REPORT

A macroeconomic impact assessment of the regulated micro-finance sector in South Africa

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Title page

Research topic/themes:

A study to identify and quantify key socio-economic benefits emanating from a regulated micro-finance sector in South Africa, including an econometric modelling exercise that quantifies the economic impact of micro-finance institutions (MFIs)

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Abbreviations & terminology

BER	Bureau for Economic Research (Stellenbosch University)
CPI	Consumer price index
CEO	Chief Executive Officer
CMB	Convergences' Microfinance Barometer
CPI	Consumer Price Index
EIA	Economic impact assessment
GDP	Gross domestic product
GIIN	Global Impact Investing Network
HFR	Household Financial Resilience
M1	Money supply (notes & coins in circulation plus all demand deposits held by the domestic private sector)
MFI	Micro Finance Institution
MFSA	Micro Finance South Africa
MPC	Monetary Policy Committee (SARB)
NEW_CRED	New Credit (quarterly, related to short-term loans - < 6 months)
NCR	National Credit Regulator
OLS	Ordinary Least Squared (method for econometric analysis)
PPI	Producer Price Index
SARB	South African Reserve Bank
SDGs	Sustainable Development Goals
SEC	Secured Lending (the sum of mortgage advances, leasing finance and instalment sales)
SME	Small & Micro Enterprises
SONA	State of the Nation Address (by the President of South Africa)
SSA	Sub-Saharan Africa
ULTRA	Upgrading of Land Tenure Rights Act, 1991
UN	United Nations
UNSEC	Unsecured Lending (SARB statistical code 1365 –"other loans & advances")
VAT	Value added tax

An Economic Impact Assessment of Micro-finance in South Africa

1. Introduction

1.1 Background to the study

Over the past few years, a generally negative public perception of unsecured lending has developed in South Africa, especially in the area of micro-finance. Media reports citing high default rates for credit-ridden households and reference to terminology such as "loan sharks" when referring to the activities of micro-lenders, has created a largely false impression of the regulated micro-finance sector.

A glaring absence of objectivity has become a characteristic of media reporting on issues related to household debt. Any increase in default values (which may be expected as a result of demographic trends and a consistent increase in economic output in nominal terms) or default ratios regularly feature prominently in the media. When household debt levels or default ratios decline, however, hardly any reporting on such trends occurs.

Furthermore, data trends from organisations that monitor credit default ratios often portray a pessimistic picture of household debt, which is rather subjective, due to mitigating circumstances relating to the cut-off dates for determining these ratios and also whether the defaults may be regarded as permanent or merely a one- or two-term slippage.

It is clear from a variety of data sets that terminal default ratios (to household disposable income) are significantly lower, whilst the ratio of household debt to household disposable income in South Africa has declined by more than 19% in the decade between the first quarter of 2008 and the first quarter of 2018.

In contrast to the negative perception of micro-finance in South Africa, this industry is held in high esteem in most of the developing world. Organisations such as the *Mastercard Foundation* and the *European Microfinance Platform* provide substantial support to the monitoring of progress with expanding credit to poor households around the world. India, in particular, has embraced the role of micro-finance institutions in facilitating the gradual convergence of formal and informal lending activities by creating a new tier of financial institutions, essentially consisting of a type of "premier league" of MFIs.

Although financial inclusion of the most vulnerable households is not necessarily limited to microfinance, this sector has played an enormous role in combating a key element of global inequality, namely the ability of individuals to expedite expenditure on consumption goods and also to assist with the financing of working capital for small and micro enterprises (SMEs).

Following discussions between the chief executive officer (CEO) of Micro-finance South Africa (MFSA) and the lead researcher of this study, a proposal was submitted (and subsequently approved) to conduct research into recent key trends in the micro-finance sector and add to the existing knowledge base on MFIs and their impact on society.

1.2 Objectives and structure of the study

The main focus of this study is on quantifying the economic impact of the micro-finance sector via econometric modelling. This is done from the perspective of the strong positive correlation between private sector credit extension and differentials between growth rates for secured and unsecured lending that became pronounced after the 2008/09 recession.

The quantitative impact analysis will establish the extent of correlation between unsecured lending (as defined by the SA Reserve Bank's statistical code 1365, titled "other loans and advances") and GDP. This will then inform the modelling of an impact assessment on total economic output (gross domestic product – GDP), conducted for two different scenarios, viz:

i. Determining what the size of South Africa's GDP would have been at the end of the third quarter of 2018 in the event of unsecured lending having grown at the same rate as secured lending since 2009
ii. Quantifying GDP in Q3, 2018 in the absence of the regulated micro-finance sector (which effectively reduces the size of the variable for private sector credit extension)

The results of this quantitative macroeconomic impact assessment are presented in section five.

The modelling of the macro-economic impact of unsecured lending and also specifically the micro-finance industry is preceded by a more general overview of the micro-finance sector in South Africa.

Section two provides a concise overview of the socio-economic impact of the regulated micro-finance industry in South Africa, as well as some salient global trends that may be of interest to domestic MFIs and regulators in the public sector.

This is followed by a critique of monetary policy in South Africa since the retirement of the retirement of the previous Governor of the South African Reserve bank (SARB), which witnessed a sudden and sustained shift towards a virtually exclusive emphasis on the combating of inflation via high interest rates, with an apparent disregard for its impact on economic growth and employment creation.

A concise, quantitative profile of credit extension since 2012 is provided in section four, from the perspectives of the size, scope and other key characteristics of the different types of credit, based on the most recent available data sets.

In an attempt to accurately determine the disposition of South African households towards their ability to cope with debt, section six (after the section dealing with the results of the econometric modelling exercise) contains the trends relating to a composite index of household financial resilience. This index is comprised of 16 different indicators, weighted according to the demand side of the unsecured lending industry and calculated on a quarterly basis, with the first quarter of 2012 as the base period (equalling an index value of 100).

