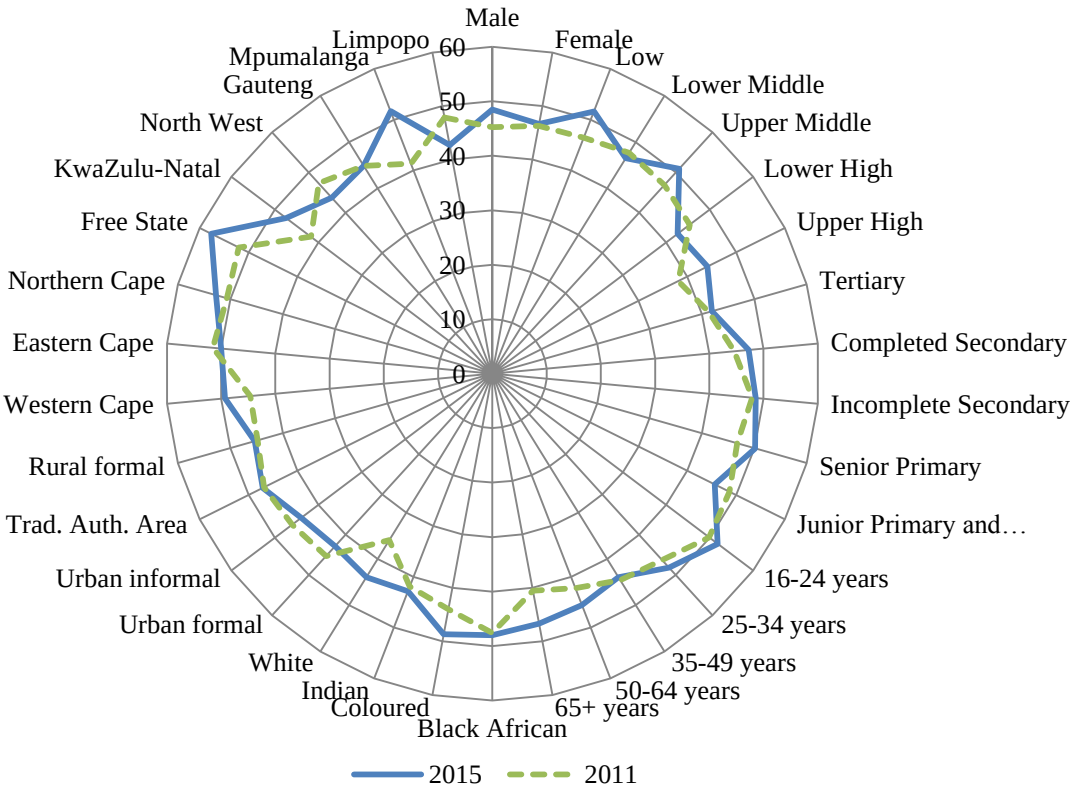


Source: South African Social Attitudes Survey (SASAS) 2010-2013; 2015

The SASAS research team expected that time preference would vary between different demographic and economic groups within South African society. Inin particular, there would be differences by age cohort. Previously, the research team tested time preference across personal attributes to identify significant differences in attitudes towards spending between subgroups. To test this assumption, the research team created the Extravagant Values Index. The scale is based on three questions relating to financial self-control and shown in **Figure 12**. Tests of statistical validity and reliability have shown that these questions load well together. Responses to these questions were combined into a single 0-100 scale with 0 indicating the lowest level of reported level of financial extravagance and 100 the highest. Mean scores on this index by selected subgroup are shown in **Figure 13** for both 2011 and 2015. The level of variation between the subgroups was less than might have been expected and attitudes did not shift markedly between the two years as can be observed from **Figure 13**.

As was expected, there were marked and significant differences between the old and the young. On average, more mature respondents scored lower on the Extravagant Values Index than their younger counterparts. However, the degree of difference on the index between age cohorts was not as large as might have been anticipated. Respondents in the 65 and above age cohort had an average Extravagant Values Index of 44, only six index points below the average score for those in the 16-24 age cohort. There were significant differences in how different race groups scored on the Extravagant Values Index. In 2011, White respondents had a much higher average index score than other race groups. Attitudes among this group appeared to have become more financial incautious between 2011 and 2015, and are now more similar to those of other race groups. Coloured respondents showed a similar trend over the same period.

Figure 13: Attitudes to Extravagant Value Index by socio-demographic attributes (mean scores, 0-100 scale)



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

The Extravagant Values Index score among the Upper High LSM group was lower than among other LSM groups. However, there was not a marked difference between low and middle LSM groups. Economic status seems not to be associated, in a linear fashion, with extravagant values in South Africa as can be observed in **Figure 13**. Attitudes towards spending money were associated with whether an individual is involved in financial decision-making in the household. Those who were uninvolved had an Extravagant Values Index score of 51 compared with 46 for those who were involved. This suggests that those in charge of the household finances tend to have a more prudent approach to spending and saving money. Marital status seemed to be correlated with more responsible financial attitudes. Those who had never been were moderately less conservative in their views on spending money in comparison to those who were (or had been) married.

Table 8: Extravagant Value Index Mean Scores by Religious Belonging

	Median	Mean	Std. Err.	Skewness	[95% Conf.	Interval]
Anglican	50	50	2.9	0.323	44	55
Apostle Twelve	50	48	3.0	-0.081	42	54
Dutch Reform	42	45	4.0	0.198	37	53
Lutheran	42	43	3.1	0.368	37	50
Roman Catholic	42	44	2.4	-0.091	39	49
Zionist Christian Church	50	46	1.9	-0.160	42	49
Islam	33	38	3.9	0.295	31	46
Hindu	33	39	3.4	0.562	32	45
Other Protestant	50	47	1.1	0.025	45	50
Other	50	49	2.2	-0.192	45	53
Secular	50	52	2.0	-0.085	48	56

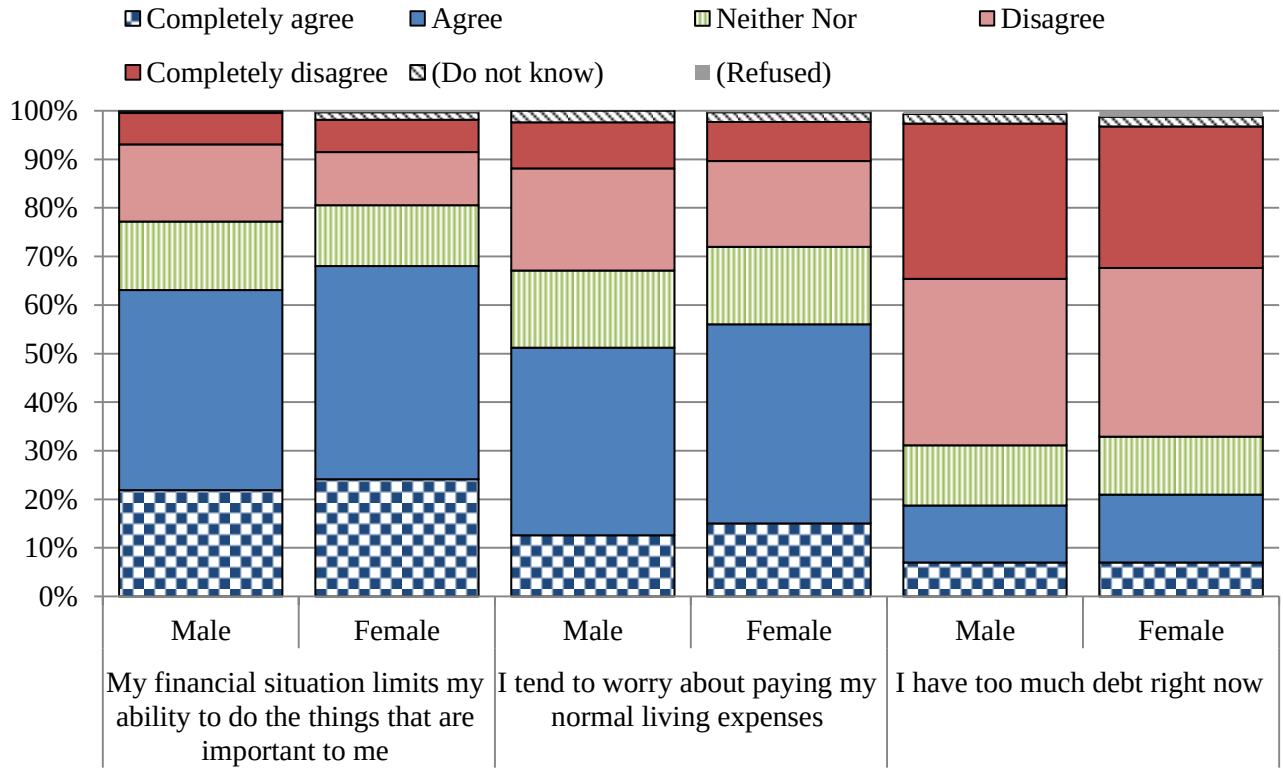
Source: South African Social Attitudes Survey (SASAS) 2015

Religion is a significant factor in many people's lives, and social science research has repeatedly highlighted the relationship between religious conviction and individual attitudes towards social issues. Religious beliefs are often strongly and positively related to certain behaviours especially when these behaviours have an ethical or moral dimension. The results on the Extravagant Values Index are disaggregated by religious affiliation and displayed in **Table 8**. It shows only minor variations in the mean and median scores on the basis of religious affiliation, although there were some subgroup differences. Members of the Islamic and Hindu faith deviated significantly from the national average and were in general more frugal in their attitudes than other groups. Members of the Lutheran and Roman Catholic faith also had relatively low Index mean scores although the degree of difference was more moderate.

5.2 Attitudes towards Present Financial Position

Reflecting on the financial year 2016, Eric Enslin, Chief Executive of FNB Private Wealth & RMB Private Bank, recommended that South Africans should keep a close watch on their debt levels and make debt repayment a priority. He said, "Don't incur unnecessary and additional debt and prioritise its repayment, starting with your most expensive debt" (Mail & Guardian 15/01/2016). Many South Africans, even those with relatively well-paid jobs, feel financially constrained because of bad debts (see James 2012, who examines South African indebtedness). They see themselves as working for creditors (such as mashonisas) rather than pursuing their own financial wellbeing (also see James 2014). For many, obligatory expenditure constraints pressure them to borrow at unsustainable levels. A recent analysis of the South African black middle class suggests that appraisal expectations pressure many members of this class group to consume at levels beyond their means (see, for example, Burger et al. 2014). Consumption patterns of the black middle class have been observed to deviate considerably from the other race groups. Evidence suggests that such consumption is intended to signal status and is part of an effort to reduce the historical asset deficit.

Figure 14: Public Evaluations of Financial Position by gender



Source: South African Social Attitudes Survey (SASAS) 2015

In 2015, the SASAS research team introduced new questions to better understand how ordinary South Africans saw their financial position. Respondents were asked if they agreed or disagreed with the

following statements: (i) my financial situation limits my ability to do the things that are important to me; (ii) I tend to worry about paying my normal living expenses; and (iii) I have too much debt right now. **Figure 14** looks at respondents' answers to these questions by gender. It is often suggested in the popular press that women spend too much on fashion items such as handbags and shoes and that they are "not good" with money. However, data shown in the figure indicates little gender difference in relation to feeling worried about paying for normal living expenses (51% for men vs. 56% for women) and being too indebted (19% for men vs. 21% for women). Likewise, similar shares of women (68%) and men (63%) felt that their financial situation limits their ability to do the things that are important to them.

Table 9: Financial Distress Attitudes by selected socio-demographic groups (0-100 mean scores)

	Limits Ability		Worry Living Costs		Debt Burden	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
South Africa	66	29	58	30	32	31
Age Cohort		***		***		***
16-24 years	63	31	51	31	24	28
25-34 years	70	26	62	29	36	31
35-49 years	67	29	62	29	38	33
50-64 years	64	30	57	30	33	28
65+ years	61	28	55	29	28	29
Population Group		***		***		***
White	46	29	40	29	26	29
Indian	62	26	59	32	30	30
Coloured	64	27	56	27	29	23
Zulu	71	29	62	28	38	32
Xhosa	68	25	60	28	28	28
Sesotho	68	30	62	30	37	36
Batswana	63	31	59	31	33	29
Other	69	29	56	33	30	32
Employment Status		***		***		***
Employed	61	30	53	31	35	31
Retired	64	28	56	28	29	28
Unemployed	72	27	65	27	33	31
Student	59	32	45	33	23	30
Labour Market Inactive	68	26	60	29	36	31
Living Standard Measurement		***		***		**
Low	70	26	56	33	28	30
Lower Middle	72	28	64	28	33	31
Upper Middle	68	28	60	28	34	31
Lower High	62	29	53	30	31	29
Upper High	45	30	38	30	26	30

Source: South African Social Attitudes Survey (SASAS) 2015

Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

The SASAS research team expected that responses to the three questions on financial position would diverge along socioeconomic fault lines. In particular, it expected differences by economic class. Work by James (2012; 2014) suggests that we should see statistically significant differences in attitudes towards spending between the country's population groups. To test this, the research team created three scales (i.e. Limits Ability, Worry Living Costs and Debt Burden) based on the questions in **Figure 14**. Responses to each question were combined into a single 0-100 scale with 0 indicating the lowest level of reported agreement with the question statement and 100 the highest. Mean scores (as well as standard deviations) on these three scales by selected subgroup are shown in **Table 9**. The

level of variation between the subgroups was less than might have been expected although the table shows clear subgroup differences.

There were marked and significant differences between economic groups on the Limits Ability and Worry Living Costs scales, with those outside the Upper High LSM group appearing to experience significant levels of worry about paying for living expenses and concern about financial constraints. The Lower Middle LSM group, for instance, had a Limits Ability scale mean score (M=70) that was 25 points above that of the Upper High LSM group (M=45) and a Worry Living Costs scale mean score (M=64) that was 26 points above that of the Upper High LSM group (M=38). Mean score differences between the LSM groups outside of the Upper High group on these scales were, however, relatively minor. Compared with the Limits Ability and Worry Living Costs scales, the differences between the Upper High LSM group and other LSM groups on the Debt Burden scale were relatively limited. Perhaps surprisingly, the Lower Middle LSM group had a Debt Burden scale mean score (M=34) that was only eight points above that of the Upper High LSM group (M=26).

Table 9 shows significant population group differences in the Limits Ability scale, particularly between White South Africans and other population groups. White people had, on average, a far lower score (M=46) than any other population group. However, differences between the non-White population groups on the Limits Ability scale were limited. The Black African linguistic groups with the highest Limits Ability mean scores were the Zulu and the Batswana (both M=62) and the Xhosa (M=60). The same was found to be true of the Worry Living Costs scale: White South African had, on average, a much lower score (M=40) than any other population group. The Black African linguistic groups with the highest Limits Ability mean scores were the Zulu (M=71), the Xhosa (M=68) and the Sesotho (also M=68). Compared to the Limits Ability and Worry Living Costs scales, population group differences on the Debt Burden scale were not as distinct. The Black African linguistic groups with the highest mean scores on this scale were the Zulu (M=38) and the Sesotho (M=37).

The degree of difference between age cohorts on the three scales was not as considerable as might have been expected. Respondents in the middle (i.e. 25-34 and 35-49) age cohorts tended to score highly on all three scales. This may reflect the expansion of socioeconomic expectations that accompanies entry into these age cohorts. It may also reflect the difficulty that these age cohorts have in finding employment in South Africa (Lam et al. 2007). Of all the labour market groups included in **Table 9**, the unemployed scored high on all three scales. Unexpectedly, those outside the labour market were found to be anxious about their financial status, scoring above the national average on all three scales. In fact, those outside the labour market were, on average, as worried about debt (M=36) as any other labour market group shown in the table.

Table 10: Pairwise Correlations on Attitudes towards Money and Feelings of Financial Distress

	Limits Ability	Worry Living Costs	Debt Burden	Satisfied to Spend	Live for Today
Worry Living Costs	0.47				
Debt Burden	0.18	0.31			
Satisfied to Spend	0.10	0.08	0.15		
Live for Today	0.08	0.14	0.25	0.46	
Spend Money	0.12		0.13	0.44	0.38

Source: South African Social Attitudes Survey (SASAS) 2015

Notes: 1. The greater the correlation presented in the table, the stronger the relationship between the two indicators; 3. Pairwise correlation using Bonferroni adjustment to calculate significance levels to counteract the problem of multiple comparisons and control for the familywise error rate; 4. All responses reported as "don't know" were coded as missing; and 5. All correlations represented in the table were a statistically significant at the 5% level.

Using a pairwise correlation matrix, it is possible to gauge the relationship between perceived financial position and the attitudinal variables[6] outlined in subsection 5.1. As can be observed in **Table 10**, the Limits Ability scale was relatively strongly correlated (0.47) with the Worry Living Costs scale. This suggests that those who feel constrained by their financial situation also worry about sustaining their normal living expenses. There was a milder correlation (0.31) between the Worry Living Costs and the Debt Burden scales, indicating that those burdened by debt also worry about meeting their living costs. The Limits Ability and the Debt Burden scales were only weakly (0.18) correlated. The associations between attitudes towards spending variables and the three financial position scales were weak to non-existent. The only exception was the Live for Today variable, which had an acceptably modest correlation (0.25) with the Debt Burden scale. On the whole, however, it appears that a poor financial position in South Africa does not seem to be the result of poor attitudes towards spending.

6 Prudent Financial Behaviours

In any national review of financial literacy, the SASAS research team has found, it is important to consider attitudes towards day-to-day money management. Understanding prudent financial behaviour is fundamentally important, with some arguing that the 2008/2009 financial crisis showed the danger of financially inept behaviour (see, for example, O'Donnell and Keeney 2010; Gallery and Gallery 2014). In a number of countries and particularly the USA, individuals with imprudent financial behaviour made bad decisions about debt and homeownership that left them exposed to falls in property prices. Good financial decisions come from prudent financial self-control and awareness. 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 South Africa, Lloyd Buthelezi wants South Africans to adopt prudent financial behaviours such as financial planning and proper financial research.

To better understand whether South African are responsible in their financial behaviour, the SASAS research team has been collecting data on attitudes towards money management since 2010. Subsection 6.1 investigates the frequency of prudent financial behaviours, with a focus on financial self-control. The subsection looks at this across four important subgroup categorisations: age cohort, population group, employment status and living standard. Subsection 6.2 provides an analysis of advice-seeking behaviour, asking whether ordinary South Africans seek advice before making financial decisions. Subsection 6.3 examines individuals' propensity to engage in long-term financial goal setting. This final subsection uses a pairwise correlation matrix to examine the relationship between the three different types of financial behaviour under discussion.

6.1 Considered Approach to Personal Finances

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?" Failure to perform these financial behaviours always or often will undermine financial wellbeing, exposing more South Africans to economic vulnerability and making them more susceptible to inappropriate financial product decisions. Results for the period 2010-2015 are displayed in **Table 11**. As can be seen, only just over half (57%) of respondents in 2015 stated that, before making a purchase, they always carefully consider whether they can afford it. Comparing data from 2013 and 2015 indicates an improvement in

[6] This refers to the three variables identified in Figure 12 (in subsection 5.1). These were converted into three 0-100 scales: Satisfied to Spend (I find it more satisfying to spend money than to save it for the long term); Live for Today (I tend to live for today and let tomorrow take care of itself); and Spend Money (Money is there to be spent). On these three scales, 0 indicating the lowest level of reported agreement with the question statement and 100 the highest.

financial behaviour. The share of the adult public that stated that they never or infrequently consider whether they can afford a purchase before buying also decreased between 2015 and 2015.

Table 11: Attitudes towards financial self-control and expenditure (column percentages)

Attitudes to Money Management Scale		2010	2011	2012	2013	2015
Affordability: Before I buy something I carefully consider whether I can afford it	Always	61	60	60	52	57
	Often	21	17	21	25	24
	Infrequently/Never	18	23	19	23	18
Timeous: I pay my bills on time	Always	34	32	42	30	37
	Often	26	20	22	17	27
	Infrequently/Never	40	48	36	53	36
Monitoring: I keep a close personal watch on my financial affairs	Always	36	30	38	32	35
	Often	28	22	27	28	29
	Infrequently/Never	36	48	35	40	33

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

In 2015 Adult South Africans stated that they were more likely to unfailingly pay their bills on time than in 2013. The share of those who described themselves as often paying their bills on time was greater in 2015 than it was in 2013 or 2012, and the share who said that they infrequently or never kept a close watch over their personal finances declined between 2013 and 2015. This share of the adult population who never keep a personal watch on their financial affairs is at its lowest level since SASAS began surveying people on their financial behaviour in 2010. Three scales were created to measure the frequency of performing the financial behaviours shown in **Table 11**. These range 0-100 with 100 indicating the greatest frequency of the relevant financial behaviour and 0 the lowest. These scales are combined into a single 0-100 scale with 0 indicating the lowest level of reported financial responsibility and 100 the highest. Reliability checks on the five questions, using inter-item correlations (covariances) and Cronbach's alpha, found that they did not load onto a single index. The Considered Financial Behaviour (CFB) Index was 72 in 2015, up from 69 in 2011.

To more adequately investigate this disparity, mean responses to the three indicators and the CFB index were examined by subgroup (**Table 12**). The scores for sub-populations results based on Analysis of Variance (ANOVA) on these indicators as well as the combined CFB Index are presented in the table. As can be observed, the South African youth (16-24 age cohort) had significantly lower scores than their older counterparts on all three scales in the table. But over the period the CFB Index scores improved for the youth. In 2011, the mean CFB Index score for the 16-24 age cohort was 61 (eight points below the national average) while the mean CFB Index score for this age cohort in 2015 was 66 (six points below the national average). This suggests that young people are more willing, on average, to monitor their financial affairs in 2015 than they were in 2011 and that they have become more financially responsible during the period.

There were significant differences between race groups on all the indicators in **Table 12**. Differences between the Black African subnational groups was minimal in 2015, a stark contrast to what was observed in 2011. The Black African majority had a higher average CFB Index score in 2011 than in 2015. The observed incline on the CFB Index among the Black African majority was more dramatic amongst certain Black African subnational groups. In 2011, the Xhosa and the Batswana population groups had significantly lower average CFB Index scores than other Black African subnational groups. However, in 2015 the difference in CFB Index scores between the Xhosa and the Batswana population groups and other Black African subnational groups was not statistically significant. This indicates that these Black African subnational groups have become more financially cautious over the period under discussion. No change in the CFB Index score, in contrast, was observed amongst the Zulu adult population for the period 2011-2015.

Table 12: Attitudes to Money Management by selected socio-demographic subgroups (0-100 mean scores)

	Affordability		Timeous		Monitoring		CFB Index	
	2011	2015	2011	2015	2011	2015	2011	2015
South Africa	81	82	65	65	61	69	69	72
Age Cohort	***	***	***	**	***	***	**	***
16-24 years	76	78	56	59	51	61	61	66
25-34 years	82	85	62	65	65	71	70	74
35-49 years	83	84	68	66	65	73	72	74
50-64 years	82	82	72	69	66	73	73	75
65+ years	80	84	73	71	66	70	72	75
Population Group	***	***	***	***	***	***	***	***
White	81	84	89	86	83	80	84	83
Indian	89	87	84	86	80	89	84	87
Coloured	80	83	72	68	64	67	72	73
Zulu	84	80	61	60	60	69	69	70
Xhosa	77	81	57	64	53	66	63	70
Sesotho	81	85	60	58	58	66	66	70
Batswana	74	80	60	64	56	68	63	71
Other	82	85	62	62	57	68	67	72
Employment Status	***	***	***	***	***	***	***	***
Employed	85	84	75	72	71	76	77	77
Retired	80	83	75	72	69	70	75	75
Unemployed	78	83	53	60	54	66	62	70
Student	73	73	53	52	44	57	57	61
Labour Market Inactive	82	85	62	67	57	72	67	74
Living Standard Measurement	*	*	***	***	***	***	***	***
Low	77	77	47	58	46	62	57	66
Lower Middle	78	82	55	59	52	66	62	69
Upper Middle	82	83	65	62	60	66	69	70
Lower High	81	85	76	72	72	78	75	78
Upper High	80	81	91	88	83	81	84	84

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

Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

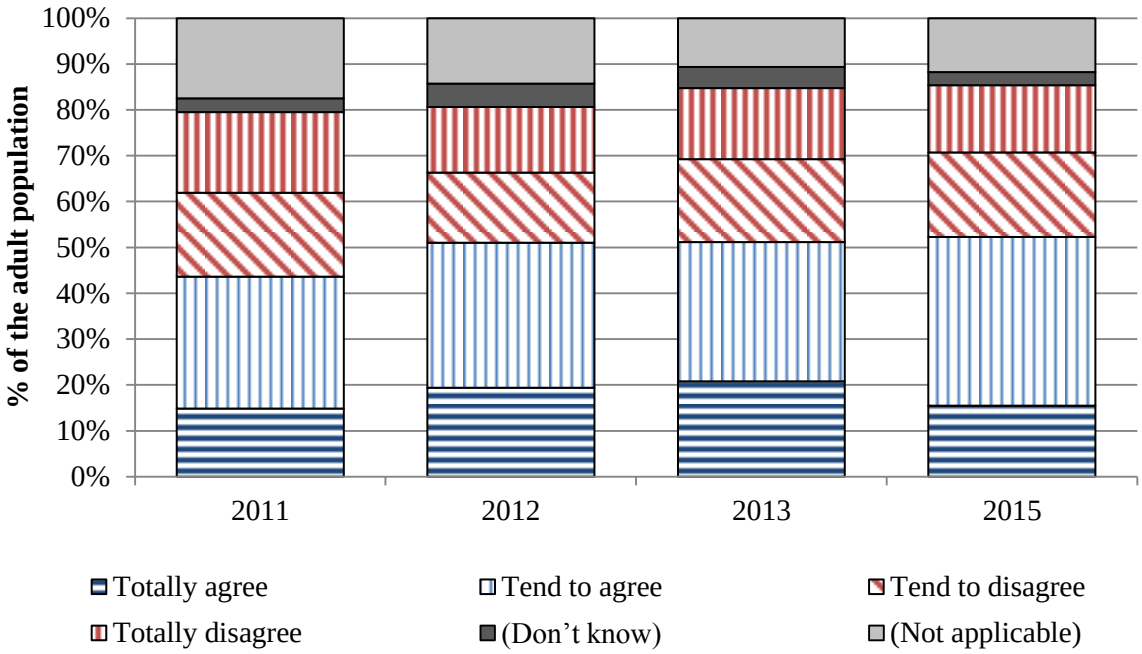
Table 12 shows significant differences between different economic strata, suggesting that economic status is a salient factor underlying financial behaviour. These results are consistent with what was observed in 2011 by the SASAS research team although financial behaviour had changed amongst the poor in the five years under review. The mean score on the Monitoring Scale in 2015 was 62 amongst respondents from the Low LSM group compared to 46 in 2011. The poor are also more likely to pay their bills on time than in 2011 than they were in 2015 –the Timeous Scale mean score for the Low LSM group was 47 in 2011 compared to 58 in 2015. The average CFB Index score for both the Low and Lower Middle LSM groups increased over the period 2011-2015. This suggests that the poorer groups have become more financially cautious over the period.

6.2 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 2011-2015 (see **Figure 15**). Before this data is discussed, some methodological caveats are needed. Approximately a fifth of the adult population did not answer the question in 2011 and 2012 while a sixth did not in 2013 and 2015, either stating 'not applicable' or 'don't know'. This seems to suggest

that a sizeable minority of South Africans feel that they do not make financial decisions. Given that many South Africans lack a stable economic income and are dependent on household breadwinners, this is perhaps not surprising.

Figure 15: Public Confidence to Make Financial Decisions without Advice, 2011-2015

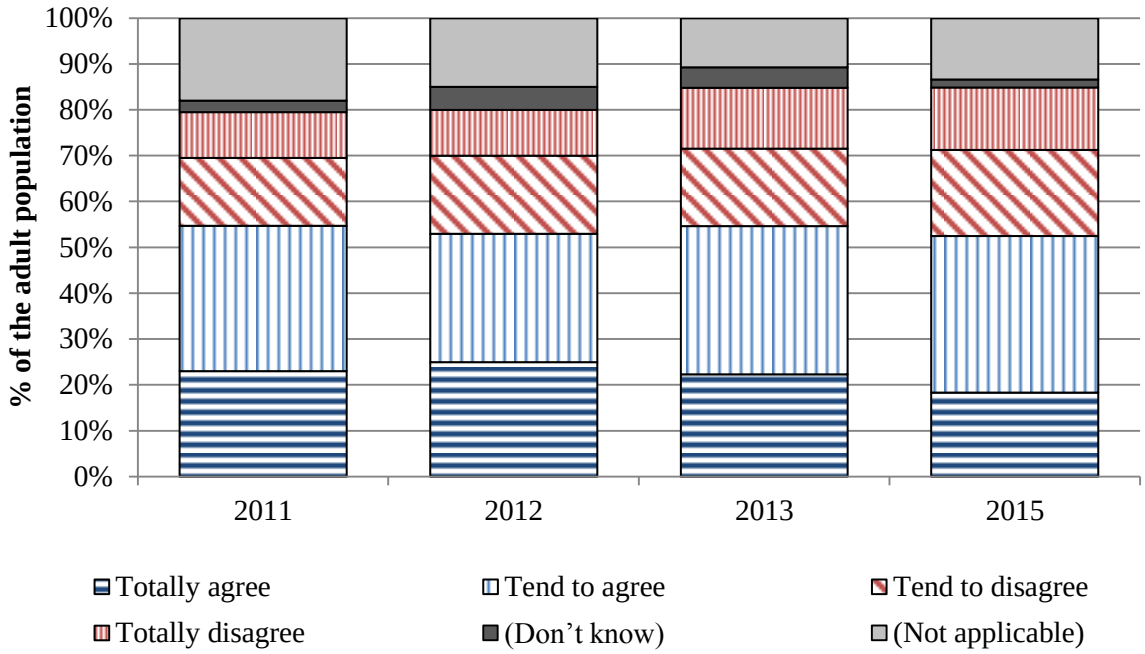


Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015

Among all adult South Africans, a majority stated that they were confident about their financial decision-making without seeking financial advice. The 2011 Financial Literacy Baseline study stated that they 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. As can be seen from **Figure 15**, the share of the adult public who stated that they were confident about making financial decisions without advice has grown over the period under discussion. In 2011 less than half (44%) the public were confident but in 2015 more than half (52%) of the public was confident. In other words, the demand for financial advice has decreased over the last five years ago. This seems a strange finding given the particularly difficult financial environment of 2015, a year characterised by an escalating cost of living and stagnant economic growth.

Conducting adequate research before making a financial decision is a one of the central component level of financial capacity. In a number of studies, the role played by such research has been acknowledged (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, they will have a lower propensity to regret these decisions. Since the 2011 Financial Literacy Baseline study, the SASAS research team has examined self-report financial decision-making research, to ascertain the value placed by the adult public on financial research and advice seeking. The results of four rounds of SASAS data are shown in **Figure 16**. It should be noted that many did not answer the self-report financial decision-making research question suggesting that a substantial minority of South Africans believe that they do not make financial decisions.

Figure 16: Public Research to Make Financial Decisions, 2011-2015



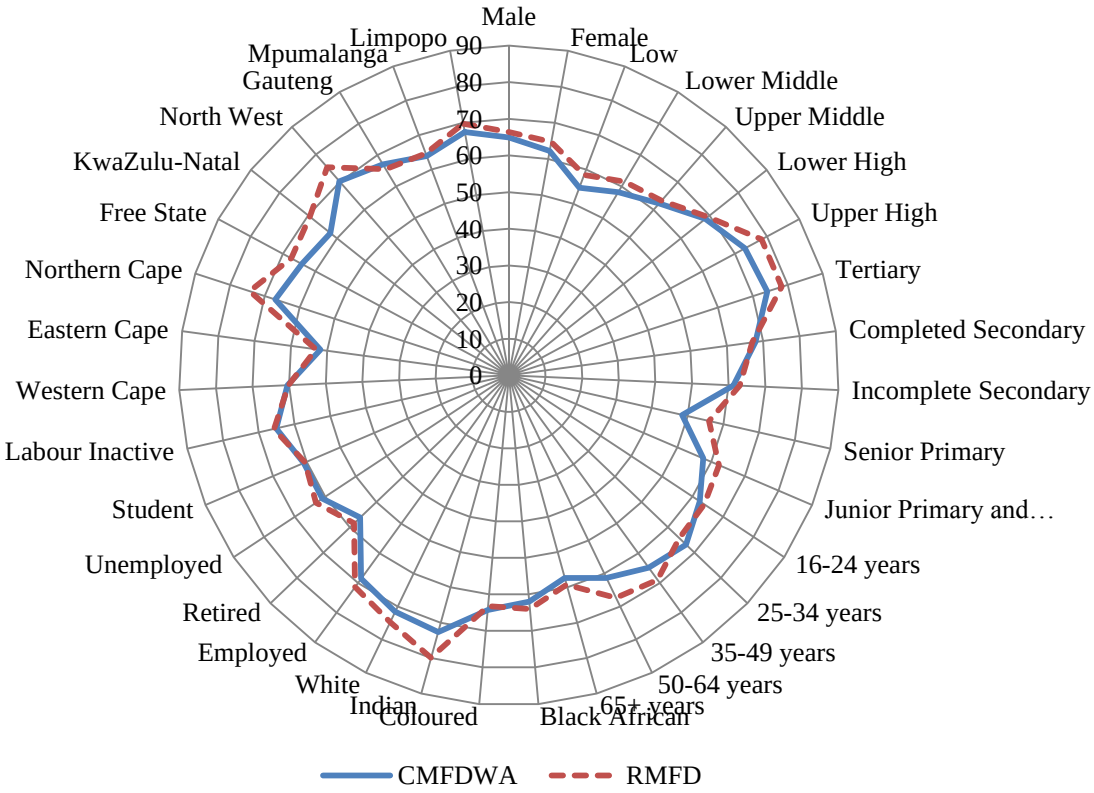
Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015

The results shown in **Figure 16** suggest that when deciding about acquiring financial products the majority of South Africans undertake some research before doing so. In contrast to what was shown in **Figure 15**, it is noteworthy that the adult public's willingness to engage in research when making financial decisions did not increase over the period. This suggests that the boost in confidence noted in **Figure 15** did not have a significant impact on willingness to engage in financial research amongst adult South Africans. The propensity to conduct research before making a financial decision and the demand for financial advice are inversely related, with those who feel confident about making a decision of this type without advice also being more likely to carry out thorough research than those who are not confident.

The SASAS research team expected that demand for financial advice and the propensity to conduct financial decision-making research would not vary considerably across the different socio-economic subgroups. This was a finding from the 2012 Financial Literacy study, although there were significant population group differences in financial decision-making behaviour. To investigate this trend in 2013, the research team constructed two scales: 'Confidence to Make Financial Decisions without Advice' (CMFDWA) and 'Research to Make Financial Decisions' (RMFD) scales. Both were measured on 0-100 range with 100 representing greater levels of confidence on the CMFDWA scale and a propensity to conduct to research on the RMFD scale. Those who did not feel that they make financial decisions were coded as missing on the scales and are not represented in the results.

As the SASAS research team anticipated, there were substantial levels of variations on the CMFDWA and RMFD scales, with small differences between age cohorts although those aged 65+ had much higher RMFD scores than other age cohorts and particularly those in the 16-24 age cohort, who had an average RMFD score below the national mean. As expected, a significant population group difference on both scales was noted. White respondents, as shown in **Figure 17**, were on average more likely to score high on the CMFDWA and RMFD scales than other population groups. Differences on the scales between the non-White population groups were not acute. It seems self-evident that educational attainment will have a strong impact on financial decision-making behaviour. As can be observed from **Figure 17**, educational attainment is strongly associated with the RMFD and the CMFWDA scales and strong linear relationships are observed here.

Figure 17: Financial Decision-Making Behaviour, by socio-demographic attributes (mean scores, 0-100 scale)



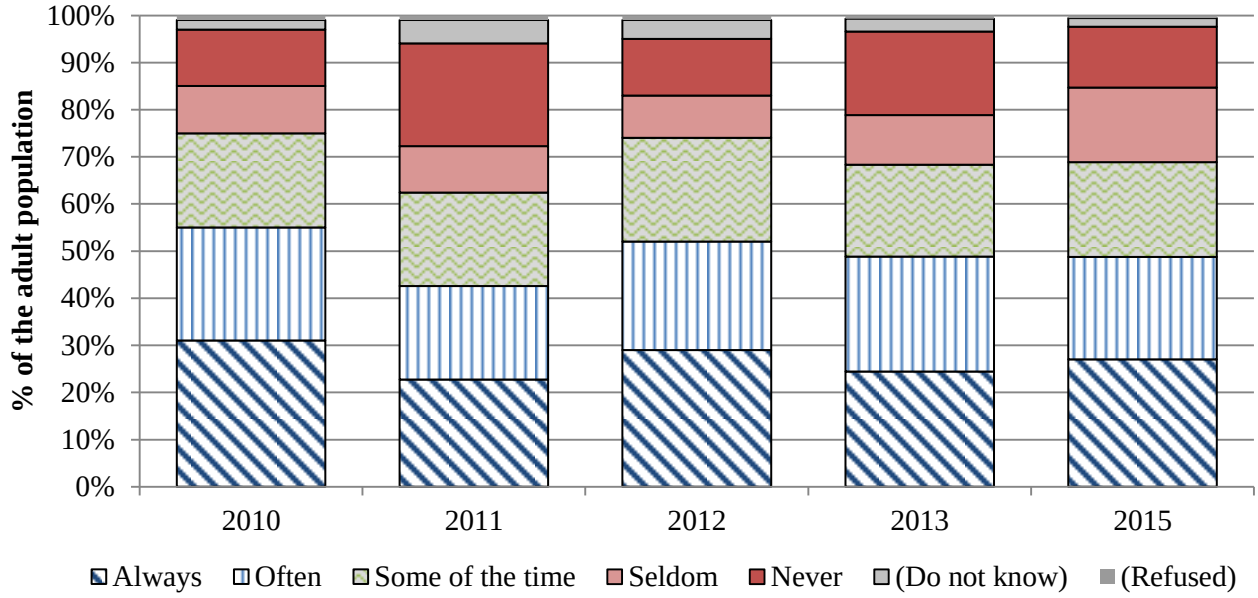
Source: South African Social Attitudes Survey (SASAS) 2015

Material household conditions seem to have a greater effect on the ability to research before making financial decisions than on confidence in decision-making without advice. As can be observed from **Figure 17**, those lower down on the socio-economic ladder had lower RMFD and (to a lesser extent) CMFDWA mean scores than those on the upper rungs of the ladder. This indicates that the poor have a significant disadvantage compared with the wealthy when making such decisions. Labour market position seems to have a lesser association with the RMFD and CMFDWA scores, suggesting that it is economic position (rather than labour market access itself) that influences financial decision-making behaviour. It is possible that the apparent relationship between economic position and financial decision-making behaviour is linked to the well-known connection between educational attainment and wealth accumulation. On the other hand, the better-off may have more financial experience and therefore more knowledge to draw on when making finances decisions.

6.3 Planning Ahead

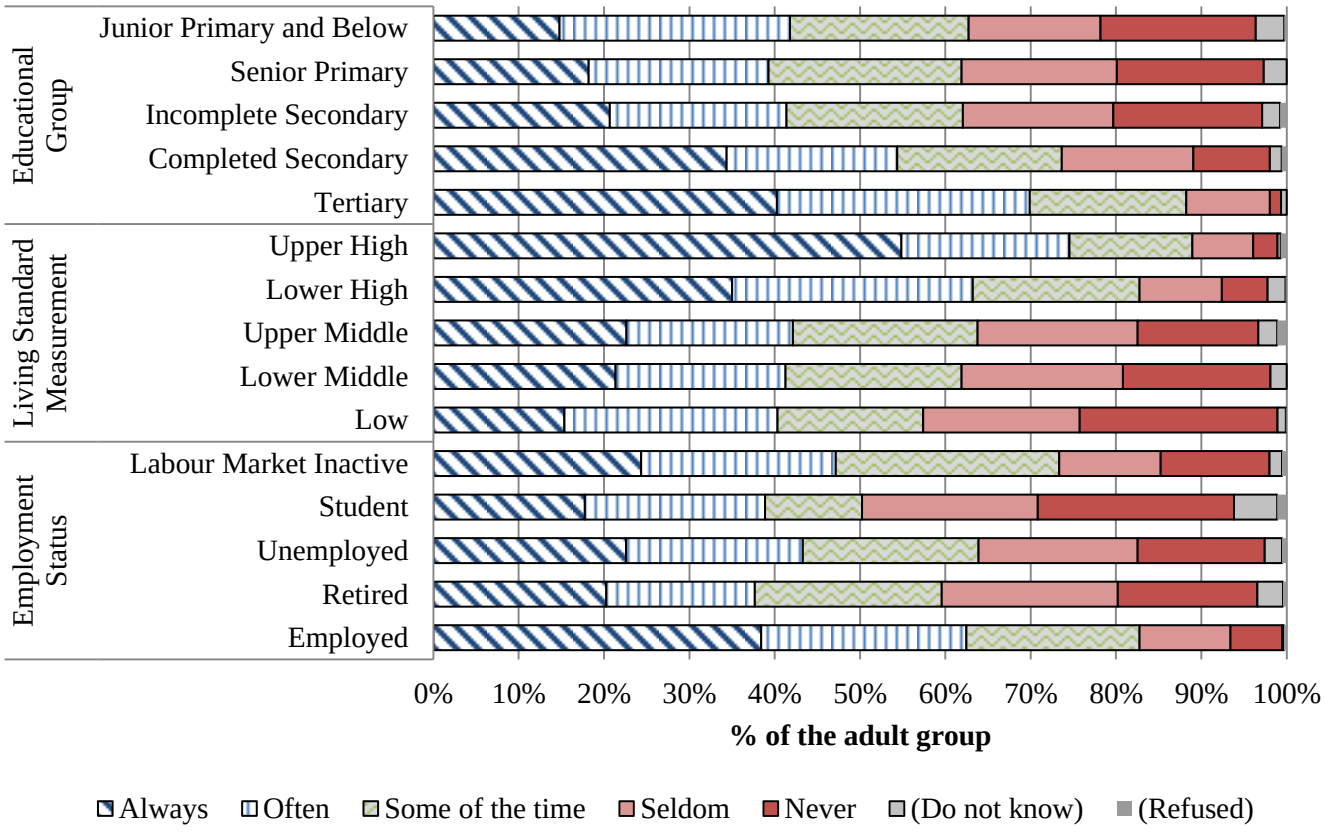
In the 2010 Financial Literacy Pilot study, the SASAS research team found that the majority of adult South Africans indicated that they were predisposed to setting planning for their financial future. When asked how often they set long-term financial goals and work hard to achieve them, they tended to give affirmative answers. In 2010, more than half of the adult population indicated that they always or often engaged in such financial planning. Only a minority reported that they seldom or never pursued long-term financial goals. In 2015, roughly a quarter (27%) of all adult South Africans said that they always set long-term financial goals and work hard to achieve them. Around two-fifths (42%) reported that they set long-term goals often or some of the time and 29% that they infrequently or never set such goals. As can be observed in **Figure 18,** self-reported financial planning has remained relatively stable over the period for which there is data.

Figure 18: 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

Figure 19: Attitudes towards Planning Ahead by economic attributes, 2015 (percentage)



Source: South African Social Attitudes Survey (SASAS) 2015

The SASAS research team's findings on financial planning over the last four years suggest that this aspect of financial literacy is highly unevenly distributed amongst the population. This is not a finding unique to South Africa and has observed by other researchers in other contexts (for, example, see

Ameriks, Caplin, and Leahy 2003; Lamdin 2011). Poor households do not have surplus capital that can be used in long-term financial plans like 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 would expect to observe a wide disparity between those on the lower and upper rungs of the South African socio-economic ladder. Attitudes towards financial planning across different socio-economic groups are shown in **Figure 19**.

As can be seen, those who occupy the upper layers of the economic pyramid are more likely to engage in financial planning. Of those in the Upper High LSM group, nearly four-sevenths (55%) said that they always set long-term financial groups compared with only 21% in the Lower Middle and 15% of those in the Low LSM Group. Financial goal setting also seemed to be differentiated by educational attainment, with the better educated more likely, on average, to prioritise long-term goal setting compared with those with primary and incomplete secondary education. Labour market status seemed to have a strong effect 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 such goals. To test the thesis that long-term financial goal setting is associated with responsible financial attitudes and behaviours, a five-point Financial Planning scale was created using the question shown in **Figure 18**. On this scale, the higher value represents the greater propensity to set long-term financial goals.

Table 13: Pairwise Correlations on Financial Responsibility, Financial Planning and Advice Seeking

	Financial Planning	Affordability	Timeous	Monitoring	CMFDWA
Affordability	0.31				
Timeous	0.45	0.32			
Monitoring	0.60	0.46	0.50		
CMFDWA	0.27	0.13	0.23	0.26	
RMFD	0.36	0.21	0.30	0.37	0.58

Source: South African Social Attitudes Survey (SASAS) 2015

Notes: 1. The greater the correlation presented in the table, the stronger the relationship between the two indicators; 3. Pairwise correlation using Bonferroni adjustment to calculate significance levels to counteract the problem of multiple comparisons and control for the family-wise error rate; 4. All responses reported as "don't know" were coded as missing; and 5. All correlations represented in the table were a statistically significant at the 5% level.

Using a pairwise correlation matrix, the researchers examined the relationship between the propensity to set long-term financial goals and the behavioural variables discussed in subsections 6.1 and 6.2. As can be seen in **Table 13**, the Financial Planning variable was strongly correlated with other financial behaviours. There was a 0.60 correlation (a comparatively strong positive correlation) between setting long-term financial goals and keeping a close personal watch on financial affairs. More moderate positive correlations observed were setting long-term goals and paying bills on time (0.45) and carefully considering purchases (0.31). The measure of financial planning is also strongly (comparatively) correlated with the RMFD scale (0.36). Low financial self-control was negatively associated with setting long-term financial goals and working hard towards achieving them. Interestingly, the CMFDWA scale correlated strongly (0.58) with the RMFD scale, indicating that confidence is associated with doing research.

7 Making ends meet

There is a need to understand how South Africans manage financial vulnerability. According to the MMI Consumer Financial Vulnerability Index, many consumers in South Africa are feeling despondent about their finances. At the launch of the Index, Managing Executive of Strategy and Market Development at MMI Corporate and Public Sector Rowan Burger said these perceptions of being driven by the high levels of debt relative to after-tax income held by households and low savings (IOL 19/03/2016). He went on to say that millions of consumers are caught in a downward spiral of over-indebtedness. In terms of the Index, consumers are considered financially vulnerable when their cash flow is such that they are (or feel they are) unable to cope financially. Combined with

low levels of saving, many people in South Africa have little to no financial safety net in the event of a financial shock and are highly vulnerable to unexpected experiences (such as medical bills) or financial loss such as through retrenchment.

The South African state provides a limited level of social protection to all citizens. This involves interventions by various role-players to help households survive financial shocks and promote financial resilience. However, according to research by Burger et al. (2014), many South Africans remain economically vulnerable. Using a vulnerability approach to class analysis developed by the World Bank, they conclude that almost half (46%) of black South Africans belong to what is known as the 'vulnerable class', a group highly vulnerable to a slide into poverty (i.e. the lower class)[7]. To better understand financial vulnerability, in 2015 the research team used SASAS data to examine financial resilience in the country. Subsection 7.1 looks at levels of financial resilience amongst respondents' households, focusing on the breadth and depth of resilience. Subsection 7.2 looks at the incidence of financial shock and how households cope with such shocks.

7.1 Financial Resilience and Vulnerability

This subsection looks at financial vulnerability, an important way in which to understand class dynamics in developing countries. In their Latin American study, Lopez-Calva and Ortiz-Juarez (2014) applied the vulnerability approach to classifying class. According to their perspective, non-poor households that are in substantial danger of plausibly sliding back into poverty cannot be classified as middle class. Security has strong associations with savings behaviour and human capital investment decisions. Including measures of vulnerability and security in their construction of class analysis allows the authors to identify financial independence and reliance and shifts the focus of class analysis from the short- to the long-term. Burger et al. (2014) have a similar perspective and argue that class in South Africa is correlated with the risk and uncertainty faced by individuals. Subsection 7.1.1 looks at the resilience of adult South Africans to loss of financial income. Subsection 7.1.2 looks at how vulnerable adult South Africans are to a financial shock. The subsection thus examines the breadth and depth of South African households' financial resilience.

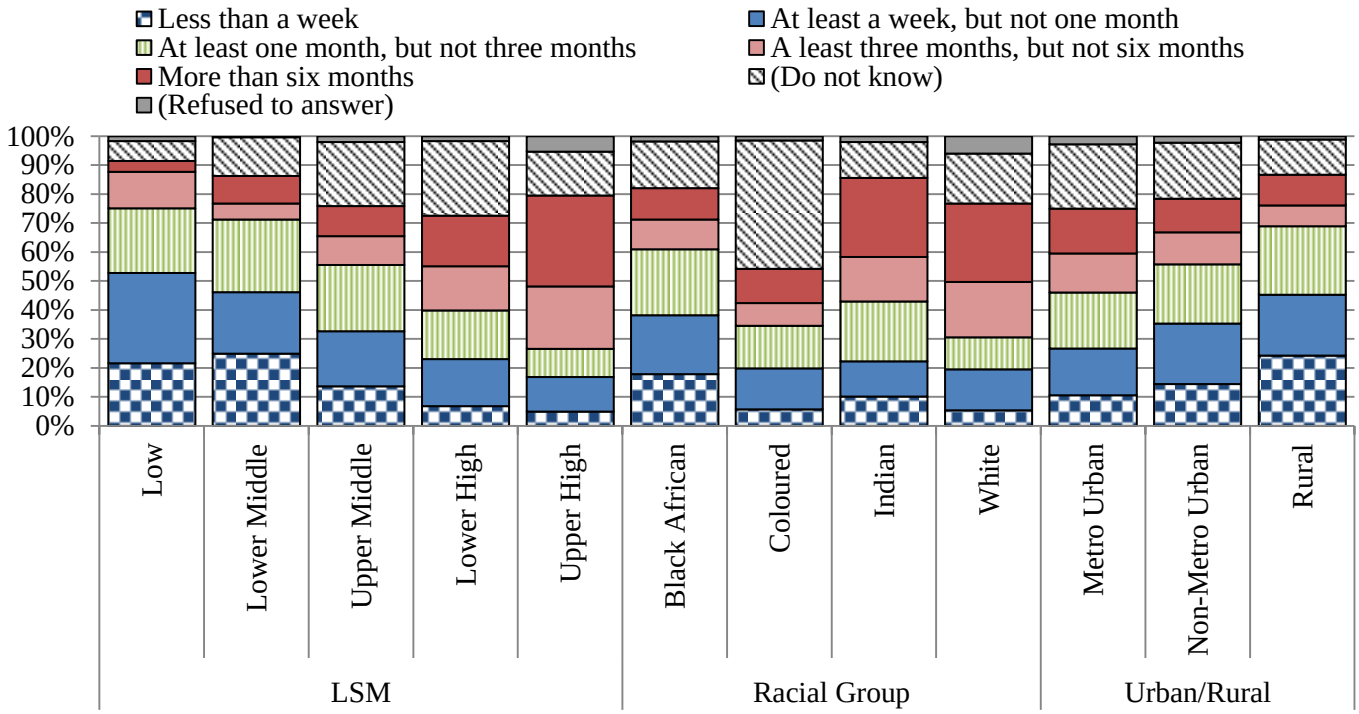
7.1.1 Resilience to Financial Duress

In 2015, the SASAS research team introduced a question into the questionnaire about how long an individual's household could cover expenses (without borrowing money or moving house) if it lost its main source of income. When answering this question, nearly a sixth (15%) of the adult population said less than a week and almost a fifth (19%) said at least week but not a month. About a fifth (21%) felt that their household could cover expenses for at least a month but not three months and roughly a tenth (11%) thought at least three months. Less than a seventh (13%) believed that their household could continue meeting expenses for six months and more. This indicates that a significant minority of adult South Africans live in households that are on the edge financially and would not survive a month without their household's main income. These findings are in line with the results given in subsection 5.2 and show the financially vulnerability of much of the adult public.

Taking into account how people answered the question on financial resilience based on their main source of household income, the results are interesting. It must be remembered that only about four-sevenths (56%) of adults in South Africa live in a household where the main source of income is from the labour market (in the form of wages). Approximately a third of the adult population live in households where the main source of income is social grants such as the old age pension or the child grant. Of those who live in households where the main source of income is from the labour market, a tenth could survive for less than a week without those wages. Of those who live in a social grant dependent household, nearly a quarter (22%) could survive for less than a week without those grants. This suggests that social grant dependent households are less financial resilient than those which rely on wages as their main source of income.

[7] The vulnerability approach can lead to a profounder analysis of vulnerability to poverty. In an interesting essay, Carter and Barrett (2006) provide cogent arguments for the vulnerability approach to studying poverty.

Figure 20: Length of Survival if Main Household Income was Lost by selected socioeconomic subgroups

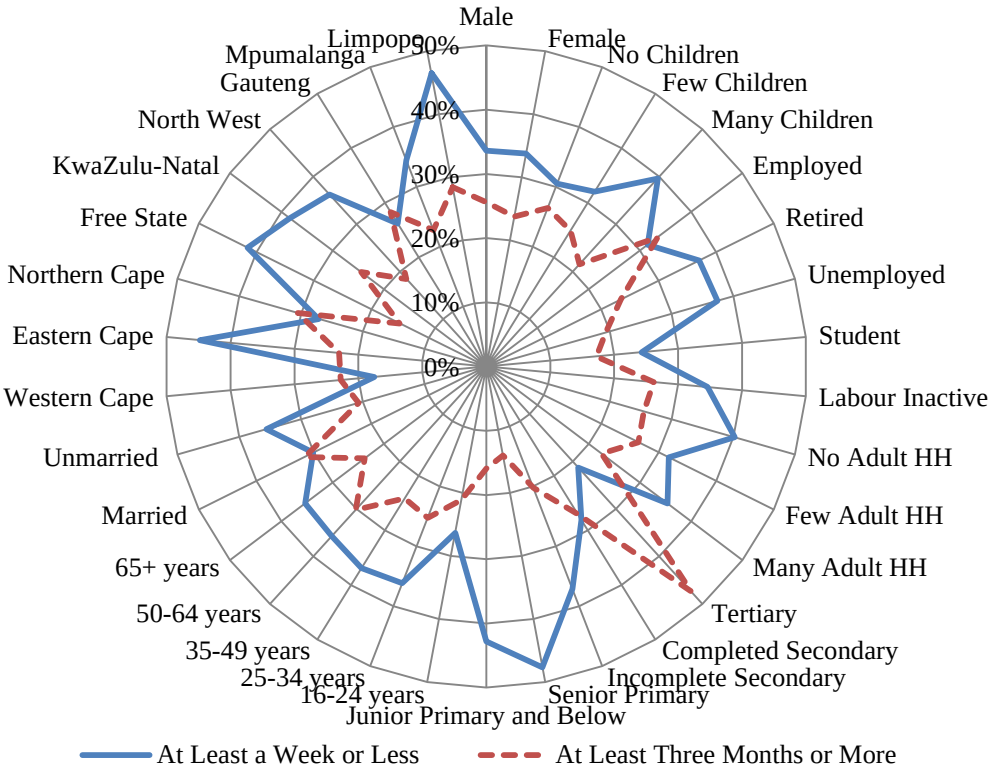


Source: South African Social Attitudes Survey (SASAS) 2015

To differentiate levels of financial resilience in South Africa, responses to the question discussed above should be reviewed across three important socioeconomic dividing lines: race, economic status and geographic location. Noted variances across these groups are shown in Figure 20, which assists with understanding who are the most financially vulnerable in South Africa. As can be seen, there are clear dissimilarities between the three subgroups in the figure. Those in the Upper High LSM group are more capable of financial resilience than the other LSM groups. Compare the segment of the Upper High (31%) who could survive for six months or more with the segments of the Lower High (17%), the Upper Middle (10%), the Lower Middle (9%) and the Low (4%). Differing access to economic resources may explain the varying patterns of financial resilience noted between race groups. Compared to the Black African majority, much higher proportions (27%) of the White and Indian (27%) minorities live in households which could survive for six months or more.

Figure 20 shows an interesting pattern in the length of time households could survive if they lost their main source of household income, by geographic location. A significant minority (24%) of rural respondents live in households which could not survive for a week without their main source of income. The corresponding figure for metropolitan respondents is 16% and non-metropolitan 21%. This shows the financial vulnerability that persists in rural areas and how susceptible households in these areas are to serious financial shocks. The study also examined levels of financial resilience within fundamental socio-demographic subgroups with a particular focus on two types of resilience: low resilience and high resilience. The latter is defined for the purposes of the study as households who could survive without their main source of income for three months and more, and the former as those households which could survive for a week or less. Figure 21 shows the percentages of particular sociodemographic subgroups that fall into these two categories.

Figure 21: 'On the Edge' versus 'Comfortable' on Household Income by selected sociodemographic subgroups



Source: South African Social Attitudes Survey (SASAS) 2015

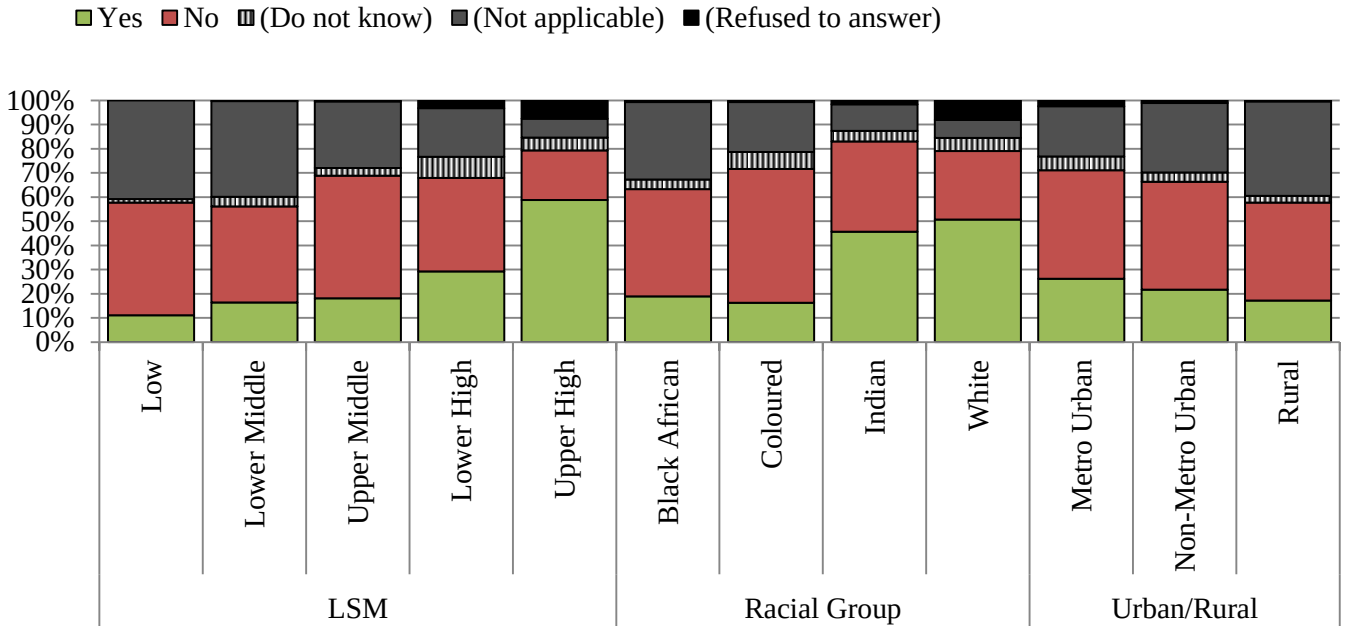
Educational attainment seemed to be associated with financial resilience. Almost half (47%) of tertiary-educated adults lived in households that could survive three months or more after losing their main source of income. Contrast this with the segment of those with completed secondary (27%), incomplete secondary (20%) and senior primary (14%) education who could survive. Being married was somewhat associated with resilience –nearly a third (32%) of those who were married could survive three months or more compared with about a fifth (21%) of the unmarried. This is perhaps not surprising as marital status is customarily an indication of a more settled stage of the life cycle. Disturbingly, households with many children to support were slightly less likely to be financially resilient in comparison to those who had no or only a few children to support. Two-fifths of adults with many children could survive a week or less compared with about a third of those with either no or a few children.

There were notable variations between different provincial residences, as shown in **Figure 21**. The least financially resilient of provincial residents were those from the Eastern Cape and Limpopo. Nearly half of all adult the Eastern Cape (45%) and Limpopo (46%) resided in households that could not survive more than a month without their household's main source of income. In contrast, more than one-sixth (18%) of Western Cape adult residents lived in such a household. Perhaps unpredictably, financial resilience was more highly varied than expected amongst the employed. Although a third (33%) of the employed could survive at least three months or more, almost another third (32%) could not survive a month. This indicates financial inequality in the labour market and how overstretched many of the employed are in South Africa. The retired are less financial resilient than might have been expected. Less than two-fifths (37%) of this group live in households that could survive for at least a week without their main source of income.

7.1.2 Vulnerability to a Major Expense

In 2015, the SASAS research team inserted a question into the questionnaire on whether an individual could cover a major expense without borrowing money or asking friends and family to help. The size of the expense was defined as the equivalent of their monthly income. About a fifth of the respondents answered 'yes' to this question and approximately two-fifths (44%) said 'no'. A significant subset (28%) thought that the question did not apply because they did not have a personal income. The remainder stated that they did not know (4%) or refused to answer (1%). This indicates that many adult South Africans live on the edge financially and are unable to respond to a major expense. Therefore we can say that many South African households are vulnerable to a significant decline in their finances.

Figure 22: Public Responses to a Major Expense by selected socio-economic subgroups



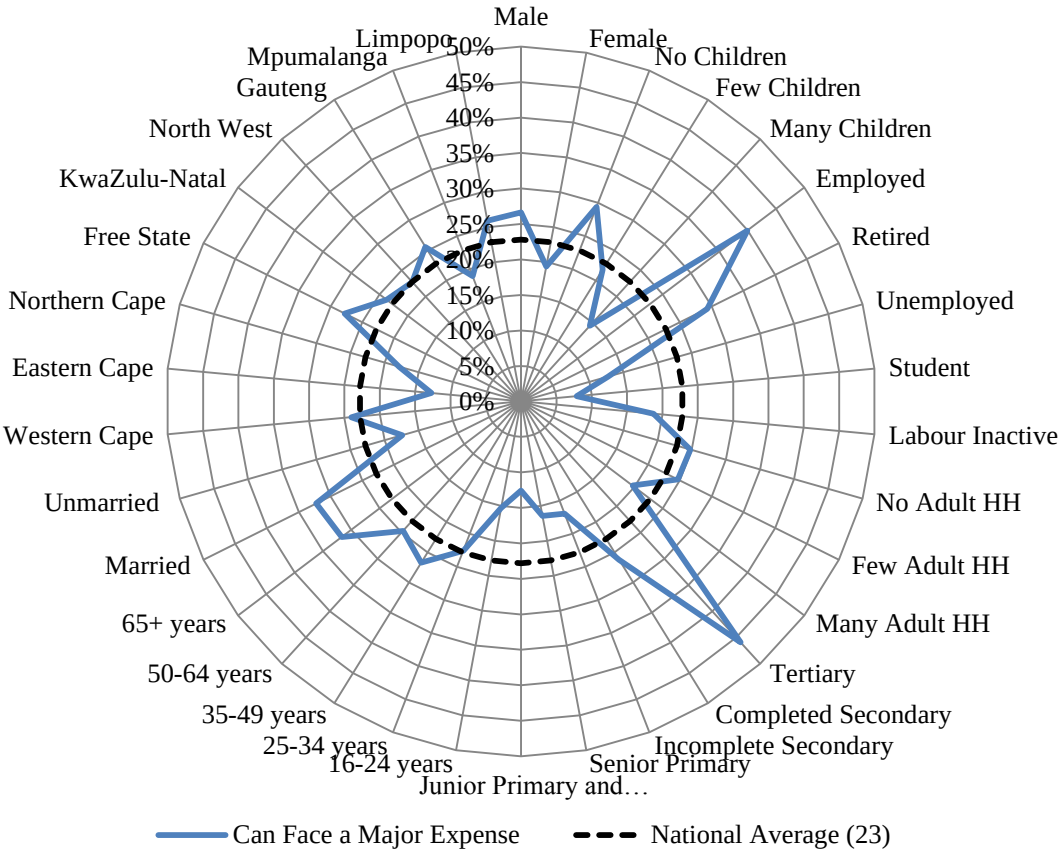
Source: South African Social Attitudes Survey (SASAS) 2015

To discern notable patterns of financial vulnerability, responses to the question discussed above were considered across three important socio-economic fault lines: race, economic status and geographic location. Observed differences across these groups are shown in **Figure 22**, with the figure helping with understanding who the most economically vulnerable are. There are clear differences between the three subgroups given in the figure, with those in the Upper High LSM group more capable of responding to a major expense than the Upper High (59%), the Lower High (29%), the Upper Middle (18%), the Lower Middle (16%) and the Low (11%). Significant racial differences were also noted. Compared to their Black African (19%) and Coloured (16%) counterparts, higher proportions of White (51%) and Indian (46%) South Africans said they were able to respond a major expense.

Compared with the subgroup differences amongst the LSM and race groups, variations amongst different geographic groups were more muted. However, a larger share of adults in urban areas was able to respond to a major financial expense than those in rural areas. Figure 23 shows the proportions of socio-demographic subgroups that said they could meet a major financial expense. Approximately one-eighth (13%) of adult residents of the Eastern Cape said they were capable of responding to such an expense indicating that the people of the Eastern Cape were on average the most vulnerable to financial duress. Relative to the Eastern Cape, adult residents of Gauteng, KwaZulu-Natal and the Free State were, on average, the least vulnerable. Nevertheless, the variations noted between different provincial residents were not as considerable as might have been imagined. Educational attainment seemed strongly correlated with an ability to cover a major expense. Almost half (46%) of tertiary-

educated adults had such an ability in 2015 compared with approximately a quarter (26%) with completed secondary education.

Figure 23: Public Responses to a Major Expense by selected sociodemographic subgroups



Source: South African Social Attitudes Survey (SASAS) 2015

Those who were at the age of retirement (the 65 and above age cohorts) were more likely to be resilient to a major expense than other age cohorts. Close to a third (32%) of this age cohort could respond to such expense compared to less than quarter (23%) of those in the 25-34 age cohort and less than a sixth (15%) in the 16-24 age cohort. Marital status, habitually a signal of a more stable part of the life cycle, seemed to have an association with the ability to respond. In 2015, roughly a third (32%) of those who were married felt able to cover a major expense compared with less than a fifth (17%) of those who were unmarried. Households with many children to support were significantly more likely to be financially vulnerable compared with those with no or a few children. One-seventh (14%) of those living in such a household could cover a major expense. Also discouraging was the gender disparity noted in Figure 23, with about a quarter of men (27%) able to cover a major payment compared with less than a fifth (19%) of women.

The findings shown in Figure 22 seem to suggest that when discussing financial vulnerability there are significant dissimilarities between the country's ethnolinguistic groups. To answer the question as to whether these differences can be explained by the cultures of these groups or by economic inequalities between the groups, the research used multivariate regression analysis to discern which factors were associated with a self-reported capacity to cover a major financial expense. This analysis looked at whether or not an individual felt s/he could meet such an expense, because they did have the financial resources or a personal income. Logistic regression was used as this is a common method to model dichotomous outcome variables. In the logistic model, the log odds of the outcome were modelled as a linear combination of the predictor variables.

Table 14: Logistic Regression on Responding to a Major Expense

	Coef.	Std. Err.	Sig.	[95% Conf.	Interval]
Female (ref. male)	-0.09	0.15		-0.39	0.21
Age	0.00	0.01		-0.01	0.02
Marital Status (ref. Married)					
Married Before	-0.33	0.17		-0.68	0.01
Population group (ref. White)					
Indian	-0.37	0.40		-1.16	0.42
Coloured	-1.35	0.34	***	-2.02	-0.67
Zulu	-0.71	0.37		-1.43	0.01
Xhosa	-0.52	0.41		-1.31	0.28
Sesotho	-0.68	0.37		-1.41	0.05
Batswana	-1.06	0.46	*	-1.95	-0.17
Other	-0.49	0.37		-1.21	0.24
Geographic Type (ref. Urban formal)					
Urban informal	0.10	0.50		-0.88	1.09
Trad. Auth. Area	0.45	0.21	*	0.03	0.87
Rural formal	-0.67	0.44		-1.53	0.18
Living Standard Measurement	0.21	0.06	**	0.08	0.33
Educational Attainment	0.06	0.03	*	0.01	0.11
Household Income (ref. wages)					
Social grants	0.04	0.30		-0.55	0.63
Other	0.21	0.24		-0.25	0.68
No Income	0.15	0.49		-0.80	1.11
Employment (ref. employed)					
Retired	-0.55	0.34		-1.23	0.12
Unemployed	-1.25	0.24	***	-1.71	-0.78
Student	-1.86	0.41	***	-2.66	-1.06
Labour Inactive	-1.19	0.28	***	-1.74	-0.64
Number of obs.	2395				
Wald chi^2 (30)	188				
Pseudo R^2	0.16				

Source: South African Social Attitudes Survey (SASAS) 2015

Note: Data is weighted to be nationally representative of the adult South Africans. The model controls for the provincial residence of respondents. *, **, *** 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 14 shows the results from the coefficients from the logit model predicting the association between the dependent and individual characteristics and attitudes. The logistic regression coefficients show the variation in the log odds of the outcome for a one-unit increase in the predictor variable. The likelihood ratio chi-square of 188 with a p-value of 0.0001 indicates that the model as a whole fits significantly better than an empty model (i.e., a model with no predictors). As can be seen in the table, there were some statistically significant variations in capability to cover a major expense by population group. Relative to the reference group (i.e. White South Africans), belonging to the Coloured minority was negatively associated with an ability to cover a major expense even controlling for socioeconomic status. There were no significant differences between the reference group and various Black African ethnolinguistic groups, with the exception of the Batswana. This suggests that there may be features of Coloured and Batswana culture that are driving these results. However, more research will need to be done to better understand this finding.

Overall, economic status rather than ethnicity seems a better predictor of a self-reported capacity to meet a major expense. For every one unit change in the Living Standard Measurement, the log odds of covering such an expense increases by 0.21. Thus, the wealthier an individual the more capable that individual will be to cover a major expense. For a one year increase in formal education, the log odds

of being able to handle a major expense grows by 0.06. The more educated the individual, the more invulnerable they are to an unexpected major expense. Perhaps unsurprisingly, the employed were more likely to be able to handle a major expense than other labour market categories with the exception of the retired. Relative to the employed, being unemployed only decreases the log odds of covering a major expense by 1.25 versus 1.86 for being a student and 1.19 for being outside the labour market for some other reason. Perhaps unexpectedly, the source of an individual's household income did not significantly influence the dependent in Table 14.

7.2 Experiencing and Coping with a Financial Shortfall

If people encounter a financial shock, they may experience a period when an individual's income does not quite cover their living costs. People unable to cope with a financial shock may resort to measures which could risk their health. After it correlated death and disability claims with the MMI Consumer Financial Vulnerability Index, this is one of the conclusions reached by Managing Executive Rowan Burger and his team (IOL 19/03/2016). Since 2010, the research team have paid particularly close attention to how individuals adapt to financial shortfalls. Currently, five years of behavioural and attitudinal data on such adoption has been collected, allowing a unique opportunity for analysis. The following section presents an examination of financial shortfalls (and associated coping strategies) in order to better understand the financial behaviour of South Africans. Subsection 7.2.1 looks at the propensity to experience a financial shortfall, and subsection 7.2.2 at the different strategies adopted by individuals to cope with a financial shortfall.

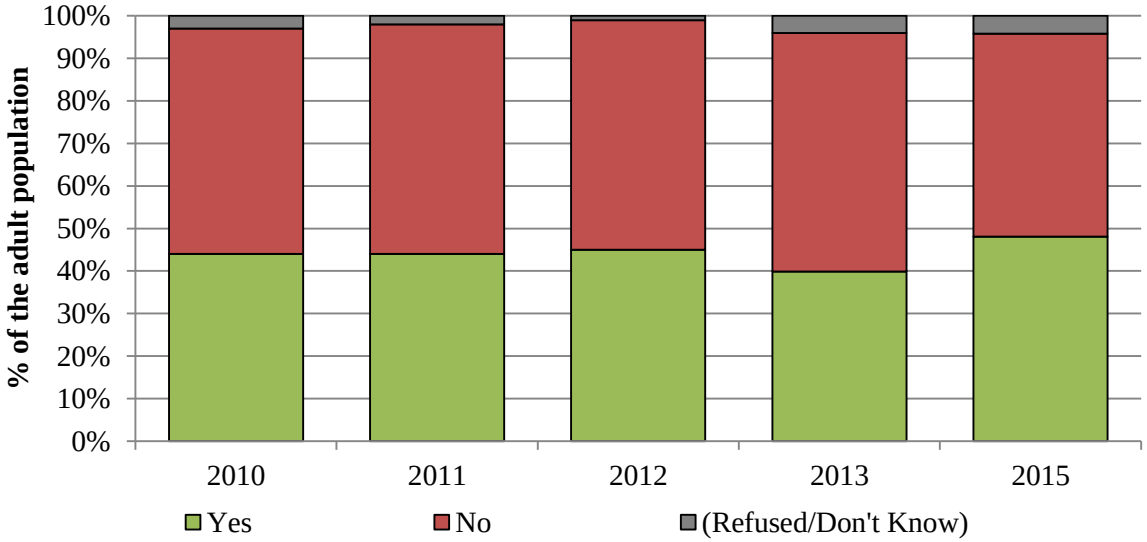
7.2.1 Experiencing an Inability to Cover Living Expenses

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 deal with a financial shortfall. However, to better understand the size of these effects, it is necessary to look at how important socioeconomic factors influence the likelihood that an individual will suffer an income deficit. It is necessary to understand the role of economic versus demographic factors in predicting whether an individual will experience such a deficit. The first part of this subsection (7.2.1.1) explores incidences of financial shortfalls amongst the respondents for the period 2011-2015. This trend analysis focuses on differences between different socio-demographic groups. The next subsection (7.2.1.2) analyses 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 socio-demographic groups.

7.2.1.1 Trend Analysis on Experiencing a Financial Shortfall

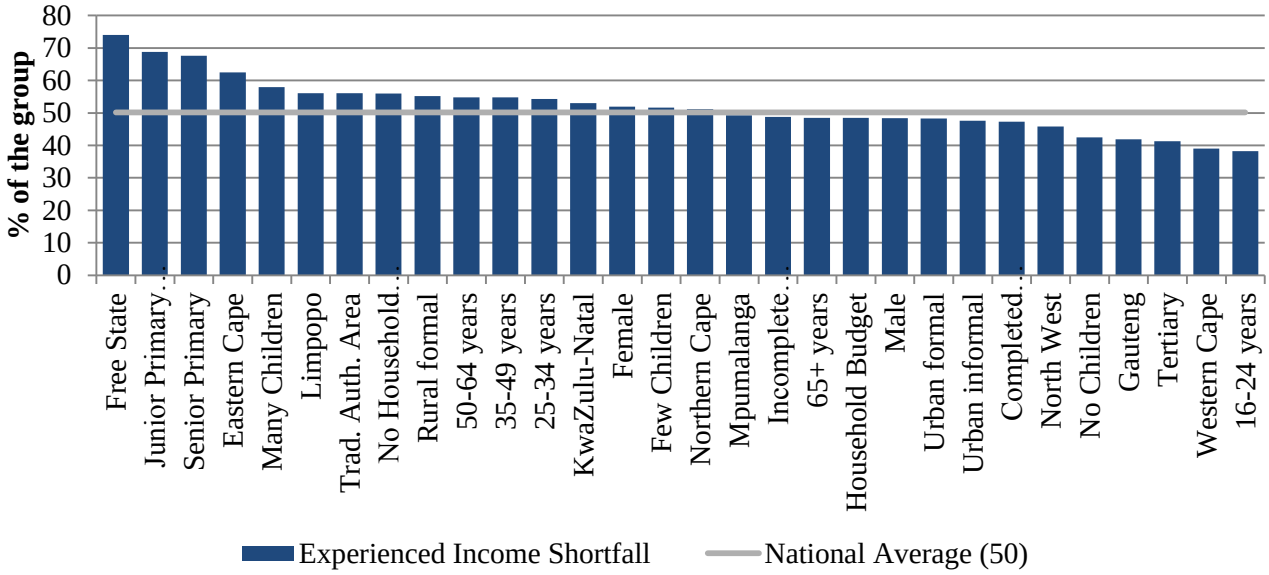
In 2010, during the Financial Literacy Pilot study, SASAS researchers collected data on whether an individual had experienced a situation where their income did not quite cover their living costs. More than two-fifths (44%) had experienced such a shortfall indicating that many South Africans do not lead economically stable lifestyles. There was little difference between the respondents' answers to this question in 2010 and 2015. This suggests that the question continues to work well, despite the sensitivity commonly involved in revealing financial difficulty. There was a fairly notable rise in the share of the adult population who experienced a financial deficit between 2013 and 2015 (see Figure 24). In 2015, almost half (48%) of the adult population experienced an income shortfall compared to 41% in 2013.

Figure 24: Share of South Africans who experienced income shortfall in last year, 2010-2013



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

Figure 25: Experienced income shortfall in last year, by socio-demographic attributes (percentage)



Source: South African Social Attitudes Survey (SASAS) 2015

To identify notable patterns of divergence in relation to experiencing an income shortfall, the results discussed above would benefit from further analysis of various economic characteristics. Observed differences across demographic and social characteristics would expand on what was found in this subsection and help with a better understanding of financial vulnerability in the country. As can be observed in **Figure 25**, 74% of adult residents of the Free State reported a financial shortfall indicating the particularly high level of economic vulnerability in that province. Comparing data from 2013 and 2015, there is a striking increase in the number of people experiencing a financial shortfall in the province. In 2013, only about a third (30%) of its residents reported experiencing an income shortfall. Amongst residents of the Eastern Cape, reports of financial shortfalls also grew considerably between 2013 and 2015. In 2015, 62% of people in that province experienced an income deficit compared with two-fifths in 2013.

Individuals close to retirement (i.e. the 50-64 age cohort) were more likely to experience an income shortfall in 2015 than any other age cohort. More than half (55%) of those in this age cohort experienced a shortfall, compared to less than two-fifths (38%) of those in the 16-24 age cohort. Marital status, often an indication of life cycle stage, did not seem to be associated with reported experiences of a financial deficit. Discouragingly those households with many children to support were significantly more likely to have faced a financial shortfall compared to those with no children to support, and almost three-fifths (58%) of adults living in such a household experienced an income shortfall in 2015. Educational attainment seemed strongly correlated with experiencing a financial deficit. Approximately two-fifths (41%) of tertiary-educated adults reported an income shortfall in 2015 compared with 68% of those with Senior Primary education and less.

7.2.1.2 Logistic Regression on Financial Shortfall

A report developed for the South African Financial Services Bureau in 2014 suggested that when discussing incidences of financial shortfalls there are significant differences between the country's ethnolinguistic groups. A very low share of the White population group reported financial shortfalls compared with the Indian, Coloured, Zulu and Batswana subnational groups. In 2015, the research team found similar differences between different subnational groups on the incidence of experiencing an income shortfall in the previous 12 months. To find out if these observed differences reflect variations amongst these subnational groups in terms of economic resources and access to employment, a multivariate regression analysis was conducted to determine which factors were associated with experiencing an income deficit between late 2014 and late 2015. Logistic regression was selected, as this is a common method used to model dichotomous outcome variables. In the logistic model, the log odds of the outcome were modelled as a linear combination of the predictor variables.

Table 15 presents the results from the coefficients from the logit model predicting the association between the dependent and individual characteristics and attitudes. The likelihood ratio chi-square of 195 with a p-value of 0.0001 tells us that our model as a whole fits significantly better than an empty model (i.e., a model with no predictors). In the table, we see the coefficients, their standard errors and the 95% confidence interval of the coefficients. The logistic regression coefficients give the change in the log odds of the outcome for a one-unit increase in the predictor variable. Despite controlling for a range of demographic and socio-economic variables, significant differences between subnational groups were observed. The Xhosa, the Sesotho and the Batswana were significantly more likely than the White population group to experience an income shortfall. Factors other than labour market status, economic wealth and education must explain the population group differences observed in **Table 15**. Economic status, rather than ethnicity, seems a better predictor of suffering a financial shortfall. For every one unit change in the Living Standard Measurement, the log odds of experiencing an income shortfall decreases by 0.18. Thus, the wealthier an individual the more unlikely that individual will be to fall into financial trouble.

Table 15: Logistic Regression on Experiencing an Income Shortfall in the 2014-2015 period

	Coef.	Std. Err.	Sig.	[95% Conf.	Interval]
Female (ref. male)	-0.02	0.14		-0.29	0.25
Age	0.02	0.01	**	0.01	0.04
Marital Status (ref. Married)	0.32	0.14	*	0.03	0.60
Number of Children	0.14	0.04	**	0.04	0.20
Population group (ref. White)					
Indian	0.34	0.37		-0.77	0.94
Coloured	0.92	0.30	**	-0.08	1.34
Zulu	0.96	0.34	**	-0.22	1.38
Xhosa	1.76	0.36	***	0.56	2.22
Sesotho	1.31	0.33	***	0.08	1.67
Batswana	1.20	0.36	**	-0.05	1.66
Other	1.42	0.34	***	0.23	1.87
Geographic Type (ref. Urban formal)					

Urban informal	-0.45	0.34		-1.07	0.20
Trad. Auth. Area	-0.47	0.18	*	-0.75	-0.02
Rural formal	-0.34	0.38		-0.98	0.48
Living Standard Measurement	-0.18	0.06	**	-0.30	-0.06
Educational Attainment	0.00	0.02		-0.06	0.04
Employment (ref. employed)					
Retired	-0.56	0.27	*	-1.30	-0.25
Unemployed	0.14	0.18		-0.36	0.36
Student	-0.97	0.33	**	-1.71	-0.41
Labour Inactive	-0.11	0.22		-0.69	0.17
Household Budget (ref. no budget)	-0.08	0.14		-0.29	0.32
Number of obs.	2267				
Wald $chi^2(28)$	195				
Pseudo R^2	0.12				

Source: South African Social Attitudes Survey (SASAS) 2015
Note: Data is weighted to be nationally representative of the adult South Africans. The model controls for the provincial residence of respondents. *, **, *** 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 associated with experiencing a financial shortfall. Being married was negatively associated with reporting a financial shortfall in the previous 12 months. This suggests that the institution of marriage is behaving as the theorists would expect (i.e. encouraging risk-averse behaviour which strengthens the household against financial shocks or setbacks, see Lamdin 2011). For a one-child-household, the log odds of suffering a financial deficit increases by 0.12. Thus, the cost of having a child increases the chances that an individual's expenses will exceed his income which will then not quite cover living costs. Perhaps surprisingly, the employed were not more likely to experience an income shortfall although being in retirement and being a student were significantly (and negatively) correlated with such an experience. Having a household budget was not statistically associated with reporting a financial shortfall. For a one-year increase in age, the log odds of falling victim to a financial deficit increases by 0.02. In other words, older South Africans are more vulnerable to a financial shortfall than their younger counterparts are.

7.2.2 Strategies to Cope with Financial Shortfall

As rising interest rates, food prices and electricity tariffs weigh on ordinary people's disposable incomes, there is a growing fear amongst some economists that financial shortfalls may become even more common in 2016 than in 2015 (Business Day 17/03/2016). The experience of a financial shortfall may result in a decline in individual financial wellbeing and even a recession in household standard of living. Everything is contingent on how the individual responds to financial shortfalls and what strategies individuals can employ to help them cope with periods of financial duress. To understand how individuals respond to financial shortfalls, subsection 7.2.2.1 assesses different coping strategies. This subsection looks at these across four important subgroup categorisations: population group, employment status, urbanisation and living standard. To answer the question about how observed differences between these subgroups can be explained, a multivariate regression analysis was conducted. Subsection 7.2.2.2 describes which important sociodemographic factors are correlated with a particular main coping strategy.

7.2.2.1 Trend Analysis on Coping with a Financial Shortfall

Since 2010, the SASAS research team has investigated how South Africans respond to such periods in an effort to understand the range and frequency of different coping strategies that are employed. For those who acknowledged financial difficulties during the last 12 months, a follow-up question was asked about what strategies were used to cope with this shortfall. One of the most common strategies adopted by the adult public (see Table 16), in each of the five years for which there is data, was cutting back on spending. In 2015, almost half (48%) of those who suffered a financial shortfall cut back on their spending as a response compared to about three-eighths (35%) in 2011. Fewer than one-

eighth (13%) were able to draw on personal savings in such times and an equally small share was able to work overtime or earn extra money.

Table 16: Coping strategies employed to make ends meet, 2010-2015 (multiple response table, percentages)

	2010	2011	2012	2013	2015
Existing resources:					
Cut back on spending, spend less, do without	30	35	43	39	48
Draw money out of savings	9	13	13	18	13
Sell something that I own	8	12	9	8	11
Access credit by using existing contacts or resources:					
Borrow food or money from family or friends	49	55	41	40	55
Borrow from employer/salary advance	4	5	4	4	4
Take a loan from my savings and loan clubs	2	4	4	4	3
Pawn something that I own	2	4	3	2	5
Take money out of a flexible home loan account	1	0	2	1	1
Access additional credit:					
Take out a loan from an informal provider/moneylender	5	12	4	3	7
Take out a personal loan from a formal financial service	1	3	3	3	3
Take out a payday loan	0	1	1	1	1
Borrow from existing credit line:					
Apply for loan/withdrawal on pension fund	1	2	2	2	2
Use credit card for a cash advance or to pay bills/buy food	1	3	2	2	3
Use authorised, arranged overdraft or line of credit	0	1	1	1	1
Other					
Creating resources:	5	17	14	9	13
Fall behind/go beyond arranged amount:	9	10	10	9	9
(Do not know)	2	5	3	4	0
(Refused to answer)	2	2	2	5	1

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

The fact that so few people were able to rely on existing resources shows the limited financial resources of those who experience a financial deficit. The most common response in 2015 was to borrow from friends and family, indicating that social networks are an integral part of how many households cope with financial stress. In that year, more than half (55%) of all people who experienced a financial shortfall stated that they borrowed from friends and family compared with to roughly two-fifths (41%) in 2012. Only a small percentage drew on formal or informal credit organisations such as banks, formal financial services and informal saving clubs. The fact that so few people accessed formal or informal credit clubs may demonstrate that such bodies are not readily accessible to households in financial duress (perhaps due to the entry barriers involved). Between 2010 and 2015, there was little change in the proportion of individuals accessing formal credit markets as a mechanism to cope with a financial shortfall between 2010 and 2015.

Table 16 shows the most common responses to financial duress. The research team also examined subgroup differences in terms of the strategies adopted. As different population groups reported different incidences of income shortfall, it would be expected that the groups adopted dissimilar strategies to cope with such shortfalls. Four scores were created, based on the strategies shown in Table 16: (i) Existing resources; (ii) Credit from friends and family; (iii) Formal credit[8]; and (iv) Creating resources. Each scale was ranged from 0 to 100, with 100 representing the highest likelihood of adopting that strategy and the lowest. The results for 2011 and 2015 are given in **Table 17** and

[8] This 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.

show which groups were most likely to adopt which strategies. It is clear that the coping mechanisms used varied by economic status and that wealthier people in the country responded to financial differently from their poorer counterparts.

Table 17: Coping strategies employed to make ends meet by selected subgroups (mean 0-100 scores)

	Existing Resources		Credit from Friends/Family		Formal Credit		Creating Resources	
	2011	2015	2011	2015	2011	2015	2011	2015
South Africa	54	60	57	55	12	11	18	13
Population Group	***	n.s.	***	***	*	***	**	n.s
White	70	48	32	18	9	20	34	23
Indian	71	51	29	27	22	39	35	10
Coloured	48	65	57	49	9	6	16	13
Zulu	46	56	61	65	15	17	21	11
Xhosa	51	63	62	58	16	6	18	13
Sesotho	72	58	50	59	8	7	15	14
Batswana	54	58	55	44	11	14	19	10
Other	47	68	67	52	8	11	12	13
Employment Status	***			*	***	***	***	***
Employed	59	57	40	50	23	20	37	27
Unemployed	39	56	61	51	3	7	3	1
Retired	50	64	70	57	5	7	7	6
Other Labour Inactive	59	56	63	62	5	8	9	12
Urbanisation	n.s	**	***	***	*	**	***	***
Metro	58	65	49	55	13	16	21	18
Town	50	59	51	49	15	8	20	12
Rural	54	55	65	60	9	9	16	9
Living Standard Measurement	*	***	***	***	*	***	n.s	n.s
Low	46	64	72	63	14	6	11	16
Lower Middle	51	57	68	58	8	6	14	12
Upper Middle	55	60	50	59	12	10	19	13
Lower High	61	73	37	40	18	19	31	16
Upper High	70	37	14	18	14	30	33	11

Source: South African Social Attitudes Survey (SASAS) 2015

Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

For those lower down the socio-economic ladder, social networks were an important coping stratagem. This is probably due to the limited space such groups had to cut expenditure, given that they live below or on the poverty line. In 2015, 63% of the low LSM group and 58% of the lower middle LSM group relied on social networks to make ends meet. However, the use of these networks at times of financial duress amongst the poor declined between 2011 and 2015 (see **Table 17**). In 2015, 64% of those in the low LSM group who had suffered a financial shortfall cut expenditure in response to the shortfall. This represents a change in the behaviour of this group; in 2011, 46% of the respondents in this group stated that they employed this strategy to deal with financial shortfalls. In 2015, those in the upper LSM groups who experienced a deficit in income stated that they resorted to formal credit markets; this was not the case in 2011.