2. The economic relevance of micro-lending

2.1 Facilitation of production

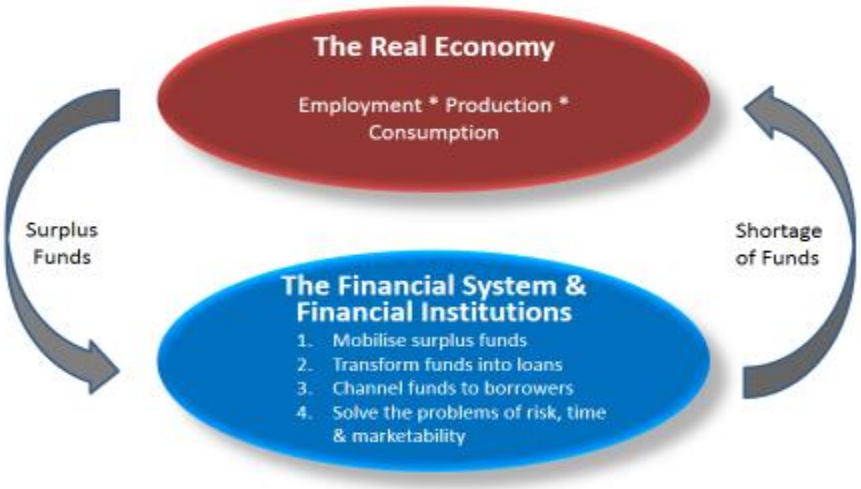
In modern societies, monetary systems have evolved into highly sophisticated networks that facilitate transactions between depositors and borrowers. Money and banking are today recognised as specialised fields of study within economics, dovetailing into the fields of accounting, business management, asset management and actuarial sciences. Although economists remain primarily concerned with the so-called real activities in an economy, (mainly production and consumption), monetary factors have a profound effect on the scope and size of these real variables.

Surplus production of meaningful proportions is not possible in a barter economy. The development of money as a generally accepted means of payment should, therefore, be regarded as a paradigm shift in the evolution of modern human society, comparable in importance to the cultivation of land and the harnessing of power.

Any policy intervention that affects financial institutions, who are at the core of most financial processes in modern societies, should be treated with circumspection, as it ultimately impacts on the real processes of employment, production and consumption.

It is important to realise the unique and pervasive influence of financial institutions (including micro-lenders) with regard to the function of providing a channel for surplus funds to flow from depositors to borrowers. By becoming the *de jure* lender, the relevant financial institution removes the risks and costs associated with lending money from the depositor, who is also remunerated for temporarily sacrificing immediate command over surplus funds.

Figure 1: Relationship between the real economy & the financial sector



Lending institutions enhance the swiftness with which economic transactions take place. Their contribution to reduce the inconveniences, costs, risks and term structure incompatibilities of direct liaison between lenders and borrowers translates into a higher level and more rapid flow of funding for real economic activity.

This is particularly true for micro-finance institutions (MFIs), who are in a position to satisfy the lending needs of qualifying applicants within a very short time-frame, sometimes within minutes. Although the interest rate on micro loans is always higher than that of the formal banking sector, MFIs clearly fill a void in the access to loan financing.

2.2 Role players & general macroeconomic impact

2.2.1 The global relevance of MFIs

It is important to recognise the variety of individuals and organisations that exercise a demand for borrowed funds. These range from consumers and businesses to governments and state-owned enterprises. Borrowers utilise funds for the full spectrum of economic transactions, ranging from consumption of durables and non-durables to the purchase of goods and services underpinning production and value added in the economy. In the case of the public sector, borrowed funds are mostly used for the financing of infrastructure or specific development projects such as low-cost housing.

A standard condition underpinning loan agreements between lenders and borrowers include interest, which is stated as a certain percentage of the principal amount accruing to the lender as compensation for various costs associated with borrowing (e.g. interest payable to depositors, administration, office rental & equipment and insurance) as well as accepting the risk of any default.

Any envisaged regulation of the financial services sector that could affect the ability of banks and micro-lenders to fulfil the functions illustrated in the accompanying diagram should be subjected to a thorough economic impact assessment (EIA).

Such an EIA should ideally juxtapose the intended objectives of the regulation with its likely outcome, not only in terms of these objectives, but also in terms of the quantifiable impact on value added in the economy, employment, capital formation, consumption and the full range of taxation revenues that are directly or indirectly correlated to economic output and consumption expenditure. In the case of the micro-lending industry, the latter will mainly be confined to VAT, the fuel levy and other indirect taxes.

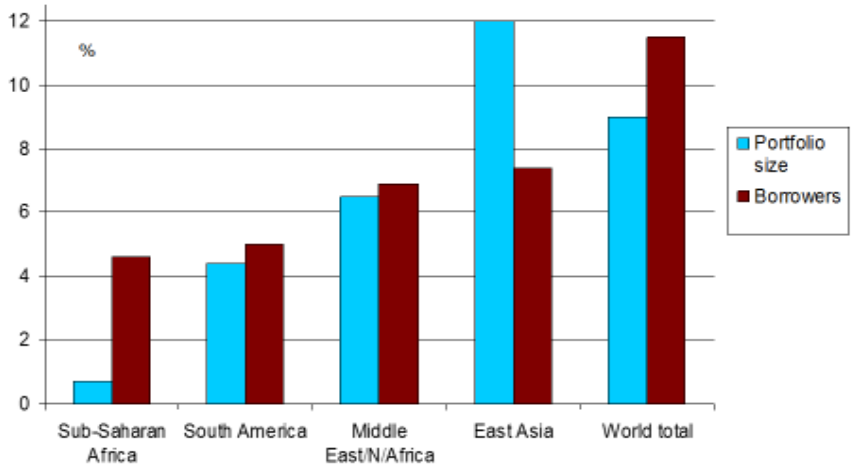
It is a point of concern that the formal micro-lending sector in South Africa has shrunk over the past two decades. A combination of decreased profits (as a result of strong initial growth of new entrants), the elimination of a stable collection mechanism (due to outlawing payroll lending) and the costs of regulation compliance drove many MFIs out of the market. In 1997, the

estimated number of formal micro-lenders stood at 3,500. Merely three years later, this figure had dropped to only 1,334 registered MFIs and the membership of MFSA now stands at 1,150.

The latest edition of the authoritative *Convergences' Microfinance Barometer (CMB)*, which has the European Microfinance Platform and the Mastercard Foundation as two of its partners, confirms the continuing stellar growth trend for the global microfinance sector (outside of Eastern Europe and East Asia).