In 2011, a popular coping strategy amongst those White individuals who suffered a financial shortfall was cutting back on expenditure, which may reflect the surplus financial resources available to these individuals. However, this was not the case in 2015 when less than half (48%) of the White adult population employed this strategy in response to a financial shortfall. In 2015, among Black African

respondents, the isiXhosa-speaking group was the most likely to cut back on spending as a strategy to deal with who had suffered a fa financial deficit. The isiZulu-, isiXhosa- and Sesotho-speaking groups were more likely than other subnational groups to seek credit from family and friends. White and Indian South Africans were less likely to seek credit through their social networks when compared to their Black African and Coloured counterparts (see **Table 17**). This would suggest the presence of cultural differences in how different communities respond to financial shortfalls and, as a result, demands further study and investigation. The research team will test this supposition using multivariate statistical analysis in subsection 7.2.2.2.

The data presented in **Table 17** show that access to the labour market helped people cope with financial shortfalls. Of the employed that faced a financial deficit in 2015 about a fifth stated that they accessed formal credit markets to cope with a shortfall and 27% worked overtime. However, the share of the employed that were able to respond to a financial crisis by working overtime seems to have declined between 2011 and 2015. This may signify changing trends in the labour market with fewer opportunities to work overtime. People living in the main metropolitan centres who suffered a financial deficit were better able to access formal credit markets and work overtime than their counterparts in rural areas were. Adult metropolitan residents were also much more likely to work overtime in response a shortfall than their counterparts in small towns or rural areas.

Table 18: Financial measures relied on during times of financial stress (column percentages)

	2011	2012	2013	2015
Existing resources:	**23**	**42**	**37**	**37**
Cut back on spending, spend less, do without	15	31	30	29
Draw money out of savings or transfer savings into current account	5	7	6	6
Sell something that I own	3	4	1	3
Access credit by using existing contacts or resources:	**45**	**30**	**32**	**42**
Borrow food or money from family or friends	41	26	27	38
Borrow from employer/salary advance	2	2	3	1
Take a loan from my savings and loan clubs	2	1	1	1
Pawn something that I own	n.a	1	1	1
Take money out of a flexible home loan account	0	1	0	1
Access additional credit:	**7**	**3**	**3**	**2**
Take out a loan from an informal provider/moneylender	5	2	1	1
Take out a personal loan from a formal financial service	1	1	0	1
Take out a payday loan	1	0	2	n.a
Borrow from existing credit line:	**2**	**2**	**2**	**2**
Apply for loan/withdrawal on pension fund	0	0	1	1
Use credit card for a cash advance or to pay bills/buy food	2	2	1	1
Other	**15**	**17**	**16**	**15**
Working overtime or earning extra money	9	8	5	9
Fall behind/go beyond arranged amount	1	3	2	2
Other	5	6	9	3
(Do not know)	5	4	5	0
(Refused to answer)	2	2	6	1

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

To obtain a deeper understanding of responses to financial duress, respondents were asked which coping strategy was most important during periods of financial shortfall in the past year. This question was introduced in 2011 during the Financial Baseline Study and the responses to this question allow for a greater understanding of primary coping strategies in the evident of a financial shortfall. The most prevalent coping mechanism for adult South Africans in 2015 was to draw on existing resources (37%) followed by cutting back on expenditure or doing without (29%). This differs from 2011 when the primary coping mechanism was credit from existing contacts (45%) followed by borrowing from family and friends (41%). Notably, the share of South Africans who relied on cutting back as their

primary stratagem in the event of a shortfall doubled between 2013 and 2011 (see **Table 18**). This may represent a response to a prolonged economically difficult period that would have strained social networks traditionally utilised for financial credit.

7.2.2.2 Multinomial on Coping with Financial Duress

There are marked variances between the coping stratagems among the country's different population groups are examined. Members of the Black African majority who had experienced a shortfall were more likely to rely on credit from social networks as their main coping strategy compared to their White and Indian counterparts. Among the Black African linguistic groups, adult members of the Zulu and Batswana groups were more likely to cut back on existing resources. To establish whether these observed differences reflect variations amongst these subnational groups in terms of economic resources and access to employment, a multivariate regression analysis was conducted to determine which factors were associated with a particular main coping strategy to a financial shortfall between late 2014 and late 2015. Multinomial logistic regression was considered appropriate because the goal was to investigate which characteristics were associated with a selected nominal outcome variable.

The question on primary coping strategy was coded to produce four category nominal outcome variables. The first category was Resources which included: (i) cutting back on spending; (ii) drawing money out of savings or transfer savings into current account; (iii) selling something; (iv) working overtime or earning extra money; and (v) pawning something. The second category was Social Networks which included borrowing food or money from family or friends. The third category was informal and formal credit markets which included a wide range of activities from borrowing from an informal provider to accessing additional credit such as a personal loan. The fourth category was no experience of a financial shortfall. These nominal outcome variables enabled a better understanding of the type of financial deficit experienced by an individual and of the results of experiencing a financial shortfall. The findings from this multinomial (polytomous) logistic regression testing are shown in **Table 19**.

Table 19: Multinomial (polytomous) Logistic Estimates Predicting Response to a Financial Shortfall

	Category I		Category II		Category III	
	Social Network vs. No Shortfall		Credit vs. No Shortfall		Resources vs. No Shortfall	
	Coef.	Sig.	Coef.	Sig.	Coef.	Sig.
Female (ref. male)	0.31		0.28		-0.07	
Age	0.03	***	0.03	*	0.02	**
Marital Status (ref. Married)	0.95	***	0.28		-0.03	
Population group (ref. White)						
Indian	0.45		2.91	**	0.09	
Coloured	1.23	*	2.48	***	0.80	*
Zulu	0.95		2.34	**	0.76	
Xhosa	1.82	**	2.10	*	1.52	**
Sesotho	1.52	*	2.07	**	0.88	*
Batswana	1.34	*	2.27	**	1.17	*
Other	1.77	**	1.63	*	1.01	*
Geographic Type (ref. Urban formal)						
Town	-0.09		-0.79	*	-0.37	
Rural	-0.53		-1.37	**	-0.75	*
Living Standard Measurement	-0.24	**	-0.31	*	-0.19	**
Educational Attainment	-0.05		0.08		-0.02	
Employment (ref. employed)						
Retired	-0.65		-0.67		-0.74	*
Unemployed	0.62	*	-0.34		0.20	
Labour Inactive	-0.18		-1.18	**	-0.67	

Household Budget (ref. no budget)	-0.18	-0.33	0.32
Number of obs.	2109		
Wald chi^2(28)	372.06		
Pseudo R^2	0.11		

Source: South African Social Attitudes Survey (SASAS) 2015
Notes: 1. Data is weighted to be nationally representative of the adult South Africans.; 2. The base outcome is "no shortfall experienced", 3. The regression model controlled for an individual's province of residence.

Table 19 presents the results from the coefficients from the multinomial logit model predicting the association between the dependent and individual characteristics and attitudes. The likelihood ratio chi-square of 372 with a p-value < 0.0001 indicates that the model as a whole fits significantly better than an empty model (i.e., a model with no predictors). In Category I, a one-unit increase in the Living Standard Measurement is associated with a .024 decrease in the relative log odds of responding to a financial shortfall by using existing resources (vs. not experiencing a shortfall). In Category II and III, the Living Standard Measurement is associated with a .031 and a 0.19 decrease in the relative log odds respectively. This suggests that the more affluent the individual, the more likely that their primary response to a financial deficit will be to draw on existing resources.

Relative to living in metropolitan areas, the log odds of an individual's primary response to a financial shortfall through credit markets (vs. not experiencing a shortfall) decreases by 0.79 if that individual lives in a town and by 1.37 if in a rural area. This observed disparity between geographic groups may perhaps be explained by the apartheid legacy effect which has resulted in contemporary geographic differences in economic accumulation. Even accounting for economic status and educational attainment, the use of credit markets as the primary response to an income deficit varied significantly by ethnicity. Relative to being White, the log odds on Category II would increase 2.91 if the individual is Indian, 2.27 if Setswana-speaking, 2.48 if Coloured, 2.34 if isiZulu-speaking, 2.10 if isiXhosa-speaking and 2.07 if Sesotho-speaking. Thus, all non-White groups are significantly more likely than White people to respond by primarily drawing on credit markets when faced with a financial shortfall. The groups most likely to draw on credit markets as a primary response (relative to White subnational group) were the Indian, Coloured and Zulu subnational groups.

The relative log odds of an individual responding to a financial shortfall primarily by drawing on social networks (vs. not experiencing a shortfall) increases by 0.95 if that individual is unmarried. This may be because married individuals have larger social networks to draw on when faced with a financial crisis. Marital status was not, on the other hand, a significant predictor for Category II and III. Relative to being White, the log odds on Category III increase to: (i) 1.52 if the individual was isiXhosa-speaking; (ii) 1.17 if Setswana-speaking; (iii) and 0.88 if Sesotho-speaking. In other words, the groups that are most likely to draw on existing resources as a primary response relative to White subnational group are the Setswana-, Sesotho- and isiXhosa-speaking subnational groups. Relative to living in metropolitan areas, the log odds of an individual's primary response to a financial shortfall being existing resources decrease by 0.75 if that individual lives in a rural area. This may be the result of the types of economic resources available in most rural areas of the country compared with urban areas.

8 Saving Behaviour

South Africa needs to build a culture of saving. According to Yershen Pillay, Executive Chairperson of the National Youth Development Agency, "[sa]ving requires a culture of self-control, sacrifice, financial freedom and taking a long-term view" (Mail & Guardian 12/07/2013a). Currently, South Africans are faced with the challenge of having to overcome consumerism in favour of developing a culture of saving. Allon Raiz, Chief Executive of Raizcorp, a small business development organisation has said, "On a psychological level, saving is a proxy for thinking about the future and delayed gratification and it requires the discipline of planning" (Mail & Guardian 12/07/2013b). The South African Savings Institute is concerned about South Africans' savings habits and wants to ignite a much-needed savings mentality in the country. René Grobler, Head of Investec Cash Investments, said in July 2015, "Against our international peers, measured on average between 1975 and 2012,

South Africa's savings rate is close to the bottom of the pile, with China at 42%, Russia at 28% and South Africa at 19%" (Mail & Guardian 31/07/2015). He added that over the last few decades there has been a decline in domestic savings as a percentage of Gross Domestic Product.

A robust savings culture not only plays a role in the economy but also ensures that the consumer is protected in the event of a life-changing situation or emergency. Olano Makhubela, Chief Director of Financial Investments and Savings at the National Treasury, delivered a keynote address in which he said that South Africans need to develop a savings culture, urging people to be proactive and vigilant in their savings (The Citizen 13/07/2015). Mr Makhubela noted that individuals who save consistently (even if they save a small portion of their income) are fundamentally important to the long-term sustainability of the South African economy. This section looks at South African adults' savings behaviour to try to understand why they tend not to save. Subsection 8.1 looks at how people plan for financial emergencies. Subsection 8.2 examines individuals' ordinary savings behaviour. Subsection 8.3 looks at how people save for retirement. These two subsections assist with understanding what can be done to ignite a culture of savings in South Africa and to push the mentality that saving money is essential for the future.

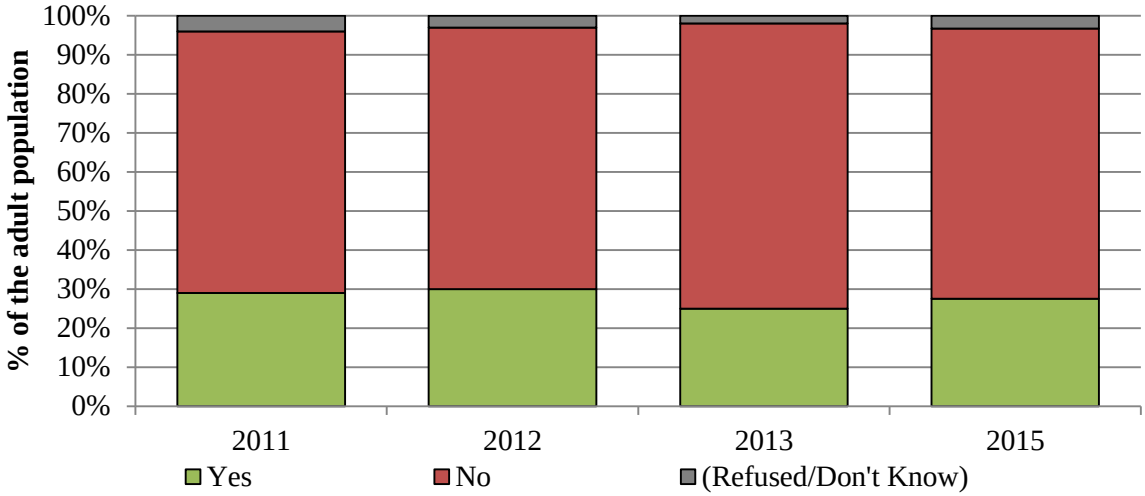
8.1 Planning for Financial Emergencies

It is important to assess the adequacy of ordinary South Africans' personal savings. Rowan Burger, Managing Executive at MMI Holdings, Momentum and Metropolitan, has said that, "we [South Africans] have to forgo the immediate gratification of spending now rather than setting aside for a rainy day" (Mail & Guardian 31/07/2015). If a financial shock occurs in a household (such as the breadwinners' loss of employment), will the household have enough savings to sustain them until a solution is found? SASAS data makes it possible to answer this important question. The first part of this subsection (8.1.1) examines 'rainy day' saving funds amongst adults in South Africa during the period 2011-2015, focusing on subgroup differences. The next subsection (8.1.2) analyses the effect of certain key socioeconomic characteristics in driving the propensity to have 'rainy day' funds. This subsection uses multivariate analysis to validate the strength of each of the factors under consideration.

8.1.1 Trend Analysis on Emergency Savings

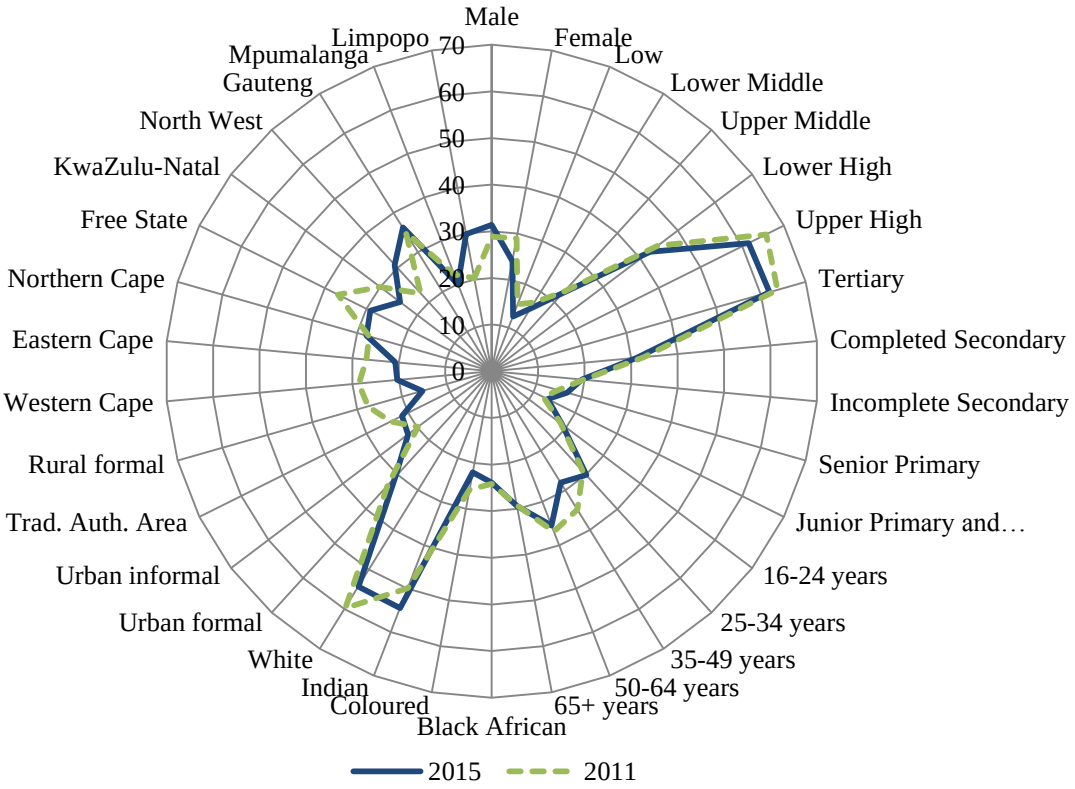
Since the 2011 Financial Literacy Baseline study, the SASAS research has asked respondents whether they have set aside emergency or rainy day funds that would cover their expenses for three months in case of sickness, job loss, economic downturn or other emergencies. The team currently has five rounds of data relating to this question. The results are given in Figure 26 and show that, in 2015, 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. Comparing 2013 and 2015, there has been a moderate improvement in the share of individuals who have access to emergency funds. Nonetheless, the findings show that for many a financial shock leads to an immediate change in livelihood.

Figure 26: Share of South Africans who have emergency funds set aside for three months, 2010-2015 (percentage)



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

Figure 27: People with emergency funds to cover three months of expenses by selected subgroups, percentages)



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

Subgroup analysis was used to investigate whether the propensity to have an emergency fund changed amongst various subgroups between 2011 and 2015. **Figure 27** shows relatively little variation over the period; certain groups are better prepared to fund emergencies than others and this did not change considerably over the five period. A large share of affluent South Africans had set aside emergency or rainy day funds that would cover their expenses for three months in case of sickness, job loss,

economic downturn, or other emergencies. In 2015, two-thirds of those in the Upper High LSM group had an emergency fund set aside compared with less than four-ninths of those in the Lower High LSM group, two-ninths in the Upper Middle LSM group and less than one-fifth in the Lower Middle and Low LSM groups.

Figure 27 shows that roughly three-eighths (36%) of adult residents in the Gauteng province reported having a three-month emergency fund. By contrast, in the Western Cape only a fifth of residents had a similar fund. The share of those in the Western Cape with an emergency fund declined by 30% between 2011 and 2015, indicating growing vulnerability of people in the province. The share of people who had an emergency fund in Limpopo was 30%, a significant shift from the 20% of 2011. Compared to other population groups, a greater share of White and Indian respondents had an emergency fund. However, the percentage of the adult White and Indian minorities who had such a fund declined between 2011 and 2015, by 10% in the case of White adult population and 7% for Indian population.

Most people in rural areas do not have an emergency fund. Only about one-fifth (22%) of those living in traditional authority areas had an emergency fund compared to approximately a third (31%) of formal urban dwellers (**Figure 27**). Even more notable was the fact that less than one-sixth of adults living on commercial farms had a three-month emergency fund in 2015, a decline of 47% in 2011. The results of our study suggest that most of adult rural population would struggle to cope with a sudden loss of income. Many South Africans living in rural areas on dependent on crop yields and rainfalls and are, as a result, particularly vulnerable to financial shocks. The El Niño phenomenon caused a devastating drought in South Africa over the 2016 period -the last time the country received such low rainfall was 1904.

8.1.2 Logistic Regression on Emergency Savings

Section 8.1.1 showed that there were significant differences in holding emergency funds between rural and urban areas. To establish whether these observed differences reflect variations amongst these geographic groups in terms of economic resources and access to employment, a multivariate regression analysis was conducted to determine which factors were associated with possessing an emergency fund. Logistic regression was selected as this is a common method used to model dichotomous outcome variables. In the logistic model, the log odds of the outcome are modelled as a linear combination of the predictor variables. Standard measures are used to create independent variables that capture race, gender, geographic status and socio-economic position.

Table 20: Logistic Regression on Having a Three Months Fund

	Coef.	Std. Err.	Sig.	[95% Conf.	Interval]
Female (ref. male)	-0.18	0.15		-0.49	0.12
Age	0.00	0.01		-0.01	0.02
Marital Status (ref. Married)	-0.40	0.16	*	-0.71	-0.08
Number of Children	-0.13	0.05	*	-0.23	-0.03
Population group (ref. White)					
Indian	0.15	0.41		-0.66	0.95
Coloured	0.11	0.33		-0.54	0.76
Zulu	0.32	0.39		-0.44	1.09
Xhosa	0.78	0.44		-0.09	1.66
Sesotho	0.05	0.35		-0.63	0.73
Batswana	-0.19	0.40		-0.98	0.60
Other	0.43	0.37		-0.29	1.15
Geographic Type (ref. Urban formal)					
Urban informal	0.39	0.43		-0.45	1.22
Trad. Auth. Area	0.74	0.21	**	0.32	1.16
Rural formal	0.34	0.49		-0.63	1.30
Living Standard Measurement	0.40	0.06	***	0.28	0.52
Educational Attainment	0.08	0.03	**	0.02	0.13

Employment (ref. employed)					
Retired	-0.09	0.29		-0.66	0.48
Unemployed	-0.54	0.21	*	-0.94	-0.13
Student	-1.85	0.42	***	-2.67	-1.03
Labour Inactive	-0.46	0.28		-1.00	0.08
Household Budget (ref. no budget)	0.64	0.17	***	0.31	0.96
Number of obs.	2413				
Wald chi^2(28)	211				
Pseudo R^2	0.18				

Source: South African Social Attitudes Survey (SASAS) 2015
Note: Data is weighted to be nationally representative of the adult South Africans. The model controls for the provincial residence of respondents. *, **, *** 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.

The likelihood ratio chi-square of 211 with a p-value of 0.000 indicates that the model as a whole fits significantly better than an empty model (i.e., a model with no predictors). The table shows the coefficients, their standard errors and the 95% confidence interval of the coefficients. The logistic regression coefficients give the change in the log odds of the outcome for a one-unit increase in the predictor variable. Despite controlling for a range of demographic and socio-economic variables, significant differences between rural and urban groups were observed. Living in a traditional authority area makes an individual more likely to hold an emergency fund of at least three months of household expenses (using urban formal as the reference group). Controlled for socioeconomic status and other characteristics, geographic location was a significant predictor of the dependent. Relative to living in a formal urban area, the log odds of having an emergency fund increases by 0.74 if an individual lived in a traditional authority area.

For every one unit change in the Living Standard Measurement, the log odds of having an emergency fund increases by 0.40. To put it another way, the wealthier the individual the more likely it is that individual will have emergency (or rainy day) funds to cover his or her expenses for three months. It can therefore be concluded that economic position is a better predictor of possessing an emergency fund than is ethnicity. For every year of education completed, the log odds of having an emergency fund increases by 0.08. This suggests that, even when controlling for economic position, educational attainment has a positive relationship with holding an emergency fund. For every additional child in the household, the log odds of having an emergency fund decreases by 0.13, even controlling for economic status and labour market participation. This suggests the need to ensure good financial planning practices amongst families with large numbers of children.

8.2 Saving Behaviour Strategies

The majority of South Africans save very little (if at all) and this ‘failure’ to save is frequently attributed to the lack of a ‘savings culture’. Economist Azar Jammine, for example, has said, "The country is short of a saving culture. People have gone crazy, spending way beyond their means" (Times LIVE 03/08/2015). For Mr Jammine, many South Africans are becoming dangerously indebted, but what factors are driving people to engage in formal as well as informal saving? The first part of this subsection (8.2.1) examines different types of saving behaviour for the period 2011-2015 focusing on differences between key socio-demographic groups. Subsection (8.2.2) looks at the influence of certain key socioeconomic characteristics in driving the propensity to save formally and informally. The subsection employs multivariate analysis to establish the strength of each of the factors under review.

8.2.1 Trend Analysis on Saving Strategies

Since the 2010 Financial Literacy Pilot study, understanding savings behaviour has been an important component of how the research team measured financial literacy. We wanted to know what strategies are used to save even if the methods by which people saved were informal. In 2010, respondents in the pilot study were asked, “In the past 12 months have you been saving money in any of the

following ways?" Many people in South Africa indicated that they used methods that would not be captured by financial experts like René Grobler. Many people saved by keeping cash at home or gave money to family members to save on their behalf. The SASAS research team currently has five rounds of data on formal and informal savings behaviours in South Africa. The results are shown in **Table 21**. As the table indicates, paying money into a savings account is the most common saving method in the country, with nearly a fifth (19%) of all adults engaging in this practice. 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.

Table 21: Forms of savings during the last year, 2010-2012 (multiple response table, percentages)

In the past 12 months, have you been saving money in any of the following ways?	2010	2011	2012	2013	2015
Paying money into a savings account	32	28	23	21	19
Saving cash at home or in your wallet	22	32	20	22	13
Building up a balance of money in your bank account	17	20	16	12	17
Saving in a stokvel or any other informal savings club	9	11	7	6	10
Giving money to family to save on your behalf	9	10	6	7	6
Buying financial investment products, other than pension funds	3	5	4	3	3
Saving in some other way	2	5	3	2	2

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

Comparing saving strategies in 2010 and 2015, it would appear that saving through formal organisations like banks is declining. The share of people using savings accounts fell by 13 percentage points over this five-year period, from 32% in 2010. The low level may reflect the limited ability of South Africans to save or it may suggest entry barriers to saving in such organisations. High bank charges, the incongruity of many savings products for the majority of South Africans and the spatial inaccessibility of formal financial institutions may explain the tendency for many not to save there. The prevalence of more informal forms of saving strategies has not decreased. In 2011, about one-thirds (32%) of the adult population saved by keeping cash at home or in their wallet while in 2015, only about one-eighth indicated this. Ten percent stated that they saved through informal savings clubs, a savings stratagem that has become more common since 2013.

When asked in 2015 about personal savings in the year prior to being interviewed, half the adult population reported adopting no saving strategy. In 2013, this percentage was the share of the population who reported no savings behaviour was a marginally lower (45%). There is little doubt that saving is important to the average South African, but the high cost of living frustrates even the most frugal of consumers. For the poor, saving through formal financial instruments such as savings accounts at a bank is very difficult. They are forced to save informally or are unable to save at all. Subgroup analysis enables investigation of the saving strategies used by different groups. **Table 22** shows the share of selected subgroups using different savings strategies in 2012 and 2015. It is clear that the poor are significantly less likely to use formal strategies than the more affluent.

Table 22: Forms of savings in the last year by socio-demographic variables (Percentage based on cases)

	Bank Account		Savings Account		Cash at Home		Informal Savings Club	
	2012	2015	2012	2015	2012	2015	2012	2015
South Africa	16	17	23	18	20	13	7	10
Living Measurement Statement	***	***	***	***	n.s.	***	***	***
Low	7	7	5	9	20	17	13	12
Lower Middle	7	9	16	14	19	16	7	13
Upper Middle	16	15	23	17	22	13	8	11
Lower High	23	28	29	26	23	11	3	9

Upper High	44	32	40	35	25	6	4	1
Population group:	***	***	***	***	n.s.	***	***	***
White	34	29	34	30	20	8	0	1
Indian	22	37	29	31	18	18	0	2
Coloured	9	15	12	16	18	6	3	1
Zulu	14	20	25	17	20	15	11	15
Xhosa	11	11	13	16	17	15	15	19
Sesotho	14	16	26	18	23	16	4	8
Batswana	16	12	26	13	23	9	5	9
Other	17	15	22	22	21	17	5	9
Geographic location:	***	***	***	*	*	**	**	***
Urban formal	20	19	27	19	22	12	6	9
Urban informal	15	14	19	20	19	11	12	20
Rural trad. auth. areas	10	12	18	16	17	17	8	10
Rural farms	8	8	15	10	17	18	4	3

Source: South African Social Attitudes Survey (SASAS) 2013

Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

It is evident that more affluent South Africans were saving less in 2015 than in 2012, when 44% of those in the Upper High LSM group stated that they saved their money in bank accounts. In 2015, the equivalent figure was less than one-third (32%) of those in the Upper High LSM group pursued this savings strategy. In 2015, almost three-eighths (35%) of those in the Upper High LSM group saved using a savings account compared with two-fifths in 2012. Amongst the adult Indian minority, there was an increase in savings behaviour through formal financial institutions between 2012 and 2015. The share of adult Indian South Africans who used bank accounts to save grew from 22% in 2012 to 37% in 2015. Among Coloured adult, there was also an observable increase in the share of people saving using formal financial instruments like savings accounts. The use of savings accounts declined significantly, however, amongst Black African adults speaking Sesotho, Setswana and isiZulu languages.

Only a small share (6%) of those in the Upper High LSM group saved cash at home in 2015. However, those outside this economic subgroup were much more likely to save using this strategy. About a one-sixth of those people in the Lower Middle and Low LSM groups stated that they saved cash at home, as did more than one-eighth of those in the Upper Middle group. This represents a shift from what was observed in 2012 when there were no statistically significant differences between LSM subgroups in relation to saving cash at home. In 2012, about a quarter of those in the Lower High and Upper High LSM groups reported that they saved cash at home or in their wallet. Adult dwellers in urban areas were much less likely to pursue this informal saving strategy in 2015 than in 2012.

Compared to other population groups, a high share of adults in the White minority and the Indian minority reported using formal banking products like savings accounts. No significant differences were observed among Black African subnational group in terms of using savings accounts. However, when asked about building up a balance in a bank account, isiZulu-speaking Black African adults were significantly more likely to engage in this financial behaviour than other subnational Black African adults were. Observed population group differences in the utilisation of banking to save probably reflect economic inequalities between different groups. Interesting population group differences were noted, however, when people were asked about saving through a stokvel[9] or any

[9] A stokvel is an Africa's version of a club (or association) serving as a rotating credit union whereby members pay fixed sums of money to a central fund on a regular (usually weekly or monthly) basis. Each month a different member collects the money amassed in the fund over that period. Stokvels

other informal savings club. As might be expected, racial minority adults did not employ this strategy to save, and it was mainly used by Black African adults. When compared to the Batswana (9%) and Sesotho (8%), a high share of the Xhosa (19%) and Zulu (15%) employed this strategy.

8.2.2 Logistic Regression on Saving Strategies

In section 8.2.1, it was noted that there were significant differences in the savings strategies of the country's ethnolinguistic groups. In 2015, the research team found similar differences between different subnational groups' saving strategies used over the previous 12 months. To investigate whether these observed differences reflect variations amongst these subnational groups in terms of economic resources and access to employment, a multivariate regression analysis was conducted to determine which factors were associated pursuing 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. In the logistic model, the log odds of the outcome are modelled as a linear combination of the predictor variables.

For the purposes of this analysis, a formal savings strategy was 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. An informal savings strategy, on the other hand, was defined 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. In addition, a number of independent variables had to be created for the multivariate analysis. Standard measures were used to create independent variables that would capture race, gender, geographic status and socio-economic position.

Table 23 presents the results from the coefficients from the logit model predicting the association between the dependent and individual characteristics and attitudes. The coefficients in Model I show the log odds of engaging in formal saving behaviour and in Model II the coefficients show the log odds of practising informal saving behaviour. In Model I, the likelihood ratio chi-square is 232 and p=value is 0.000 and in Model II the likelihood ratio chi-square is 140 and p=value is 0.000. This indicates that both models fit significantly better than an empty model (i.e., a model with no predictors). The first model has a higher pseudo R^2 (0.19) than the second model (0.08), suggesting that the first model has greater explanatory power than the second one. It was interesting to note that Model I indicated that ethnicity is not a significant predictor of saving through a formal financial institution. Economic status were statistically significant predictors of behaviour and positively correlated with formal savings behaviour but not informal savings behaviour. Those respondents who lived in households with budgets were also more likely to saving using formal financial instruments, even when controlling for economic wealth and educational attainment.

Table 23: Logistic Regression on Predicting Saving Behaviour in 2014-2015

	Formal Saving			Informal Saving		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	-0.16	0.15		0.18	0.15	
Age	-0.01	0.01		0.00	0.01	
Marital Status (ref. Married)	-0.42	0.16	**	-0.07	0.15	
Number of Children	-0.05	0.05		0.00	0.04	
Population group (ref. White)						
Indian	-0.15	0.39		0.52	0.48	
Coloured	-0.28	0.34		-0.31	0.42	
Zulu	0.49	0.37		1.05	0.46	*
Xhosa	0.50	0.42		1.59	0.46	**
Sesotho	-0.21	0.37		0.73	0.46	
Batswana	-0.46	0.38		0.91	0.49	

continue to be popular because many communities have difficulty accessing formal bank services. This may be because the cost of formal banking structures continues to be prohibitive for many.

Other	-0.17	0.37		1.20	0.45	**
Geographic Type (ref. Urban formal)						
Urban informal	0.15	0.41		-0.12	0.35	
Trad. Auth. Area	0.29	0.20		0.02	0.19	
Rural formal	-0.91	0.56		-0.37	0.39	
Living Standard Measurement	0.21	0.06	**	-0.04	0.06	
Educational Attainment	0.06	0.03	*	-0.05	0.02	*
Employment (ref. employed)						
Retired	-0.74	0.30	*	-0.66	0.32	*
Unemployed	-1.45	0.19	***	-0.48	0.19	*
Student	-1.78	0.35	***	-0.44	0.31	
Labour Inactive	-0.89	0.26	***	-0.25	0.23	
Household Budget (ref. no budget)	0.49	0.16	**	0.38	0.16	*
Number of obs.	2443			2443		
Pseudo R^2	0.19			0.08		

Source: South African Social Attitudes Survey (SASAS) 2015
Note: Data is weighted to be nationally representative of the adult South Africans. The model controls for the provincial residence of respondents. *, **, *** 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.

Labour market participation, unsurprisingly, was associated with whether an individual pursued a savings strategy. Those outside the labour market were significantly less likely to save using a formal or informal strategy. Differences between labour market categories were noted. Being retired decreases the log odds of pursuing a formal saving strategy by 0.74, using employed as the reference group, versus 1.45 for being unemployed and 1.78 for being a student. On the other hand, being unemployed only decreases the log odds of pursuing an informal saving strategy by 0.48, using employed as the reference group, versus 0.66 for being retired and 0.44 for being a student. For every year of complete education, the log odds of pursuing an informal savings strategy declines by 0.05. In other words, educational attainment reduces the likelihood that an individual will save money at home, with a family member or in an informal saving club. The Living Standard Measurement had no significant relationship with the dependent in Model II. Even when controlling for educational attainment, geographic location and economic status, ethnicity was still a significant predictor of willingness to save using an informal strategy. Being a member of the isiZulu- or isiXhosa-speaking communities made individuals more likely to save using informal strategies.

8.3 Retirement Planning

In 2010, Sanlam conducted a survey on retirement[10] and found that 60% of the pensioners interviewed did not have adequate funds to live on. Of those without sufficient funds, 64% had to cut back on their living expenses and 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) stated that he believed that the problem would worsen. Many working people in South Africa change jobs regularly and cashed in their pensions along the way (Mail & Guardian 12/08/2010). De Villiers said people needed to start taking responsibility for their retirement and not trust that "someone else" will. He said he believed that the only way South Africans would increase their retirement prospects is through prudent savings practices. To find out about the attitudes of South Africans towards retirement in 2015, the SASAS research team looked at items on retirement that were introduced into the 2015 SASAS survey.

The following subsection focuses on those who are not retired as we were interested in how people are *planning* for retirement. The need for income in old age implies that working-age adults (particularly those working-age adults who are nearing retirement) save for retirement. This pattern is observed in almost all countries, although the propensity to save depends greatly on a country's public

[10] The survey interviewed pensioners, working pension-fund members and pension-fund companies.

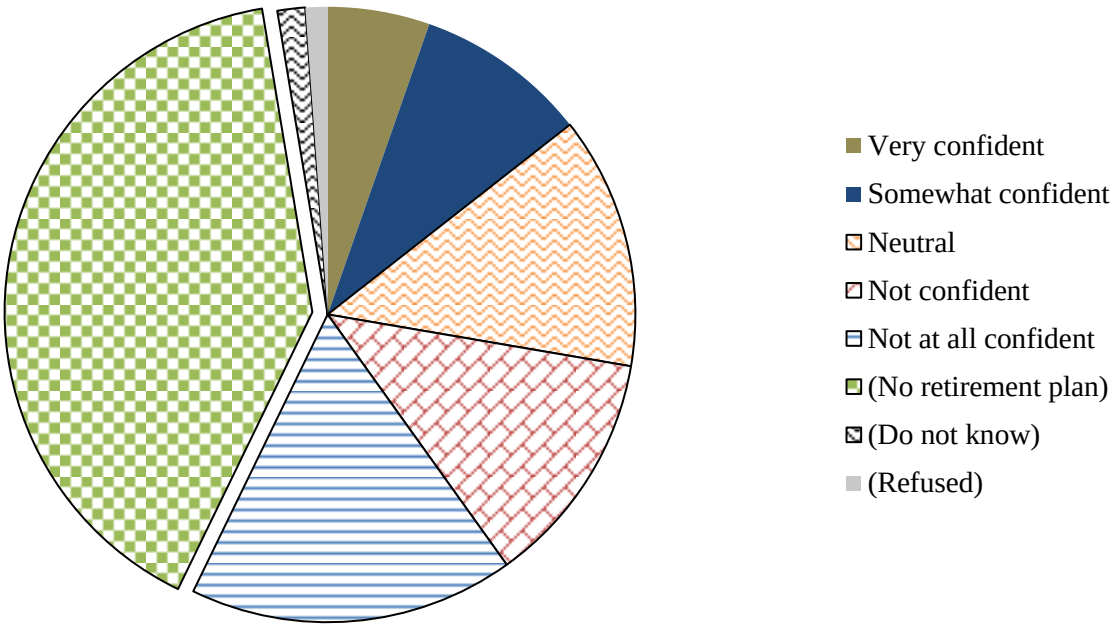
pension system (Bloom et al. 2007). Subsection 8.3.1 looks at how confident South Africans are that they are adequately planning for retirement. The focus of this subsection is on whether individuals have a retirement plan and which subgroups are most likely not to have such a plan. Subsection 8.3.2 looks at how South Africans plan to fund their retirement, examining the different strategies they plan to employ. This subsection uses multivariate analysis to establish the influence of certain key socioeconomic characteristics on the adoption of particular strategies.

8.3.1 Confidence in Retirement Planning

In August 2010, Chief Executive of Sanlam Structured Solutions Dawie de Villiers expressed his concern about the fact that many people were unaware of the challenges of retirement. His concern provokes the question about how confident the average unretired adult South African is about their retirement plan. To answer this question, the SASAS research team asked, "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?" Responses to this question are given in **Figure 28** and show that a significant share (40%) of the adult population had no retirement plan in 2015. Many were either not confident or neutral about their preparations for retirement, with only about one-seventh (14%) of the public were confident in their retirement planning. This implies that majority (86%) of the public either had no retirement plan or was not confident about the retirement plan that they have.

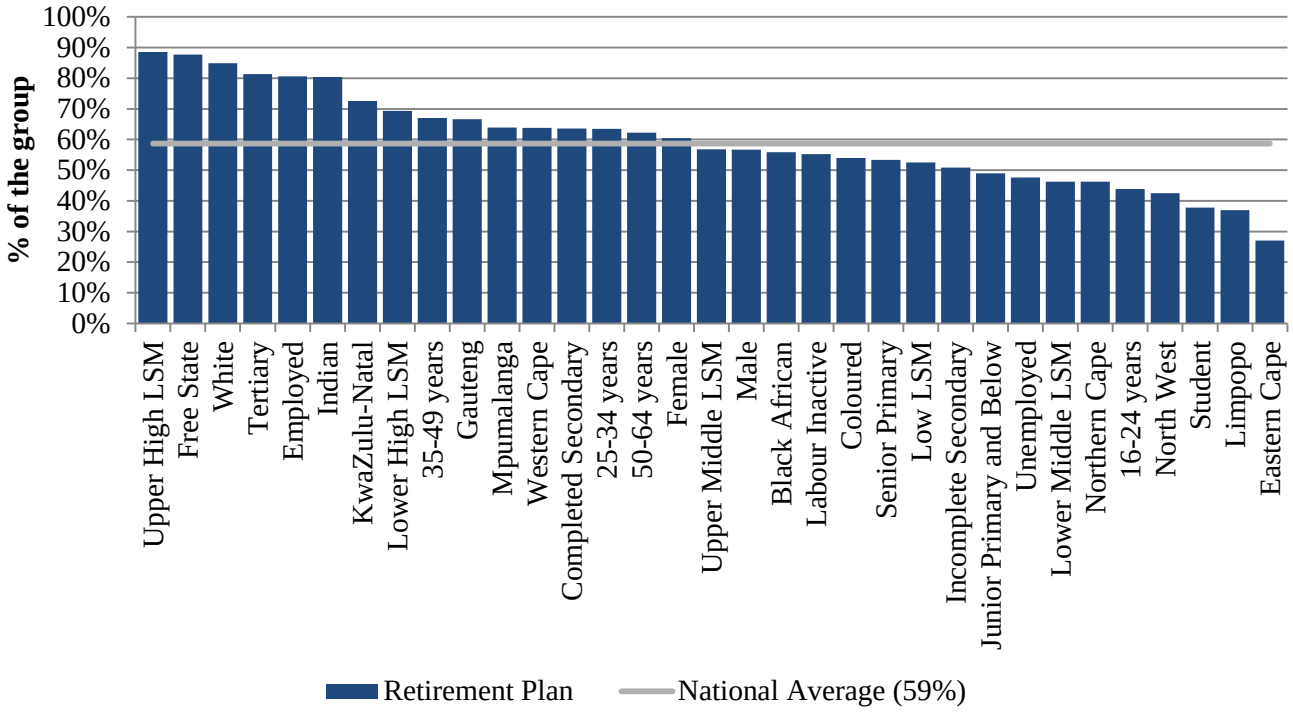
Unretired people who do not have a retirement plan are vulnerable to poverty. In a North American study, Lusardi and Mitchell (2007) found that a deficit of planning has serious consequences for saving and financial portfolio choice. Those without a plan were found to accrue far less wealth for retirement than those with a plan. It is therefore necessary to better understand which subgroups are most liable to have a retirement plan. **Figure 29** shows the share of selected sociodemographic subgroups with retirement plans. As can be seen from the figure, the subgroups most apt to have such plans are those in the Upper High LSM group (89%), White South Africans (85%), the tertiary-educated (81%) and the employed (81%). Conversely, of all the subgroups shown in the figure, those most apt not to have a retirement plan were students (38%), the age cohort 16-24 (44%), those in the Lower Middle LSM group (46%) and the unemployed (48%). There is a clear socioeconomic gradient here, with those with access to economic resources much more liable to have a retirement plan.

Figure 28: Confidence in Financial Planning for Retirement (percentages)



Source: South African Social Attitudes Survey (SASAS) 2015
Note: Figure excludes all respondents who currently retired.