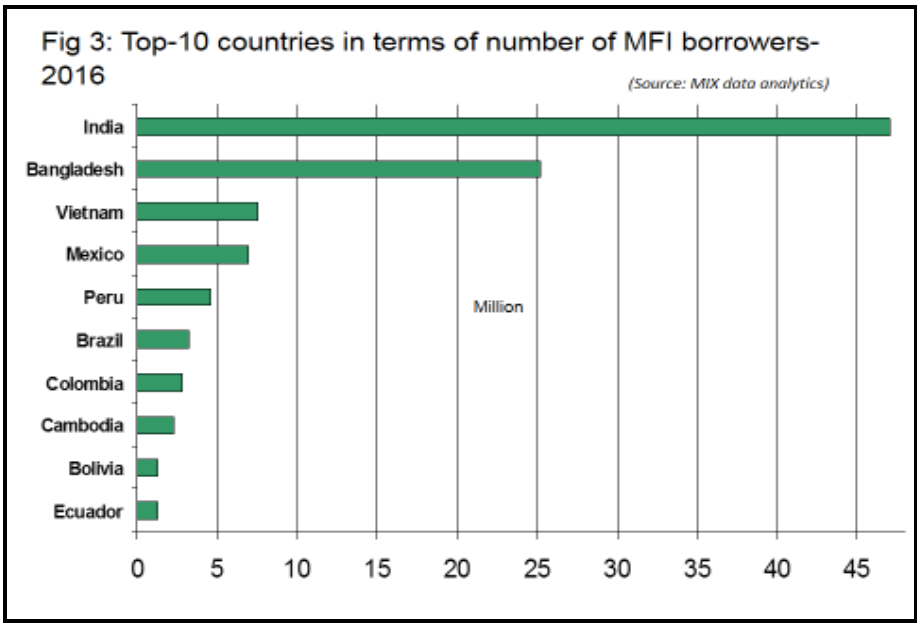
This new edition of the *CMB* points to the sustained growth (by more than 9%) in the overall loan portfolio and the number of active borrowers. However, these figures should be contrasted with those of unmet needs –more than 2 billion adults worldwide have no access whatsoever to a financial institution. Figure 2 confirms exceptionally strong growth in the micro-finance industry in sub-Saharan Africa (SSA).

Figure 2: Growth in portfolio size and number of borrowers of MFIs by selected World regions 2015 - 2016 *(Source: MIX data analytics)*



The latest *Barometer* contains a summary of research sourced from *MIX Data Analytics*. Some of these trends have been observed in previous editions and the latest synopsis of the global micro-finance industry includes the following observations:

- Globally, non-banking financial institutions, which includes MFIs, have a larger concentration of borrowers than banks
- A greater level of professionalism has developed within the management of MFIs
- Progress has been made with the collection of data and the dissemination of universal standards for managing social performance
- A relatively new tendency has occurred to transform mature MFIs into small banks (particularly in India, which is the global leader for the number of MFIs – see figure 3)



2.2.2 Specific areas of socio-economic impact

A fairly concise summary of the key impact areas emanating from the existence of a micro-lending industry in a society, in general, and South Africa, in particular, is as follows:

i) Employment creation

This occurs directly via the jobs within the micro-lending businesses and indirectly via the forward and backward linkages with other sectors of the economy (e.g. communications, property rental, equipment, etc.). A third category of employment creation relates to the small and micro enterprises (SMEs) that are supported through the working capital supplied by the MFIs

ii) Contribution to GDP

According to data obtained from the National Credit Regulator (NCR), the outstanding loan book of MFIs is estimated at 3.6% of total private sector credit extension, which translates into a value of R130 billion. To put the size of this contribution to economic activity into perspective, it is 21% larger than the contribution to GDP by the whole of the agriculture sector in South Africa.

iii) Contribution to taxation revenues

As stated earlier, the lending activities of MFIs exert a quantifiable impact on economic output, which is highly correlated with the total of the full range of taxation revenues. In the case of the micro-lending industry, the latter is mainly applicable to VAT, the fuel levy, excise duties, customs duties and a proportional share of company tax (via consumption expenditure that adds to company turnovers and, ultimately, to profits).

Tables 1 and 2 illustrate two different methodologies for calculating the fiscal impact of the micro-lending industry in South Africa. The first of these is based on the multiplier effects inherent in the country's national accounts data (input-output tables), which flow from an increase in demand (via new short-term loans) to value added in the economy and, ultimately, to the different sources of taxation revenues.

Table 1: Calculation of the fiscal impact of MFIs utilising input/output table multipliers

	R bn
GDP impact - new MFI loans last 4 quarters	21.09

	Multipliers	Tax rev. (Rbn)
Personal income tax	0.14408	3.04
Company tax	0.11483	2.42
Indirect taxes on products	0.12970	2.74
Indirect taxes on production	0.03105	0.65
Total tax revenues generated by MFIs		**8.85**

The second method is to determine the ratio that exists between total new credit to households and GDP, as well as the share of short-term loans of this credit and then to apply these ratios to the taxation revenues generated by GDP, ultimately determining the share of taxes generated by the activities of MFIs.

Table 2: Calculation of the fiscal impact of MFIs utilising the ratios between new credit extension and tax revenues

	Ratio	R bn
Average total new credit last 4 quarters		128.15
Average new MFI credit last 4 quarters		3.40
Average nominal GDP last 4 quarters		1 202.00
Tax revenues generated by avg. quarterly GDP		316.06
Ratio of new credit to tax revenues	0.4055	
Ratio of MFI credit to total credit	0.0265	
Avg. quarterly tax revenues generated by MFIs		3.40
Annualised tax revenues generated by MFIs		**13.58**

iv) Superior multiplier effects for value added, highly skilled jobs & taxation

According to the latest available multiplier data, calculated from the country's input-output tables (national accounts), the sector for financial intermediation and insurance

(to which MFIs belong), possesses above-average multipliers than the economy as a whole, as illustrated by table 3.

Table 3: Superior input/output table multipliers for the finance and insurance sector (including MFIs)

Indicator	Multipliers	
	Total economy	**Finance & insurance**
Gross value added at factor cost	1.336	1.552
Compensation of employees	0.603	0.670
Net operating surplus	0.536	0.657
Fixed capital formation	0.294	0.312
Highly skilled employment	0.780	0.783
Personal income tax	0.114	0.144
Company tax	0.095	0.115
Indirect taxes on production	0.023	0.031

Note: *Multipliers per R1 million final demand*

Source: *Quantec Data*

v) Financial assistance with emergencies

One of the most significant gaps in the financial portfolios of low income households is savings instruments geared towards unexpected events (e.g. serious injury/illness and being a victim of crime). Most low-income earners do not meet the necessary formal banking criteria to qualify for such services, but MFIs are in a position to provide loans to cover the costs of such unfortunate events.