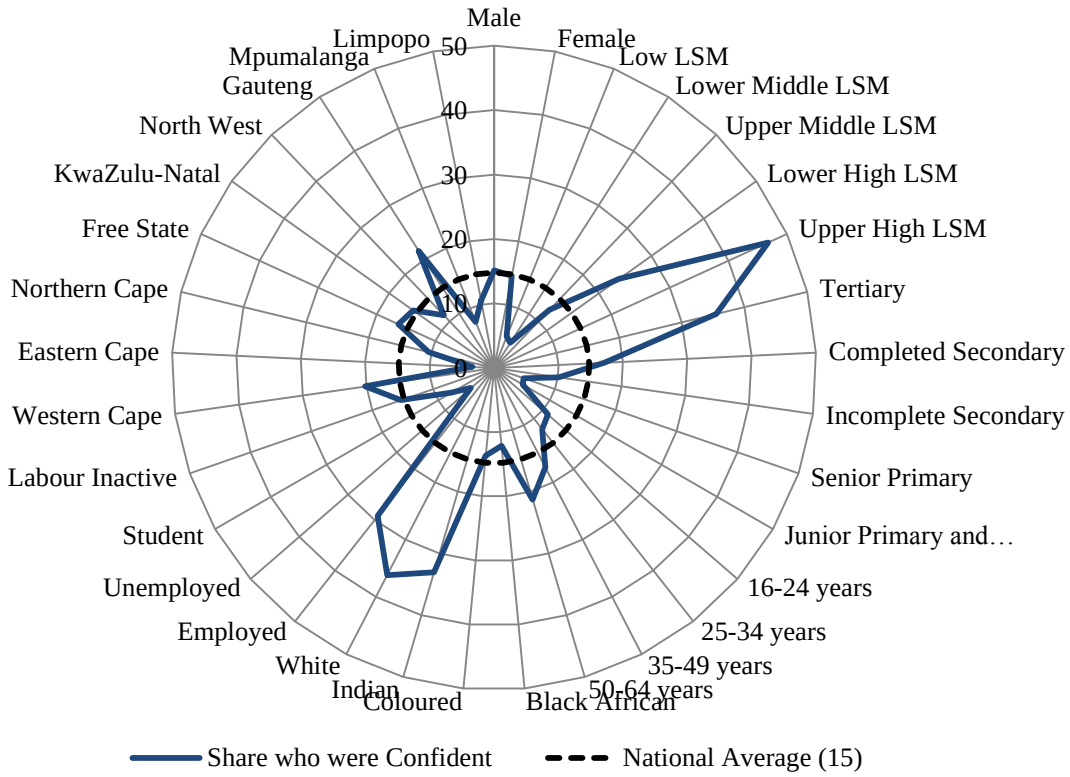
Figure 29: Proportions with a Retirement Plan by selected sociodemographic groups (percentages)



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

Figure 28 indicates that only a small share of the adult population was confident about their retirement plans. Figure 30 looks at the subgroups most liable to express confidence in their retirement plans. The figure shows a similar pattern to that in Figure 29. The subgroups most liable to be confident were those who have the greatest access to economic resources: the Upper High LSM group (47%), White South Africans (37%) and the tertiary-educated (36%). However, even amongst these subgroups a majority was not confident that they had adequately planned for their retirement. About half of the Low LSM group had plan for retirement but only a twentieth were confident in their plan. This suggests that many of the poor are deeply worried about how they will live when they are old and can no longer work.

Figure 30: Confidence in Financial Planning for Retirement by selected sociodemographic groups (percentages)



Source: South African Social Attitudes Survey (SASAS) 2015
Note: Figure excludes all respondents who are retired.

Figure 29and **Figure 30** show that there were significant differences between the different population groups responding to the survey. To establish if these observed differences reflect variations amongst these population groups in terms of economic resources, level of education, access to employment or aspects of the ethnic group's culture, a multivariate regression analysis was conducted to determine which factors are associated with retirement planning. We were interested not only in who had a retirement plan but whether the individual had a plan s/he was confident in. Multinomial logistic regression was considered appropriate because the goal was to investigate which characteristics were associated with a selected nominal outcome variable The three nominal outcomes were: (i) possess a retirement plan that s/he is confident in; (ii) possess a retirement plan that s/he is not confident in; and (iii) does not possess a retirement plan. Standard measures were used to create independent variables that would capture race, gender, geographic status and socio-economic position.

Table 24 presents the results from the coefficients from the multinomial logit model predicting the association between the dependent and individual characteristics and attitudes. The likelihood ratio chi-square of 389 with a p-value < 0.0001 indicates that the model as a whole fits significantly better than an empty model (i.e., a model with no predictors). The base outcome in the table is 'has no retirement plan'. In Table 24 neither gender nor geographic status had a statically significant relationship with the dependent. Nor do age or the number of children an individual lives with has a statistically significant relationship to whether s/he has such a plan. Population group was a strong statistically significant correlated with the dependent in Category I and II indicating that the racial differences noted in Figure 30 can be attributed to other factors. Interestingly being a part of the Xhosa community was significant correlated (r =1.61), relative to being a member of the White community, with the dependent in Category I. More research is needed to explore this finding. The remainder of this subsection explores other correlates of confidence in retirement planning.

Table 24: Multinomial (polytomous) Logistic Estimates Predicting Confidence in Retirement Plan

	Category I			Category II		
	Confident Plan vs. No Plan			Not Confident Plan vs. No Plan		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	0.38	0.24		0.31	0.16	
Age	0.01	0.01		0.01	0.01	
Marital Status (ref. Married)						
Married Before	-0.40	0.38		0.00	0.28	
Never Married	-0.61	0.25	*	-0.40	0.19	*
Num. Children	-0.13	0.07		-0.02	0.04	
Population group (ref. White)						
Indian	-0.34	0.81		-0.55	0.69	
Coloured	-0.17	0.45		-0.49	0.43	
Zulu	0.44	0.50		-0.18	0.44	
Xhosa	1.61	0.56	**	0.37	0.50	
Sesotho	-0.02	0.54		-0.41	0.48	
Batswana	0.09	0.52		-0.47	0.46	
Other	0.24	0.50		-0.03	0.45	
Geographic Type (ref. Urban formal)						
Urban informal	0.67	0.67		0.45	0.42	
Trad. Auth. Area	0.66	0.34		0.16	0.21	
Rural formal	-0.70	0.69		-0.40	0.38	
Living Standard Measurement	0.41	0.09	***	0.06	0.07	
Educational Attainment	0.10	0.04	***	0.03	0.03	
Employment (ref. employed)						
Unemployed	-2.51	0.29	***	-1.45	0.20	***
Student	-2.12	0.48	***	-1.53	0.32	***
Labour Market Inactive	-1.53	0.34	***	-1.31	0.28	***
Number of obs.	2182					
Wald chi^2 (78)	389					
Pseudo R^2	0.20					

Source: South African Social Attitudes Survey (SASAS) 2015

Notes: 1. Data is weighted to be nationally representative of the adult South Africans who were not retired; 2. The base outcome is "no retirement plan", 3. The regression model controlled for an individual's province of residence and religious affiliation.

In Category I, a one-unit increase in the LSM indicator was associated with a .041 increase in the relative log odds of having a retirement plan that an individual was confident about (vs. not having a retirement plan). This suggests that the more affluent the individual, the more likely it is that s/he will have a good retirement plan. Category I also indicates that one additional year of formal schooling increases the logs odds of being confident in a retirement plan (vs. no plan) by 0.10, even controlling for economic status. Labour market status also plays a statistically significant role in predicting an individual's confidence in her/his retirement plan. Relative to being employed, the log odds on Category I decrease 2.51 if the individual is unemployed, 2.12 for being a student and 1.53 for being outside the labour market for another reason. To a limited extent, marital status was a significant predictor. Relative to being married, the relative log odds of an individual having a 'good' retirement plan decreases by 0.61 if that individual has never been married.

In Category II, the LSM indicator and educational attainment were not associated with an increase in the relative log odds of having a retirement plan that an individual was not confident about (vs. not having no plan at all). This suggests socioeconomic status is associated with having a good retirement plan but is not associated with having a bad plan. Labour market status was, on the other hand, a statistically significant predictor of whether an individual had a retirement plan that s/he is not

confident about (vs. no plan). Relative to being employed, the log odds on Category II decrease 1.45 if the individual is unemployed, 1.53 for being a student and 1.31 for being outside the labour market for another reason. Never having been married is correlated with having a retirement plan that the individual is not confident about (vs. no retirement plan). Relative to being married, the relative log odds of an individual holding a 'bad' retirement plan decreases by 0.40 if that individual has never married.

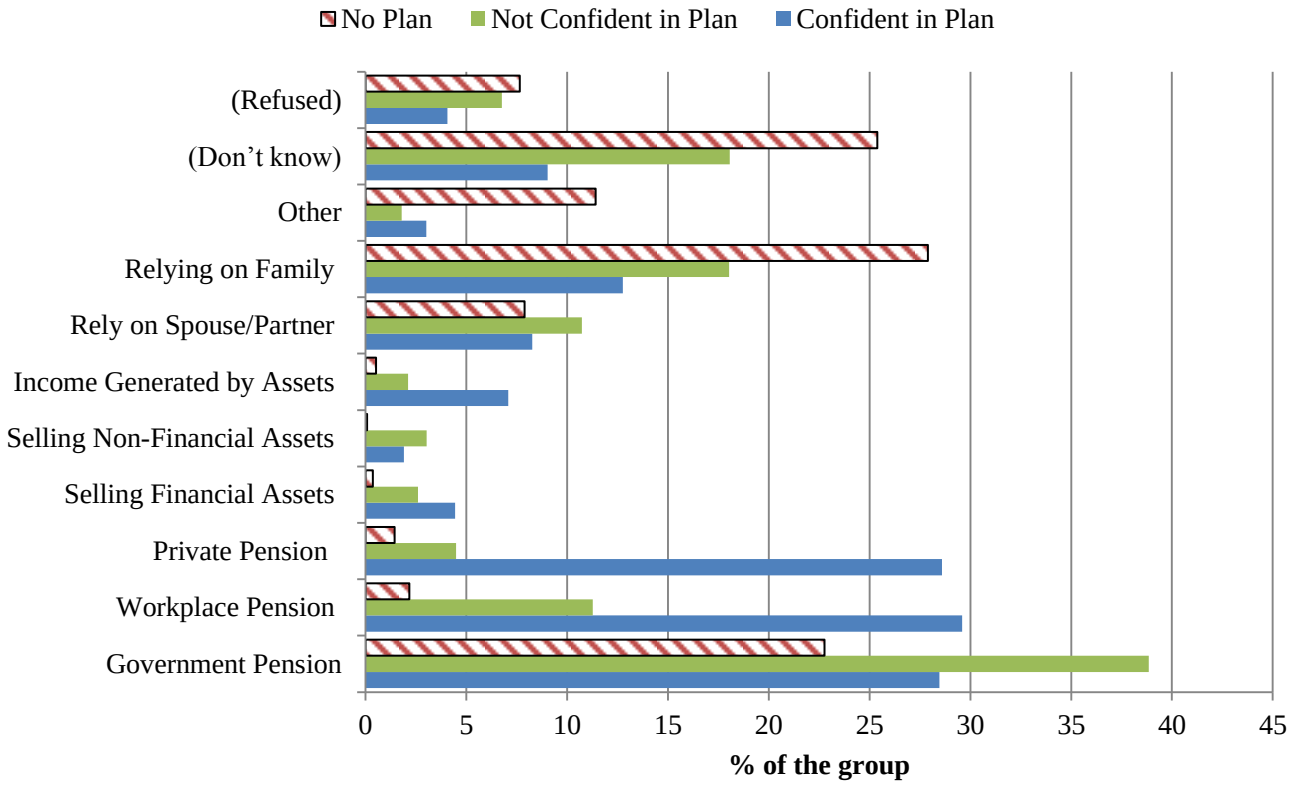
8.3.2 How do We Plan for Retirement

It is often said that, in theory, successful planning for retirement security has a comparatively simple solution: save and invest well. However, for many such a strategy is not an option. Many people do not have regular jobs and saving is therefore difficult. Some use an array of retirement insurance products in the financial marketplace and others use the government pension option. Given the multiplicity of options available, it is necessary to understand what strategies South Africans employ and which are most popular. To answer these questions, the survey used a follow-up item to the item on confidence in retirement planning. The item asked respondents, "And how will you – or do you – fund your retirement?" **Figure 31** shows the responses to the item across the three nominal categories created for **Table 24** (i.e. hold a retirement plan that s/he is confident in; hold a retirement plan that s/he is not confident in; and does not hold a retirement plan).

The figure shows that about a quarter of those who did not have a retirement plan said that they did not know how they would fund their retirement. Of those who gave answers, two sources of funding were most frequently mentioned by this group: (i) government pensions (23%) and (ii) family (28%). Less than a thirtieth mentioned workplace or private pension plans as an option. Of those who were not confident about their retirement plan, almost two-fifths (39%) mentioned the government pension as a source of funding. Eleven percent identified workplace pension plans and 4% private plans as sources of funding. By contrast, those who were confident in their retirement plans were more apt to cite workplace and private plans. Almost a third (30% and 29% respectively) cited these plans as a source of funding. In comparison to those who were not confident, a lower share of the confident mentioned government pensions as a source of funding.

Subsection 8.3.1 indicated that retirement planning can be predicted by economic status. Consequently, financial rank should play a large part in predicting which strategies for retirement funding are adopted. To look at this more closely, we looked at the retirement funding strategies of different LSM groups. It is clear that members of the Upper High LSM group plan to fund their retirement very differently from those in the Low or Lower Middle LSM groups. About a third (34%) of those in the Low group plan to fund their retirement through the government pension compared with 6% of the Upper High group. Another major area of difference was in the role of the family. Four percent of the Upper High group planned to fund their retirement by relying on their children or other family members, compared with the Low (27%), Lower Middle (28%) and Upper Middle (22%) groups.

Figure 31: Retirement funding strategies employed by whether the individual has a retirement plan (multiple responses allowed, percentages)



Source: South African Social Attitudes Survey (SASAS) 2015
Note: Figure excludes all respondents who are retired.

Table 25: Retirement funding strategies employed by different economic groups (multiple response table, percentages)

	Low	Lower Middle	Upper Middle	Lower High	Upper High	Total
Government Pension	34	32	31	24	6	28
Workplace Pension	5	6	12	21	23	13
Private Pension	0	2	6	18	41	10
Selling Financial Assets	3	1	1	4	8	2
Selling Non-Financial Assets	1	0	2	2	3	2
Income Generated by Assets	2	0	2	5	14	3
Rely on Spouse/Partner	6	9	9	10	6	9
Relying Children or Other Family	27	28	22	12	4	20
Other	15	9	4	5	3	6
(Don't know)	16	16	22	18	12	19
(Refused)	7	5	5	10	16	7

Note: Table excludes all respondents who are retired.
Source: South African Social Attitudes Survey (SASAS) 2015

Access to wealth and regular income may reduce people's need to rely on family members (particularly adult children) for support in their old age. The results from Table 25 suggest that affluent South Africans tend to rely on workplace and private pension plans to fund their retirement rather than family and adult children. Funding retirement through private pensions was particularly popular among those at the top of the economic ladder versus those just below them. Roughly two-fifths (41%) of the Upper High LSM group planned to fund their retirement through private pensions compared to less than one-fifth (18%) of the Lower High LSM group. Those at the top of the

economic ladder were also more than likely other LSM groups to mention income generated from assets or selling assets as a way to fund their retirement.

Figure 31 shows the most common strategies for funding retirement. The research team also examined subgroup differences in terms of these strategies. Four scores were created based on the strategies outlined in Figure 31: (i) government pension; (ii) a workplace or private pension plan; (iii) income from assets[11]; and (iv) spouse or family. Each scale was ranged from 0 to 100, with 100 representing the highest share who mentioned the strategy and the lowest. The results are given in Table 26, which shows the groups most likely to adopt the various strategies. The employed were more liable to say that they planned to fund their retirement through the government pension. But the observed differences between employment status groups were not as great as might have been imagined.

On the propensity to fund retirement through government pensions, there were small differences between those in metropolitan areas, small towns and rural areas. Those in metropolitan areas were more inclined to cite government pensions than those in rural areas and (to a lesser extent) small towns. People living in metropolitan areas were also much more likely to cite workplace and/or private pension plans than those living outside such urban centres. This may reflect the greater degree of financial opportunity offered in these centres. Unsurprisingly, compared with other labour market groups, the employed were considerably more likely to mention workplace or private pension plans as funding strategies. Lifecycle seems to play a role, with Table 26 indicating that younger age groups (16-24 and 25-34) were less inclined than their older counterparts to mention government pensions as a funding strategy.

Table 26: Key Retirement funding strategies employed by selected sociodemographic group (mean 0-100 scores)

	Government Pension		Workplace or Private Pension		Income from Assets		Spouse or Family	
	M	Std. Dev.	M	Std. Dev.	M	Std. Dev.	M	Std. Dev.
South Africa	31	46	20	40	6	24	27	44
Population Group		***		***		***		***
White	13	34	46	50	16	38	9	29
Indian	32	47	34	47	3	17	24	43
Coloured	36	48	19	40	3	18	19	39
Zulu	35	47	16	37	6	24	27	45
Xhosa	25	43	18	38	3	17	35	48
Sesotho	32	47	15	36	5	22	34	47
Batswana	21	43	21	41	5	21	27	44
Other	27	45	18	38	6	23	23	43
Employment Status		***		***		***		***
Employed	33	47	42	49	10	30	17	37
Unemployed	26	43	5	22	3	29	35	48
Student	21	41	16	36	2	14	21	41
Other Labour Inactive	27	44	11	32	6	23	34	48
Urbanisation		*		***		***		***
Metro	25	44	28	45	7	27	22	42
Town	29	46	17	37	6	23	27	44
Rural	31	46	11	32	2	15	35	48
Age Group		***		***		***		**
16-24 years	20	40	13	33	3	17	25	43
25-34 years	26	44	20	40	5	22	29	45

[11] This includes income from selling financial assets (such as: stocks, bonds or mutual funds), income from selling non-financial assets (a car, property, art, jewels, antiques, etc.) and from income generated by financial or non-financial assets.

35-49 years	32	47	26	44	7	26	24	43
50-64 years	34	48	22	41	9	28	32	47

Source: South African Social Attitudes Survey (SASAS) 2015

Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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 excludes all respondents who are retired.

White South Africans are the least apt to state that they rely on government pensions to fund their retirement compared with other population groups. Those most liable to identify government pensions were adults in the Coloured, Zulu, Indian and Sesotho communities. On the subject of workplace and private pensions, White and Indian South Africans were the most likely to identify this form of funding compared to other groups. Older age cohorts (35-49 and 50-64) were more inclined to mention workplace and/or private plans than their younger counterparts did, but the group differences were unexpectedly small. White adults in the country were also much more likely to mention income from assets as a source of retirement funding. This may reflect historical economic inequality in asset ownership in South Africa. Other subgroup variations on this strategy were notably small.

Reliance on family (especially adult children) as a form of support in old age is an important part of Asian and African cultures. This is reflected in the results displayed in **Table 26**. Less than a tenth (9%) of White South African cited family or a spouse as a source of funding for retirement. This contrasts strongly with all non-White adult population in the table. The population groups citing family most often were adults in the Xhosa and the Sesotho communities. Amongst those groups in the labour market, the unemployed were the most reliant on their families to fund their old age, followed closely by those outside the labour market for other reasons. Students were much less likely to cite family, perhaps because they expected to enter the job market or because they are uncertain about the future. Many people (35%) living in rural areas reported that they will rely on family and spouses to support them in their old age. This noted geographic disparity may reflect the continuing strength of traditional African values in the rural areas.

As can be noted from **Table 26**, there were significant variances between the country's population groups. To establish if these variances reflect historical socioeconomic inequalities in South Africa or some aspects of the group's culture, a multivariate regression analysis was conducted to determine which factors are associated with pursuing a certain strategy. The focus was on the three main strategies shown in **Table 26**: (i) government pension; (ii) a workplace or private pension plan; and (iii) spouse or family. Logistic regression was selected as this is a common method used to model dichotomous outcome variables. In the logistic model, the log odds of the outcome are modelled as a linear combination of the predictor variables. Standard measures are used to create independent variables that capture race, gender, geographic status and socio-economic position. **Table 27** presents the results from the coefficients from the logit model predicting the association between the dependent and individual characteristics and attitudes.

Table 27: Logistic Regressions on Retirement Funding Strategies

	Government Pension			Private/ Workplace Pension			Spouse or Family		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	0.20	0.15		0.15	0.20		0.44	0.16	**
Age	0.02	0.01	*	0.02	0.01	*	0.00	0.01	
Marital Status (ref. Married)									
Married Before	-0.04	0.24		0.16	0.32		-0.40	0.26	
Never Married	-0.38	0.18	*	-0.03	0.23		0.16	0.19	
Num. Children	0.00	0.05		0.04	0.06		0.04	0.04	
Population group (ref. White)									
Indian	0.86	0.59		-0.79	0.56		1.66	0.69	*
Coloured	1.00	0.38	**	-0.26	0.41		0.41	0.46	

Zulu	0.68	0.42		0.05	0.47		1.13	0.45	*
Xhosa	0.75	0.47		1.00	0.57		1.18	0.48	*
Sesotho	0.86	0.44		-0.24	0.45		1.10	0.46	*
Batswana	0.62	0.45		0.48	0.47		1.11	0.49	*
Other	0.84	0.43		0.23	0.43		0.31	0.49	
Geographic Type (ref. Urban formal)									
Urban informal	-0.24	0.36		0.24	0.49		-1.24	0.43	**
Trad. Auth. Area	0.02	0.22		0.43	0.28		-0.05	0.20	
Rural formal	-0.12	0.34		0.69	0.51		-0.30	0.41	
Living Standard Measurement	-0.23	0.06	***	0.28	0.09	***	0.08	0.06	
Educational Attainment	-0.04	0.02		0.18	0.04	**	-0.06	0.03	*
Employment (ref. employed)									
Unemployed	-0.56	0.18	**	-2.08	0.27	***	0.72	0.20	***
Student	-0.32	0.30		-0.75	0.35	*	0.04	0.29	
Labour Inactive	-0.54	0.24	*	-1.34	0.40	**	0.83	0.24	**
Number of obs.	2172			2172			2172		
Pseudo R^2	0.09			0.27			0.13		

Source: South African Social Attitudes Survey (SASAS) 2015

Note: Data is weighted to be nationally representative of the adult South Africans who not retired. The model controls for the provincial residence and religious affiliation of respondents. *, **, *** 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.

Model I explains 9% of variance and Model III explains 13% of variance while Model II explains 27% of variance. In other words, Model II has the strongest explanatory power of the three models in Table 27. It was apparent to the SASAS research team that having a government pension strategy was correlated with the LSM indicator. In Model I, a one-unit increase in the LSM indicator was associated with a 0.23 decrease in the relative log odds of pursuing this strategy. We can infer from this that the wealthier the individual, the more unlikely s/he will be to use a government pension as a strategy for funding retirement. Ethnic background played less statistically significant role in Model I than might have been thought given the findings in **Table 26**. Relative to the reference group (i.e. White), being part of the Coloured group was correlated (r =1.00) with adopting a government pension as a funding strategy. Relative to being employed, being unemployed was negatively correlated (r ==0.56) with pursuing this strategy even controlling for socioeconomic status.

It was clear to the research team that citing a workplace and/or private pension plan was strongly correlated with the LSM indicator. In Model II, a one-unit increase in the LSM indicator was associated with a 0.28 increase in the relative log odds of pursuing this strategy. Contrary to what was observed in Model I, we can infer from this finding that the more affluent the individual, the more apt s/he will be to pursue a private plan to fund retirement. The log odds of citing a workplace and/or private pension plan were reduced significantly if an individual was not in paid employment. Being unemployed, for example, reduced the propensity to cite this strategy by 2.08, indicating how important employment is with regards to private pension plans. The more educated the individual, the more likely s/he was to mention a workplace and/or private pension plan as funding strategies. In Model II, a one-unit increase in formal educational attainment was associated with a 0.18 increase in the relative log odds of pursuing this strategy.

Ethnic background played a statistically significant role in Model III, even controlling for socioeconomic status, validating the results in **Table 26**. Relative to being White, the log odds on citing family and/spouse as a funding source increase 1.66 if the individual is Indian, 1.for Xhosa, 1.12 for Zulu, 1.11 for Batswana and 1.10 for Sesotho. These statistical associations may reflect the differing cultural traditions of these population groups and the importance of intergenerational solidarity within them. More research is required to understand this finding and why we observe this sort of variation. Unlike what was observed in Models I and II, the LSM indicator was not statistically correlated with the dependent in Model III. The log odds of mentioning family and/or spouse were

increased significantly if an individual was not in paid employment. Being unemployed increased the propensity to mention this strategy by 0.72, indicating how important social networks of this type are to those outside paid employment. Perhaps surprisingly, living in an informal urban area correlated negatively with our spouse or family dependent.

9 Choosing financial products

It is important to understand how South Africans view different financial product types. Commercial bank branches and ATMs are costly and only efficient in areas with high population densities. Consequently, these mechanisms do not necessarily serve the country's large 'unbanked' population, particularly in rural areas. To address this, the banking sector has had to explore alternative operating models including mobile and online banking or third-party agents. The Mzansi initiative, for example, was intended to provide banking services to the unbanked[12]. Although some product types (like the Mzansi account) have been unsuccessful, others types (such as cellphone accounts) have been more successful. Many citizens also make use of strategies that fall outside the formal financial sector. Prem Govender, Chairperson of the Savings Institute of South Africa, has said that research shows that people investing in stokvels, for example, often use their savings to improve and extend RDP homes, adding to their net worth and ensuring that there is capital growth in their fixed properties (Mail & Guardian 29/07/2011). This section examines how South Africans view informal and formal financial product types.

Understanding people's ability to choose appropriate products is an important aspect of any study of financial literacy. Modern financial product markets are highly complex, and navigating such a market is difficult. To more accurately understand financial behaviour in South Africa, it is necessary to investigate the knowledge and usage of financial products in the country. Understanding the popularity of certain kinds of products among the general population is essential for financial education researchers and to those working on consumer regulation. Given the importance of this issue, the SASAS research team, beginning with the 2010 Financial Literacy Pilot study, gathered information about which financial products South Africans were aware of and which they were buying. Subsection 9.1 describes product type awareness and holdings in the country, focusing on trend differences. Subsection 9.2 explores how product type awareness and holdings differ between important sociodemographic subgroups. Subsection 9.3 looks at financial decision-making and regret to discern how many South Africans suffer regret after making financial decisions.

9.1 Product Awareness and Holding among the Public

Since the 2010 study, the research team has refined the questions used to track the popularity of financial products. The number of products under investigation increased in the 2011 Financial Literacy Baseline study, with four key product types identified: (i) banking; (ii) credit and loan; (iii) investment and savings; and (iv) insurance. These four types reflect the multifaceted South African market in financial products. Using these questions, the SASAS research team has gathered three years of data about which financial products South Africans have acquired and are currently using. The following section presents the findings on product popularity across these four product types,. Each of subsections 9.1.1-9.1.4 analyses one of the four product types used in the study and each subsection looks at knowledge and consumption patterns over the period 2011-2015.

[12] 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). Banks have shifted away from Mzansi accounts as clients' needs changed and more appropriate products were designed (for an indepth analysis of Mzansi accounts, see Kostov, Arun, and Annim 2014).

9.1.1 Banking Products

In 2011, the following question was put to SASAS participants, "Please can you tell me whether you have heard of any of the following types of banking products?" Fieldworkers then read out a list of eleven banking products and participants were requested to state which of them they had heard of. This helped to construct a general picture of people's access to banking services and the kind of banking products that were the most popular amongst the general adult population. A subsequent question asked respondents if they currently held any of the types of products in the list read out. These questions were repeated in subsequent survey rounds, and the responses for the period 2011-2013 and 2015 are shown in **Table 28**.

The most well-known banking product in South Africa is a saving account, mentioned by more than four-fifths of the adult public in every year since 2011. This is followed by ATM cards and credit cards, with public knowledge of these two financial products having grown somewhat over the period 2013-2015. Other products which were familiar to more than three-fifths of the respondents were Mzansi accounts and debit cards. Public awareness of Post Office savings accounts has decreased substantially since 2011 –falling from 62% in 2011 to 46% in 2015 and indicating the declining popularity of this type of banking product. Awareness of cellphone banking products (such as mobile-phone based money transfer and micro-financing service for Vodacom) grew significantly over the period 2012-2015. In 2012, less than a fifth (17%) of adults were aware of such products compared with 37% in 2015.

Table 28: Public Popularity of different banking products, 2011-2013; 2015 (cell percentages)

	Awareness				Holding			
	2011	2012	2013	2015	2011	2012	2013	2015
ATM Card	76	78	69	77	29	34	28	36
Cellphone account	n/a	17	32	37	n/a	4	3	1
Credit Card	65	61	56	68	12	13	7	9
Current or Cheque Account	51	55	52	59	10	11	11	10
Debit Card or Cheque Card	49	52	47	62	5	5	10	17
Fixed Deposit Bank Account	48	48	46	55	3	4	4	3
Garage Card or Petrol Card	42	43	41	48	3	4	3	3
Home Loan from a Big Bank	41	41	37	45	6	4	3	2
Mzansi Account	72	69	67	63	13	13	9	6
Post Office/Post Bank	62	53	50	46	11	10	3	3
Saving Accounts	86	85	84	90	45	47	47	52
Savings Book at a Bank	38	38	36	37	2	2	1	1
(None of the above)	3	4	5	3	33	23	30	27

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

When people were asked about which products they hold, a sizeable share (27% in 2015) of the public indicated that they held none of the banking products listed. Since 2010, the SASAS research team has been aware of a discrepancy between knowledge of banking products and holding of such products. The most widespread form of banking product held was the savings account –this product was held by more than half (52%) the adult public in 2015. Almost two-fifths (36%) of the adult public had an ATM card, a substantial change from 2013. The share of those adults holding debit cards increased from a tenth in 2013 to roughly a sixth (17%) in 2015. This considerable increase suggests that entry barriers to formal banking in South Africa have decreased over the period. In contrast, the share of the public holding a credit card decreased between 2012 and 2015, from 13% in 2012 to 9% in 2015.

Some products have declined significantly in popularity. Holdings of Mzansi accounts decreased between 2011 and 2015 from one-eighth of the adult population in 2011 to less than one-fifteenth (6%) in 2015. Approximately five-eighths of the public had heard of the Mzansi account in 2015, suggesting that a large proportion of the population was aware of it but did not own it. Through

Postbank, the South African Post Office provides accessible and affordable banking to the unbanked and lower income segment of the population. However, the public seems doubtful about this option with Post Office banking being used by one-ninth of adults in 2011 to less than one-thirtieth in 2015. This decline runs parallel with the decline in public awareness of this product noted above.

Table 28 does not provide with data on how public awareness of banking products has changed for important subgroups over time. However, there have been significant within-group changes over the period 2011-2015. The popularity of certain banking products (e.g. Post Office banking) declined significantly amongst White respondents. In 2013, for instance, awareness of Post Office banking amongst the white adult community fell from 53% of this community in 2013 to 37% in 2015. Amongst the Black African majority, public awareness of certain products experienced a moderate expansion in public awareness. For example, in 2013 less than two-fifths (38%) of the Black African adult community was aware of debit or cheque cards but, by 2015, this share had grown to around four-sevenths (57%) of the community. This group's awareness of credit cards, home loans and ATM cards also grew over this period suggesting that they are becoming more aware of, and perhaps knowledgeable about, the different types of products offered in the country's banking market.

Table 29: Purchases of different banking products in the last two years by Living Standard Measure

	Low	Lower Middle	Upper Middle	Lower High	Upper High	Total
Mzansi account	8	5	4	7	1	5
Savings account	21	23	37	35	22	31
Current or Cheque account	2	2	5	9	12	5
Fixed deposit bank account	1	1	3	6	5	3
ATM card	21	14	23	21	22	20
Debit card or Cheque card	1	3	7	8	9	6
Credit Card	1	3	4	11	10	5
Garage card or petrol card	0	0	1	2	4	1
Home loan from a big bank	0	1	1	3	5	1
Savings book at a bank	2	0	1	1	1	1
Post Office savings account	2	5	1	2	1	2
Cellphone account (e.g. M-PESA)	0	1	1	0	0	1
(None of the above)	59	55	44	46	48	48
(Refused)	0	2	1	6	15	3
(Don't know)	0	1	1	1	0	1

Source: South African Social Attitudes Survey (SASAS) 2015

Table 28 gives information about how adults' holdings of certain banking products changed over the period 2011-2015. The data presented in the table indicates a significant increase in the number of saving accounts and ATM cards in use over the period. To better understand these trends, we questioned respondents in the 2015 SASAS questionnaire about what banking products they had purchased in the last two years. Table 29 shows that about a third (31%) of adult South African opened a savings account between 2013 and 2015 and a fifth acquired an ATM card over the same period. To increase our understanding of these patterns, we looked at banking product type purchases over the period 2013-2015 by economic status. The findings show that significant shares of the rich and the poor opened saving accounts and obtained ATM cards over the period. Intriguingly, those in the Upper Middle and Lower High groups were the more likely to have opened a savings account than other LSM groups.

9.1.2 Credit and Loan Products

Access to credit is an important component of financial activity, allowing individuals to start businesses, buy assets and recover from financial shortfalls (Lamdin 2011). Given these facts, how South Africans engage and use credit-related products is an area of interest. As discussed in a Section 7.2.2, most adult South Africans do not rely on formal saving products when faced with a financial

shortfall. This may suggest that possess credit and loan products. To investigate this issue, the SASAS research team tracked public awareness and usage of credit and loan products using similar measures to those used to discern the popularity of banking products. The results are shown in **Table 30** and indicate that over half of all adult South Africans held no credit or loan products.

Table 30: Public Popularity of different credit and loan products, 2011-2013; 2015 (cell percentages)

	Awareness				Holding			
	2011	2012	2013	2015	2011	2012	2013	2015
Formal products								
Hire Purchase	55	51	54	55	7	5	5	5
Lay-Bye	72	65	65	74	7	10	8	13
Loan from a Micro-lender	70	64	63	73	9	10	5	6
Overdraft Facility	31	37	33	43	3	2	2	3
Store Card	75	78	75	76	18	22	17	19
Vehicle or Car Finance	54	47	45	56	2	4	4	4
Informal products								
Informal Savings Club	51	41	43	54	4	4	4	5
Loan from an Employer	20	16	20	19	2	1	1	3
Loan from Friends or Family	65	56	59	68	6	6	10	14
Loan from Informal Lender	60	53	56	61	7	6	1	4
Loan from Local Spaza	24	23	22	29	2	1	4	7
Store Account with No Card	27	24	25	27	2	2	1	2
(None of the above)	4	8	8	4	58	50	55	53

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

The most common *formal* credit and loan products that South Africans are aware of are store cards followed by lay-byes and loans from micro-lenders. More than half of the adult South Africans were familiar with the formal products of hire purchase and vehicle or car finance. The share of the population that was aware of car financing grew from 45% in 2013 to 56% in 2015. In terms of public awareness of formal credit and loan products, there were important within group differences. Black African and Coloured adults became much more aware of car financing between 2013 and 2015 while the growth of awareness of this product more muted amongst adults in the Indian and White communities. Black African respondents also became more aware of overdraft facilities over the period, with about three-eighths (35%) aware in 2015 compared with 23% in 2013. In contrast, amongst the white adult community awareness of overdraft facilities somewhat declined over the period.

The *informal* credit and loan product of which South Africans are most aware was loans from friends and family. Most people were aware of credit obtained through an informal saving club (i.e. stokvel). Public awareness of informal saving clubs (sometimes called *umgalelo*) grew from about two-fifths of the population in 2012 to roughly half (54%) in 2015. Much of this growth was amongst the Black African majority and this signifies the continuing importance of such clubs in these difficult economic times. Approximately three-fifths (61%) of the adult public were aware that credit could be obtained from a *mashonisa* or informal money lender. Amongst the White community, there was a decline in awareness of informal money lenders. This may be explained by the fact that White South Africans are much less likely to come into contact with such lenders or to have had business with them. Loans from local spaza shops were less well known amongst the South African adult public and in 2015, 29% were aware that loans could be obtained in this way.

In general South Africans do not hold credit and loan products, including informal products of this type. None of the products listed in **Table 30** were held by more than a fifth of the adult population. Store cards and lay-byes were the most widespread form of credit and loan product that was held by South Africans. Between 2012 and 2013, loans from micro-lenders declined although this trend did

not continue into 2015. Even informal credit and loan products were fairly uncommon, with only small minorities of the population borrowing from friends or family, or receiving credit from a *stokvel*. Few made use of micro-credit credit whether informal or formal. Given the potential for micro-loans for economic development and particularly small enterprise development, this finding is concerning. It appears that more must be done to expand the usage of sustainable and beneficial credit products among the ordinary South Africans.

Table 31: Product Purchases of different credit and loan products in the last two years by Living Standard Measure

	Low	Lower Middle	Upper Middle	Lower High	Upper High	Total
Loan from a micro-lender	1	2	6	6	3	5
Vehicle or car finance through bank	0	1	1	3	7	2
Overdraft facility	1	1	1	4	6	2
Store card	2	5	17	15	4	12
Lay-bye	5	11	14	10	2	11
Hire Purchase (HP)	1	2	6	6	2	5
Loan from friends or family	5	13	17	8	6	13
Loan from an informal money lender	2	2	4	2	1	3
Loan from a savings club	1	5	6	4	1	5
Loan from local spaza	5	6	7	6	2	6
Store account with no card	0	1	1	1	0	1
Loan from an employer	1	3	3	2	0	2
(None of the above)	81	61	54	59	70	60
(Don't know)	0	2	1	1	0	1
(Refused)	0	1	3	7	13	4

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

Table 30 gives information about the adult public's holdings of different types of credit and loan products and how these patterns changed over the period 2011-2015. The data in the table implied that the popularity of lay-bye and store card accounts over the period had increased over the period. To better understand these trends, we questioned respondents through the 2015 SASAS questionnaire about what credit and loan products they had acquired in the preceding two years. **Table 31** shows that nearly an eighth (12%) opened a store card between 2013 and 2015 and a ninth (11%) opened a lay-bye account. Perhaps not unexpectedly given these hard times, 13% had taken loans from friends and/or family over the period.

To increase our knowledge of these patterns, the survey examined credit and loan product purchases over the period 2013-2015 by economic status. Store card acquisitions were concentrated among the Upper Middle and Lower High LSM groups, with lay-bye accounts more common amongst the Lower Middle and the Upper Middle LSM. Loans from friends and/or family were concentrated among the Middle LSM groups. Remarkably, loans from micro-lenders were not taken up by the poor but by the more affluent. One-sixteenth of the Upper Middle and the Lower High LSM groups obtained a micro-loan over the period compared with a fiftieth (2%) of the Lower Middle LSM group and a hundredth (1%) of the Low LSM group.

9.1.3 Investment and Savings Products

Under apartheid, the majority of South Africans were denied access to investment. Since 1994, more and more South Africans have had the opportunity to save and invest their money. This new freedom does not mean that the majority are able to save and invest. Nor does it mean that the general public is aware of the available investment and savings products. The SASAS research team has been tracking public usage of investment and saving products since 2011 and has found that the majority of those interviewed reported that they possessed no investment or savings products. The high cost of living in South Africa, as well as the prevalence of job and wage insecurity for many, may prevent the acquisition of these products.

Table 32 gives information about public awareness and holding of such products for the period 2011-2013 and 2015. The *formal* investment and savings product that most South Africans are aware of is the education policy or plan. In 2015, four-sevenths (57%) of the public had heard of this type of policy or plan, an increase from what was observed in 2013. Other formal investment products were less well-known, with half of all adult South Africans had not heard of the other investment and savings products on the list. However, public awareness of unit trusts grown from 33% in 2011 to 41% in 2015. People have also become more aware of the stock exchange during that period. This may indicate that the public is becoming more aware of formal investment products as they become more familiar with financial markets.

Table 32: Public Popularity of different investment and savings products, 2011-2013; 2015 (cell percentages)

	Awareness				Holding			
	2011	2012	2013	2015	2011	2012	2013	2015
Formal Investment products								
Education Policy or Plan	55	55	52	57	3	6	5	5
Investment or Savings Policy	47	48	43	48	9	8	0	6
Shares on the Stock Exchange	38	38	39	46	1	2	1	2
Unit Trusts	33	35	32	41	2	2	2	2
Retirement products								
Pension Fund	72	66	68	74	12	12	8	11
Provident Fund	49	49	49	57	6	7	5	8
Retirement Annuity	42	41	39	47	6	7	5	6
Saving Clubs								
Informal Savings Club	68	59	60	69	12	13	10	16
Keep Cash at Home	51	46	51	41	10	13	21	12
Keep Cash with a Friend	41	36	41	37	3	3	5	4
Other Savings Club	11	9	9	7	3	2	1	1
(None of the above)	6	10	10	9	55	51	53	55

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

Planning for retirement is becoming more and more important to South Africans, and public awareness of pension funds grew over the period 2012-2015. During the last survey round, nearly three-quarters (74%) of the public were aware of pension funds. Awareness of other types of formal retirement products has also grown; in 2013 less than half (49%) of the adult population was aware of provident funds compared to four-sevenths (57%) in 2015. People have also become more aware of retirement annuity products over the period 2011-2015, although the observed level of growth in awareness was relatively low. There was an increase in awareness about certain informal practices, such as investing with informal savings clubs, over the period 2012-2015 but awareness of informal saving practices declined. This signals, perhaps, that the public is becoming more aware of the opportunities offered by formal financial markets.

Patterns of public usage of different investment and savings products are compared to what was observed in section 9.1.3. Adult South Africans, on average, do not hold investment, retirement or savings products. The share of people who said 'none of the products' when asked about investment and savings products was 55% in 2015. The most widely held formal product was a pension fund and the most widely held informal product was an investment informal saving clubs. Low investment in the stock market or unit trust may be related to entry barriers to this kind of investment or even to the underperformance of the South African stock market during this period. The share of people with investments with informal savings clubs grew from 12% in 2011 to 16% of people in 2015. This seems to indicate that informal savings clubs attract investment even during periods of economic downturn. A smaller percentage of the adults were keeping cash at home in 2015 than in 2013,

possibly reflecting concerns about crime or the lack of disposable income to save (for more discussion, please see section 8.2).

Table 33: Product Purchases of different investment and savings products in the last two years by Living Standard Measure

	Low	Lower Middle	Upper Middle	Lower High	Upper High	Total
Unit trusts	1	1	1	5	5	2
Education policy or plan	1	0	3	8	5	3
Investment or savings policy	1	1	2	8	10	3
Shares on the stock exchange	1	0	2	4	2	2
Retirement annuity	1	1	2	4	6	2
Provident fund	3	1	6	8	7	5
Pension fund	1	3	4	8	9	5
Savings club	6	16	17	14	4	14
Giving money to someone	3	6	5	3	1	4
Keep cash or savings at home	4	12	10	10	1	9
Other savings club	4	1	1	2	3	1
(None of the above)	81	67	65	56	61	64
(Don't know)	1	1	1	2	0	1
(Refused)	0	0	1	8	13	3

Source: South African Social Attitudes Survey (SASAS) 2015

Table 32 gives information about the adult public's holdings of various investment and savings product types and how these holding varied over the period 2011-2015. The data in the table implies that more of the public was participating in informal saving clubs in 2015 than in 2012. To test this thesis, we looked at a question from the 2015 SASAS questionnaire about what investment and savings products respondents had used in the previous two years. **Table 33** shows that 14% of respondents had joined a savings club in the period 2013-2015, with the growth centred amongst the Lower Middle, Upper Middle and Lower High LSM groups. Indicators of purchases of other investment and savings products showed less change. It was noteworthy that an about a tenth of the Lower Middle, Upper Middle and Lower High LSM also began keeping money at home over the period. It was noteworthy that a tenth of the Upper High LSM group opened an investment policy between 2013 and 2015.

9.1.4 Insurance Products

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 many health and economic shocks. To find out how well insured South Africans are and how aware they are about the insurance options available, respondents were read out a list of eleven insurance products. This was subdivided into short-term (asset) insurance products, long-term insurance products and financial insurance products. The results are presented in Table 34 and show that only a minority (38%) of South Africans indicated that they did not possess at least one insurance product in 2015. The percentage of the adult population holding at least one insurance product increased from 56% in 2013 to 62% in 2015.

Table 34: Public Popularity of different insurance products, 2011-2013; 2015 (cell percentages)

	Awareness				Holding			
	2011	2012	2013	2015	2011	2012	2013	2015
Short-term (asset) insurance								
Vehicle or car insurance	68	66	60	71	12	12	9	9
Household contents insurance	53	55	51	59	9	11	7	7
Homeowners' insurance	42	43	42	51	5	7	5	6
Cellphone insurance	61	59	58	67	9	9	5	8

Long-term insurance								
Life insurance	69	64	63	72	16	16	13	16
Loan protection insurance	35	37	33	40	3	4	2	2
Disability insurance or cover	40	43	42	48	2	4	3	3
Medical aid scheme	67	60	56	71	16	13	9	13
Hospital cash plan	52	49	48	57	5	4	3	3
Funeral								
Burial society	64	60	58	66	19	23	21	28
Funeral policy (bank)	44	49	43	49	6	8	5	9
Funeral cover (undertaker)	56	54	56	56	13	14	16	17
Funeral policy (insurance company)	50	46	42	48	8	8	7	11
Funeral cover (spaza shop/stokvel)	21	20	20	23	13	2	1	2
(None of the above)	4	8	9	4	44	38	44	38

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

The *short-term* insurance product that most South Africans are aware of is vehicle or car insurance with five-sevenths (71%) of the public aware of this product in 2015. Awareness of this product grew over the 2012-2015 period, in parallel with the growth in car financing awareness over the same period noted in section 9.1.2. About two-thirds (67%) of the public were aware of cellphone insurance, with awareness of this short-term product growing between 2012 and 2015. With regard to *long-term* insurance products, roughly five-sevenths of South Africans had heard of a medical aid scheme and life insurance. Awareness of the former grew substantially over the period 2012-2015, indicating growing attentiveness to this product type and the changing health concerns of the public. Amongst the different funeral products listed in **Table 34**, public awareness of burial societies was the highest. Less than half the adult population was aware of funeral cover from banks or insurance companies, stokvels or spaza shops and levels of public awareness of these products did not change markedly over the period under review.