vi) Geographical reach

In many rural parts of the country, MFIs are the only remaining credit providers, as formal banks have long since withdrawn due to a lack of economies of scale and the relatively high costs associated with formal banking sector business models. This is especially true for Africa, where 71% of the borrowers of MFIs reside in rural areas (compared with a global average of 60% rural MFI concentration).

vii) Poverty alleviation

The range of goods & services that households in lower income quintiles spend their disposable income on, is dominated by the categories for food, clothing and transport (especially public transport). These households also spend a considerable portion of income on items such as education, health & communication. It stands to reason that credit facilities provided by MFIs allow many households to engage in economic consumption activity at a

relatively earlier stage in their income/expenditure cycle. The absence of such facilities would translate into lower standards of living.

viii) Job security

A certain share of the funds that are made available to lenders when obtaining micro-loans is utilised for purposes of being able to afford transport to and from work. These loans often assist with the promotion of job security and also make a contribution to lower levels of absenteeism.

ix) Financial education

In rural areas, many micro-lenders enjoy trusted relationships with their clients, which represents an opportunity for MFIs to become more involved (on a formal basis) with the financial education of people that possess relatively low skills. As recommended by MFSA in a submission to Parliament on financial sector transformation (in 2017), such an educational initiative should ideally be based on practical learning tools and other material that is easily understood. The ultimate objectives of such an exercise would be to encourage a greater degree of financial inclusion; facilitate a decline in over-indebtedness amongst relatively poor consumers; and reduced fees and charges to borrowers (as a result of lower risk to lenders).

x) Small business support

Empirical studies that focus on the economic impact of financial inclusion for people without formal sector employment confirm significant benefits of extending credit facilities to households that are dependent on revenue derived from informal sector activities. From Bangladesh and India to Brazil and South Africa, evidence confirms the strategic role of the micro-finance sector in the enhancement of the socio-economic well-being of the poor. Account holders at micro-finance institutions (MFIs) are typically self–employed entrepreneurs such as spaza shop owners, street vendors, small-scale farmers, builders, hairdressers, electricians and other artisans.

To most of these entrepreneurs, micro-finance represents the only realistic avenue whereby credit facilities can be obtained. MFIs are the *de facto* banks that serve the need for financial inclusion of the poor. It has proven to be a powerful tool for combating poverty around the globe.

The causality should be quite clear: Access to financial services for poor people advances expenditure on food (direct poverty alleviation) and expenditure on working capital (e.g. stocks and fuel), which leads to higher earnings and a multiplier effect on GDP. It also allows poor people to cushion themselves against possible external shocks (e.g. a funeral of a close relative or illness).

2.3 A future role for MFIs in development initiatives

2.3.1 Potential implementation of ULTRA

In addition to the key role that MFIs have been playing for several decades in broadening the scope of access to funding for the lower income quintiles in South Africa, the industry is in a position to complement future development initiatives by the public sector.

One avenue of assistance with social objectives lies in valuable and detailed data on the client base of MFIs, many of whom have a long-standing and intimate relationship with their clients, particularly in rural areas. For example, data on the type of dwelling of clients can be used to evaluate the net asset value of their properties.

Government is committed to land reform, which will probably include the provision of property rights to home owners in poorer communities. This policy may eventually lead to the implementation of the provisions of the Upgrading of Land Tenure Rights Act, 1991 (ULTRA) (or new legislation that serves the same basic purpose). Information in possession of MFIs could assist in validating physical addresses and also determining the replacement value and/or market value of properties that could ultimately be used as collateral for loans, including mortgage financing. The objective with ULTRA was to upgrade tenure in townships to full ownership and to incorporate the registration of these rights in the formal deeds registry system. It established a mechanism whereby the new owners of an estimated 5 million properties could submit documents proving their ownership and receive official confirmation via title deeds.

The possibility exists in future for MFIs operating in townships to assist local authorities with data on the quality and replacement value of the dwellings owned by their clients, whilst MFIs may also be in a position to ultimately use these properties as collateral for loans – ideally with some form of guarantee mechanism by the public sector and conditional on these loans being utilised for property improvements.

2.3.2 Impact investment

A second avenue of MFI involvement with development programmes that is already in vogue in Europe is so-called "impact investments", defined as:

> *Investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return*

Impact investments can be made in both emerging and developed markets, and target a range of returns from below market to market rate, depending on investors' strategic goals. The growing impact investment market provides capital to address the world's most pressing challenges in sectors such as sustainable agriculture, renewable energy, conservation, microfinance, and affordable and accessible basic services including housing, healthcare, and education.

It is the fastest growing investment strategy in Europe and shows an increase of 385% between 2013 and 2015. According to the Global Impact Investing Network (GIIN), by late 2016, nearly 114 billion dollars were invested this way globally, with many of these investments linked to the Sustainable Development Goals (SDGs), developed by the United Nations (UN).

Despite the enormity of these challenges, inroads have been made with a multitude of projects financed by government agencies and international donor agencies. The UN's 2018 Report on the SDGs found, *inter alia,* that progress has been made in the following areas:

- The proportion of the world's workers living with their families on less than 1.90 per person a day declined significantly over the past two decades, falling from 26.9% in 2000 to 9.2% in 2017
- Between 2000 and 2016, the under-five mortality rate dropped by almost 50%
- In the least developed countries, the proportion of population with access to electricity more than doubled over this period

According to the European Commission's High-Level Expert Group on Sustainable Finance, impact investing creates opportunities for MFIs to diversify into services that are aligned with sectors where progress with the SDGs can be measured.

A practical example of impact investing in Kenya may be found in the activities of *M-Kopa Credit Manager,* a firm that sells small solar panels, together with three lamps, a phone charger and a radio. The customer pays small amounts over the phone for the use of these items which they own on maturity of the credit facility. The solar panel communicates remotely with *M-Kopa* and switched off if the required instalment has not been paid. The credit scores are declared regularly to the Kenyan Central Credit Registry and only 8% were in default at the latest time of reporting.

2.3.4 Micro-insurance

One particular area within the domestic and global financial services sector that is insufficiently covered is micro-insurance, which has the potential to play an effective role in protecting incomes for poor people, whilst also contributing to a more diversified portfolio of MFIs.

2.3.5 Government subsidisation

The high cost of credit associated with microfinance will remain a bone of contention amongst the country's economic policy makers for some time to come. As long as finance is granted by private entities, micro-lenders will have to price the credit appropriately to remain in business and unsecured credit cannot be inexpensive even with the most noble of intentions. It will therefore require some element of policy intervention for micro-finance to broaden the scope of its assistance to those who are using loan funds to start up or expand micro-businesses as a means to advance out of poverty. The case for poverty alleviation will probably be strongest when government funds are used to subsidise MFI loans to individuals that meet the necessary criteria for successfully starting up micro-businesses at interest rates that are more affordable.