Awareness of different insurance products is probably connected to asset ownership. In the case of *short-term* insurance, an individual with more assets is likely to be 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 a third (31%) were aware of household contents (e.g. furniture and appliances) insurance compared to roughly four-fifths (79%) of those in the High LSM group. Awareness of burial societies, on the other hand, may be more connected to an individual's cultural background than economic status. Less than half (46%) of adult members of the Indian minority were aware of burial societies in 2015 compared with more than two-thirds (68%) of the Black African majority

Usage patterns of the different insurance products listed in **Table 34** are similar to what was observed in sections 9.1.3 and 9.1.2. The majority of the products listed in **Table 34** were held by more than a fifth of the population. 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 (28%) of the respondents held an account with a burial society, with the share of those holding such an account growing over the period 2011-2015. Members of the Black African majority were more likely to use burial societies, with about two-thirds (32%) holding an account with such a society in 2015. In general, long-term insurance was more frequently held than short-term (asset) insurance. Fewer than a tenth of adult South Africans held life insurance or car insurance although usage levels differed significantly by race. Almost half (45%) of White adult population had car insurance in 2015, for example, compared with less than a twentieth (4%) of the Black African majority.

Table 35: Product Purchases of different insurance products in the last two years by Living Standard Measure

	Low	Lower	Upper	Lower	Upper	Total

		Middle	Middle	High	High	
Vehicle or car insurance	0	0	2	5	11	3
Household contents insurance	0	0	1	2	8	1
Homeowners' insurance on building	0	0	1	3	4	1
Cellphone insurance	0	3	3	9	10	4
Life insurance or life cover	3	2	8	9	14	7
Insurance that pays your loan	0	0	1	1	2	1
Disability insurance or cover	0	0	1	1	3	1
Medical aid scheme	0	1	4	9	17	5
Hospital cash plan	0	0	0	2	3	1
Belong to a burial society	24	22	21	11	6	18
Funeral policy with a bank	1	5	7	9	5	6
Funeral cover through an undertaker	10	17	14	6	3	12
Funeral policy with an insurance company	5	2	5	7	5	4
Funeral cover from an spaza shop	1	2	1	0	0	1
Funeral cover from any other source	3	1	0	0	0	1
(None of the above)	60	59	55	58	52	57
(Don't know)	0	1	2	1	0	1
(Refused)	0	1	1	8	13	3

Source: South African Social Attitudes Survey (SASAS) 2015

Table 34 shows the adult public's holdings of various insurance product types and how the holding of these products fluctuated over the period 2011-2015. The data in the table shows that a larger share of the public was participating in burial societies in 2015 than in 2011. To corroborate this, we utilised a question from the 2015 SASAS questionnaire about what different insurance product types respondents had purchased in the previous two years. Table 35 shows that 18% of the adult population had joined a burial society in the period 2013-2015. Looking at this by economic status, we can see that this growth was concentrated amongst the Low, Lower Middle and Upper Middle LSM groups. In terms of purchasing other insurance products, the data show more moderate change. About a fifth (17%) of the Upper High LSM group purchased a medical scheme over the period, and nearly a fifth (17%) of the Lower Middle group purchased funeral cover from an undertaker as did a seventh (14%) of the Upper Middle group.

9.2 Subgroup Analysis of Financial Product Awareness and Holding

Commenting on South Africa's financial direction in 2016, Andile Khumalo Chief Investment Officer of MSG Afrika Group said that, "all consumers are equal, but some consumers are more equal than others" (Sunday Times 17/04/2016). He observed that the affluent live in an economy of comfort and, at times, abundance while others operate in an economy of constant scarcity. To better understand these two financial worlds, this subsection looks at product type awareness and holdings among key subgroups. The four subgroup categorisations under consideration are: (i) age cohort, (ii) employment status, (iii) educational status and (iv) living standard. The subsection uses multivariate analysis to test the effect of certain key socioeconomic characteristics in driving product type awareness and holding. The subsection makes a clear distinction between formal and informal products in the multivariate analysis. Subsection 9.2.1 assesses product type awareness and subsection 9.2.2 examines product type holding.

9.2.1 Product Awareness

When the SASAS research team investigated product awareness in the 2010 Financial Literacy Pilot study, we found that a number of key socio-economic characteristics were positively associated with awareness and possession of financial product types in South Africa. Since then, the research team has refined its analysis and constructed comprehensive product awareness scores for each financial product type to better understand which subgroups are most aware of which financial products. The product awareness scores range from 0 to 100, with '0' representing complete ignorance of the financial product in question and '100' perfect awareness. In order to more adequately demonstrate these characteristics, all four scores, as well as a combined (similarly ranged) score, are given in Table

36. The mean scores for three of the four domains were roughly similar at about 52 but awareness of investment and savings products were notably lower at 46. This suggests that people are in general unaware of the different investment options currently available.

The findings presented in **Table 36** indicate that, perhaps unsurprisingly, South Africans in their middle years (in the 25-34, 35-49 and 50-64 age cohorts) tend to be more aware of financial products than younger or older South Africans. This inverse U-curve is evident across all financial product awareness scores in the table. Encouragingly, younger South Africans tend to report, on average, higher scores on the banking and insurance domains than those in their twilight years (i.e. the 50-64 and 65+ age cohorts). The first increase in product awareness as an individual reaches middle age is commonly linked to the acquisition of experience with financial product markets. Low product awareness scores among the older cohort may result from unfamiliarity with new financial products that have entered the market.

Table 36: Awareness of financial product type scores by socio-demographic attributes (mean scores, 0-100)

	Banking	Credit and Loans	Investment and Savings	Insurance	Total
South Africa	52	52	46	51	51
Age cohort:	***	*	***	*	**
16-24 years	52	49	42	50	50
25-34 years	54	52	46	53	52
35-49 years	55	54	49	53	54
50-64 years	51	52	48	52	52
65+ years	43	51	44	47	47
Education:	***	***	***	***	***
Tertiary	68	64	66	69	68
Completed Secondary	62	57	51	57	58
Incomplete Secondary	49	48	42	48	48
Senior Primary	32	44	32	37	37
Junior Primary and Below	31	42	33	38	37
Employment status:	***	***	***	***	***
Employed	59	57	53	58	58
Retired	44	53	46	50	49
Unemployed	51	51	44	50	50
Student	54	48	44	50	50
Labour Market Inactive	39	40	34	38	39
LSM status	***	***	***	***	***
Low	34	37	28	32	33
Lower Middle	41	44	35	41	41
Upper Middle	54	55	48	55	54
High	66	60	59	64	64

Source: South African Social Attitudes Survey (SASAS) 2015

Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

Those outside the labour market tended to be less aware of financial products of all types than those inside the labour market. The employed tended to be the most aware of financial products and scored above the national average in all four domains. Students tended to be relatively aware of the banking domain, and students' mean scores were significantly better than the national average in the three other domains. Using LSM as a gauge of economic position, it is clear from **Table 36** that wealthy individuals tend to be much more aware of financial products than those who are poor. This finding is not surprising given that the more economic capital an individual possesses, the more likely s/he will

be to procure different financial products. Financial product awareness significantly differed between different categories of educational attainment. This may also reflect the socio-economic disparities between those are well-educated and those who not. More research is required to understand the role played by educational attainment in promoting awareness of financial products.

The data in **Table 36** suggest that economic factors such as educational attainment, employment status, and economic position are the main drivers of public awareness of financial products in South Africa. To validate this hypothesis, we used multivariate analysis to establish the influence of these economic factors. As was discussed in section 9.1, the financial products under consideration include formal products (e.g. hospital cash plan, cellphone insurance, unit trusts, store cards etc.) and informal products like burial societies or informal savings clubs. As indicated in section 9.1.4, awareness of informal products may be more associated with cultural factors (like ethnic background, for example) than economic factors. To test this hypothesis, we created two different scales: (i) Formal Product Awareness and (ii) Informal Product Awareness. The former measures public awareness of formal financial products and the latter awareness of informal products. Like the domains shown in **Table 36**, these scales range from 0 to 100, with '0' representing complete ignorance of the financial product in question and '100' perfect awareness.

Table 37: Linear Regression on Formal and Informal Product Awareness

	Formal Products			Informal Products		
	Coef.	Beta	Sig.	Coef.	Beta	Sig.
Female (ref. male)	-2.25	-0.04	*	-1.47	-0.03	
Age	0.12	0.07	*	0.00	0.00	
Marital Status (ref. Married)						
Married Before	-4.01	-0.04	*	-3.27	-0.04	
Never Married	-3.57	-0.06	**	-4.44	-0.08	**
Population group (ref. Indian)						
White	-11.35	-0.11	**	-7.68	-0.08	*
Coloured	0.73	0.01		6.36	0.07	
Zulu	-5.61	-0.08		15.20	0.23	***
Xhosa	-10.68	-0.14	**	8.60	0.12	*
Sesotho	-1.37	-0.02		12.03	0.17	**
Batswana	-2.54	-0.03		14.20	0.15	***
Other	0.93	0.01		16.30	0.18	***
Geographic Type (ref. Urban formal)						
Urban informal	5.03	0.05	*	2.15	0.02	
Trad. Auth. Area	-5.65	-0.08	***	-4.04	-0.06	*
Rural formal	-5.19	-0.03		-6.62	-0.04	*
Living Standard Measurement	3.33	0.21	***	1.31	0.09	**
Educational Attainment	1.90	0.23	***	0.49	0.06	**
Employment (ref. employed)						
Retired	-4.21	-0.04		1.67	0.02	
Unemployed	-0.07	0.00		3.21	0.06	*
Student	-1.22	-0.01		-2.83	-0.03	
Labour Inactive	-11.57	-0.12	***	-5.99	-0.06	**
Number of obs.	2600			2600		
Adj R-squared	0.29			0.11		
Root MSE	24.78			26.31		

Source: South African Social Attitudes Survey (SASAS) 2015

Note: Data is weighted to be nationally representative of the adult South Africans. The model controls for the provincial residence of respondents. *, **, *** 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.

Since the dependent variables we are trying to model are a continuous 0-100 index, we have chosen to use standard linear regression techniques in our multivariate analysis. **Table 37** shows the coefficients and standard errors from our linear model estimating the correlations between the two dependents and independent variables. Model I looks at the relationship between socio-demographic independent variables and the Formal Product Awareness scale and Model II looks at the relationship of the same independent variables with the Informal Product Awareness scale. Model I explains 29% of variance on the Formal Product scale, suggesting the relative strength of the model in accurately predicting the dependent. Model II, however, only explains 11% of variance on the Informal Product Awareness scale indicating the weakness of the model.

The main finding to emerge from **Table 37** is that awareness of formal financial products is positively correlated with household resources. When controlling for a range of demographic characteristics, the beta coefficient of this correlation is 0.21 in Model I. This is not a surprising given the international literature on product awareness and typically most studies have found that poorer individuals tend to have low levels of awareness. Guiso and Jappelli (2005), for example, using the 1995 and 1998 Bank of Italy Surveys of Household Income and Wealth, found that respondents' awareness of the existence of stocks, mutual funds and investment accounts was correlated with their household's wealth (also see Donkers and Van Soest 1999). Even controlling for economic and labour market status, educational attainment was positively correlated with the dependent in Model I. The size of the beta correlation (0.23) was even greater than what was observed for household resources. This finding indicates that exposure to schooling has the strongest effect on an individual's knowledge of financial products.

Household resources and educational attainment played a significant role in predicting responses on the Informal Product Awareness scale in Model II. However, the size of the beta correlation on these two indicators was much weaker than what was observed in Model I. Ethnic background was shown to play a larger role in predicting the dependent in Model II than in Model I. All of the Black African subnational groups were significantly different from the reference group (i.e. the Indian group) even controlling for socio-demographic status. The most different were the Zulu and Batswana, suggesting that informal finance is perhaps more popular amongst these cultural traditions. However, more research is required to substantiate that hypothesis. In Model I and II, the results suggest a relationship between spatial location and access to financial product awareness. It may be that financial product markets (even informal ones) have not adequately penetrated traditional authority areas.

9.2.2 Product Holding

As is apparent from section 9.1, there is a large disparity between product awareness and product holding. The noted disparity may arise because only those on the upper rungs of the South African socio-economic ladder are able and willing to purchase multiple types of financial products. Certainly, the findings from section 9.2.1 suggest that the wealthy are more likely to be aware of many different financial product types. In order to test the thesis that wealth drives financial product attainment, four financial type holding scores were created, each corresponding to one of the financial product types, as well as a combined score. These scores ranged from 0-100, with '0' indicating that an individual does not hold any financial products. The national average for the combined product holding score is 17, confirming that multiple product holding in South Africa is low. In the subgroup analysis, **Table 38** presents significance test results based on Analysis of Variance (ANOVA) by socio-demographic attributes.

Table 38: Holding of financial product type scores by socio-demographic attributes (mean scores, 0-100)

	Banking	Credit and Loans	Investment and Savings	Insurance	Total
South Africa	10.5	6.7	6.1	8.6	8.6
Age cohort:	***	***	***	***	***
16-24 years	7.9	3.7	4.1	3.8	5.2

25-34 years	10.5	7.5	6.2	7.4	8.5
35-49 years	12.0	9.8	7.3	11.6	11.0
50-64 years	12.0	6.6	7.5	11.9	10.3
65+ years	11.3	4.8	5.6	11.2	9.0
Education:	***		***	***	***
Tertiary	20.5	9.9	13.0	20.0	17.3
Completed Secondary	12.6	7.9	6.9	9.8	10.0
Incomplete Secondary	8.1	5.6	4.2	5.9	6.4
Senior Primary	6.5	5.8	4.9	5.3	6.0
Junior Primary and Below	4.8	4.4	4.9	5.5	5.2
Employment status:	***	***	***	***	***
Employed	16.0	11.0	10.3	14.1	13.8
Retired	11.8	5.0	6.2	11.1	9.3
Unemployed	7.4	5.4	3.9	5.0	5.8
Student	6.3	2.6	3.0	3.0	4.0
Labour Market Inactive	8.5	4.5	4.3	8.5	7.1
LSM status	***	***	***	***	***
Low	5.2	3.3	1.8	3.9	3.9
Lower Middle	6.2	5.0	3.8	5.0	5.4
Upper Middle	9.7	8.0	5.9	6.9	8.1
High	17.3	6.9	9.1	15.5	13.4

Source: South African Social Attitudes Survey (SASAS) 2015
Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

The findings presented in Table 38 indicate, perhaps not surprisingly, that younger South Africans are less likely, on average, to hold multiple financial products. Young South Africans lack the financial resources to purchase financial products and most (especially those in the 16-24 age cohort) tend to be outside formal employment. As was observed in section 9.2.1, older age cohorts had lower levels of product awareness than middling age cohorts. However, as can be seen in Table 38, older age cohorts had higher product holding scores on the combined score than did the youth. Interestingly, middling age cohorts had similar mean scores to those in the older age groups. On insurance product holding, there seems to be a linear relationship between age and product. However, a nonlinear relationship seems evident in the case of the other product types.

In keeping with what was observed in 9.2.1, the better educated and more affluent were much more likely to have many multiple financial products than other groups. In particular, the better educated are more likely, on average, to hold multiple types of financial banking and insurance products than the less educated.. The retired were more likely to have multiple banking and insurance financial products than the unemployed, students or others outside the labour market. Given the financial needs of the retired, this disparity seems rational and we could argue that product holding may reflect, to a large extent, the requirements of the individual. Marital status, for instance, was found to be a significantly associated with multiple product holding, with married South Africans far more likely to hold multiple product types (especially insurance) than the non-married. Further testing is required to substantiate this hypothesis.

The data presented in **Table 38** suggests that economic factors (such as educational attainment, employment status and economic position) are the main determinants of financial product holding amongst adult South Africans. In order to confirm this hypothesis, we need to turn to multivariate analysis to discern the influence of these economic factors. As outlined in section 9.1, the financial products under investigation include formal and informal products. We need to know if the determinants of formal product holding are distinct and informal product holding. To test for this distinctness, we need to distinguish between formal and informal products in our multivariate

analysis. To accomplish this, two scales were created: (i) Formal Product Holding; and (ii) Informal Product Holding. The former measures public holding of formal financial products and the latter measures holding of informal products. Like the domains constructed for **Table 38**, these scales range from 0 to 100, with '0' representing holding none of the financial product types in question and '100' all of the financial product types in questions.

Table 39: Linear Regression on Formal and Informal Product Holding

	Formal Products			Informal Products		
	Coef.	Beta	Sig.	Coef.	Beta	Sig.
Female (ref. male)	1.04	0.05	**	0.89	0.04	*
Age	0.11	0.18	***	0.05	0.07	*
Marital Status (ref. Married)						
Married Before	-1.00	-0.03		1.45	0.04	
Never Married	-1.61	-0.08	***	-1.02	-0.05	**
Population group (ref. Indian)						
White	4.24	0.12	***	0.06	0.00	
Coloured	2.14	0.06		1.46	0.04	
Zulu	3.29	0.14	**	7.70	0.28	***
Xhosa	4.37	0.17	***	9.67	0.33	***
Sesotho	2.55	0.10	*	8.66	0.30	***
Batswana	2.86	0.09	*	5.47	0.15	***
Other	2.39	0.07	*	7.72	0.20	***
Geographic Type (ref. Urban formal)						
Urban informal	-0.43	-0.01		0.90	0.02	
Trad. Auth. Area	0.76	0.03		0.36	0.01	
Rural formal	-0.07	0.00		-1.30	-0.02	
Living Standard Measurement	1.22	0.23	***	-0.22	-0.04	
Educational Attainment	0.69	0.25	***	-0.04	-0.01	
Employment (ref. employed)						
Retired	-6.18	-0.18	***	-2.53	-0.07	**
Unemployed	-6.58	-0.32	***	-4.38	-0.19	***
Student	-6.73	-0.22	***	-4.87	-0.14	***
Labour Inactive	-5.78	-0.17	***	-2.03	-0.05	*
Number of obs.	2600			2600		
Adj R-squared	0.40			0.13		
Root MSE	7.68			10.52		

Source: South African Social Attitudes Survey (SASAS) 2015

Note: Data is weighted to be nationally representative of the adult South Africans. The model controls for the provincial residence of respondents. *, **, *** 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.

As the dependent variables that we are endeavouring to model are a continuous 0-100 index, we have chosen to make of standard linear regression techniques in our multivariate analysis. **Table 39** shows the coefficients and standard errors from our linear model estimating the correlations between the two dependents and independent variables. Model I looks at the relationship between socio-demographic independent variables and the Formal Product Holding scale and Model II looks at the relationship of the same independent variables with the Informal Product Holding scale. Model I explains 40% of variance on the Formal Product scale, suggesting the strength of the model in accurately predicting the dependent. Model II, however, only explains 13% of variance on the Informal Product Holding scale indicating the weakness of the model. This finding mirrors what was shown in **Table 37** (section 9.2.1), suggesting that holding formal financial products is better explained by variations in socio-economic characteristics.

Much like what was found when examining product awareness in section 9.2.1, socio-economic indicators such as education, population group and economic status were found to have salient (and positive) associations with formal financial product holding. It is evident from **Table 39** that the LSM (0.23) indicator had a weaker beta coefficient than the educational attainment (0.25) indicator. In other words, even controlling for a range of socio-economic variables, educational attainment was a more powerful predictor of formal financial product holding than most other independent variables in Model I. 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 unemployed (beta = -0.32) are the least likely to own formal financial products followed by students (-0.22). This seems to suggest that the unemployed are constrained in their ability and desire to purchase banking products even when socio-demographic status was taken into account. Geographic status was not a significant predictor in **Table 39** suggesting that any differences in terms of formal product holding by rural and urban dwellers can be explained by socio-economic differences.

Household resources and educational attainment did not play a significant role in predicting responses on the Informal Product Holding scale in Model II. Ethnic background, on the other hand, was shown to correlate with the dependent in both Models I and II. All the Black African ethnic groups differed significantly from the reference group (i.e. the Indian group) even when controlling for socio-demographic status. The most different were the Xhosa (beta =0.33) and Sesotho (beta =0.30), suggesting that cultural background may explain the widespread use of informal financial products amongst these groups. However, more research is necessary to validate that hypothesis. In both Models I and II, we observe a statistically significant correlation between age and financial product holding and beta coefficient between age and the dependent was 0.18 in Model I and 0.07 in Model II. This shows that age played a larger role in predicting variance on the Formal Product scale than it did on the Informal Product Holding scale.

9.3 Financial Decision-Making

The ability to choose appropriate products is an important issue to address in any study of financial literacy. A number of studies focus on consumers' product choices and how they make decisions about financial products[13]. These studies all show that an examination of financial decision-making is a vital component of any measure of financial literacy especially in the context of increasingly complex financial markets. Subsection 9.3.1 examines the share of South Africans who suffered financial grief and distress over a recent financial decision. The focus of this subsection is on subgroup differences in the incidence of this type of financial regret. Subsection 9.3.2 examines whether sociodemographic characteristics can predict incidences of financial regret, in the 12 months preceding the survey period and in the preceding five years. The emphasis of the subsection is on whether economic inequalities can explain observed population group differences relating to this type of financial regret.

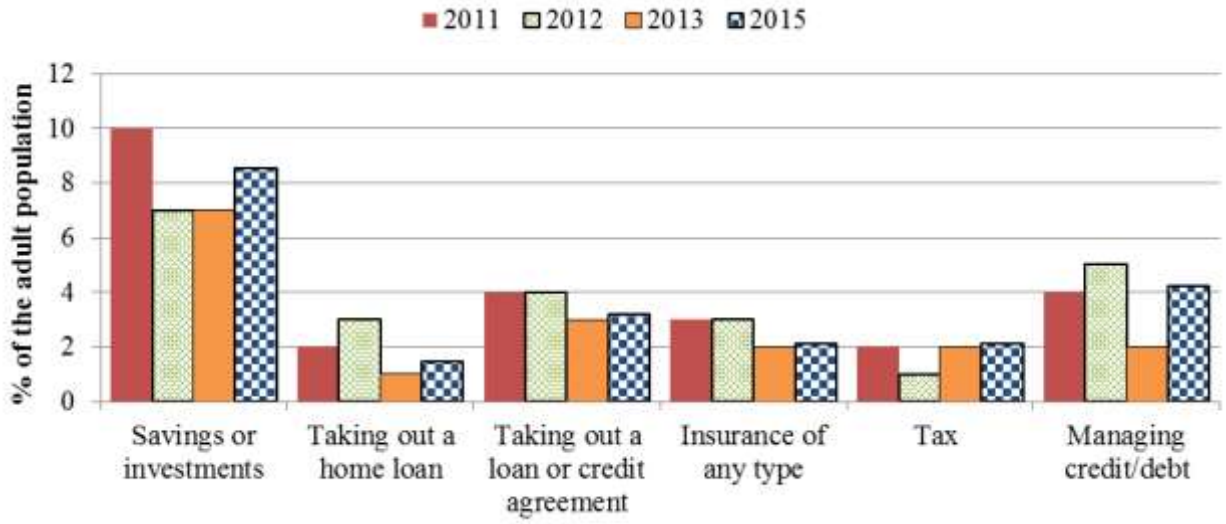
9.3.1 Bivariate Analysis of Financial Grief and Distress

The popularity of different financial products was discussed in the previous section, which presented findings on product type awareness and ownership. However, familiarity with and possession of different types of financial products is only one part of a larger endeavour undertaken by the SASAS research team to better understand financial decision-making in South Africa. After reviewing the international literature on financial decision-making, the research team believes that it is important to analyse whether individuals regret their financial decisions, focusing on seeking financial advice and

[13] Some researchers are interested in stock market participation and investigate the propensity to hold investment products (van Rooij, Lusardi, and Alessie 2011) while others are more concerned with holding retirement products (see, for example, Lusardi 1999; Banks and Oldfield 2007; Lusardi and Mitchell 2007; van Rooij, Lusardi, and Alessie 2011). How financial decisions are made is also an important aspect of the financial literacy scholarship and questions about choosing financial products are included in a number of financial literacy surveys (also see Donkers and van Soest 1999; Parker and Fischhoff 2005; Smith, McArdle, and Willis 2010). A survey for the British Financial Services Authority in 2000, for example, captured information on consumer behaviour and information needs when they had purchased financial products (Atkinson et al. 2007).

market research. Financial decision-making was closely examined during the 2011 Financial Literacy Baseline study and, to a lesser extent, the 2010 Financial Literacy Pilot study. The research team subsequently constructed a series of questions on financial decision-making. The following section shows the results obtained by asking these questions and gives insight into whether South Africans regret their financial decisions.

Figure 32: Share who regretted a financial decision in the last 12 months by decision type (percentages multiple responses)



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

Making decisions about finances can be challenging and demanding, and people do not always make the correct decisions. A mechanism to measure the perceived correctness of a financial decision is through an examination of financial decision regret. Since the 2011 Financial Literacy Baseline study, the SASAS research team has evaluated respondents' retrospective financial decision regret. They were asked if they had made any financial decision in the last 12 months that they had regretted (see **Figure 32**). For the period 2011-2015, the vast majority of South Africans reported that they had not regretted a financial decision[14]. Very little variation can be noted over the period. The decision(s) most widely regretted related to savings or investment decision(s). The share of people who regretted a savings or investment decision was 10% in 2011 and 9% in 2015, a notable level of consistency over the period.

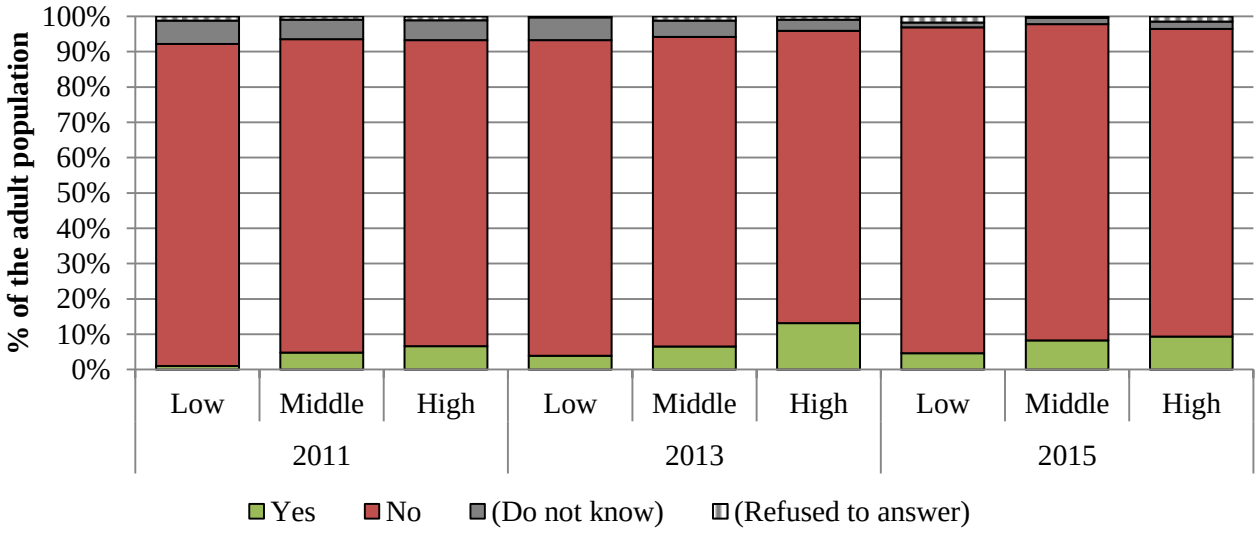
Table 40: Share who regretted a financial decision in the last 12 months by decision type between Economic Groups (percentages multiple response)

	Low	Lower Middle	Upper Middle	High
Savings or investments	5	6	8	12
Taking out a home loan	0	1	2	2
Taking out a loan or credit agreement	1	3	4	2
Insurance of any type	4	2	2	2
Tax	2	1	2	3
Managing credit/debt	2	4	4	6
(None of the above)	89	84	80	73
(Don't know/Refused)	0	2	3	8

Source: South African Social Attitudes Survey (SASAS) 2015

[14] When interpreting this result, we must be cognisant of two factors: (i) social desirability bias and (ii) applicability. In order to maintain a positive self-image, an individual may be unwilling to report a decision they regretted to the interviewer. On the other hand, if an individual may not have made any financial decision in the last 12 months so they may be unable to report regret.

Figure 33: Share who detected an unsuitable a financial product in their portfolio in the last five years, 2011; 2013; 2015



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

Those with the financial resources to make multiple financial decisions are likely to be those with the most opportunities to make decisions they regret. **Table 40** shows the share of those who regretted a financial decision in the last 12 months by LSM group. The High LSM group was much more likely to regret savings or investment choices and credit/debit management decisions than other LSM groups. On other types of financial decisions, there was not much variance in levels of regret. However, it may take time to realise the implications of a financial decision and thus to regret it. To control for this time delay, since the 2011 Financial Literacy Baseline study the SASAS research team has been asking respondents whether they had in the last five years had a financial product that they had been paying for but was unsuitable for their needs.

The results from the 2011, 2013 and 2015 are shown in **Figure 33** and show that in 2015 only a minority of respondents stated that they had had, over the previous five years, an unsuitable financial product. Given the results in **Figure 32**, this is not unexpected. **Figure 33** also shows the share of those who reported having an unsuitable a financial product in their portfolio in the last previous years by LSM group. Those in the High LSM group were moderately more likely to report this than in the Middle and Low groups. Relating this to **Table 40**, it may reflect the fact that those with the resources to make multiple financial decisions are the most likely to have a financial portfolio and therefore to have some unsuitable financial products.

9.3.2 A Multivariate Analysis of Remorse and Disappointment

Figure 33 seems to suggest that access to economic assets can predict whether an individual will: (i) regret a financial decision; and (ii) have an unsuitable financial product in her or his portfolio. To substantiate this hypothesis, we used multivariate analysis. Two binary variables were created: (i) a variable measuring whether an individual regretted, at least, one financial decision in the last twelve months; and (ii) a variable gauging whether an individual had detected an unsuitable financial product in their portfolio in the last five years. To estimate the probability of choosing one outcome category over the probability of choosing another, we could use a linear probability model as a way to describe conditional probabilities. However, the errors (i.e., residuals) from a linear probability model would infringe the homoscedasticity and normality of errors assumptions of a standard linear regression method, resulting in invalid standard errors. Given this limitation, we decided to use a logistic regression model instead: a multivariate method specifically designed for dichotomous outcome variables.

Table 41 shows the coefficients and standard errors from the linear model estimating the correlations between the two dependents and independent variables. Model I looks at the relationship between socio-demographic independent variables and the propensity to regret a recent financial decision and Model II looks at the relationship of the same independent variables with the propensity to detect an unsuitable product. Model I explains 8% of variance and Model II explains 13% of variance, suggesting that both models offer weak explanatory power. It was apparent to the SASAS research team that financial decision regret was not influenced by LSM indicator or educational attainment. Ethnic background played a statistically significant role in understanding financial regret. The following groups were significantly more likely to experience financial regret than the reference group (i.e. the Indian group): the Sesotho (r = 1.31) the Zulu (r= 1.65), the Xhosa (r =1/75). Being retired (r= -1.11) and unemployed (r= -0.72) makes an individual less likely to regret a financial decision.

Table 41: Logistic Regression on Regretting a Decision

	Regret a Decision			Find a Unsuitable Product		
	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Female (ref. male)	-0.12	0.17		-0.02	0.24	
Age	0.01	0.01		0.00	0.01	
Marital Status (ref. Married)						
Married Before	-0.36	0.27		0.08	0.38	
Never Married	-0.27	0.22		0.15	0.28	
Population group (ref. Indian)						
White	0.33	0.52		0.64	0.84	
Coloured	0.39	0.49		0.53	0.57	
Zulu	1.65	0.43	***	2.26	0.48	***
Xhosa	1.75	0.50	**	1.63	0.61	**
Sesotho	1.31	0.50	**	1.10	0.57	
Batswana	1.04	0.53		0.74	0.60	
Other	1.61	0.50	**	2.16	0.59	***
Geographic Type (ref. Urban formal)						
Urban informal	-0.34	0.45		-0.67	0.56	
Trad. Auth. Area	0.00	0.24		-0.13	0.31	
Rural formal	0.06	0.40		-1.58	0.82	
Living Standard Measurement	0.09	0.07		0.22	0.09	*
Educational Attainment	0.01	0.03		0.04	0.05	
Employment (ref. employed)						
Retired	-1.11	0.36	**	-0.24	0.46	
Unemployed	-0.72	0.22	**	-0.11	0.29	
Student	-0.80	0.42		-1.36	0.64	*
Labour Inactive	0.28	0.32		0.53	0.39	
Number of obs.	2531			2600		
Pseudo R^2	0.08			0.13		

Source: South African Social Attitudes Survey (SASAS) 2015

Note: Data is weighted to be nationally representative of the adult South Africans. The model controls for the provincial residence of respondents. *, **, *** 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 and gender were not statistically significant correlate in both Model I and II in **Table 41**. Unlike what was observed in Model I, household resources (gauged through the LSM indicator) had a statistically significant influence (r= 0.09) on the propensity to have a product perceived to be unsuitable in previous five years. Some Black African linguistic groups (e.g. Zulu and Xhosa) were more likely to report having purchased an unsuitable product than the reference group. Students were significant less likely (r= -1.36) than the employed to have purchased an unsuitable product. Although educational attainment had a significant influence on formal financial product holding and

awareness (see section 9.2), it was not a statistically significant predictor in Model I or II. This is an interesting finding and deserves further investigation.

Geographic location was not a statistically significant predictor of regret about financial decision-making. This suggests that the observed differences in reported levels of financial product decision remorse can be explained by factors other than geographic location. Remorse over financial decisions was found to be higher in KwaZulu-Natal than in other provinces. Using the Western Cape as a reference group, the logistic regression model found that living in KwaZulu-Natal was statistically associated with experiencing remorse over a financial decision (not shown in **Table 41**). This finding holds even when controlling for a range of socio-demographic attributes and suggests that the cause may reside in the characteristics of financial markets in KwaZulu-Natal. Further research is required to better understand this finding.

10 The Financial Domains

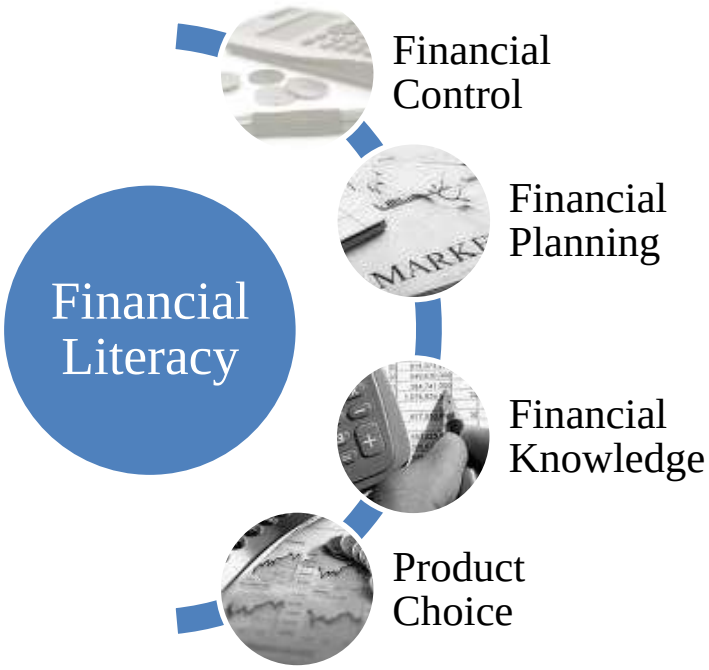
Following the 2010 Financial Pilot study conducted by the SASAS research team, there was growing concern about South Africans consumers' lack of financial understanding and knowledge. The 2010 study confirmed existing assumptions about low financial literacy among the public and provoked a call from the FSB for a single measure with which to measure public financial literacy. This single score could be used to measure progress resulting from consumer education 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 created from the four domains discussed in the opening chapter of this report.

Using the SASAS data available to us, we are able to construct domain scores for the period 2011-2015. The conceptualisation of these domains, and how the different domains were constructed, are described in subsection 10.1. A bivariate analysis of the different domains is provided in subsection 10.2. In this subsection, we overlay the domain scores with macro-economic indicators to contextualise the scores and give an idea of how they may have changed over the period 1996-2014. In subsection 10.3, we look at financial wellbeing and its relationship to an overall financial literacy score. Finally, the results of a multivariate analysis are presented in subsection 0.

10.1 Conceptualisation and Analytical Outline

In 2010, the research team developed a conceptual framework for measuring financial literacy. This was based on existing work conducted by the Organisation for Economic Co-operation and Development (OECD) through its International Network on Financial Education (INFE) Initiative. The OECD INFE definition of financial literacy states that financial literacy is made up of a combination of the awareness, knowledge, skills, attitude and behaviour needed to make sound financial decisions and achieve individual financial wellbeing (Lusardi and Mitchell 2011). Measuring financial literacy requires, therefore, a multi-dimensional score that incorporates 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: (a) financial control; (b) choosing and using appropriate financial products; (c) financial planning; and (d) knowledge and understanding.

Figure 34: Conceptual framework for measuring financial literacy



The financial literacy score created 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. By using the OECD INFE methodology –an internationally-recognised approach known for its well-researched criteria and thoroughly tested instruments (Atkinson and Messy 2011) –the results of our analysis would be comparable at cross-national level. By following this method, the SASAS research team was able to monitor financial literacy with a manageable and fairly low quotient of questions. This approach allowed us to provide cost-efficient high quality data to the FSB. The intention was to enable the FSB to monitor financial literacy annually (or at least periodically). Following the instructions of the FSB, the SASAS research team has produced financial literacy data using this methodology for the period 2011-2015.

The OECD INFE methodology adopted specifies certain questions to be used in order to be able to determine scores in the financial control, financial planning, product choice and knowledge domains. These questions have been successfully employed in a number of countries to discern financial literacy. In order to discern the data required to create the index under review, and following the theoretical framework outlined above, the SASAS research team made use of the questions that the OECD isolated as important for the four domains. These questions 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, a set of 22 core indicators spread across each of the aforementioned financial literacy domains was developed to accurately measure financial literacy in the country. The purpose of these indicators was to capture multiple forms of financial capability and knowledge. They have been piloted in 12 low, medium and high-income countries exhibiting diverse characteristics (Atkinson and Messy 2011). They have therefore already been tested for analytical soundness, measurability and relevance to the phenomena being measured, and their relationship to each other. These measures were accepted by the South African FSB and used in their baseline study on South Africans' financial literacy. The construction of the four domains is now discussed.

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. To measure financial control, six indicators were used. These, and the exact questions used, are shown in Box 1. For the exact wording of these questions, please refer to Appendix A.

Box 1: Questions used to create the Financial Control Domain

Financial Control Domain		
1	Personal Involvement in Daily Household Money Management	Q163
2	Presence of a Household Budget	Q164
3	Considered Approach to Personal Finances * Careful Spending * Paying Bills Timeously * Monitoring Financial Matters	 Q165 Q166 Q167
4	Making Ends Meet * Making Ends Meet * Main Coping Response	 Q169 Q171
5	Preference for Spending or Saving	Q176

Information for indicators 1 and 2 were captured as dichotomous variables (i.e. 1= personal involvement 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 that ranged from 1 "Always" and 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.

10.1.2 The Financial Planning Domain

Good financial planning involves setting financial goals and working 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 by informal means). Financial planning was measured using the five indicators shown 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	Q168
7	Has emergency funds or rainy day funds	Q172
8	Preference for spending money vs long-term saving	Q174
9	Living for today vs long term provisioning	Q175
10	Saved money in last 12 months	Q182

Responses to indicator 6 are measured using a five-point scale with 1 representing "Always" and 5 "Never". Indicator 6 was recoded 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 to reverse this scale. Finally, responses to indicator 10 were coded to be dichotomous and represent “had saved through a saving product in the last 12 months” (1=had saved 0=otherwise).

10.1.3 The Product Choice Domain

To provide an understanding of 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 informal and formal products of these types. Subsequent questions on decision-making behaviour and experience were also included in this domain. In summation, 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; and (D) experiences of regret about recent financial product decisions. The indicators used to measure the product choice domain are shown in Box 3.

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	 Q186 Q189 Q192 Q195
12	Product holding * Banking Products * Credit and loan Products * Investment and Savings Products * Insurance Products	 Q187 Q190 Q193 Q196
13	Financial product decision-making * Have Clear Idea of Product Need * Informed Product Choice	 Q198 Q199
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	 Q200 Q201

Responses to the questions on 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 relating to the questions on indicator 14 was recoded into a 0-1 variable where 1 represented not having regretted a financial decision type[15] in a recent period.

10.1.4 The Financial Knowledge Domain

Financial knowledge was defined as an individual's knowledge of basic numeracy and the following financial concepts: effects of inflation, interest paid on loans, interest on deposits, compound interest, risk of high return investments, effects of inflation on the cost of living and risk diversification. Respondents were asked questions on each of these financial concepts as well as basic mathematical division in order to determine their financial knowledge. Each question was converted into a dichotomous variable with 1 representing a correct answer and 0 otherwise. The exact questions used as displayed in Box 4.

Box 4: Questions used to construct the Financial Knowledge Domain

Financial Knowledge Domain		
15	Basic mathematical division	Q203

[15] 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.

16	Effects of inflation	Q204
17	Interest paid on loans	Q205
18	Interest on deposits	Q206
19	Compound interest	Q207
20	Risk of high return investments	Q208
21	Effects of inflation on cost of living	Q209
22	Risk diversification	Q210

To discern the data required for the creation of the domains, all of 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. The relevant indicator on each domain was then converted into a 0-100 score. On this score, the higher the score, the higher the financial literacy.

10.2 Bivariate Analysis on All Financial Scores

The theory of consumer socialisation proposes that individuals, particularly children and adolescents, develop consumer skills, knowledge and attitudes by interacting with various socialisation agents such as parents, peers, and school (Moschis and Churchill 1978; Moschis 1987). 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, skills and attitudes (Lyons, Rachlis, and Scherpf 2007; Shim et al. 2009; Jorgensen and Savla 2010). Previous studies have shown that characteristics such as gender, class standing, income and ethnicity influence an individual's levels of financial knowledge and behaviour (see, for example, Lusardi and Mitchell 2008; Lusardi, Mitchell, and Curto 2010). Given these research findings, we expect there to be considerable differences in financial domain scores across major socioeconomic fault lines in South Africa. To verify this thesis, a bivariate analysis was conducted. The SASAS research team investigated subgroup differences on each of the domains discussed above using Analysis of Variance (ANOVA) testing. Such examination allows identification of common trends and themes and can be used to identify financially vulnerable groups.

10.2.1 Financial Control

The financial control score constructed for this study measures whether an individual score 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. The average South African currently scored 63 on this domain in 2015, a 9% change from what was observed in 2011. The 2015 score is higher than what was found in 2013 (M=61) but is consistent with the findings of previous work conducted for the FSB by the SASAS research team. **Table 42** shows the mean scores for financial control for selected subgroups in South Africa. As would be expected given what has been observed in previous chapters, the financial control score is not distributed evenly across all subgroups.

Table 42: Financial control by selected attributes (mean scores, 0-100 scale)

	Financial Control				
	2011	2012	2013	2015	(% change 2011-2015)
Total	58	61	61	63	9%
Age group	***	***	***	***	
16-24 years	47	49	53	53	12%
25-34 years	57	60	61	62	7%
35-49 years	63	68	66	68	8%
50-64 years	65	67	65	71	9%
65+ years	65	70	67	67	4%
Employment Status	***	***	***	***	
Employed	67	71	69	71	6%
Retired	64	68	68	69	7%

Unemployed	48	55	56	57	16%
Student	44	49	52	51	13%
Labour Market Inactive	57	65	64	68	16%
Educational Status	***	***	***	***	
Tertiary	73	73	73	76	4%
Completed Secondary	59	62	62	63	7%
Incomplete Secondary	53	58	59	61	13%
Senior Primary	56	58	58	61	8%
Junior Primary and Below	50	59	60	61	18%
LSM status	***	***	***	***	
Low	50	55	57	56	10%
Lower Middle	49	56	56	57	15%
Upper Middle	57	60	62	61	7%
High	70	69	69	74	6%

Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015
Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

The results given in Table 42 show that the poor, the less educated and those outside the labour market scored lower on the financial control domain than their wealthier, better educated and employed counterparts. Compared to others, these groups are less likely to have access to a steady source of economic capital. Access to economic capital should have an effect on financial attitudes and behaviours according to the academic literature (Furnham & Argyle 1998; Lusardi & Mitchell 2007; Monticone 2010). Given this, the subgroup differences observed in the table are not surprising. The low financial control domain scores given here imply not so much 'irresponsible behaviour' but rather an inability to engage in financial behaviours like savings. The low scores demonstrated by these groups also indicate their vulnerability to economic shocks, such as illness or other unforeseen expenses, and the distinct financial inequalities that continue to characterise South African society.

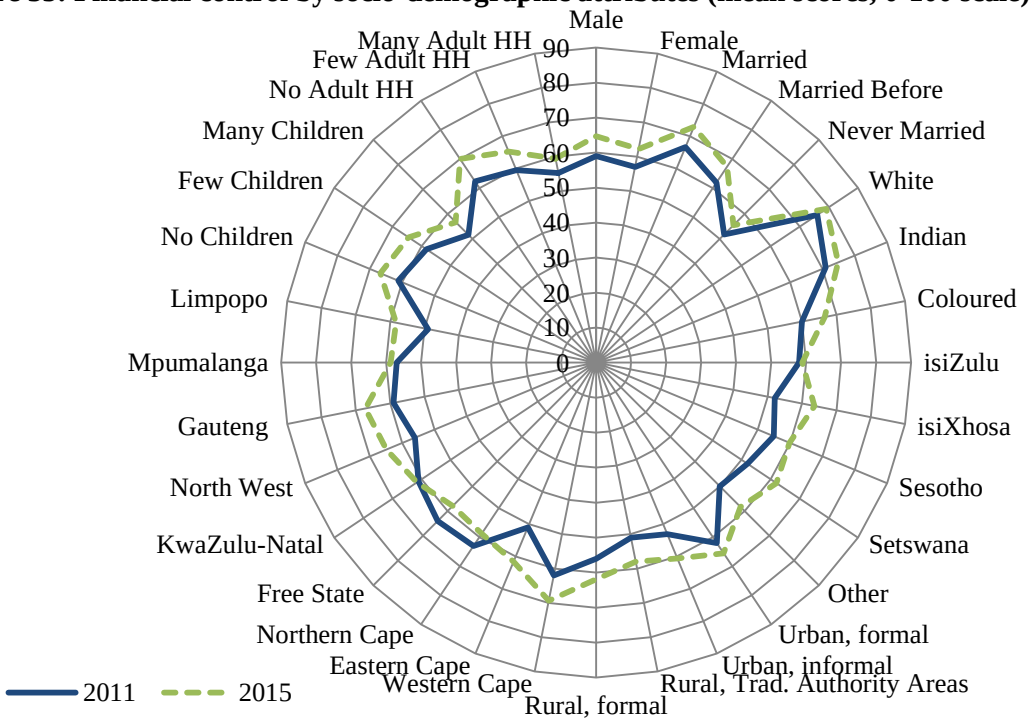
According to several studies on finacial literacy, life cycle may have a significant impact on the level of financial control (Moschis 1987; Shim et al. 2009; Lamdin 2011). As can been in Table 42, there is a strong linear relationship between age and financial control, with older individuals more likely to score high on this domain. This seems to indicate that financial experience is strongly associated with the financial control domain. Young people, lacking financial experience, score poorly on this domain. This may be a result of their lack of financial independence and may not reflect this age cohort's attitudes to spending[16]. Financial self-control amongst the poor has improved over the period. As Table 42 shows, between 2011 and 2015 there was a 10% increase in financial capacity in the Low LSM status group and a 15% increase amongst the Lower Middle LSM group. In terms of the Financial Control domain score, the gap between the Low and High LSM status group also decreased between 2011 and 2015.

Table 42 also shows that there seems to be a strong relationship between LSM and the financial control domain score. This suggests that changes in household income will have an impact on individual financial control. Subgroup socio-demographic differences on financial control are presented in Figure 35. As can be seen, some socio-demographic groups scored higher than other groups. Black African respondents had, on average, lower financial domain scores than those of racial minorities. The figure also shows that Black African linguistic group respondents had differing domain scores. However, the average financial control scores of certain Black African linguistic

[16] However, even if the financial control domain is adjusted to accommodate this concern, the youth are found to score lower than older age cohorts. This suggests that youth exhibit a less than careful approach to personal finances and tend to prefer spending over saving.

subgroup respondents increased substantially between 2011 and 2015, with the domain scores of isiXhosa- and Setswana-speaking adults increasing by 18% and 15% respectively over the period.

Figure 35: Financial control by socio-demographic attributes (mean scores, 0-100 scale)



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

Figure 35 shows that those living in formal urban areas had a mean Financial Control domain score (M=65) significantly higher than those living in traditional authority areas (M=58), and that the mean score on the financial control domain amongst those residing in informal settlements increased significantly from 53 in 2011 to 61 in 2015, a 12% increase over five years. The figure also shows the financial control domain scores of different types of household compositions. People who lived in households with many children had a lower average score (M=57) than those in households with no (M=67) or few (M=64) children. People residing in households with fewer adults had higher domain scores than those who lived in households with many adults.

10.2.2 Financial Planning

The financial planning score constructed for this study measures whether an individual tends to set financial goals and work hard to meet them, prefers to save for the long-term and worries about tomorrow, has emergency funds in place and has saved recently. Subgroup analysis for the financial planning domain is shown in Table 43. Much like financial control, scores for this domain were unevenly distributed across the South African adult population. The average score was 48 for this domain in 2015, below the 2011 score (M=53) and the 2012 score (M=50) but similar to that of 2013 (M=48). Over the five-year period, the mean financial planning score declined by 10%, suggesting that the propensity for financial planning amongst the public is declining. There have also been changes among groups by socio-demographic group. If financial planning domain scores among the South African public have been declining since 2011, amongst which groups has the decline been largest?

Table 43: Financial planning by socio-demographic attributes (mean scores, 0-100 scale)

	Financial Planning				
	2011	2012	2013	2015	(% change 2011-2015)
Total	53	50	48	48	-10%
Age Group	***	***	***	***	

16-24 years	46	46	46	42	-9%
25-34 years	54	50	47	50	-9%
35-49 years	57	53	50	52	-10%
50-64 years	58	54	47	51	-14%
65+ years	55	51	51	45	-22%
Employment Status	***	***	***	***	
Employed	63	58	55	59	-7%
Retired	59	51	47	46	-28%
Unemployed	47	45	43	43	-9%
Student	42	47	47	38	-10%
Labour Market Inactive	47	52	46	46	-2%
Educational Status	***	***	***	***	
Tertiary	72	63	62	64	-13%
Completed Secondary	57	54	51	51	-11%
Incomplete Secondary	48	45	45	44	-10%
Senior Primary	47	46	40	42	-12%
Junior Primary and Below	43	44	41	44	3%
LSM status	***	***	***	***	
Low	45	44	39	40	-12%
Lower Middle	47	44	44	44	-6%
Upper Middle	51	50	47	44	-15%
High	66	61	59	60	-11%

Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015
Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

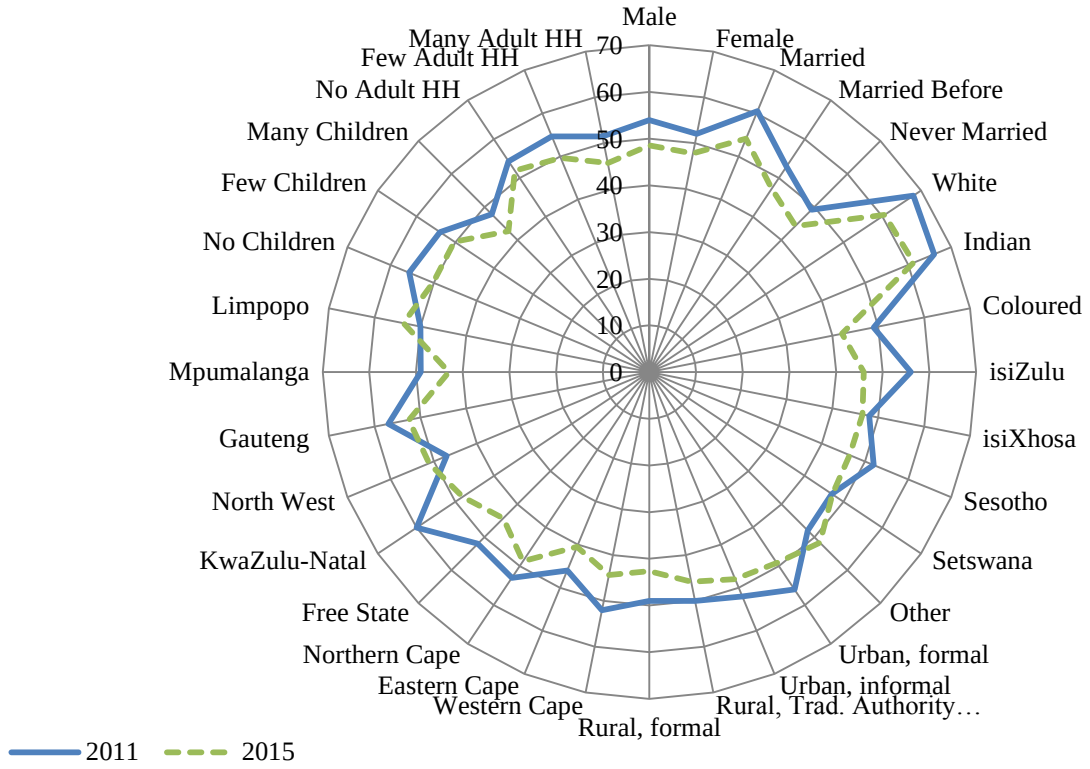
The third column of Table 43 gives changes in financial planning scores between 2011 and 2015 as percentages and shows the groups for which the decline has been greatest. The group with the largest decline is older South Africans and the retired. The financial planning scores for these groups were significantly different in 2015 and in 2011. This is part of a general decline over the five-year period and may be a reaction to the prolonged financial difficulties that the country has suffered since the financial recession of 2009 as well as the rising cost of healthcare[17] and retirement insurance. Given that many elderly people are often vulnerable in South Africa (as the academic literature has shown, see Makiwane, Ndinda, and Botsis 2012; Makiwane and Reddy 2013), this finding is of particular concern. If the old do not adequately prepare for their retirement, this places a social burden on the state. Interventions are, therefore, required to encourage planning for retirement and also financial planning amongst the old.

The SASAS research team predicted, based on the findings given in the chapter on financial planning, that the poor and uneducated would score poorly on the overall financial planning score. This expectation was proved correct and the groups at the bottom of the country's socio-economic ladder tended to exhibit the lowest financial planning domain scores. Financial planning behaviour seems to have declined amongst the better-educated, especially tertiary-educated South Africans as can be seen in the table. It may be that the economically advantaged's financial planning score has decreased in reaction to a prolonged period of economic difficulty that reduced this group's ability to engage in financial behaviours (like saving). Perhaps surprising is the fact that the decline in the financial planning domain is similar among the poor and the wealthy. The largest noted financial planning

[17] The South African Health Minister Aaron Motsoaledi has been very critical of the escalating healthcare costs in the country. Speaking to reporters during the Health Market Inquiry under way in Pretoria, he said that in 2002, the total expenditure of private health care was R42bn. In 2014, it was R142bn. It increased by 300% in a decade. If it continues like that, he warned, in another decade it will be half a trillion rand.

domain score decline amongst the different LSM group was among the Upper Middle LSM group, a decrease of 15% over the period 2011-2015.

Figure 36: Financial planning by socio-demographic attributes (mean scores, 0-100 scale)



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

Subgroup socio-demographic differences on financial planning are presented in **Figure 36**. As was evident in section 10.2.1, considerable population group differences in terms of financial capacity were evident in **Figure 36**. This is a common finding throughout this section. White and Indian respondents had much higher average mean scores (both M=61) on financial control than other population groups. Coloured South Africans had a score of M=49. In 2011, Zulu adults had a mean score of M=56, significantly higher than those of other Black African language groups. However, between 2011 and 2015, the score of Zulu adults decreased by 22%, the largest decrease among the Black African language groups. The may correlate with the decline in the financial planning score noted among residents of KwaZulu-Natal between 2015 (M= 48) and 2011 (M=60). More research is needed to investigate the causes behind this apparent deterioration of financial planning.

10.2.3 Product Choice

The product choice scores constructed for this study measure individuals' engagement with financial products. A high score is awarded to an individual (a) with a broad awareness of different types of banking, credit/loan, savings and investment, and insurance products; (b) holding at least one of each of the four product types mentioned; (c) who believes they have a clear understanding of their product needs and who undertakes detailed research before choosing a product; (d) who has no regrets about financial product decisions in the most recent year and who has not bought what s/he considers an unsuitable product in the most recent five 5 years. The product choice domain score was 45 in 2011, decreased by 1% between 2011 and 2013 and increased between 2013 (M=44) and 2015 (M=46).

Table 44 shows mean scores for financial control for selected subgroups. The table shows that those groups at the top of the socio-economic pyramid have the highest product domain scores. The tertiary-educated, those inside the labour market and formal urban dwellers all had comparatively high

domain scores. However, domain scores for the upper socio-economic groups decreased since 2011. The Product Choice score for the tertiary-educated decreased, on average, by 12% between 2011 and 2015. The Product Choice score for the employed decreased by 22% over the same period. The decline among the High LSM group was 14% between 2011 and 2015. This suggests that these groups have been adversely affected by the prolonged period of limited economic growth and have struggled to maintain their financial portfolios.

Table 44: Product choice by economic attributes (mean scores, 0-100 scale)

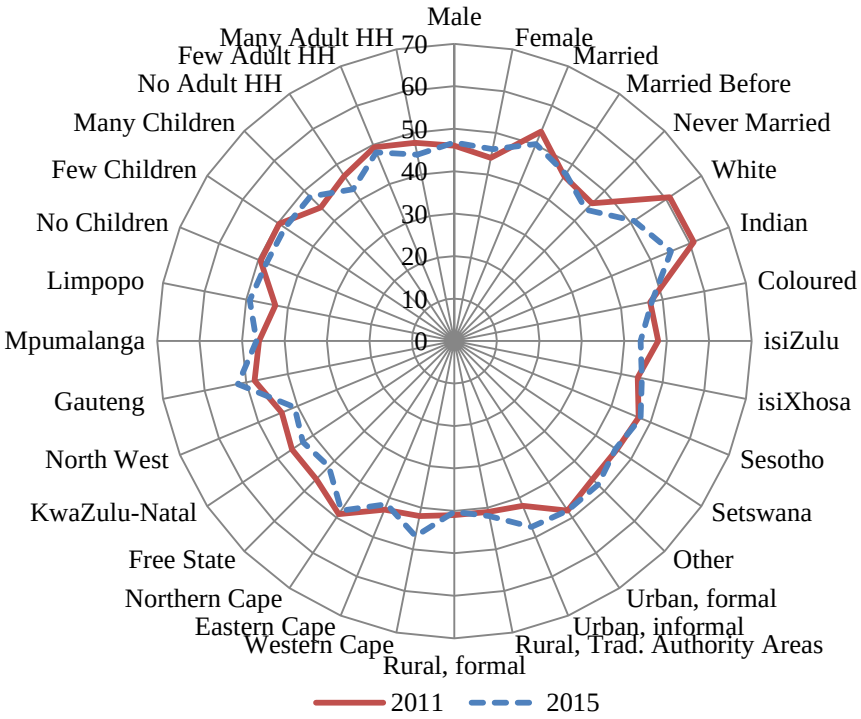
	Product Choice				
	2011	2012	2013	2015	(% change 2011-2015)
Total	45	46	44	46	3%
Age group	***	***	***	***	
16-24 years	43	40	41	43	0%
25-34 years	50	48	43	46	-9%
35-49 years	51	48	47	50	-3%
50-64 years	50	48	44	48	-4%
65+ years	43	44	46	45	5%
Employment Status	***	***	***	***	
Employed	66	53	50	54	-22%
Retired	52	45	43	46	-13%
Unemployed	44	42	41	43	-2%
Student	41	41	40	42	3%
Labour Market Inactive	36	46	41	40	10%
Educational Status	***	***	***	***	
Tertiary	66	58	56	59	-12%
Completed Secondary	52	49	46	49	-5%
Incomplete Secondary	44	43	42	44	-1%
Senior Primary	41	39	40	40	-3%
Junior Primary and Below	36	39	37	41	11%
LSM status	***	***	***	***	
Low	38	35	38	37	-3%
Lower Middle	41	41	43	41	1%
Upper Middle	48	45	45	47	-1%
High	60	55	55	52	-14%

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

Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

Subgroup socio-demographic differences on the product choice domain scores are shown in **Figure 37**. The population groups scoring the lowest on the product choice domain were isiZulu-speakers (M=44), isiXhosa-speakers (M=45) and Setswana-speakers (M=46). The average product choice score for isiZulu-speakers fell by 10% over the period 2011-2015. Given their decreased scores shown in Figure 36 (in section 10.2.2), it can be strongly recommended that the reasons for the decrease in financial literacy amongst this group should be investigated. Members of the White minority also experienced a weakening of their score, White South African's mean product choice score decreased from 61 in 2011 to 51 in 2015. Figure 37 also shows product choice score differences between different types of household composition. However, no significant differences among household composition types were noted in 2015. This is in contrast to what was observed in 2011 when people living in households with many children scored somewhat lower (M=44) on this domain than those living with few (M=50) or no (M=49) children.

Figure 37: Product Choice by socio-demographic attributes (mean scores, 0-100 scale)



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

10.2.4 Financial Knowledge

The financial knowledge and understanding score constructed for this study measures an individual's financial knowledge. This involves testing the individual on their knowledge of basic concepts such as basic mathematical division, effects of inflation and interest paid on loans as well as more advanced concepts such as interest on deposits, compound interest, risk of high return investments, effects of inflation on the cost of living and risk diversification. The average financial knowledge domain score was 56 in 2011 and 58 in 2015. Although not low, this average needs to improve and this domain score shows the need for more and successful financial education programmes. **Table 45** shows the mean scores for financial knowledge among the subgroups in the table.

Table 45: Financial knowledge score by economic attributes (mean scores, 0-100 scale)

	Financial Knowledge				
	2011	2012	2013	2015	(% change 2011-2012)
Total	56	55	52	58	3%
Age group	*	**	***	n.s.	
16-24 years	56	55	53	58	4%
25-34 years	57	55	53	58	2%
35-49 years	56	57	52	59	4%
50-64 years	57	56	48	57	0%
65+ years	51	49	51	55	7%
Employment Status	***	***	***	***	
Employed	62	63	56	61	-2%
Retired	58	51	52	56	-3%
Unemployed	54	53	48	58	6%
Student	58	54	57	58	-1%
Labour Market Inactive	45	50	48	52	13%
Educational Status	***	***	***	***	
Tertiary	69	71	64	69	0%

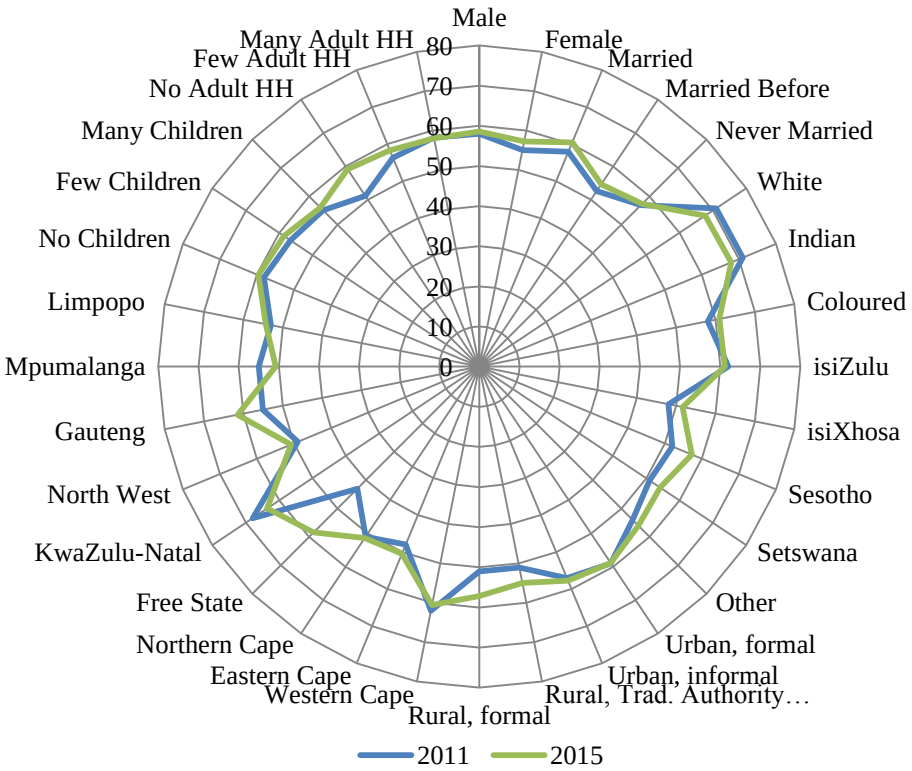
Completed Secondary	63	59	55	62	-2%
Incomplete Secondary	54	54	52	56	3%
Senior Primary	48	48	45	52	7%
Junior Primary and Below	39	39	36	45	13%
LSM status	***	***	***	***	
Low	45	43	39	52	13%
Lower Middle	51	48	49	54	6%
Upper Middle	57	56	51	58	1%
High	67	69	64	65	-3%

Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015
Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

Younger and older individuals had lower financial literacy scores than those in the central age groups. This suggests a nonlinear relationship between financial knowledge and age. Encouragingly, members of the young age groups had financial knowledge scores similar to in middling year cohorts. The observed pattern seems to fit the international literature on the relationship between age and financial understanding (see, for example, Monticone 2010; Lamdin 2011; Lusardi and Mitchell 2011). There is a well-documented and negative correlation between old age and cognitive functioning (Han et al. 2014; Finke et al. 2016), and this relationship may explain the pattern of results observed here. As we observed in Table 45, as with the other domain scores already discussed, there is a considerable level of disparity between subgroups in the country. Much of this disparity matches the socio-economic disparities in South African society. The more affluent had significantly higher financial knowledge scores than those lower down on the socio-economic ladder.

The High LSM group had much higher mean financial knowledge domain scores than other LSM groups. However, levels of financial knowledge were found to have increased amongst those in the Low LSM group, from 45 in 2011 to 52 in 2015, a 13% increase over five years. As may be expected, financial knowledge was strongly associated with educational attainment. Those with tertiary education scored 24 points above those with only a junior primary (or below) education. Encouragingly, reported financial knowledge seems to be increasing amongst those with low levels of educational attainment. In 2011, those with junior primary education and below had a knowledge domain score of 39 compared with 45 in 2015, a 13% increase over five years. Differing levels of educational attainment amongst the country's economic subgroups may account for the noted domain disparities between different economic groups in **Table 45**.

Figure 38: Financial Knowledge by socio-demographic attributes (mean scores, 0-100 scale)



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

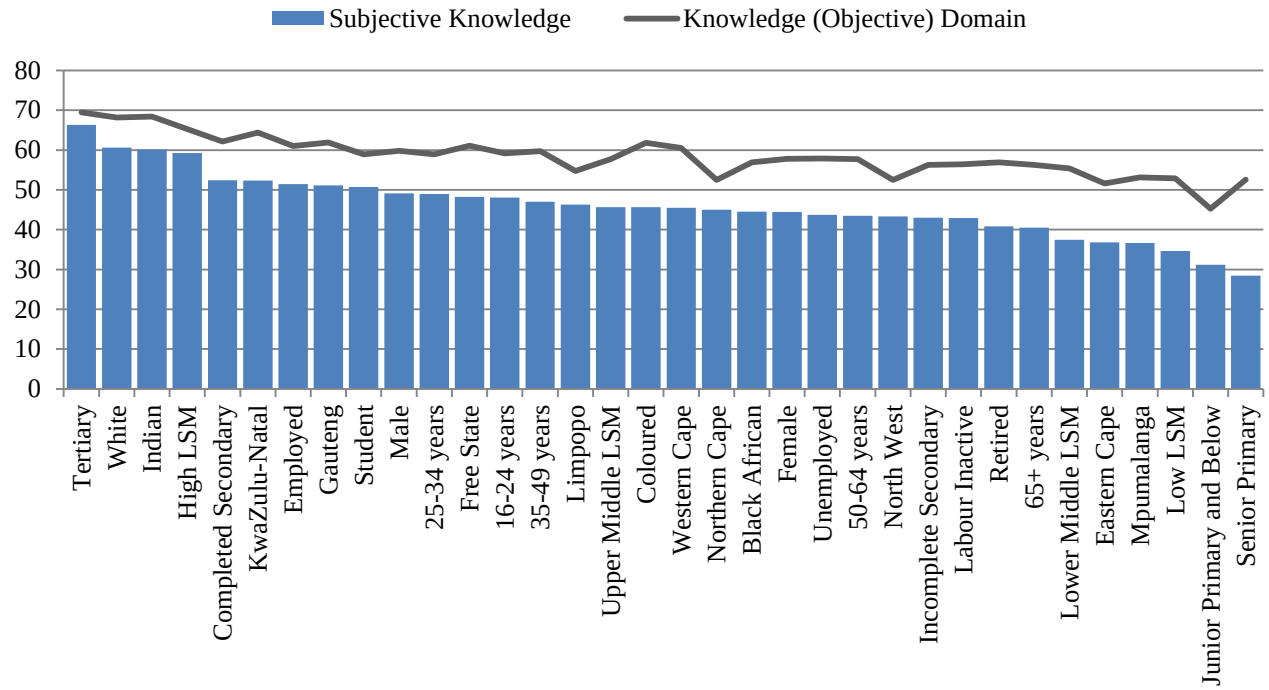
Subgroup socio-demographic differences on the product choice domain scores are shown in **Figure 38**. As could be predicted, given the results shown in the previous sections, Indian (M=68), White (M=68) and Coloured (M=61) South Africans –reported, on average, higher financial knowledge scores than the Black African majority. This may be because of the quality of the education that Black Africans have been exposed to, a disheartening finding given the efforts made to improve the quality of education in the country. Within the Black African majority, isiZulu-speakers (M=61) had comparatively high average knowledge domain scores. In addition, there was a strong divide between rural and urban (especially formal) dwellers. This may suggest that educational institutions in rural areas are less good than those in urban areas or that access to financial institutions (and therefore opportunities to gain financial experience) is greater in urban centres.

The data presented in Figure 38 give information about differences in financial knowledge domain scores by province. People living in KwaZulu-Natal had a higher financial knowledge domain score (M=64) than those in other provinces. Those living in the Eastern Cape had the lowest financial knowledge domain score (M=50), although this improved by 5% between 2011 and 2015. Amongst adult residents of the Free State, the financial knowledge domain score increased by 26% between 2011 (M=43) and 2015 (M=58). In terms of financial knowledge, people who resided in large households were not notably different from those who resided in small households. Bivariate testing did not reveal a robust statistically significant relationship between household size and financial knowledge.

Up to this point, subsection 10.2.4 has discussed objective financial knowledge. It is also important to address the possible influence of subjective financial knowledge (or self-assessed knowledge) on objective knowledge. Research amongst college students in North America by Lamdin (2011) indicated that self-assessed knowledge only had a moderate relationship with objective financial knowledge. This suggests that the students studied did not have a full understanding of their own level of financial knowledge. To find out if the same applies in South Africa, we used 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 low self-reported knowledge and 100 high. Mean scores on this scale are compared with mean the Financial Knowledge domain scores in **Figure 39**. As can be seen from the figure, South Africans tended to underestimate their levels of financial knowledge.

Figure 39: Subjective versus Objective Financial Knowledge (mean scores, 0-100 scale)



Source: South African Social Attitudes Survey (SASAS) 2015

Using pairwise correlation analysis, we can observe that there is a statistically significant relationship between the Financial Knowledge domain scores and the Subjective Knowledge Scale. However, the size of that correlation (0.27) is much smaller than might have been assumed. If we look at the difference between the mean scores in **Figure 39**, we can observe which subgroups are better at accurately judging their own financial knowledge. The better educated and the more affluent are the best judges of this, and students are also relatively good. The poor and those with low levels of formal educational attainment were bad judges of their own financial knowledge, tending to underestimate their own financial knowledge. Comparing the mean Financial Knowledge domain and Subjective Knowledge Scale scores for the Low and Lower Middle LSM group, we can observe an 18-point difference in mean scores. Older people also tended to underestimate their level of financial knowledge. Compared with other race groups, Coloured South Africans were far more apt to devalue their level of knowledge.

10.3 Financial Wellbeing and the Overall Financial Literacy Score

If the findings on all four sections are compared, it is possible to discern similarities between the different financial domain scores. Those who scored highly in one domain tended to score highly in others. Interestingly and perhaps unsurprisingly, the student and the young subgroups have relatively high levels of knowledge and understanding (see Table 45 in section 10.1.4) domain scores but generally scored low in all other domains (especially financial control, see **Table 42** in section 10.1.1). As a majority of students have limited income, this finding is perhaps not unexpected. The low scores evident within the youth cohort may be due to high rates of long-term unemployment among this group. As this report has already made clear, young people in South Africa are

inexperienced with financial products probably due to their limited access to financial resources and lack of a regular income. They would benefit from greater exposure to financial education and greater involvement in financial decision-making at the household level.

Clear patterns emerged in the preceding sections but in order to give an overall picture of the state of financial literacy in South Africa, the SASAS research team now presents data on the combined financial literacy score. The average South African scored 55 in 2015, which compares favourably to 52 in 2013. This level of consistency suggests the reliability of the measure indicating that the OECD INFE methodology used is working well. As was observed in previous sections, those groups on the higher rungs of the country's socio-economic ladder tended to have comparatively high scores across domains. The tertiary-educated, the affluent, formal urban dwellers and adult members of the White and Indian minorities reported the highest scores on each of the four domain scores.

The bivariate analysis (see **Table 46**) pointed to the existence of racial differences on the financial literacy domains. Young people had lower financial literacy scores on average than other age cohorts, although the findings presented in Table 46 may suggest (much like what was observed in section 10.2.4) a nonlinear relationship between age and financial literacy. Multivariate regression analysis will establish the validity of this hypothesis and allow the SASAS research team to accurately identify the relationship between the two variables. In sections 10.2.2 and 10.2.3, the reader will have observed significant decreases in domain scores for those on the upper layers of the nation's socio-economic pyramid. Given this finding, it is unsurprising to note that those groups had declines in overall financial literacy scores between 2011 and 2015.

Table 46: Overall financial literacy score by socio-demographic attributes (mean scores, 0-100 scale)

	Overall Financial Score				
	2011	2012	2013	2015	(% change 2011-2015)
Total	54	54	52	55	1%
Age group	***	***	***	***	
16-24 years	49	48	48	49	1%
25-34 years	55	54	52	54	-1%
35-49 years	57	57	54	58	2%
50-64 years	58	57	52	58	1%
65+ years	54	55	54	53	-1%
Employment Status	***	***	***	***	
Employed	70	62	58	62	-14%
Retired	58	54	53	55	-6%
Unemployed	50	49	48	51	1%
Student	48	48	49	49	2%
Labour Market Inactive	43	54	52	53	19%
Educational Status	***	***	***	***	
Tertiary	66	66	64	68	3%
Completed Secondary	52	57	54	57	9%
Incomplete Secondary	44	50	50	52	15%
Senior Primary	41	48	46	49	17%
Junior Primary and Below	36	45	44	47	24%
LSM status	***	***	***	***	
Low	45	44	45	46	2%
Lower Middle	47	47	48	50	6%
Upper Middle	54	53	52	53	-2%
High	66	64	62	64	-3%

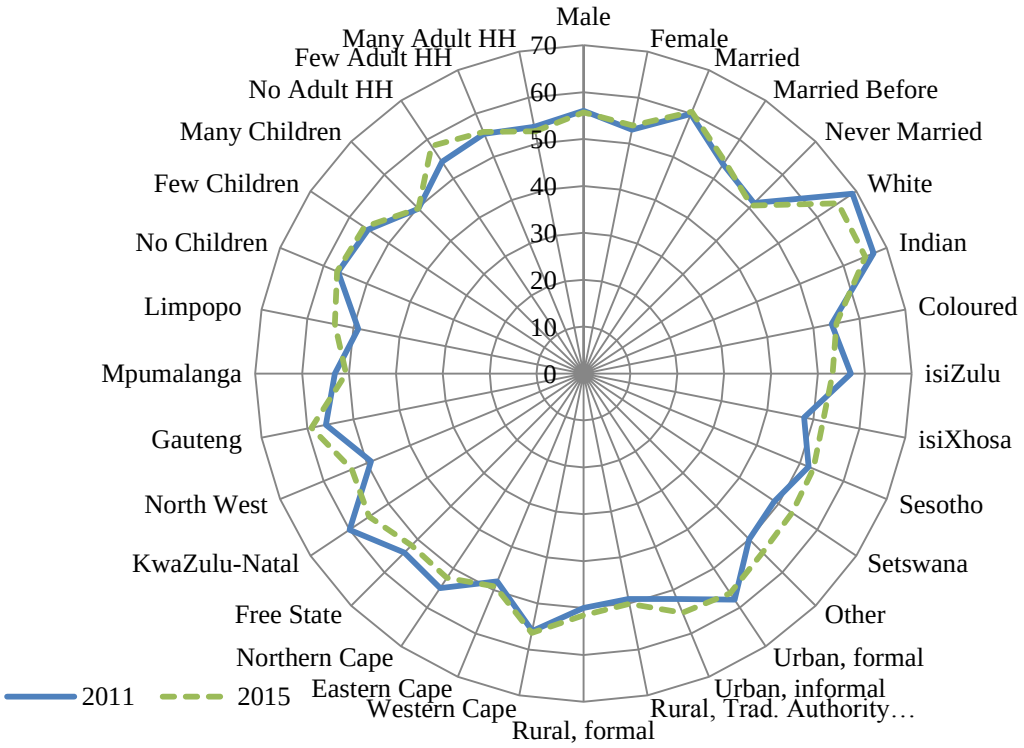
Source: South African Social Attitudes Survey (SASAS) 2011-2013; 2015

Note: Green shading represents values that are higher than the national average. n.s. means that the differences in mean scores are not statistically significant based on ANOVA testing, while *, **, *** 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.

The employed had a much higher overall score (M=62) than other labour market groups. However, their financial literacy score decreased 70 in 2011 to 62 in 2015. This suggests that the economic climate of the last five years has been hostile to the formation of greater financial literacy and capacity for this group. Those in retirement have also seen their financial literacy score diminish, falling over the period by 6%. A distinct gradient was noted amongst the different educational status groups, with higher educational attainment correlating with higher financial literacy scores. However, the financial literacy scores of those in the lower educational groups improved significantly over the period 2011-2015. Amongst those with junior primary education and below, for example, the average financial literacy score increased from 36 in 2011 to 47 in 2015, a 24% increase in five years.

Subgroup socio-demographic differences on the product choice domain scores are presented in **Figure 40**. Given the results presented in previous sections (especially sections 10.2.2 and 10.2.3), it is not surprising to note significant population group differences in average financial literacy scores. Such observed differences could be the result of the overlap between race and class that characterises South African society. White South Africans, in particular, had significantly different financial literacy scores to other race groups. This may suggest that race is acting as a proxy for culture or reflects existing socio-economic differences by race. In terms of financial literacy scores, there were relatively few differences observed between the different Black African linguistic subgroup respondents, with the average financial literacy scores of certain linguistic groups (i.e. the Batswana and Xhosa) increasing over the period 2011-2015. The financial literacy scores of other groups, especially isiZulu-speakers, declined over the period.

Figure 40: Overall financial literacy score by socio-demographic attributes (mean scores, 0-100 scale)



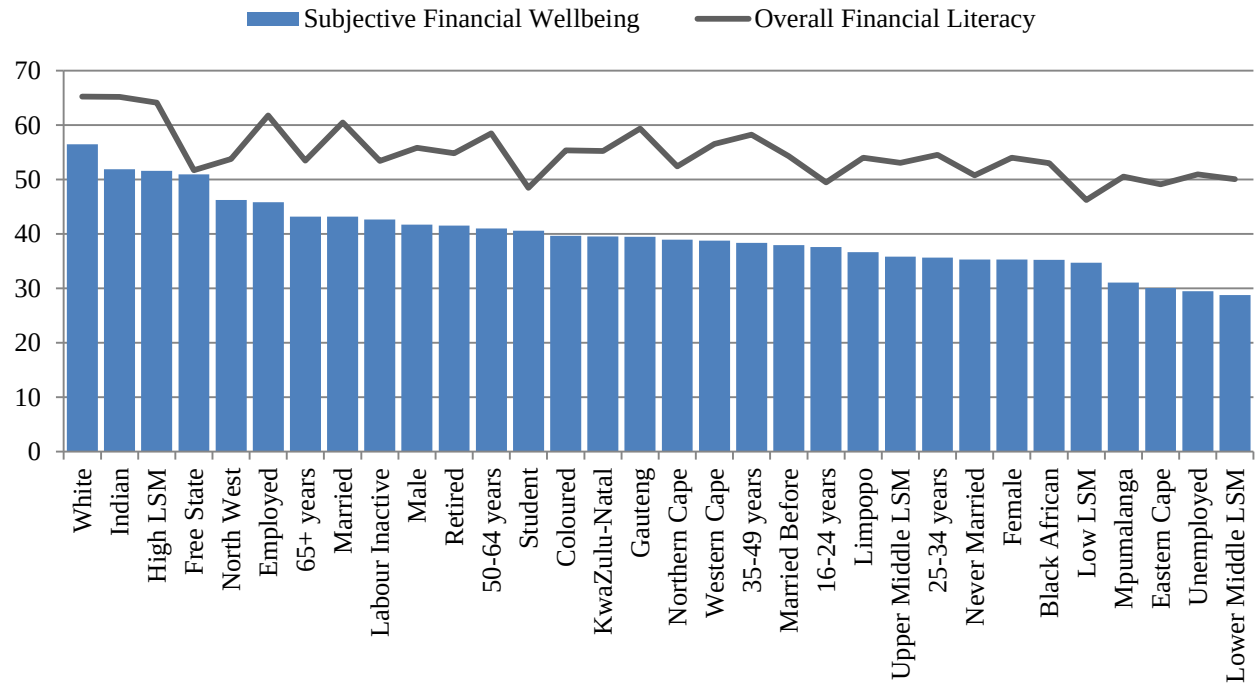
Source: South African Social Attitudes Survey (SASAS) 2011; 2015

Rural individuals, particularly those in traditional authority areas (M=50), had overall financial scores on average lower than those in urban areas. In a country where rural regions are often isolated from financial institutions and markets, this finding may not be surprising. **Figure 40** shows financial literacy scores by province of residence. Compared with other provinces' residents, those living in Gauteng had the highest average score (M=59) followed by those in the Western Cape (M=56) and

KwaZulu-Natal (M=55). Of all the provinces, residents of the Eastern Cape (M=49) had the lowest financial literacy score. The figure also shows how financial literacy scores differ according to the number of children and other adults living with the respondent. Those in households with many children had a moderately lower (M=50) overall score than those who lived with no (M=57) or few (M=56) children. Marital status seems to have a statistically significant impact on financial literacy – those individuals who are married reported higher (M=60) literacy scores than those who were previously married (M=54) and those who had never married (M=51).

To this point, subsection 10.3 has focused on a bivariate analysis of the overall financial score. However, it is important to address the possible relationship between overall score and subjective financial wellbeing. A number of scholars have been interested in the relationship between financial wellbeing and financial literacy (see, for example, Shim et al. 2009; Gutter and Copur 2011; Chaulagain 2015). To investigate the strength of the correlation between subjective financial wellbeing and financial literacy in South Africa, we used the following subjective financial wellbeing question: "How much you agree or disagree with each of the following statements: I am satisfied with my present financial situation?" Respondents could rate their knowledge on a 1-5 scale, with 1 representing 'strongly agree' and 5 'strongly disagree'. Responses to this question were converted into a 0-100 Subjective Financial Wellbeing Scale with 0 representing the lowest level of agreement and 100 the highest. Mean scores on this scale are compared with mean overall Financial Literacy scores in **Figure 41**.

Figure 41: Subjective Financial Wellbeing versus Overall Financial Literacy (mean scores, 0-100 scale)



Source: South African Social Attitudes Survey (SASAS) 2015

As can be seen from **Figure 41**, the groups with the highest subjective wellbeing mean scores were White (M=56) and Indian (M=52) as well as the High LSM (also M=51). These were also the groups with the highest overall Financial Literacy scores. Using pairwise correlation analysis, we can observe that there is a statistically significant relationship between the overall Financial Literacy score and our Subjective Financial Wellbeing Scale. The size of that correlation (0.28) is somewhat less than was anticipated. If we look at the difference between the mean scores in **Figure 41**, we can see that people generally score higher on the overall Financial Literacy score than on our Subjective Financial Wellbeing Scale. Some interesting observations can be made by comparing the two mean scores in

the figure. Women tend to have lower Financial Wellbeing scores (M= 35) than men (M=42) even though both have, on average, very similar overall Financial Literacy scores. This observed gender difference may suggest an interesting divergence in how men and women see financial welling.

A multivariate analysis can be used to better understand the determinants of subjective financial wellbeing in the country. Using a standard ordered logistic regression (not shown), we can observe that even controlling for a range of sociodemographic variables the overall Financial Literacy variable is significantly correlated with subjective financial wellbeing. Gender was a statically insignificant determinant of subjective wellbeing, suggesting that the observed disparity between men and women in **Figure 41** is the result of socioeconomic differences between men and women in South Africa. As expected, economic status, measured using the LSM indicator, was a significant predictor of subjective financial wellbeing. For one deviation on the LSM indicator, the log odds of having good subjective financial wellbeing increases by 0.23. Being unemployed was negatively associated (r= -0.44) with subjective wellbeing, even controlling for socioeconomic status and financial literacy. This may be due to the social stigma of being unemployed.

10.4 Multivariate Analysis on All Financial Scores

Regression analyses were done to establish the relationship between financial literacy domain scores and socio-demographic variables. A multivariate regression analysis was carried out to understand and explore the relationships between certain dependent variables and basic characteristics (independent variables) of the survey respondents. Five regressions were undertaken:

- A first regression explores the relationship between financial control and selected socio-demographic variables.
- A second regression explores the relationship between financial planning and selected socio-demographic variables.
- A third regression explores the relationship between choice and holding financial products and select socio-demographic variables.
- The fourth regression explores the relationship between financial knowledge and selected socio-demographic variables.
- The fifth and final regression explores the relationship between the overall financial literacy score and select socio-demographic variables.

An examination of each individual financial domain score and each regression model allows the identification of common predictors and determinants of financial literacy. This allows us to better understand which characteristics are contributing to financial literacy in the country and enable interventions to be designed to correct disparities observed in section 10.2. It also contributes to our understanding of financially vulnerable subgroups, and relationships between socio-demographic variables and financial literacy.

To comprehensively test the associations observed in section 10.2, a linear regression analysis was conducted on each of the four domains. The results are shown in Table 47, with a high coefficient indicating a high score on the domain. We find that the variables chosen to be included in our regression analysis offer strong explanatory power for the domain scores. The adjusted R-square on the financial control (0.34) is higher than the financial planning (0.24), product choice (0.19) and financial knowledge (0.18) domains. It is not yet clear why this pattern has emerged but the results suggest that there are factors that could explain variance on these domains that are not captured in our models. The observed adjusted R-square for the combined domain was 0.38, suggesting that the variables explain the overall score better than they explain the other domains.

The SASAS research team did not find an association between gender and financial literacy, despite what might have been expected given the research of Lusardi and Mitchell, (2008) and others (also see Lusardi, Mitchell, and Curto 2010; van Rooij, Lusardi, and Alessie 2011). This seems to indicate that gender differences in financial literacy in the country are the result of gender-based differences in access to education and wealth. Interestingly, marital status was found to be a significant determinant on all four domains. Those who had never married scored lower on all four domains than the

reference group (married), even controlling for a range of socio-economic factors. Never having been married had the largest correlation (*beta* =-0.27) in the financial control domain. This finding could be explained if we allow that marriage may encourage more responsible behaviour and cause individuals to be more forward thinking. The number of adults living in the household was statistically associated with financial control (*beta* =-0.08) and financial planning (*beta* =-0.05) but not with the two other domain scores. In other words, people in larger households tend to have lower levels of financial capability.