3. Composition and growth of credit in South Africa

The National Credit Regulator collects data on the following types of credit extension:

i) Mortgages
ii) Secured credit
iii) Unsecured credit
iv) Credit facilities
v) Short-term credit
vi) Developmental credit

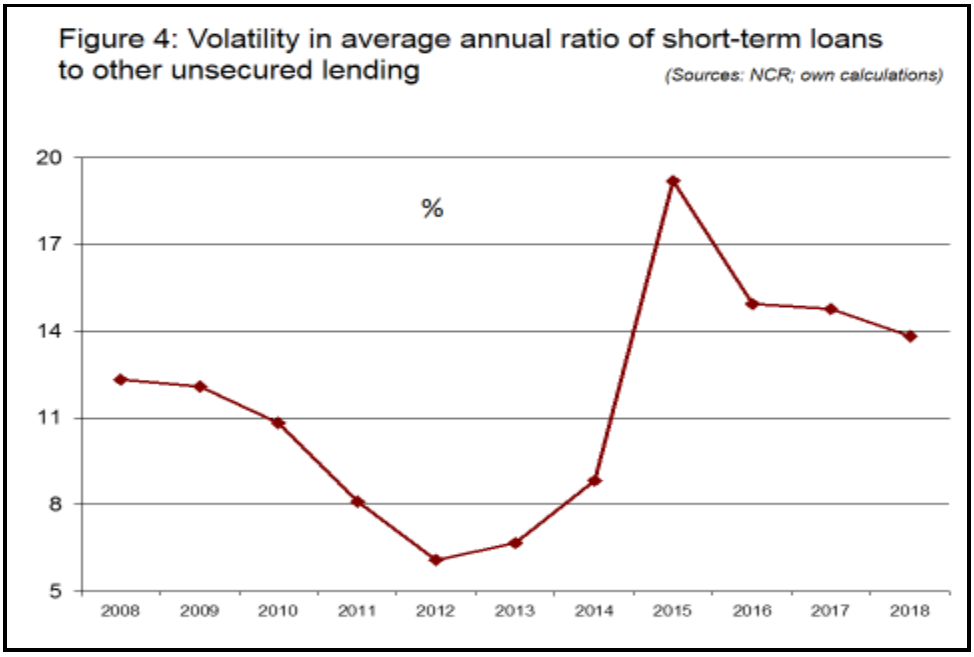
Since credit products with shorter terms (such as unsecured loans, credit facilities and short-term loans) are repaid within a relatively short period after the credit is advanced, the stock or book value of the debt in relation to these products will be slower to rise for given increases in new flows than will be the case for credit products with longer terms (such as mortgages and secured loans). By definition, the latter will remain on the books for longer.

For purposes of this study, these different credit types have been analysed in terms of the number of accounts and value of loans, in order to arrive at salient trends that could inform decision-making on the micro-finance industry. The key results of this analysis are as follows:

i) Between the beginning of 2012 and mid-2018, total new credit extended averaged annual growth of 3.6%, compared with consumer price inflation of 5%. This clearly indicates a negative real rate of growth as a result of the SA Reserve Bank reverting to strict monetary policy after 2014, as elaborated on in the following sub-section.

ii) The ratio of short-term loans to other unsecured lending has also been characterized by a large degree of volatility, dropping from above 12% in 20118 to just above 6% in 2012.

Figure 4: Volatility in average annual ratio of short-term loans to other unsecured lending *(Sources: NCR; own calculations)*



Thereafter, this ratio improved sharply to above 19% (in 2015), before coming under renewed pressure, declining to below 14% during the first two quarters of 2018 (as illustrated by figure 4).

iii) Between 2012 and 2016, additional unsecured credit advanced averaged R21.4 billion per quarter (19.2% of the total), while short-term credit only averaged R2.3 billion (2% of the total)

iv) During the six quarters between 2017 and the first half of 2018, new credit advanced in the economy averaged R125 billion per quarter, with unsecured credit's share dropped to 18.2% (from a level of 23.9% in 2012). Short-term credit followed an opposite path, increasing its share of total credit from only 1.5% in 2012 to 2.6% during 2017 and the first half of 2018.

v) Significant shifts occurred between 2012 and 2018 in the number of new lending accounts between the different types of credit, with MFI loans increasing their share from 21.6% of the total to 33.3%, at the expense of the categories for other unsecured loans, secured loans and credit facilities (see tables 4 and 5 and figure 5).

Table 4: Trends in the number of new credit accounts by type

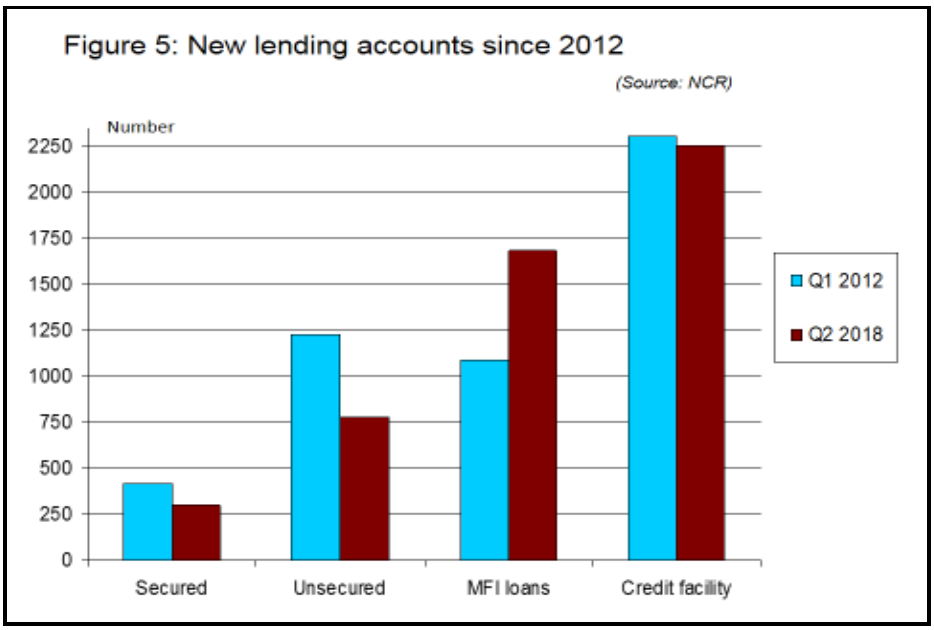
Type of Credit	Number of Accounts		Share of Total Number of Accounts	
	2012 Q1	2018 Q2	2012 Q1	2018 Q2
Secured	376,826	260,958	7.5%	5.2%
Mortgages	37,181	40,260	0.7%	0.8%
Unsecured	1,229,249	775,930	24.4%	15.4%
Credit Facility	2,304,497	2,256,354	45.8%	44.7%
Short-term	1,088,232	1,684,162	21.6%	33.3%
Developmental	-	33,149	0.0%	0.7%
Total	5,035,985	5,050,813	100.0%	100.0%