As could be expected given the results of the bivariate analysis (section 10.2), the results of the multivariate tests clearly indicate a clear relationship between economic status and financial literacy. Using LSM group status as a measure of economic status, the SASAS research team found that it was a strong predictor in three of the four domains in Table 47[18]. The impact of LSM indicator was particularly strong on the financial planning domain (*beta* =0.27) but much weaker on the product choice (*beta* =0.15) domain. It was not a statistically significant indicator for the financial knowledge domain. Labour market position was a statistically significant determinant of all four domains, and particularly in relation to the financial planning domain where those people outside employment had lower domain scores than the reference group (the employed). Relative to being employed, being unemployed had a statistically negative correlation with the financial control (*beta* =-0.16), financial planning (*beta* =-0.20) and product choice (*beta* =-0.18) domains. This shows the negative impact that unemployment can have on different types of financial literacy in South Africa.

Educational attainment was found to be a strong predictor on all financial literacy domains, confirming the link between educational attainment and financial literacy put forward by Lusardi and Mitchell (2011) and others (also see Lusardi 1999; Lamdin 2011). The impact of educational attainment was particularly strong on the financial knowledge domain (*beta* =0.23) but much weaker on the financial control (*beta* =0.07) and financial planning (*beta* =0.08) domains. Controlling for a range of socio-economic variables, age was found to be a significant predictor of financial control and product choice. The size of the correlation was greater for financial control (*beta* = 0.11) than product choice (*beta* =0.09). If we use a categorical age group variable for these two domains rather than a continuous variable, the 65+ age cohort was often not found to be statistically different from the 16-24 age cohort (which was used as the reference group). This could suggest an inverse U-shaped age profile predicted by scholars such as Monticone (2010) and others (also see Lamdin 2011; Han et al. 2014; Gamble et al. 2014; Finke et al. 2016).

Bivariate analysis (see section 10.2) pointed to racial differences on the financial literacy domains. Such observed differences could be the result of the well-known connection between race and class that still exists in South African society. This seems to be true of all four of the financial domains in Table 47 where population group is a weak predictor. This suggests that observed population group differences on these domains may be the result of differences in economic and educational endowments. IsiXhosa-speaking South Africans were found to be significantly different (*beta* =-0.18) from Indian South Africans even when controlling for a range of socio-economic characteristics, on financial knowledge domain. This finding may indicate certain types of prejudices in South African education systems as regards language[19]. More research is required to understand this finding. Geographic location did not have a significant effect on the most domains. Living in rural areas (such as the former homelands, the present traditional authority areas) had a salient and positive impact (*beta* =0.08) on financial planning. In a country where rural areas lack adequate access to financial

[18] The relationship between financial literacy and wealth accumulation is, however, somewhat unclear. A key limitation of many studies that investigate the correlation between economic capital and financial literacy is the strong possibility of endogeneity bias.

[19] Research on multilingualism in mathematics education in South Africa for the period 2000–2007 has identified language as a major determinant of success in mathematics learning (Setati, Chitera, and Essien 2009). Large scale research has found that improving the learners' fluency in English could critically improve learner achievement in mathematics (also see Prinsloo 2007).

markets and are underserved by financial institutions, this finding was unanticipated by the SASAS research team.

Finally, let us consider the final column in **Table 47**: the overall financial literacy score. One of the strongest predictors in this final model is the LSM indicator which had a particularly strong correlation (*beta* =0.29) with the dependent. Educational attainment also had a strong relationship (*beta* =0.21) with the dependent, although not as strong as the LSM indicator. Age was also a significant predictor of financial literacy, with each year of age increasing the odds of an individual having a good level of financial literacy. If we use a categorical age group for the overall financial score rather than a continuous variable, the results suggest an inverse U-shaped age profile. The 65+ age cohort was often not found to be statistically different from the 16-24 age cohort (i.e. the reference group). This is in keeping with what was observed when the same experiment was tried with the financial control and product choice domains.

Labour market status was a particularly powerful predictor for overall financial literacy. The unemployed were found to be statistically different from the reference group (the employed). The observed negative correlation for the unemployed was sizeable in comparison with those of other labour market groups. Having have been married had a considerable effect on overall financial literacy. Compared to the reference (the married), those who had never been married were significant more likely to have a lower financial literacy score. The number of adults in the household also had a statistically significant (and negative) relationship with the dependent. However, the size of the correlation (*beta* =-0.08) is relatively weak. For overall financial literacy, population group was not a statistically significant predictor, indicating that the differences observed in **Figure 40** (in section 10.3) for population groups were the product of socio-economic differences between these groups.

Table 47: Linear regression of financial literacy domains, 2015

	Financial Control			Financial Planning			Product Choice			Financial Knowledge			Overall Score		
	Coef.	Beta	Sig.	Coef.	Beta	Sig.	Coef.	Beta	Sig.	Coef.	Beta	Sig.	Coef.	Beta	Sig.
Female (ref. male)	0.49	0.01		1.81	0.04		1.14	0.03		-1.33	-0.04		0.63	0.02	
Age	0.14	0.11	**	0.02	0.01		0.11	0.09	*	-0.02	-0.02		0.09	0.11	**
Marital Status (ref. Married)															
Married Before	-3.43	-0.06	*	-2.60	-0.03		0.53	0.01		-1.84	-0.03		-2.40	-0.06	*
Never Married	-10.94	-0.27	***	-6.30	-0.13	***	-3.01	-0.08	*	-2.73	-0.07	*	-6.04	-0.22	***
Population group (ref. Indian)															
White	1.40	0.02		2.98	0.04		-7.78	-0.12	*	2.49	0.04		0.01	0.00	
Coloured	-1.88	-0.03		-0.55	-0.01		-1.40	-0.02		-2.28	-0.04		-1.10	-0.02	
Zulu	-0.38	-0.01		3.32	0.06		-2.85	-0.06		-2.43	-0.05		0.71	0.02	
Xhosa	1.99	0.04		11.94	0.19	*	0.99	0.02		-8.80	-0.18	**	1.78	0.05	
Sesotho	1.03	0.02		1.18	0.02		-2.13	-0.04		-1.98	-0.04		0.63	0.02	
Batswana	-0.45	-0.01		1.31	0.02		-0.66	-0.01		-3.74	-0.06		0.54	0.01	
Other	-0.98	-0.01		7.47	0.09		-0.72	-0.01		-1.24	-0.02		2.45	0.05	
Geographic Type (ref. Urban formal)															
Urban informal	-0.39	0.00		0.66	0.01		3.78	0.05		2.96	0.04		4.03	0.07	*
Trad. Auth. Area	1.44	0.03		4.41	0.08	**	-0.46	-0.01		2.29	0.05		1.71	0.05	
Rural formal	5.58	0.05		3.00	0.02		-0.39	0.00		3.40	0.03		3.68	0.04	
Num. of Adults	-0.60	-0.08	**	-0.39	-0.05	*	-0.48	-0.08	*	-0.07	-0.01		-0.42	-0.08	***
Num. of Children	-0.79	-0.07	*	-0.48	-0.04		-0.47	-0.04		0.34	0.03		-0.34	-0.04	
Living Standard Measurement	2.46	0.23	***	3.45	0.27	***	1.52	0.15	**	0.44	0.04		2.15	0.29	***
Educational Attainment	0.40	0.07	*	0.57	0.08	**	0.90	0.17	***	1.22	0.23	***	0.82	0.21	***
Employment (ref. employed)															
Retired	-6.43	-0.09	**	-9.36	-0.12	***	-7.90	-0.12	***	0.82	0.01		-6.40	-0.13	***
Unemployed	-6.80	-0.16	***	-9.86	-0.20	***	-7.06	-0.18	***	0.31	0.01		-5.92	-0.21	***
Student	-10.01	-0.15	***	-15.81	-0.21	***	-7.58	-0.13	**	-0.30	-0.01		-7.07	-0.15	***
Labour Inactive	-2.21	-0.03		-9.63	-0.12	***	-11.66	-0.18	***	-0.82	-0.01		-6.37	-0.13	***
Number of obs.	2126			2448			2448			2448			2126		
R-squared	0.34			0.24			0.19			0.18			0.38		
Root MSE	16.62			20.82			17.18			16.91			11.08		

Source: South African Social Attitudes Survey (SASAS) 2015

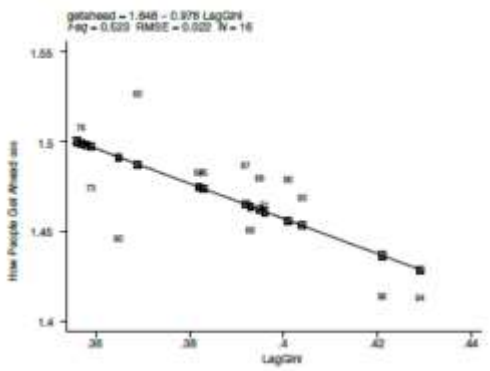
Notes: 1. The regressions also control for the province of residence and religious denomination, 2. The data is weighted to be nationally representative 3. Positive coefficients indicate a high domain score, and 4. *, **, *** indicates that the differences in mean scores are significantly different at the 5 percent ($p<0.05$), 1 percent ($p<0.01$) and 0.5 percent ($p<0.001$) level respectively.

11 Financial literacy scores and macro and micro indicators

The concept of financial literacy does not exist in isolation, and is on aggregate likely to be influenced and informed by broader socio-economic macro-developments in a given country context. Recognising this, it makes intuitive sense to want to examine how patterns of financial literacy in South Africa track macro-economic trends over time. It is for this reason that the Financial Services Board requested that, as part of the analysis contained in this report, exploratory analysis be undertaken to determine whether the different domains of financial literacy (financial control, financial planning, appropriate product choice, and financial knowledge) show any correspondence with select macro-economic indicators. Accordingly, this section aims to move beyond the analysis of *individual-level responses* to examine *aggregate-level scores* across time in the country. This implies conducting a macro analysis of financial literacy as opposed to examining micro-findings from the survey research on financial literacy.

Attempting to do this based on existing survey-based financial literacy data brings particular analytical challenges, both methodologically and practically. Firstly, in order to conduct meaningful analysis at the aggregate level for one specific country, there is a need to have multiple years of data in order to be able to ascertain with a reasonable degree of certainty the nature of the relationship between aggregate survey-derived measures and macro-indicators. For instance, the example presented in the adjacent text box examines the effect that economic inequality in the United States has on the public's views about whether achieving success in society is a function of hard work or alternatively due more to luck. The graph shows that in times of higher inequality, the public tends to express a more resolute belief in hard work as the driver of success relative to pure luck. The graph is based on aggregate trend data covering nearly a quarter-century from a nationally representative survey series (the US General Social Survey), as well as official, administrative data on income inequality over a similar time period. If the annual survey data points were to be reduced from the 24 presented in the graph to say five, then the ability to plot the line of best fit through the data and extrapolate clear policy-relevant messages about the association between aggregate survey indicators and macro-economic indicators becomes appreciably more tenuous. In the case of the FSB multi-dimensional financial literacy survey work, there are at present only four rounds of annual data containing all the requisite core measures (2011, 2012, 2013 and 2015), implying that significantly more rounds of data collection pertaining to financial literacy need to occur before definitive deductions can be made.

Trends in how people get ahead and lagged economic inequality, 1973-96.



Source: Uslaner (2002:184)

A second practical consideration relates to the choice of economic indicators for examination. Conventionally, three measures are typically relied on as a gauge of economic performance, health and progress, namely growth in gross domestic product (GDP), inflation and unemployment rates. While these indicators are likely to remain a core focus of economic analysis in the future, the experience of the Great Recession of the late 2000s brought the limitations of these headline indicators into focus. The Commission on the Measurement of Economic Performance and Social Progress, chaired by Nobel Prize winning economist Joseph Stiglitz for instance critically investigated measures of economic performance for today's complex economy and concluded that the measurement system needs to "*shift emphasis from measuring economic production to measuring people's well-being*" (p.12). In particular, the commission found that GDP growth is an imperfect measure of material wellbeing, and suggested that indicators such as net national income, real household income and consumption may be more relevant to capturing changing material living

standards. In 2014, the Fabian Society echoed the Stiglitz Commission findings by maintaining that living standards should become the core measure of economic performance rather than traditional growth yardsticks. In response, the thinktank identified 20 indicators they believe reflects the real direction of an economy if it is to produce greater fairness, sustainability and prosperity in the long-term (see text box). The availability of regularly produced and reliable statistics on measures such as these is variable in South Africa. This means that, for now, one has to rely on the more commonly produced economic indicators, despite their limitations as measures of economic progress.

Fabian Society measures for fair and sustainable prosperity

Headline measure of success	**1. Shared prosperity**: median household incomes
Long-term sustainability	**2. Greening our economy**: decarbonisation **3. Controlling borrowing**: national debt 4.**Generation balance**: the dependency ratio
Income inequality	**5. Left behind**: poverty in country **6. Not enough**: below an adequate standard of living **7. Pulling away**: income inequality (middle to top)
Sustainable growth	**8. Race to the top**: labour productivity **9. The forgotten 50%:** intermediate skills **10. Spending for tomorrow**: capital investment 9a) total, (b) business, (c) government, (d) intangible investment **11. Global balance**: the current account deficit
The labour market	**12. From the middle out**: median earnings **13. Making work pay**: numbers with low pay **14. Runaway top**: market inequality **15. More jobs**: the employment rate **16. Getting working**: (a) wanting work; (b) wanting more work; (c) workless households
Wealth and housing	**17. Ready for a rainy day**: the household saving ratio **18. On the brink**: households with low wealth (a) total assets; (b) financial wealth **19. Affordable homes**: ratio of (a) house prices; (b)private rents to earnings **20. Share the wealth**: asset inequality (middle to top)

Source: Fabian Society (2014) *Measure for Measure*.

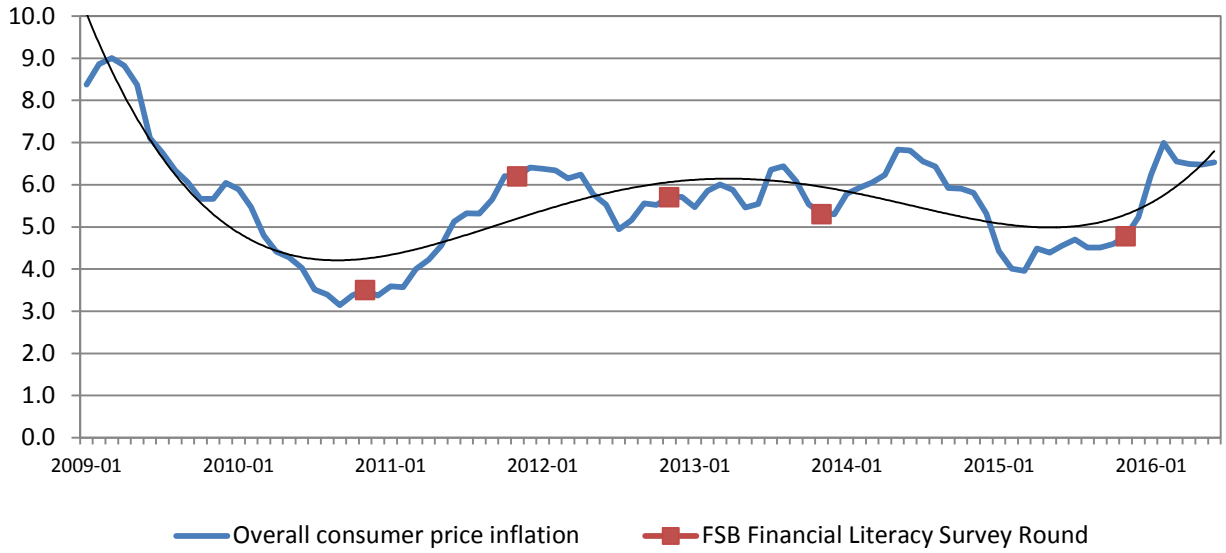
Based on the considerations articulated above, the HSRC team wishes to state that this section of the report remains exploratory in nature and the interrelatedness show between domain scores and macroeconomic indicators are tentative and will require testing once more data becomes available. Significantly more data points pertaining to financial literacy will need to be collected before more definitive deductions can be made. Nevertheless, the HSRC does acknowledge that looking at financial domains against macro-economic indicators provides important information on how the macroeconomic landscape may impact on financial literacy overall and also on specific financial literacy domains. In the remainder of this section of the report, we begin with an examination of trends in select macro-economic indicators between 2009 and 2016, in order to provide an indication of patterns over the period leading up to and during the collection of financial literacy data on behalf of the Financial Services Board. This is following by a comparison of trends in both financial literacy and these core macro-economic indicators. In so doing, we look at financial literacy on aggregate, across the four constituent domains, as well as in relation to the individual indictors that comprise these. The more detailed focus extends to financial control and financial planning, as it is reasoned (conceptually and contextually) that these domains are likely to be more prone to short-term fluctuations in economic context. The third section aims to derive further insight by moving beyond national aggregate views of financial literacy to look at group dynamics. The example used in this instance is in relation to living standard levels, which offers inferences on class-based differences and commonalities to be drawn. The section concludes by discussing the findings are outlining how the benefits of such analysis can be enriched with further rounds of financial literacy measurement and the availability of more disaggregate "objective" indicators of economic performance.

11.1 Trends in core macro-economic measures between 2009 and 2016

The first round of experimentation with national representative multi-dimensional financial literacy measures in South Africa came was conducted in late 2010, as part of a cross-national pilot study administered by the OECD International Network on Financial Literacy (INFE). The local fielding, sponsored by the FSB, included measures in the four constituent domains of financial literacy that

were subsequently adopted in the South African context as the basis for monitoring progress towards the goals and targets articulated in the National Consumer Financial Education Strategy (NCFES). There are also commonalities in terms of specific indicators informing each domain, though after the 2010 survey the measure set for South Africa was broadened somewhat. The only instance where the domain indicators included in 2010 are identical in all subsequent fielding is in relation to the Financial Knowledge and Understanding domain. Nonetheless, this domain is unlikely to have shown appreciable change in a six year interval, given that it depends on changing the broad stocks of financial education among the public. As such, this domain is less likely to exhibit demonstrable swings in line with macro-economic indicators. The implication is that for most of the domain score analysis, the focus will be on the four rounds conducted between 2011 and late 2015, though it is feasible to examine specific individual indicators over the 2010 through 2015 period.

Figure 42: Consumer price inflation in South Africa, 2009-2016



Source: Statistics South Africa, consumer price inflation series.
Note: The CPI percentages shown in the figures and graphs on this page are based on year-on-year changes of the Consumer Price Index.

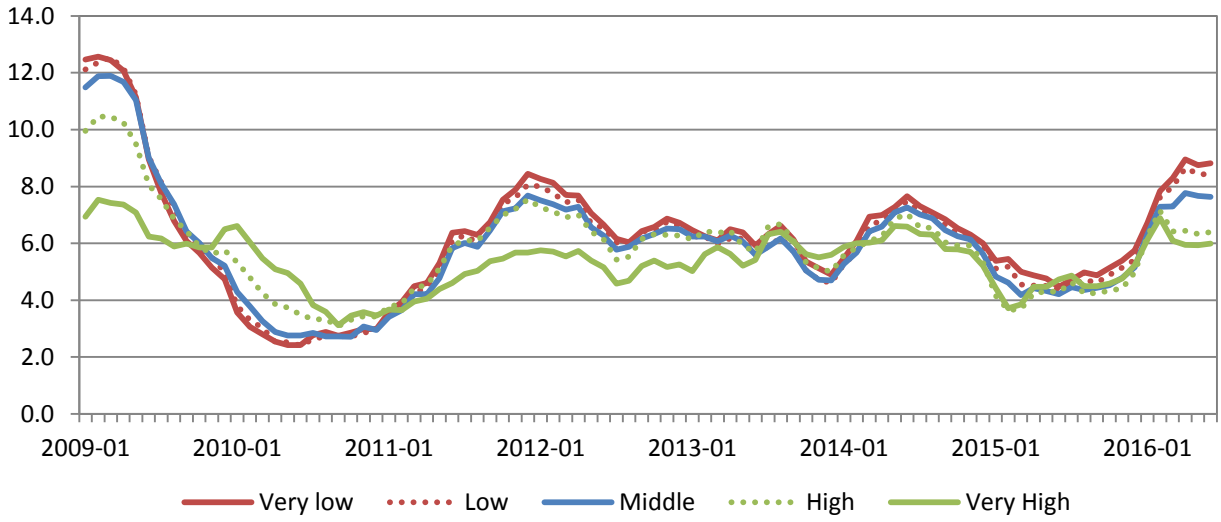
Consumer Price Inflation

With regard to economic trends, year-on-year changes in **consumer price inflation** have fluctuated considerably since the late 2000s (Figure 42). By late 2010, when the first FSB Financial Literacy survey was conducted, consumer inflation stood at 3.5%, the lowest it had been in several years. By the end of 2003, consumer inflation was the lowest it had been in 35 years (0.4% in Jan 2004), but thereafter began to exhibit a rising trend. This gained significant momentum with the onset of drought in 2007 and an associated spike in the prices of basic food commodities. In July 2008, year-on-year consumer inflation reached a peak of13.4%, after which inflation demonstrated a consistent three-year decline that continued until July 2010, a few months prior to the fieldwork associated with the survey was due to begin. In the year between November 2010 and the survey round in November 2011, overall inflation rose from 3.5% to 6.2%, after which it varied in a fairly narrow range (between 5-6%) for the subsequent two years. In the latter half of 2014, consumer inflation showed a distinct decline, falling from 6.8% in May and June 2014 to 4.0% in February and March 2015. While this did begin inching upwards again during the remainder of 2015, at the time of the 2015 survey round in November, consumer inflation was 4.8%, the lowest it had been since the survey round of 2010. After the economic volatility of December 2015, prices did swing upwards again, with the year-on-year inflation on average standing at 6.5% by mid-2016.

One of the inherent difficulties with consumer inflation is that price increments are averaged across a wide basket of goods and services, including both basic and luxury items. If one examines inflation

patterns on constituent items in the basket, there are wide-ranging variations. Consumption patterns vary by class and general preferences, so inflation is likely to yield differential impacts based on the consumer choices made (whether out of necessity or preference). Another point that needs to be made is that prices have (on average) been increasing annually since 2009, although, as the preceding description has illustrated, the scale of the annual increment has varied. Statistics South Africa produces consumer price inflation on aggregate and for five quintiles of expenditure, ranging from very low to very high expenditure.

Figure 43: Consumer price inflation in South Africa by expenditure group, 2009-2016



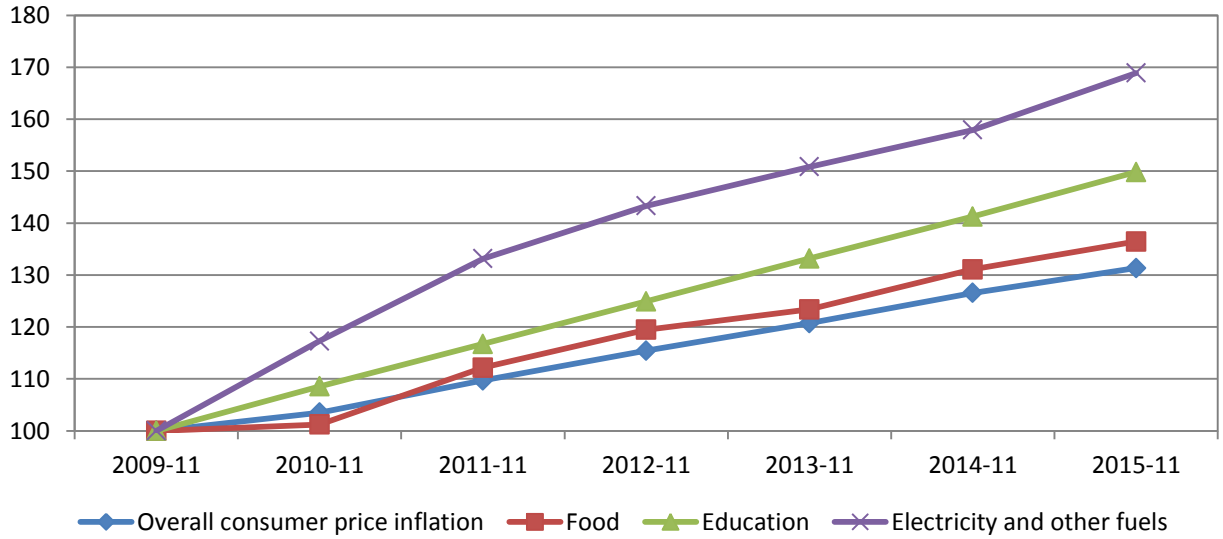
Source: Statistics South Africa, consumer price inflation series.
Note: The CPI percentages shown in the figures and graphs on this page are based on year-on-year changes of the Consumer Price Index. Expenditure groups are

From Figure 43, it is apparent that different economic groups experienced inflation differentially. Two observations in particular are worth making. Firstly, throughout the period under consideration, year-on-year changes in consumer inflation were mostly higher for middle to poor expenditure quintiles. This was most apparent in 2009 and from mid-2011 to mid-2013. The only real instance where this pattern was not evident was during 2010 and from late-2013 through to early-2014. The difference has again become pronounced following late 2015, though the 2015 FSB survey round predated this divergence. The second point of note is that the general pattern of change over the 2009 to 2016 period is broadly similar for different expenditure groups, despite the aforementioned scale of difference in the upward and downward swings. Based on these patterns, one might expect to find some evidence of a class-based effect underlying financial literacy trends. If such an effect is evident, that this would be most likely to be present in the financial control and financial planning domains, since unexpected price shocks would intuitively diminish the ability to make ends meet and save for the future.

To provide a sense of how discrepant patterns of consumer price inflation can be for different items constituting the basket of goods and services, we examined change in three particular items, namely price inflation in respect of food, education and electricity and other fuels. To provide a sense of overall change, we made November 2009 our base year (n=100), so that cumulative change is represented. As Figure 44 shows, overall consumer prices increased by close to a third (31.3%) between November 2009 and November 2015. Food price inflation over these years tracks overall consumer inflation closely, rising by 36.5% in total. More appreciable increases are evident for education-related expenses (49.8%) and electricity and other fuels (68.9%). Above-average inflation was also evident for several other items that were examined (but which are not shown in the graph), with water and other services increasing 54%, petrol increasing 53%, public transport rising by 44%. Clothing and footwear was the only basic item that we examined that had below-average inflation,

with an increase of 23% over the period. These results reaffirm the fact that the basic items that households spend on are likely to matter immensely for the relative scale of price increases over time. Middle class households that are a fairly large consumer of electricity and water for various domestic uses, own a car than runs on petrol, and have children in school or university are likely to have really felt the cost of rising prices on these specific items. So too are poorer households, that are reliant on public transport, depend on electricity or paraffin for lighting and possibly cooking, buy basic food commodities and have education-related costs.

Figure 44: Consumer price inflation in South Africa by expenditure group, 2009-2016



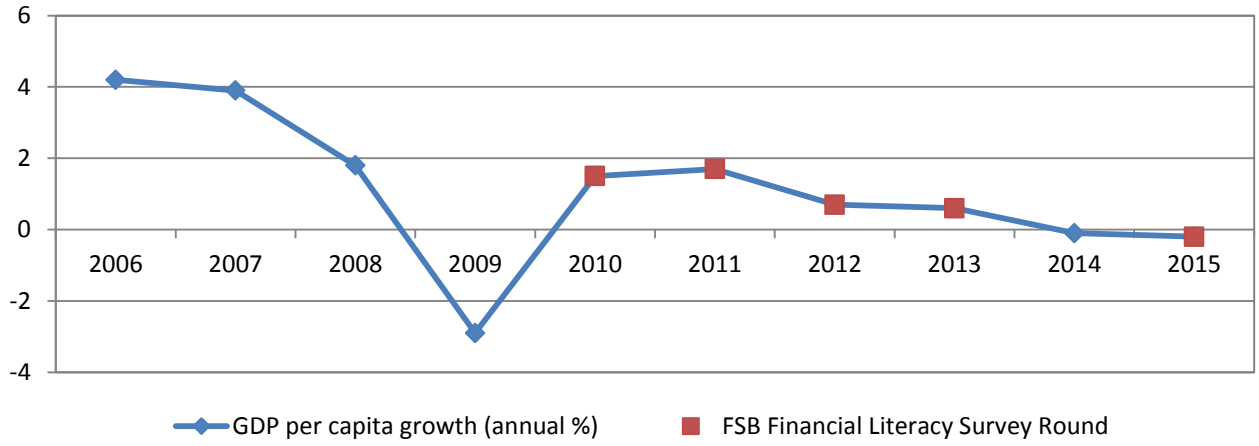
Source: Statistics South Africa, consumer price inflation series.
Note: The CPI percentages shown in the figures and graphs on this page are based on change relative to a baseline year and month (November 2009 = 100) of the Consumer Price Index.

Growth in GDP per capita

The second macro-indicator that was examined was annual **growth in GDP per capita**, which is often taken as a measure of the performance or health of an economy. In effect, GDP per capita is the share of national income that is generated or goods and services that are produced by each person in a specific country context on average. The growth rate in this measure shows how fast or not this indirect measure of living standards is changing on a year-by-year basis. Although the country enjoyed high growth rates during the 1950s, 1960s, and into the 1970s , despite the mounting political crisis, the growth pattern was considerably more volatile in character during the 1980s. This fluctuated from a high of close to 5% in 1981 on the back of high gold prices to negative growth in 1982, followed by between 4 and 5% over the next two years and negligible growth thereafter (Cronje, 2016). This poor performance continued into the early 1990s, with the decade began with negative economic growth rates being recorded between 1991 and 1993. With the transition to democracy in 1994, the dismal apartheid economic inheritance began to be reversed, and GDP growth rates recovered to an average of 3% between 1994 and 2007, and averaged in the 5% range between 2004 and 2007. In 2006, the 1981 peak of real per capita GDP was again reached. Overall, the 1994-2007 period was generally one of expansion, with solid job creation, the rollout of electricity and water infrastructure and rising living standards, and the expansion of the black middle class. These were times of economic and social progress. With the onset of the global economic crisis, mounting risk aversion among investors in relation to emerging markets, and a downturn in global commodity prices, the post-2007 period is one of general economic stagnation and decline. After 2011, annual GDP per capita growth has consistently been below 1%, and in 2015, economic growth was negligible to slightly negative (-0.2%). The implication is that the FSB Financial Literacy Surveys have taken

place during a time of economic slowdown, which again one would envisage would translate into tangible effects on certain elements of financial literacy.

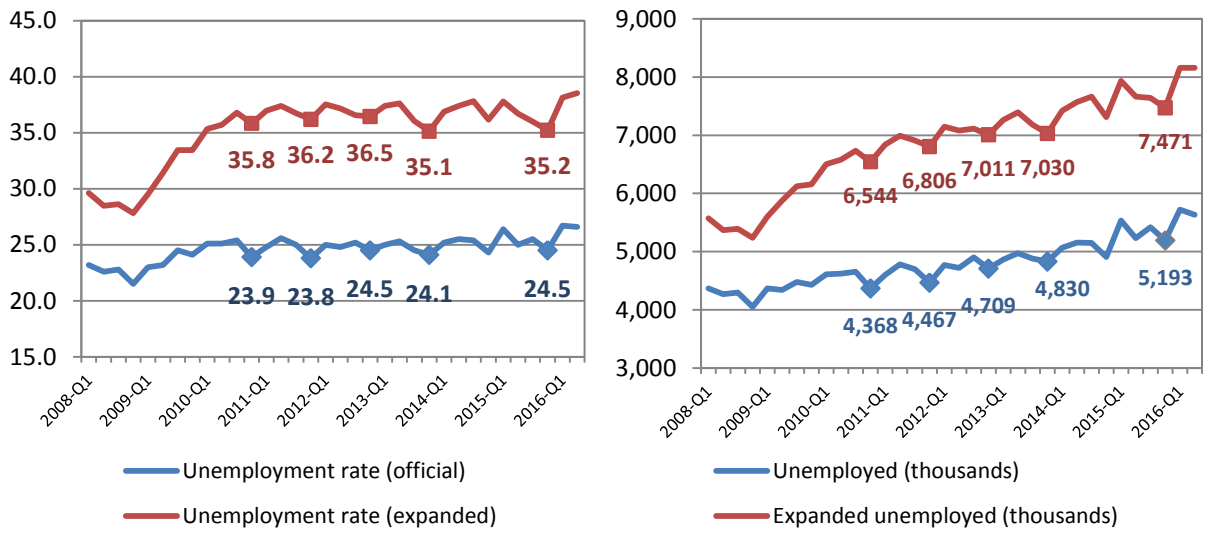
Figure 45: Growth in GDP per capita (annual %), 2006-2015



Unemployment

The third broad indicator pertaining to the macro-economy that was considered for analysis was unemployment. If one looks at both official and expanded unemployment rates between Quarter 1 of 2008 and Quarter 2 of 2016, it is apparent that following an increase in unemployment following the Great Recession of 2008/09, levels of unemployment remained fairly consistent between 2010 and 2016 (Figure 46). The official unemployment rate ranged between 24 and 26%, while the expanded unemployment rate (which includes discouraged work-seekers) varied between 35 and 38%. These high unemployment rates therefore showed little sign of falling over the period during which the FSB Financial Literacy Surveys were conducted. If one looks at the absolute numbers of South Africans that are unemployed using the official and expanded definitions, the picture is a little different due to underlying population growth. The number that were officially unemployed, increased from 4.4 million in Q4 of 2010 when the first FSB survey was conducted to 5.2 million in Q4 of 2015, when the most recent survey round was undertaken. Over the same period, the number of unemployed using the expanded definition rose from 6.5 to 7.5 million.

Figure 46: Official and expanded unemployment rates (% and thousands), 2008-2016



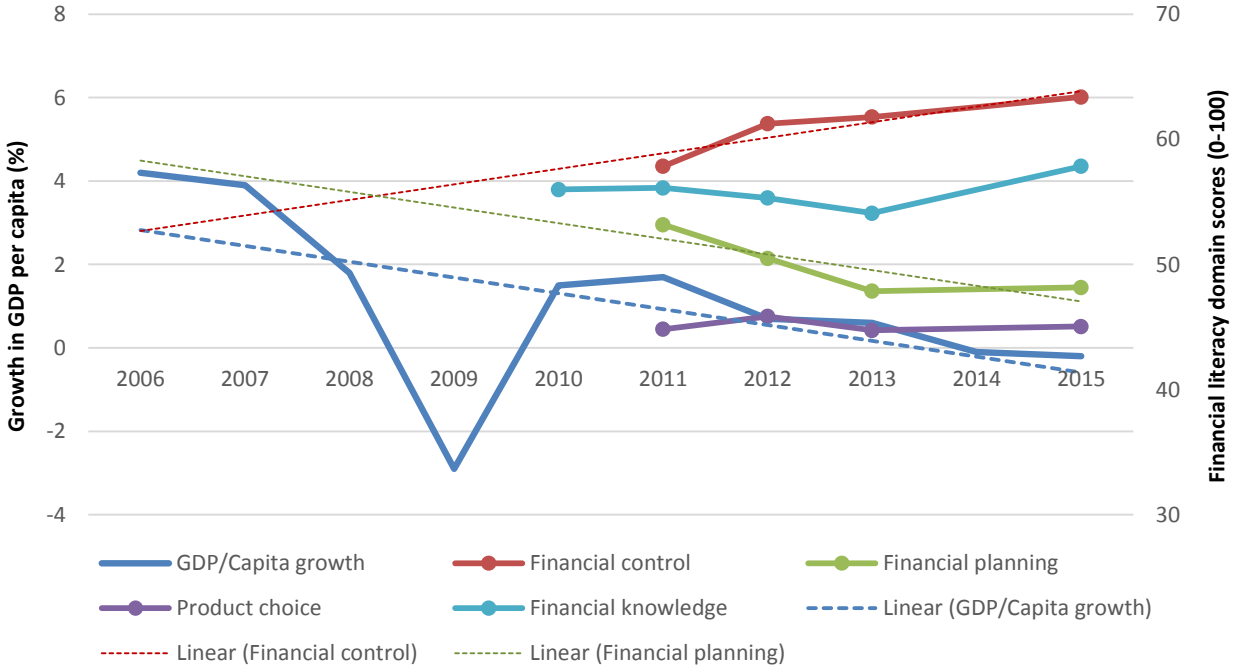
Source: Statistics South Africa, Labour Force Survey (LFS) series.
Note: The expanded unemployment rate includes discouraged work-seekers.

11.2 Comparing trends in both macro-economic and financial literacy measures

In Figure 47, we return to the pattern of GDP per capita growth over the 2006-2016 period that was presented in Figure 45, and overlay the four aggregate financial literacy domain scores on a secondary vertical axis. As previously described, the FSB financial literacy measurement work has occurred during a period of declining per capita growth, as illustrated by the linear trendline depicted in the graph below. Looking specifically at the trends in the four domain scores, the first observation is that the product choice indicator does not show statistically significant variation between late 2011 and late 2015, with values ranging between 45 and 46 on the 0-100 scale. This suggests that the economic downturn in recent years has not yet had an appreciable effect on appropriate product choice, at least not based on aggregate scores. Similarly, in general one cannot discern a distinct trend in relation to financial knowledge. The scores for this domain did dip slightly between late 2011 and 2013, but by 2015 there was a rebound.

In contrast to financial knowledge and product choice, the financial control and financial planning domains do seem to be more sensitive to macro-economic developments, as revealed by the discernible trends occurring over the four years examined. As can be observed from the figure, an inverse relationship seems to exist between GDP/capita growth and financial control. This implies that in times of declining economic growth, financial control scores demonstrate an increasing tendency. More specifically, it suggests that in difficult economic times, people are inclined to get more involved in in daily household money management, keep household budgets, display prudence in relation to spending decisions, try and pay bills timeously, and generally monitor financial matters more closely. The financial planning domain also shows a fairly distinct pattern over the 2011 to 2015 interval, but in this instance it appears to be positively associated with GDP/capita growth. This signifies that when economic performance declines, so too do levels of financial planning. This is most likely related to difficulties encountered in setting money aside as emergency funds or as savings for the long-term, an assertion that will be tested later on this this section.

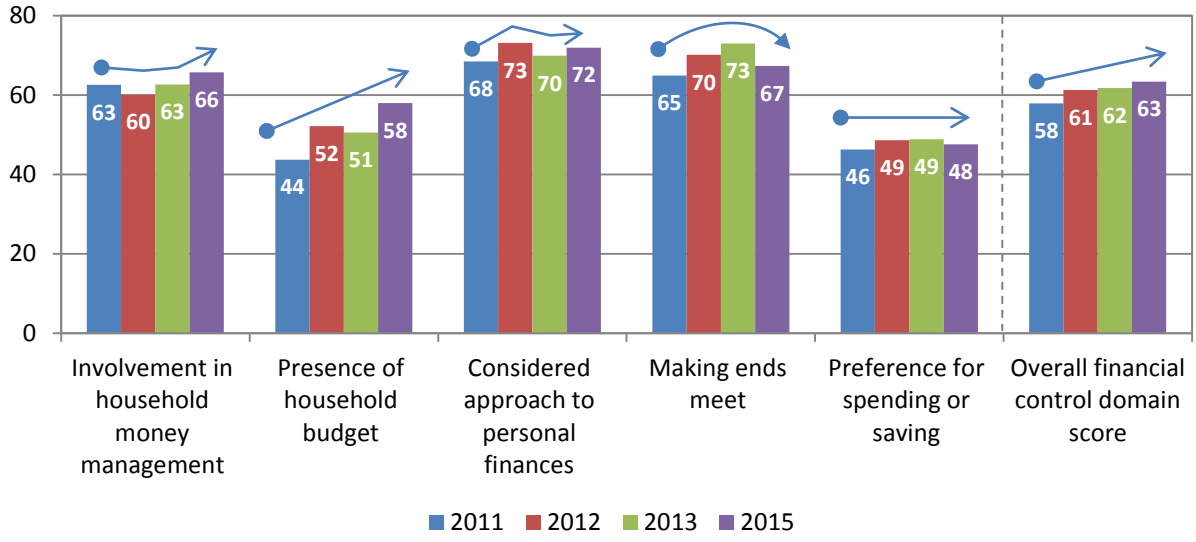
Figure 47: Growth in GDP per capita and financial literacy domain scores



Taken together, these emerging patterns in financial control and planning are both plausible and intuitive. As hard economic times set in, the adult public tends to respond by adopting a more careful approach to managing their finances (often out of absolute necessity) in order to make ends meet, and conversely tends to find it more difficult to provision for the future through savings behaviour. In effect, the short term needs get prioritised over longer-term security. Similarly, one would not expect considerable short- to medium-term fluctuations in the product choice or financial knowledge domains. The former domain combines product awareness, product holding, and product-related regret, and the first two are unlikely to change much in the initial onset of an economic downturn.[20] Financial knowledge is generally acquired by a slow, accumulative process informed by educational programmes and personal experiences and, as such, stocks of knowledge should not change to a significant extent over fairly short amount of time.[21]

We now examine the financial control and financial planning domains in a little more detail to ascertain which of the constituent indicators underlying the aggregate domain score appears to be changing the most, or alternatively whether most of the variables are showing a relatively uniform pattern of change. This will provide more insight into whether certain indicators captured in the financial literacy show greater sensitivity to macroeconomic trends. In Figure 48, the mean scores for the five indicators that comprise the financial control domain are presented for each of the survey rounds between 2011 and 2015. The presence of a household budget is the indicator that has altered most over the period, and is the primary driver of the upward trend in financial control. The reported existence of a household budget rose fourteen percentage points over the four years, mainly between 2011 and 2012 as well as 2013 and 2015, with a little difference between 2012 and 2013.

Figure 48: Changes in mean scores on financial control indicators, 2011-2015



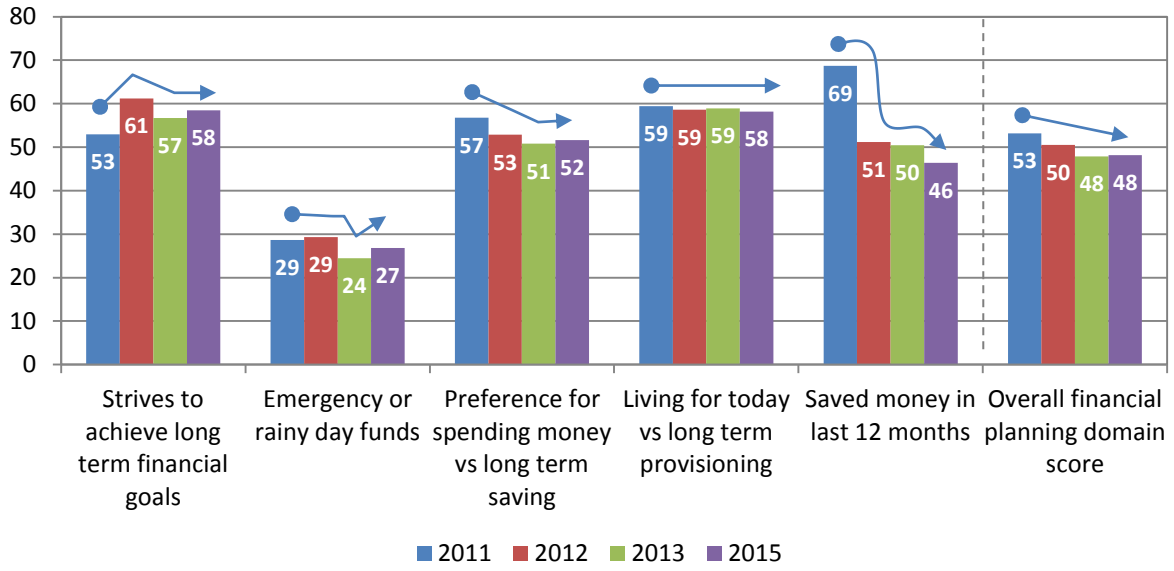
Apart from domestic financial budgeting, the ability to make ends meet also improved between 2011 and 2013, with the domain score rising from 65 to 73 during this time. This reflected a combination of

[20] Awareness of financial products is by its nature a fairly stable measure, since one would not envisage basic knowledge of specific products to change much over a few years. In addition, the product holding indicator used for constructing the domain focuses on the holding of one or more of the different types of financial products included in the survey (banking products, credit, savings and investment products, and insurance products). This formulation means that it is unlikely that adults will cede all products of a particular type during difficult times. For instance, they are likely to retain at least one banking product, even if they reduce the number of banking products they hold.

[21] If sizeable or erratic fluctuations in this measure occur within a period such as five years, then it would raise methodological questions about whether the knowledge questions being posed are working optimally in capturing levels of understanding of core financial concepts.

two developments, namely a slight increase in the share stating they were able to make ends meet (from 57-58% in 2011/12 to 63% in 2013), and a slight favouring of drawing down on household resources relative to using credit as a dominant coping strategy in instances where households battled to get by. In 2015, there was however a reversal in the reported ability to make ends meet. The other three measures used in deriving the financial control domain score were more stable. Involvement in daily household money management remained fairly constant over the period, with only a statistically significant increase in 2015.[22] The extent to which adults demonstrated a considered approach to their personal finances fluctuated up and down across the years of observation. The preference for spending or saving was perhaps the most consistent of the various indicators, with nominal change occurring over the four survey rounds. If the patterns described above are being informed by broader economic patterns, such as falling growth rates, then it implies that households in South Africa respond to economic vulnerability by changing certain behaviours, in particular a greater tendency to budget[23] as well as a preference for using available resources to cope over a reliance on credit. By contrast, there is little effect on financial attitudes. South Africans tend to already display a considered approach to managing their finances, and the middling scores in views on spending versus saving may at least partially reflect a need to prioritise spending or rather dissaving in order to survive in the short run rather than a carefree or spendthrift attitude.