Source of basic data: National Credit Regulator

Table 5: Trends in the number of accounts associated with the outstanding debtors' book of credit providers by type

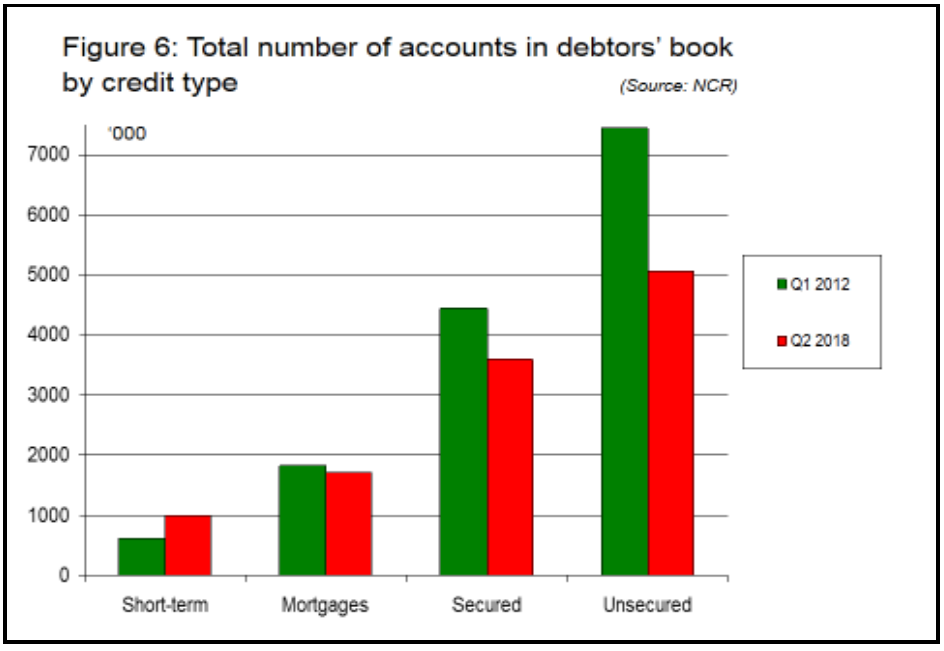
Type of Credit	Number of Accounts		Share of Total Number of Accounts	
	2012 Q1	2018 Q2	2012 Q1	2018 Q2
Mortgages	1,824,896	1,717,411	4.8%	4.6%
Secured	4,455,758	3,605,654	11.7%	9.6%
Credit Facilities	23,843,505	25,134,783	62.4%	66.8%
Unsecured	7,443,628	5,066,698	19.5%	13.5%
Developmental	-	1,079,905	0.0%	2.9%
Short-term	622,858	998,006	1.6%	2.7%
Total	38,190,645	37,602,457	100.0%	100.0%

Source of basic data: National Credit Regulator



Short-term loans have also proven to be resilient since 2012 with regard to the number of accounts associated with the debtors' book of credit providers shown. This indicates that the total number of accounts declined from 38.2 million at the start of 2012 to 37.6 million in mid-2018.

Over the same period, the number of unsecured loan accounts on the books dropped from 7.4 million (or 19.5% of the total) to 5.1 million (13.5% of the total), while the number of short-term loans increased from almost 623,000 (1.6% of the total) to 998,000 (2.7% of the total). These trends are illustrated by figure 6.



vi) Generally, short-term and unsecured loans attract comparatively higher rates of interest than longer-term mortgages and secured loans, as accommodated in the Regulations of the National Credit Act of 2005 (as amended). Based on the prevailing Repo rate of the South African Reserve Bank (SARB) - 6.75% p.a., the maximum permissible rates of interest under the Act are as follows:

Table 6: Maximum permissible interest rates as at 18 February 2019	
Mortgages	18.75% p.a.
Secured Credit	24.85% p.a.
Credit Facilities	20.75% p.a.
Unsecured Credit	27.75% p.a.
Developmental Credit	33.75% p.a.
Short-term Credit	5% per month for 1st loan & 3% per month on subsequent loans in the same calendar year

vii) In addition to interest, credit providers are also permitted to levy certain initiation and service fees on loans, which are also limited in terms of the regulations to the Act. For example, providers of short-term credit are permitted to charge an initiation fee that may not exceed R165 plus 10% of the amount in excess of R1,000, and a monthly service fee that may not exceed R60.

viii) The cost of servicing debt includes both the interest charged and any associated service charges. By way of illustration a 1-month loan of R1,000 would attract maximum interest of R50 (if it was the first loan advanced to that borrower in that calendar year) and maximum additional service fees of R165.

ix) A study conducted by Feasibility (Pty) Ltd on behalf of the National Credit Regulator prior to the changes to the limits on interest and fees gazetted at the end of 2015 by the Minister of Trade and Industry found that, while credit providers are not obliged to charge the maximum prescribed rates on interest and fees, the failure to adjust these limits since the promulgation of the NCA in 2006 had resulted in an upward shift in the rates charged by providers of most types of credit.

x) Figure 7 reflects the average value of credit advanced by selected type at the beginning of 2012 and in mid-2018. While the average value of all types of credit increased, the rate of increase varied significantly. More detailed data on the average value of loans advanced between 2012 and the second quarter of 2018 are provided in table 7.