Figure 49: Changes in mean scores on financial planning indicators, 2011-2015



Turning now to the financial planning domain, where we witnessed an aggregate year-on year decline in mean score between 2011 and 2013, Figure 49 shows trends in the five constituent measures. A range of patterns is again evident, though it is immediately apparent that the ability to save money has shown the largest decline over recent years. The largest decline occurred between 2011 and 2012, where the share reporting savings in the year prior to interviewing fell from 69% to 51%, and there was again a statistically significant decline between 2013 and 2015. Although not shown in the figure, there was a decline in savings behaviour between 2010 and 2011, with the share reporting that they had put money aside declined from 74% to the observed 69%. The scale of the change between 2011 and the subsequent years warrants further discussion. In the 2010 and 2011 fielding of the financial

[22] None of the mean score differences for 2011, 2012 and 2013 are statistically significant. The 2015 mean score is significantly higher than in 2012, but not relative to the scores recorded in the other years.
[23] Correlation and regression analysis shows a weak but positive association between budgeting and making ends meet, suggesting that this brings some gains in terms of the ability to make ends meet. The fact that the association is not stronger may indicate that households have already diminished or depleted available resources through repeat economic and non-economic shocks, meaning that the ability to effectively cope in times of duress is progressively eroded.

literacy module, the feedback from the interviewer teams was that the question made no provision for those who were unable to save in any form. For this reason, from 2012 onwards a category 'none of the above' was included to capture that the respondent did not report any of the different forms of saving behaviour and was thus not actively saving in the 12 months prior to interviewing. In the 2010 and 2011 rounds, the 'not saving' was inferred from the data (probably with some inaccuracy). The implication of this is that the change in the ability to save recorded between 2011 and 2012 in reality is unlikely to have fallen as precipitously as the graph suggests. Despite this, the ability to save is still likely to have been the indicator most affected by economic downturn. The observable change between 2010 and 2011 suggests that even before the question was modified through the inclusion of the new 'no saving' category, the public was finding it increasingly difficult to save. This tendency has carried across into the subsequent years.

Fitting in with this narrative, only a modest share of South Africans indicate that they have rainy day or emergency funds set aside. This has not changed much over the interval, with only 2013 slightly lower on average at 24%, but otherwise fluctuating between 27% and 29%. The mounting challenges faced in saving money means that the share of the public able to make provision for unforeseen individual or household shocks or needs has not improved. This, in turn, renders citizens more vulnerable to such potential shocks and constrains the set of coping mechanisms available for them to draw on in times of need. The remaining three measures address an ethic regarding financial planning. There is a modest increase in efforts to try and realise long-term financial goals, as well as a slight fall in views regarding the preference for long-term saving over spending money. The latter is most likely a reflection of absolute necessity, as suggested by the unchanged preference for long-term provisioning over living for today (mean score consistently in the 58-59 range). These attitudinal patterns reaffirm the message that South Africans want to plan for the future and strive hard to do so, but macroeconomic realities and daily economic struggles act as impediments to realising such ambitions.

The preceding discussion has used changing economic growth rates as a lens through which to consider and engage with changing patterns of financial literacy and its constituent domains and underlying indicators. Can anything additional be added when one pulls in trend data on consumer prices and unemployment as a point of reference? With regard to consumer inflation, prices on aggregate have (with the exception of 2011) increased in the 5-6 percent range per annum. This means that overall inflation has increased by around 30 percent over the period of interest. Nonetheless, as previously detailed, above-average increases are evident for particular core items such as electricity, education and food, while annual inflation adjustments in wages are barely able to keep apace with changing prices for basic needs. Does this bear out in the financial literacy indices and indicators? The growth in the presence of a household budget suggests that families are being forced to maintain a tighter grip on their finances, a fact that is reflect in the careful approach to finances exhibited by South African adults. The making ends meet trend might be interpreted as anomalous, but one does need to consider that inflation was normalising to some degree after a significant spike in 2008-2011 period, so that the observable trend might suggest some recovery in the aftermath of this period, coupled with the gains from belt-tightening measures. On the financial control side, the strong attitudinal preference for long-term provision accompanied with lacklustre savings behaviour suggests again that families are battling to cover basic household costs, let alone ensure that funds can be set aside for the future. So for the most part, the patterns of financial literacy in these two domains fit with the narrative derived from consumer price trends. Recent research by Knight et al (2015) on household shocks, confirms the far-reaching consequences of unforeseen price increases on families. In times on national and indeed international uncertainty, the prices of basic goods and services have the potential to fluctuate appreciably, especially in response to the volatility in the cost of fuel and transportation. The human implications of such price shocks could be significant, and therefore need to be carefully scrutinized.

As described earlier, unemployment rates (based on both official and expanded definitions) have fluctuated in a fairly narrow range and at extremely high levels. Moving beyond percentage-rates to absolute numbers, we did however see that, due to population dynamics, there are more South

Africans unemployed today that five or six years ago, and the number of unemployed work-seekers has risen considerably. It is difficult to discern what this means from a financial literacy point of view. The presence of unemployed household members obviously places considerable pressure on the ability to cope, especially in times of economic underperformance and downturn. It leads to the drawing down of resources, but over time the resilience of households is likely to tested and eroded. The loss of a job by a household member and his or her ability to obtain subsequent re-employment, together with the extent to which there are savings in place to weather through this shock, are therefore likely to be instrumental in determining where the households remain secure, become temporarily poor, or begin to experience poverty on a more persistent basis. Future examination of financial literacy data may need to include a discrete set of questions about changes in employment in the household in order to capture such dynamics and relate them to macro-economic developments.

11.3 Financial literacy and living standards

The analysis presented above has relied on aggregate patterns of financial literacy, with a particular emphasis on financial management and financial planning, and how it has been evolving against a context of macro-economic change. One of the critical issues that needs to be addressed is that different groups in society may be affected differentially by economic development. In particular, do the results suggest that vulnerable and disadvantaged South Africans have been reporting greater duress in recent years or are the results more nuanced, pointing to signs of strain among middle and even upper classes too? Although the availability of disaggregate macro-indicator time series data in South Africa remains somewhat constrained, we can get an impressionistic sense of the association between aggregate group-based financial literacy trends and economic trends. To this end, we focus exclusively on variation by living standards. To do so, we make use of the Living Standards Measure (LSM), which was developed by the South African Audience Research Foundation (SAARF) in order to segment South Africans into ten different living standards classes based mainly on indicators and material and asset wealth (see http://www.saarf.co.za/lsm/lsms.asp) . For analytical purposes, we categorise these into three clusters, namely those with a low living standard (LSM categories 1-4), a medium living standard (LSM 5-7), and those with a high living standard (LSM 8-10). While one could examine a range of other forms of social inequality, such as gender, race or geographic location, we have opted for this class measure[24] as past experience suggests that we would intuitively expect on this basis distinct financial literacy cleavages and differential patterns over time in line with a tightening economic climate.

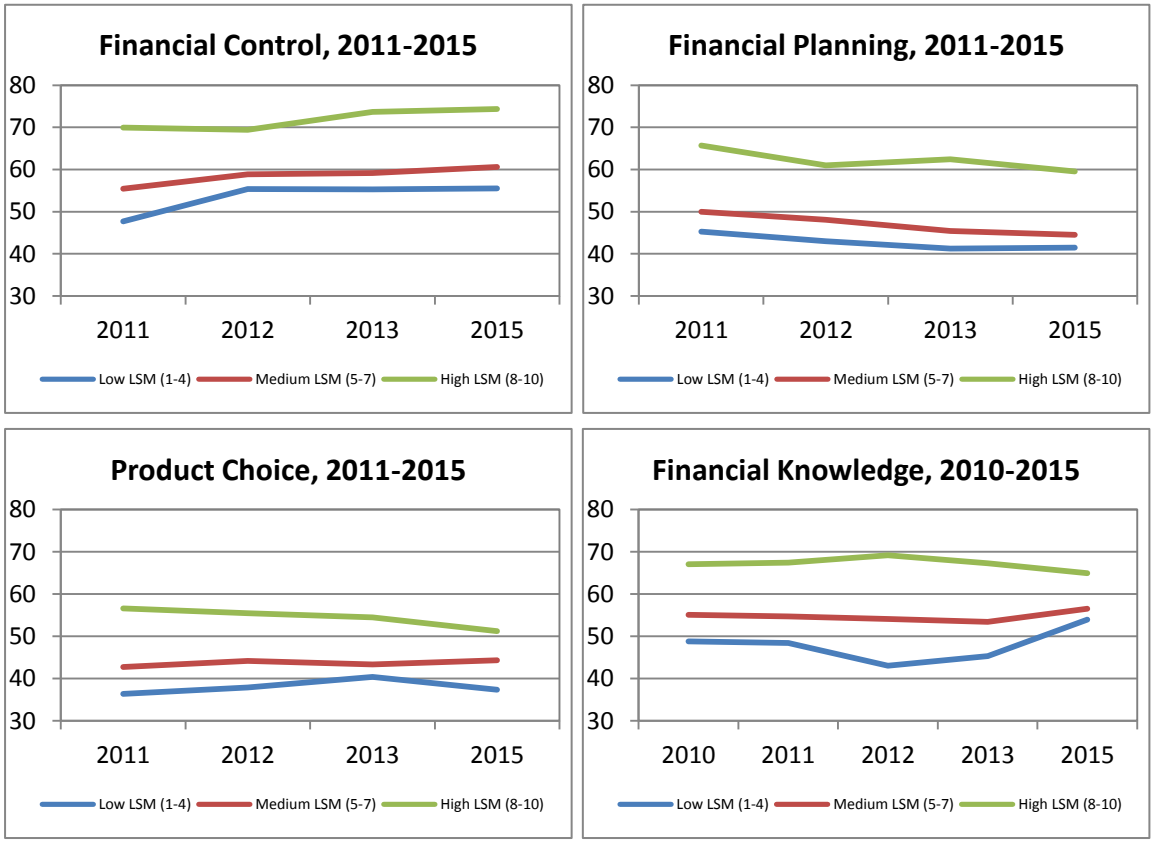
In Figure 50, the average domain scores for the three living standards categories are presented for the 2010 to period. The first observation of note from the graphs is that there is a distinct living standards gradient underlying all four financial literacy domains. Higher living standards is associated with greater levels of financial control, long-term planning, appropriate product-related decision—making and financial knowledge and understanding. Significance testing confirmed that the observed mean score differences across the three groups is statistically significant in all domains across the various years in all but one or two instances. These exceptions are as follows: (i) for financial planning in 2015, where the scores for those with a low or medium living standard are not different from one another, but both remain significantly below those with a high living standard; (ii) for financial knowledge in 2015, where the scores for those with a low or medium living standard are again indistinguishable, but are lower than those with a high living standard.

Secondly, with regard to changes within living standards groups across time, there patterns are less distinct, which suggests that change in overall levels of financial literacy has not altered appreciably. Financial control among those with low and medium living standards increased between 2011 and 2012, after which it remained flat, while for those with high living standards, there was evidence of greater financial control in 2013 and 2015 compared to 2011 and 2012. As for financial planning, there was a dip for those with low and medium living standards in 2013, but this has levelled off in

[24] Other class measures, such as occupational status, could also be experimented with in in future to see whether the choice of living standards or occupational position as the preferred metric yields similar results.

2015. For those with high living standards, the drop occurred between 2011 and 2012, after which financial planning scores have remained fairly constant. In sum, for these two domains, there has been a modest increase in financial control and corresponding fall in financial planning scores for these different economic groups over the period, occurring mainly between 2011 and 2013. In terms of product choice, there is no overarching pattern that can be inferred. For those with low living standards, the 2013 score was significantly higher than in 2011 and 2015, but for all other years the scores are equivalent. For those with medium living standards, none of the scores are significantly different, meaning that there has been no real change for this group over time in this domain. For those with a high living standard, the 2015 score represents a notable decline compared to previous years. As for financial knowledge, it has shown a swing among those with low living standards, with a decline in 2012, followed by an upswing, with the 2015 score higher than in all other years. The patterns have been more stable for those with a medium or high living standard, with only an inflection in 2015 – a fall in knowledge among those with high living standards and an increase among those with medium living standards.

Figure 50: Changes in mean financial planning domains scores by living standard level, 2010-2015



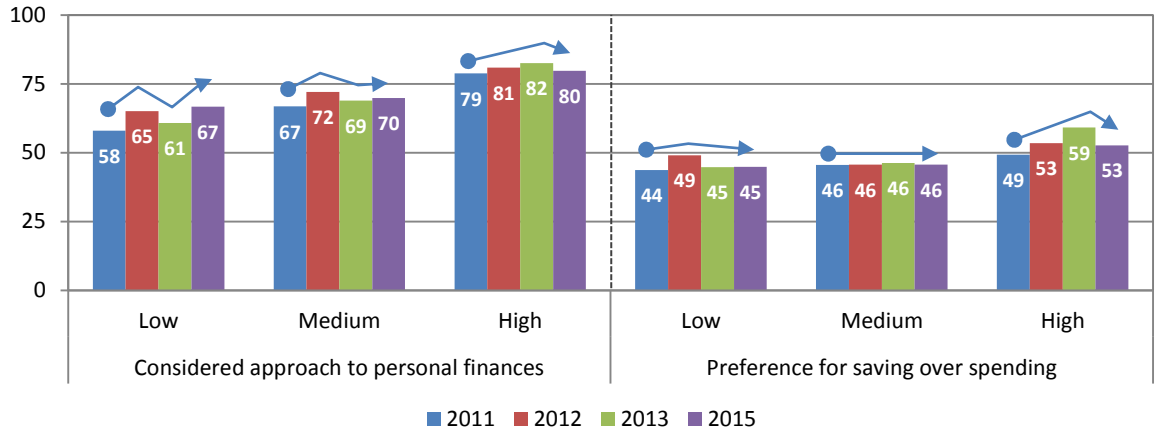
A third and final observation from the graphs is that the differences in the domain scores for those with a low or medium living standard tends to be relatively slight, whereas the gaps between the scores for groups and those with high living standards is appreciably larger. This perhaps points to economic vulnerability among the middle class in the country. There are nonetheless some signs of convergence on the product choice and financial knowledge domains over the survey rounds.

Having looked at living standard trends in each domain, we now turn to patterns on specific constituent indicators on the financial control and planning domains. The decision to focus on these two again corresponds with our expectation that these aspects of financial literacy are likely to be affected more by short to medium run economic conditions. In Figure 51, the living standard differences in the five core measures making up the financial control domain are depicted over the

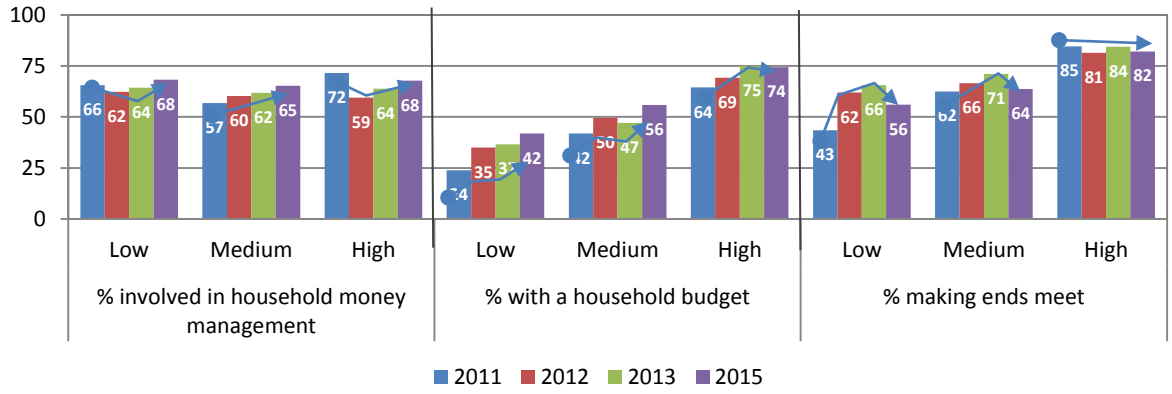
2011 to 2015 survey rounds. The first set of graphs (a) presents patterns on the two core attitudinal items informing financial control. The considered approach to personal finances is a composite score based on an ethic regarding careful spending, paying bills timeously and closely monitoring one's finances. Among those with low living standards, this has tended to fluctuate up and down over the four survey rounds, while there have only been minor variations for those with medium and high living standards. In all four survey rounds, there was a significant, positive association between living standard and a considered approach to personal finances. The second attitudinal measure relates to a preference for saving over spending, based on levels of agreement with the statement "money is there to be spent". This indicator has not changed to a considerable degree over the period, especially for those with a low or medium living standard. For those with high living standards, there was a slight upturn in the emphasis on savings between 2011 and 2013, but this dropped again in 2015. These results suggest that there have been marginal gains in South Africans taking a more careful approach to their personal and household finances, but the overall view on saving versus spending has not altered.

Figure 51: Changes in select financial control indicators by living standard level, 2011-2015

(a) Changes in attitudinal financial control measures



(b) Changes in reported behavioural financial control measures



The second set of graphs in Figure 51(b) focus on reported behaviour, namely personal involvement in money management, the presence of a household budget and the ability to make ends meet. There are no significant differences in involvement in money management over the survey rounds for those with a low living standard level, though there have been signs that such engagement has been on the increase among those with a medium living standard. For those with a high living standard, participation in the management of domestic finances dipped in 2012 and 2013 but rebounded in 2015. In terms the share reporting personal involvement in managing household finances, there is not a significant difference across living standard levels (the only exception being 2011, where those with

a medium living standard was lower than the other groups). The presence of a household budget is the indicator that demonstrates the greatest differences based on living standards, and has shown some of the most distinct changes between 2011 and 2015. For each of the three living standards groups, there has been a common upward tendency in the reported presence of a budget. While this is encouraging to see, and probably reflects a necessity to keep tighter control on domestic spending amid harsher economic circumstances, the disparities that remain are stark in character. As of late 2015, only 42% of those with a low living standard report that a household budget is in place, compared to 56% of those with a medium living standard and 74% with a high living standard.

In terms of the ability to make ends meet, for those with low and medium living standards, there were discernible improvements between 2011 and 2013, followed by a dampening in the ability to cope between 2013 and 2015. This may partly reflect the tendency to budget and monitor finances for these groups of South Africans, but it is also plausible that it might relate to the slight (and fairly short-lived) economic rebound that happened following 2008/09. It is also worth mentioning that is spite of these improvements, the share of those with a low or medium living standard that were unable to make ends meet is still appreciably high (44% and 36% respectively). In contrast, those with a high living standard show a flat trend between 2011 and 2016, with more than 80% consistently reporting that they were able to make ends meet. This points to the ability of better-off South Africans to absorb and weather economic shocks in the short- to medium-term.

These trends in patterns of financial control among South Africans with differing living standard levels shows that the wealthy tend to keep a close watch on their finances, budget and show little sign of economic hardship, even when broader macroeconomic conditions are not especially favourable. Yet the results also indicate that those with a low or medium living standard exhibit more vulnerability and variability in efforts to keep control over finances and ensure that they are able to meet the basic needs of their family at the end of the day. The suggestion that the middle class in the country is under strain is worrying, given the trajectory of economic growth, (un)employment and inflationary markers.

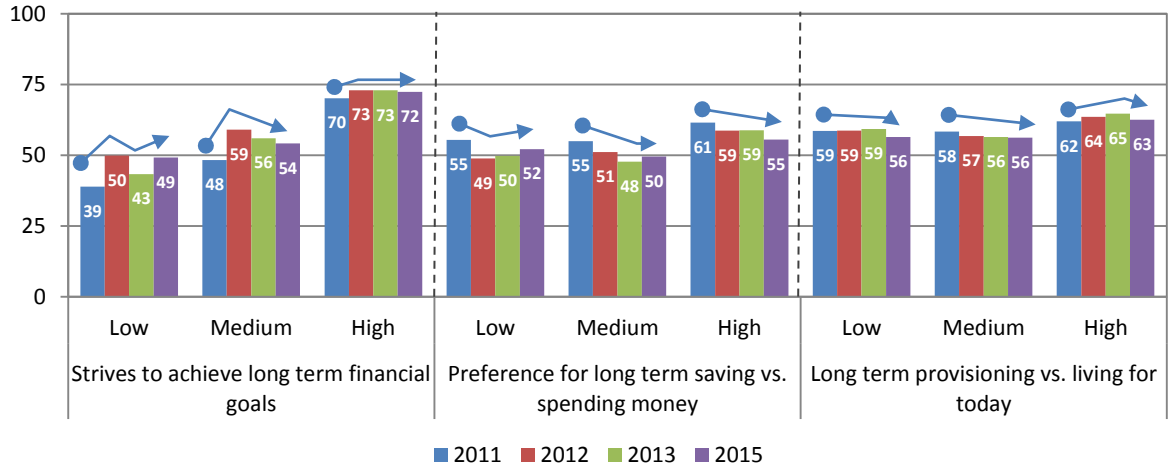
If difficulties are being encountered for specific economic groups in terms of basic provisioning, it is likely to manifest as starkly in financial planning, a fact discussed under the section on aggregate national trends. To provide further confirmatory evidence, we turn now to specific indicators of financial planning and how they have been evolving in recent years for the different living standard groups. Living standard differences are examined across the three attitudinal subcomponents of the financial planning domain are examined in the first set of graphs (Figure 52a). In terms of efforts to set and strive to achieve long-term financial goals, there are modest upswings between 2011 and the subsequent years for those with a low or medium living standard, though the trend has remained stable for those with a high living standard. The measures again reveals that those with middling to low living standards are battling to establish plans for the future and make progress towards realising these objectives, whereas the better-off are largely able to do this. This does not imply that poorer citizens do not have the desire to provision in this manner, as there are similar preferences across living standard groups in terms of preferring long-term saving and provisioning (the second and third indicators in the graph).

One of the more telling possible indications that the macroeconomic climate is exerting considerable pressure on domestic finances comes in the form of reported savings behaviour. As shown in Figure 52b, there has been a tapering off in the ability to save across living standard levels. The sharp fall between 2011 and 2012 is, as previously discussed, likely to include an element of methodological change. Yet, even if one discounts the 2011 figures, there has been a modest decline across all three groups from a relatively low base. By late 2015, barely two-fifths of those with a low or medium living standard reported that they were able to save (38% and 42% respectively), while the figure stood at only 60% for those with a high living standard. The second indicator is the presence of rainy day or emergency funds. The share of those with low or medium living standards reporting such funds is remarkably low and has not changed much over the four years of observation. Even barely half of those with a high living standard have such reserves in place. If the difficult economic environment

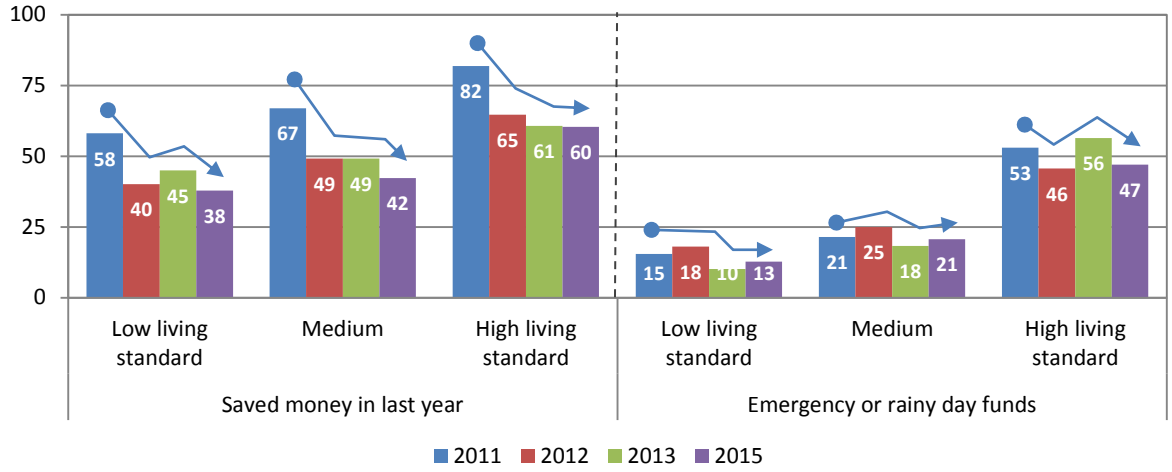
persists, it may mean these figures will fall further, as resources are forced to stretch more and households draw down on savings that they have in order to cope. These are certainly indicators to watch in coming years.

Figure 52: Changes in select financial planning indicators by living standard level, 2011-2015

(a) Changes in attitudinal financial planning measures



(b) Changes in reported behavioural financial planning measures



11.4 Concluding reflections on financial literacy and macroeconomic trends

The FSB financial literacy measures form the base indicators for measuring and monitoring progress towards the goals set out in the National Consumer Financial Education Strategy (NCFES, 2013). If, as is contended in this section, macro-economic performance matters for specific aspects of financial literacy, such as financial control (making ends meet) and financial planning (provisioning for the future), then this means that there is unlikely to be unilinear progress towards a more financially literate public. Despite the roll-out of various policy interventions and education programmes by the state and industry stakeholders, evidence would suggest that there are likely to be ebbs and flows in financial literacy that reflect the broader economic situation. Admittedly, such interventions are likely to promote cumulatively greater stocks of financial knowledge and understanding among South Africans, and possibly even a more careful, deliberate approach to choosing financial products. Yet, greater more knowledge and the holding of more appropriate products does not necessarily guarantee protection from the effects of economic downturn, both in terms of coping with the individual and household consequences of negative economic shocks, or in terms of being able to adequately

provision for the medium- to long-term. Furthermore, macro-economic developments are likely to affect the public differentially.

Trying to get a firm handle on both the macro and micro foundations of financial literacy in its various dimensions is therefore an important endeavour that has quite demanding data requirements. At this stage of analysis, based on four rounds of annual financial literacy data, we are on able to draw very broad, tentative inferences about the association between aggregate financial literacy in South Africa and core indicators on the state of the economy. As the earlier example from the United States in the introduction to this section demonstrates, once more data rounds become available, one is able to more confidently plot trends and test aggregate-level associations. The continued collection of repeat, cross-sectional data based on the financial literacy measures should be prioritised, for it will enable the assertions and preliminary findings described in this section to be re-tested as additional rounds of financial literacy data become available. Doing so will provide a better understanding of the nature and drivers of progress (or lack thereof) in moving towards the NCFES targets and goals, and allow for a more adaptive policy agenda.

12 Conclusion

The purpose of using a composite index that measured financial literacy been to provide a tool that government and other stakeholders can use to monitor progress in levels of financial literacy. This report has provided data on financial literacy that is representative at both the national and provincial level. The research team found that a considerable portion of the country's adult population may not be satisfactorily equipped to make important financial decisions. The team believes that the data gathered over the period 2011-2015 provides compelling evidence of the existence of low levels of financial knowledge and literacy in South Africa. This is not unexpected. The NCFE Strategy document itself has acknowledged that South African consumers generally lack the capacity to understand the complexities of financial products. The findings of the study, given in this report, support a comprehensive and aggressive programme of financial consumer education. The findings demonstrate the value of comprehensive analyses of financial literacy in South Africa. Suitably targeted and adaptive policy, programmatic and project-based financial education interventions require studies of this kind.

It is important to reiterate here the negative consequences of financial illiteracy. Low levels of financial literacy negatively affect financial consumers in a myriad of ways, including the incapability to assess the suitability of financial products in relation to personal needs. Financial literacy makes understanding and accessing comparable pricing information easier. Financial illiteracy also undermines saving and makes individuals more vulnerable to predatory lending and financial scams. The ability of an individual to start a business can be affected by her or his financial knowledge, capability and understanding; therefore, financial illiteracy undermines entrepreneurship in South Africa. The country faces considerable challenges of overcoming unemployment, poverty and inequality during a prolonged period of global economic uncertainty and slow growth. Such challenges are compounded by low levels of financial literacy amongst the public.

Across all domains constructed for this report, a clear class and human capital bias was evident. Those with high educational attainment and in the upper economic classes were far more likely to demonstrate high financial knowledge and positive financial behaviour. It is clear, therefore, that in understanding financial literacy in the country we have to acknowledge the vital significance of individual access to human and economic capital. Differences in terms of class and education seem to explain most of the observed race and linguistic group differences shown by the bivariate analysis. The multivariate analysis suggests that, even controlling for all other factors related to economic and human capital position, factors outside the socio-economic still play a salient role in determining financial literacy.

Age was statistically associated with financial literacy. A number of scholars have investigated the relationship between age and financial literacy (Lusardi and Mitchell 2011). The observed increase in

financial literacy associated with age may be linked to the acquisition of experience. A worrying finding was that people outside the labour market were less apt to have strong financial literacy scores. This, like the age finding, may be related to the acquisition of experience. Hilgert et al. (2003), using the 2001 University of Michigan Survey of Consumers, found that financial experience was a powerful predictor of financial knowledge and financial management (in terms of credit management, savings, cash flow management, and investments). People in retirement had lower levels of financial literacy. Low financial literacy scores reported by the retired may result from the decline in financial activity after existing from the labour market.

A common finding in many studies of financial literacy is gender basis. For instance Lusardi, Mitchell, and Curto (2010), in their study of young people, found that women were less likely than their male counterparts were to answer financial literacy questions correctly. Similar results were found in a study using data from the Health and Retirement Survey (see Lusardi and Mitchell 2008). Being female is also associated with lower financial knowledge in a number of European studies (for example, see Guiso and Jappelli 2008). However, this study was unable to find any statistically significant correlation between financial literacy and gender. This suggests that women in South Africa have adapted to the financial marketplace with the same proficiency as men. Interestingly, marital status has been consistently shown to have a statistical association with financial literacy. The institution of marriage, it seems, encourages individuals to adopt more responsible financial behaviours and to acquire better levels of financial knowledge.

The composite financial literacy index is a useful tool for policy-makers. Using this measure, the research team identified salient socio-demographic differences in financial literacy. So identified, these groups can be specially targeted for financial consumer education interventions. To take one example: the NCFE Strategy prioritises consumer education interventions for the Black African majority. Given the long-lasting effects of apartheid and colonial policies on this previously disadvantaged group, this prioritising is not surprising. Using an expanded population group variable, this report has indicated that certain Black African linguistic groups in the country are more financially literate than others. isiXhosa-speakers, for instance, tended to score lower on financial knowledge than other groups. This finding should allow the government to better target certain groups for financial consumer education interventions.

The data presented in this report showing positive trends in financial literacy is consist with the priorities of the NCFE Strategy. In its design of interventions to assist vulnerable groups in South Africa, the Strategy prioritises certain groups and particularly the poor. The data presented in this research report shows that financial literacy amongst the poor has marginally improved over the period 2011-2015. Financial knowledge, in particular, among the poor increased significantly between 2011 and 2015. This shows, in part, their successful adaptation to the growing complexity of the financial marketplace. However, economic status is still the most robust predictor of financial literacy identified by the research team and is a powerful correlate of the overall financial literacy score.

The work presented in this report builds on the research team's previous work on financial literacy. Previous financial literacy reports produced using SASAS data confirms the validity of the OECD INFE approach as a useful tool for financial literacy research in South Africa and that the OECD INFE approach can identify financially illiterate groups. This previous work showed that the financial domain scores designed by the OECD are an important instrument that can be used to successfully capture the many multidimensional aspects of financial literacy. The work presented here suggests that such measures are vital to the growing body of literature on financial literacy and that wide application of these instruments will provide a rich and comparative source of data on financial literacy. The report has importance for scholars and researchers inside and outside South Africa. Post-apartheid South Africa is a particularly interesting perspective from which to understand the determinants of financial literacy. Analysing financial literacy in this country will allow the determinants identified in the developed world to be assessed in the developing, permitting a test of their salience in different economic contexts.

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APPENDIX A:
SOUTH AFRICAN SOCIAL ATTITUDES SURVEY

Questionnaire 2: October/November 2015

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

160. How many children under the age of 18 live with you?

Number of children under 18 years	
(Don't know)	98
(Refused)	99

161. What is the age of the youngest child in your household _____?

Age of youngest child: ☐ Years

(Does not apply / no children in household) 97

162. How many people aged 18 and over live with you, [including your partner]? Please do not count yourself

Number of people 18 years and older	
(Don't know)	98
(Refused)	99

163. 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

164. 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 4*]

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

169. 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.170**
No	2	**Skip to Q.172**
(Do not know)	8	
(Refused to answer)	9	

170. What did you do to make ends meet the last time this happened?

INTERVIEWER: PROBE: DID YOU DO ANYTHING ELSE? DO NOT READ OUT OPTIONS. MULTIPLE RESPONSES ALLOWED.

171. Of the things you mentioned, which does your household rely on the most?

INTERVIEWER: CIRCLE ONE OPTION ONLY.

		Q.170	Q.171 [ONE OPTION]
a.	Draw money out of savings or transfer savings into current account	1	1
b.	Cut back on spending, spend less, do without	2	2
c.	Sell something that I own	3	3
d.	Work overtime, earn extra money	4	4
e.	Borrow food or money from family or friends	5	5
f.	Borrow from employer/salary advance	6	6
g.	Pawn something that I own	7	7
h.	Take a loan from my savings and loans clubs	8	8
i.	Take money out of a flexible home loan account	9	9
j.	Apply for loan/withdrawal on pension fund	10	10
k.	Use authorized, arranged overdraft or line of credit	11	11
l.	Use credit card for a cash advance or to pay bills/buy food	12	12
m.	Take out a personal loan from a formal financial service provider (including bank, credit union or microfinance)	13	13
n.	Take out a payday loan (advance on salary from someone-not employer)	14	14
o.	Take out a loan from an informal provider/moneylender	15	15
p.	Use unauthorised overdraft	16	16
q.	Pay my bills late; miss payments	17	17
r.	Other (specify)	18	18
s.	(Do not know)	98	98
t.	(Refused to answer)	99	99

172. 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

173. If you lost your main source of *household* income, how long could your household continue to cover living expenses, without borrowing any money or moving house?

Less than a week	1
At least a week, but not one month	2
At least one month, but not three months	3
A least three months, but not six months	4
More than six months	5
(Do not know)	8
(Refused to answer)	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	Disagree	Completel y disagree	(Do not know)	(Refused)
174.	I find it more satisfying to spend money than to save it for the long term	1	2	3	4	5	8	9
175.	I tend to live for today and let tomorrow take care of itself	1	2	3	4	5	8	9
176.	Money is there to be spent	1	2	3	4	5	8	9
177.	I am prepared to risk some of my own money when saving or making an investment	1	2	3	4	5	8	9
178.	My financial situation limits my ability to do the things that are important to me	1	2	3	4	5	8	9
179.	I tend to worry about paying my normal living expenses	1	2	3	4	5	8	9
180.	I have too much debt right now	1	2	3	4	5	8	9
181.	I am satisfied with my present financial situation	1	2	3	4	5	8	9

182. 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.

INTERVIEWER: MULTIPLE RESPONSES ALLOWED. CIRCLE ALL THAT APPLY.

a.	Building up a balance of money in your bank account	1
b.	Paying money into a savings account	2
c.	Saving cash at home or in your wallet	3
d.	Giving money to family to save on your behalf	4
e.	Saving in a stokvel or any other informal savings club	5
f.	Buying financial investment products, other than pension funds [e.g. investment trusts, stocks and shares]	6
g.	Or saving in some other way (including remittances, buying livestock or property)	7
h.	(None of the above)	8
i.	(Do not know)	9
j.	(Refused to answer)	10

183. And if you, personally, faced a major expense today – equivalent to your own monthly income – would you be able to pay it without borrowing the money or asking family or friends to help?

Yes	1
No	2
(Do not know)	7
(Not applicable - I don't have any personal income)	8
(Refused to answer)	9

184. 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? [*Showcard 11*]

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

185. And how will you - or do you - fund your retirement?

INTERVIEWER: MULTIPLE RESPONSES ALLOWED. CIRCLE ALL THAT APPLY.

a.	from drawing a government pension/ old-age benefit	1
b.	from an occupational or workplace pension plan	2
c.	from a private pension plan	3
d.	from selling your financial assets (such as: stocks, bonds or mutual funds)	4
e.	from selling your non-financial assets (a car, property, art, jewels, antiques, etc.)	5
f.	from income generated by your financial or non-financial assets	6
g.	by relying on a spouse or partner to support you	7
h.	by relying on your children or other family members to support you	8
i.	Something else (*specify*):	9
j.	(Don't know)	88
k.	(Refused to answer the entire question)	99

PRODUCT CHOICE

I am going to start with products that people can get from banks. [*Showcard 12*]

186. Please can you tell me whether you have heard of any of the following banking products?
187. [ASK FOR ALL PRODUCTS CIRCLED IN Q.186] And now can you tell me whether you currently hold any of these types of products?

INTERVIEWER: MULTIPLE RESPONSES ALLOWED. CIRCLE ALL THAT APPLY.

188. [ASK FOR ALL PRODUCTS CIRCLED IN Q.186] And... In the last two years, which of the following types of banking products have you chosen [Personally or jointly] whether or not you still hold them…Please do not include products that were renewed automatically

INTERVIEWER: MULTIPLE RESPONSES ALLOWED. CIRCLE ALL THAT APPLY.

		186. Heard of banking products.	187. ASK FOR ALL products circled in Q.186 Currently hold types of banking products	188. ASK FOR ALL products circled in Q.186 Chosen banking products in last two years
a.	Mzansi account	01	01	01
b.	Savings account	02	02	02
c.	Current or Cheque account	03	03	03
d.	Fixed deposit bank account	04	04	04
e.	ATM card	05	05	05
f.	Debit card or Cheque card	06	06	06
g.	Credit Card	07	07	07
h.	Garage card or petrol card	08	08	08
i.	Home loan from a big bank	09	09	09
j.	Savings book at a bank	10	10	10
k.	Post Office / Post Bank savings account	11	11	11
l.	Cellphone account (e.g. M-PESA)	13	13	13
m.	Other bank product (SPECIFY)	12	12	12
n.	(None of the above)	97	97	97
o.	(Refused)	98	98	98
p.	(Don’t know)	99	99	99

I would now like to talk about various types of credit or loans. [*Showcard 13*]

189. Please can you tell me whether you have heard of any of the following types of credit or loans?

190. [ASK FOR ALL PRODUCTS CIRCLED IN Q.189] And now can you tell me whether you currently hold any of these types of credit or loans?

INTERVIEWER: MULTIPLE RESPONSES ALLOWED

191. [ASK FOR ALL PRODUCTS CIRCLED IN Q.189] And... In the last two years, which of the following types of credit or loans have you chosen [Personally or jointly] whether or not you still hold them…Please do not include products that were renewed automatically

INTERVIEWER: MULTIPLE RESPONSES ALLOWED

		189. Heard of type of credit or loan	190. ASK FOR ALL products circled in Q.189 Currently hold type of credit or loan	191. ASK FOR ALL products circled in Q.189 Chosen credit/loan product in last two years
	Formal credit and loans			
a.	Loan from a microlender e.g. African Bank, Credit Indemnity, Capitec Bank, Ubank (Teba)	01	01	01
b.	Vehicle or car finance through bank or dealer	02	02	02
c.	Overdraft facility	03	03	03
d.	Store card where you buy on account and pay later e.g. Edgars	04	04	04
e.	Lay-bye	05	05	05
f.	Hire Purchase (HP) / paying in monthly instalments for goods such as furniture	06	06	06
	Informal credit and loans			
g.	Loan from friends or family	07	07	07
h.	Loan from an informal money lender (mashonisa / loan shark)	08	09	09
i.	Loan from a stokvel / umgalelo or savings club	09	10	10
j.	Loan from local spaza	10	11	11
k.	Store account with no card where you pay later (e.g. spaza, corner cafe, garage, general dealer)	11	12	12
l.	Loan from an employer	12	08	08
m.	(None of the above)	97	97	97
n.	(Don't know)	98	98	98
o.	(Refused)	99	99	99

I would now like to talk about savings and investments. [*Showcard 14*]

192. Please can you tell me whether you have heard of any of the following types of <u>investment or savings products</u>?

193. [ASK FOR ALL PRODUCTS CIRCLED IN Q.192] And now can you tell me whether you currently hold any of these types of investment or savings products?

INTERVIEWER: MULTIPLE RESPONSES ALLOWED. CIRCLE ALL THAT APPLY.

194. [ASK FOR ALL PRODUCTS CIRCLED IN Q.192] And... In the last two years, which of the following types of investment or savings products have you chosen [Personally or jointly] whether or not you still hold them…Please do not include products that were renewed automatically

INTERVIEWER: MULTIPLE RESPONSES ALLOWED

		192. Heard of any of investment or savings product.	**193. <u>ASK FOR ALL products circled in Q.192</u> Currently has investment or savings product**	**194. <u>ASK FOR ALL products circled in Q.192</u> Chosen investment or savings products in last two years**
	Formal products			
a.	Unit trusts	01	01	01
b.	Education policy or plan	02	02	02
c.	Investment or savings policy	03	03	03
d.	Shares on the stock exchange	04	04	04
	Retirement products			
e.	Retirement annuity	05	05	05
f.	Provident fund	06	06	06
g.	Pension fund	07	07	07
	Savings clubs			
h.	Stokvel / umgalelo / savings club	08	08	08
i.	Giving money to someone who will guard it for you, to keep it safe	09	09	09
j.	Keep cash or savings at home	10	10	10
k.	Other savings club	11	11	11
l.	(None of the above)	97	97	97
m.	(Don't know)	98	98	98
n.	(Refused)	99	99	99

I would now like to talk about various types of insurance. [*Showcard 15*]

195. Please can you tell me whether you have heard of any of the following types of insurance products?

196. [ASK FOR ALL PRODUCTS CIRCLED IN Q.195] And now can you tell me whether you currently hold any of these types of insurance products?

INTERVIEWER: MULTIPLE RESPONSES ALLOWED. CIRCLE ALL THAT APPLY.

197. [ASK FOR ALL PRODUCTS CIRCLED IN Q.195] And... In the last two years, which of the following types of insurance products have you chosen [Personally or jointly] whether or not you still hold them…Please do not include products that were renewed automatically

INTERVIEWER: MULTIPLE RESPONSES ALLOWED

		195. Heard of insurance product	196. ASK FOR ALL products circled in Q.195 Currently has insurance product	197. ASK FOR ALL products circled in Q.195 Chosen insurance products in last two years
	Short-term (asset) insurance			
a.	Vehicle or car insurance	01	01	01
b.	Household contents insurance (e.g. furniture and appliances)	02	02	02
c.	Homeowners' insurance on building / house structure	03	03	03
d.	Cellphone insurance	04	04	04
	Long-term insurance			
e.	Life insurance or life cover	05	05	05
f.	Insurance that pays your loan or borrowing when you die	06	06	06
g.	Disability insurance or cover	07	07	07
h.	Medical aid scheme	08	08	08
i.	Hospital cash plan	09	09	09
	Funeral			
j.	Belong to a burial society	10	10	10
k.	Funeral policy with a bank (including Post Bank)	11	11	11
l.	Funeral cover through an undertaker or funeral parlour / home	12	12	12
m.	Funeral policy with an insurance company	13	13	13
n.	Funeral cover from an spaza shop or stokvel	14	14	14
o.	Funeral cover from any other source (e.g. shop, employer)	15	15	15
p.	(None of the above)	97	97	97
q.	(Don't know)	98	98	98
r.	(Refused)	99	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)
198.	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
199.	I always research my choices thoroughly before making any decisions about financial products or services	1	2	3	4	5	6	7

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

INTERVIEWER: MULTIPLE RESPONSES ALLOWED. CIRCLE ALL THAT APPLY.

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

201. Within the <u>last five years</u>, 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

FINANCIAL KNOWLEDGE AND UNDERSTANDING

202. Thank you. And, now something slightly different. 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

203. 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

204. 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

205. 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?

INTERVIEWER: READ OUT THE QUESTION AGAIN IF THE RESPONDENT ASK YOU TO DO SO

Record response numerically - - -

R	

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

206. 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?

INTERVIEWER: READ OUT THE QUESTION AGAIN IF THE RESPONDENT ASK YOU TO DO SO

Record response numerically - - -

R	

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

207. 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)
208.	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
209.	High inflation means that the cost of living is increasing rapidly	1	2	8	9
210.	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