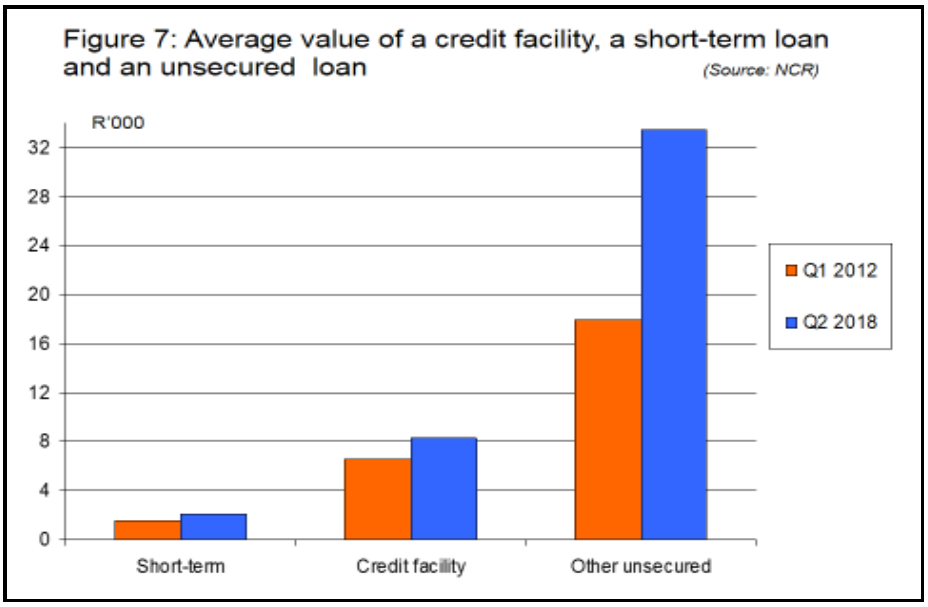


Table 7: Trends in the average value of loans advanced

Type of Credit	Average Value of Loans Advanced		Average Annual Growth in Value: 2012 to 2018
	2012 Q1	2018 Q2	
Secured	R 83,899	R 159,187	10.4%
Mortgages	R 660,639	R 997,883	6.6%
Unsecured	R 17,856	R 33,509	10.2%
Credit Facility	R 6,635	R 8,252	3.4%
Short-term	R 1,482	R 2,125	5.7%
Developmental	R 21,869*	R 52,294	17.2%
All Types of Credit	R 18,870	R 26,065	5.1%

*Note: * Data reflects 2012 Q4. No data for earlier periods.*
Source of basic data: National Credit Regulator

Figure 8 shows that the rate of increase was more pronounced in respect of secured credit (10.4% p.a.) and unsecured credit (10.2% p.a.). It was lowest for credit facilities (3.4% p.a.) and short-term credit (5.7% p.a.). Across all types of credit products, the rate of increase in average loan size was 5.1% a year, compared with inflation of 5% a year and average growth in household disposable incomes of 5.9% per year over the same period.

xi) A significant shift has occurred in the space of only six years in the share of MFI loans extended by income group. The notion that only the very poorest members of society utilise short-term loan facilities is incorrect, as clearly illustrated by the data in tables 8 & 9 and figure 9.

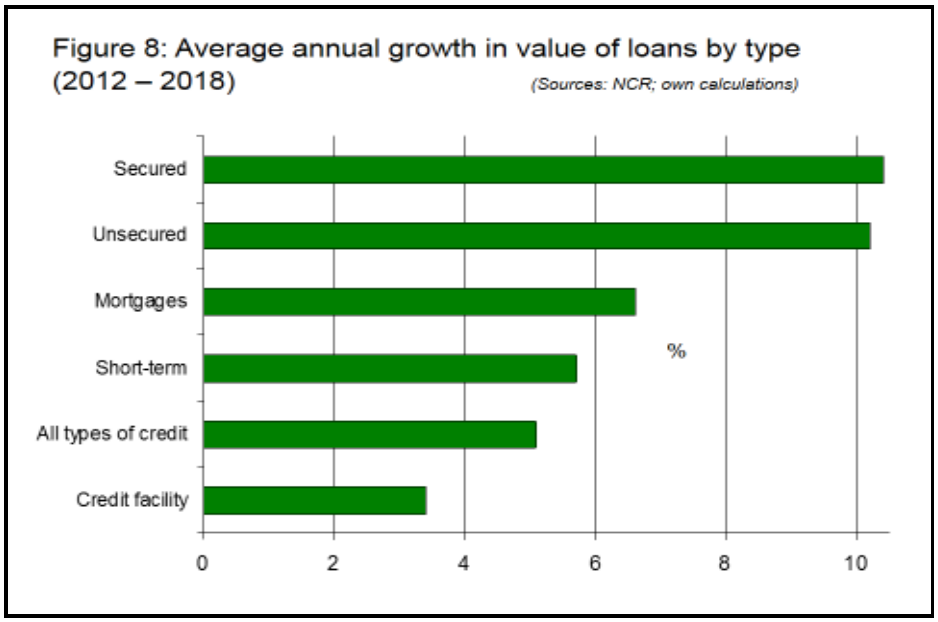


Table 8: Share of types of credit by different monthly income bands - December 2012

Monthly Income Band	% Share of Total Credit						
	Mortgages	Secured Credit	Credit Facilities	Unsecured Credit	Short-term	Develop-mental	Total
R0 - R3,500	0.0%	4.3%	9.9%	10.0%	14.2%	0.2%	5.7%
R3,501 - R5,500	0.0%	1.3%	5.5%	7.6%	12.3%	0.4%	3.4%
R5,501 - R7,500	0.1%	1.8%	4.2%	9.9%	13.2%	1.1%	4.0%
R7,501 to R10,000	0.8%	3.9%	6.9%	11.6%	13.2%	5.2%	5.7%
R10,001 - R15,000	4.3%	10.6%	11.4%	19.7%	19.0%	93.2%	12.1%
>R15,000	94.8%	78.0%	62.1%	41.2%	28.1%	0.0%	69.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source of basic data: National Credit Regulator

Table 9: Share of types of credit extended by different monthly income bands - June 2018

Monthly Income Band	% Share of Total Credit						
	Mortgages	Secured Credit	Credit Facilities	Unsecured Credit	Short-term Credit	Develop-mental Credit	Total
R0 - R3,500	0.0%	0.7%	6.6%	1.0%	5.8%	0.7%	1.5%
R3,501 - R5,500	0.0%	0.5%	6.4%	3.9%	11.9%	3.1%	2.2%
R5,501 - R7,500	0.2%	0.8%	4.7%	5.1%	12.0%	5.1%	2.4%
R7,501 to R10,000	0.1%	2.1%	5.5%	7.7%	11.7%	8.4%	3.4%
R10,001 - R15,000	1.0%	6.9%	9.0%	16.9%	19.3%	82.7%	8.1%
>R15,000	98.7%	88.8%	67.7%	65.4%	39.2%	0.0%	82.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source of basic data: National Credit Regulator

The share of short-term borrowers that earn more than R15,000 per annum has increased from 28.1% in 2012 to 39.3% in the second quarter of 2018 (see figure 10).

Figure 9: Share of short-term loans extended by monthly income groups in Q2 2018 *(Source : NCR)*

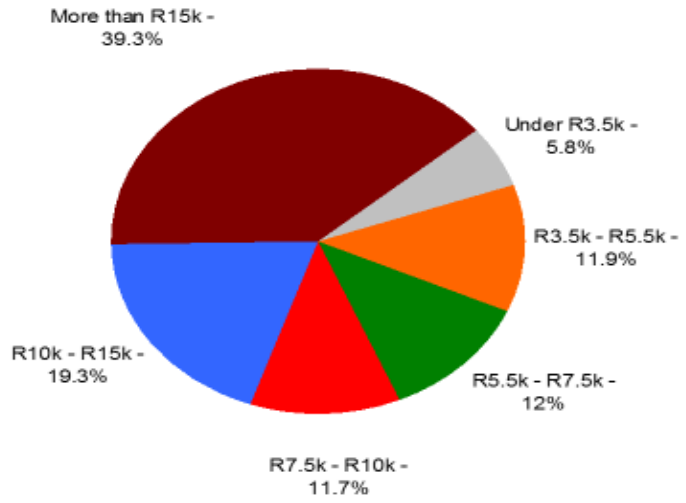
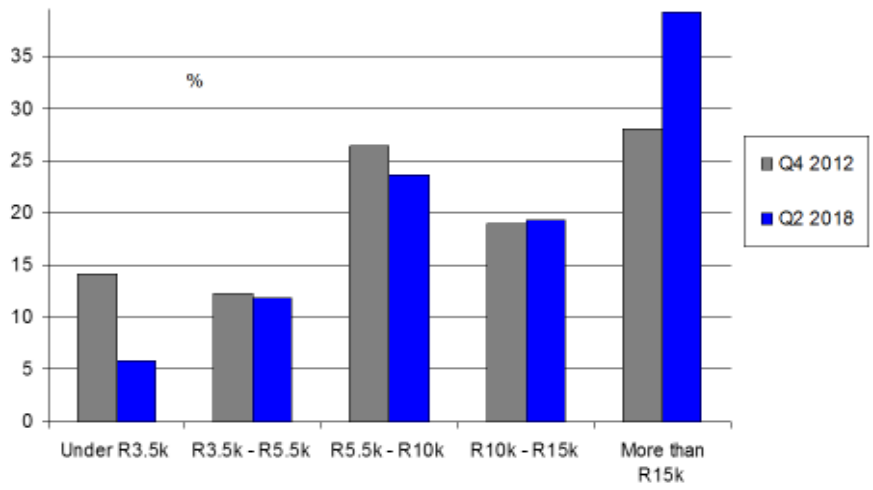


Figure 10: Change in share of short-term loans extended by monthly income groups (Q4 2012 - Q2 2018) *(Source: NCR)*



xii) Concerns over the levels of indebtedness of South African households have abated somewhat in recent years because total credit advances increased at a slower rate than average household disposable (after tax) incomes. The impact of this on debt to income ratios has witnessed a decline in this ratio from 85.7% in 2008 to 71.7% in 2017.

While the ratio of debt service costs to household disposable income also declined – from 13.4% in 2008 to 8.6% in 2013, it increased back to 9.5% in 2016, before declining again to 9.2% in 2017.

Concluding remarks – three distinct stages

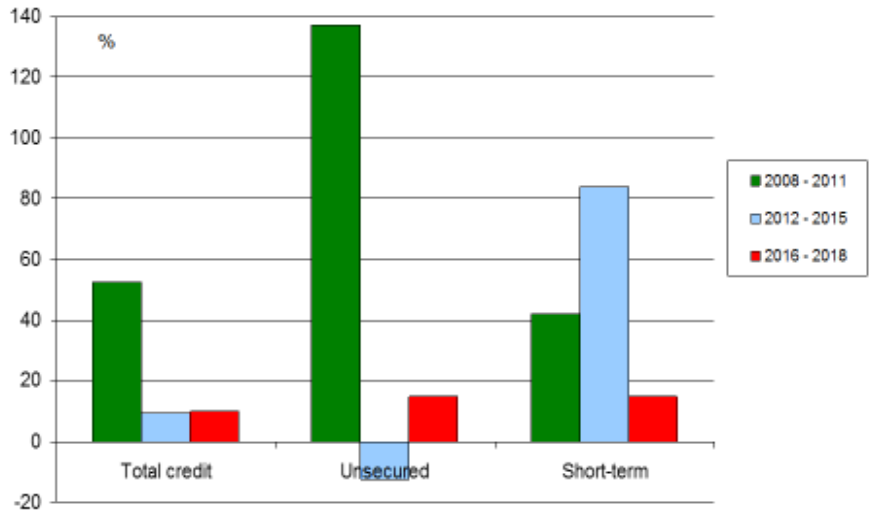
Over the past decade, three distinctive periods of credit extension can be identified. During the four years between 2008 and 2011, the average value of new unsecured lending (including short-term) and new total credit extended (including mortgages and other secured lending) expanded at a healthy rate, with the category for unsecured lending increasing by 137%.

During the next four years, a major shift occurred from unsecured lending to short-term loans (the domain of MFIs), whilst the average value of total new credit declined dramatically to single-digit territory. Over the past six quarters, the average value for all three of these categories of credit increased by very modest rates.

It is clear that credit extension in South Africa has been characterized by a large degree of volatility over the past decade as illustrated by figure 11.

Figure 11: % Increase in the value of new loans since 2008

(Source: NCR)



4. The damage done by restrictive monetary policy

South Africans are justified to be concerned over the refusal by the Monetary Policy Committee (MPC) of the Reserve Bank to follow a more accommodating monetary policy stance.

The apparent obsession with keeping inflation as low as possible via high interest rates has undoubtedly contributed to the rising unemployment rate in the country, as well as the declining economic growth trend.

In most countries, a logical monetary policy response to a combination of lower inflation and lethargic or negative economic growth (as is the case in SA,) would be to lower the official bank rate, which automatically leads to lower commercial bank lending rates and relief for consumers and businesses with debt.

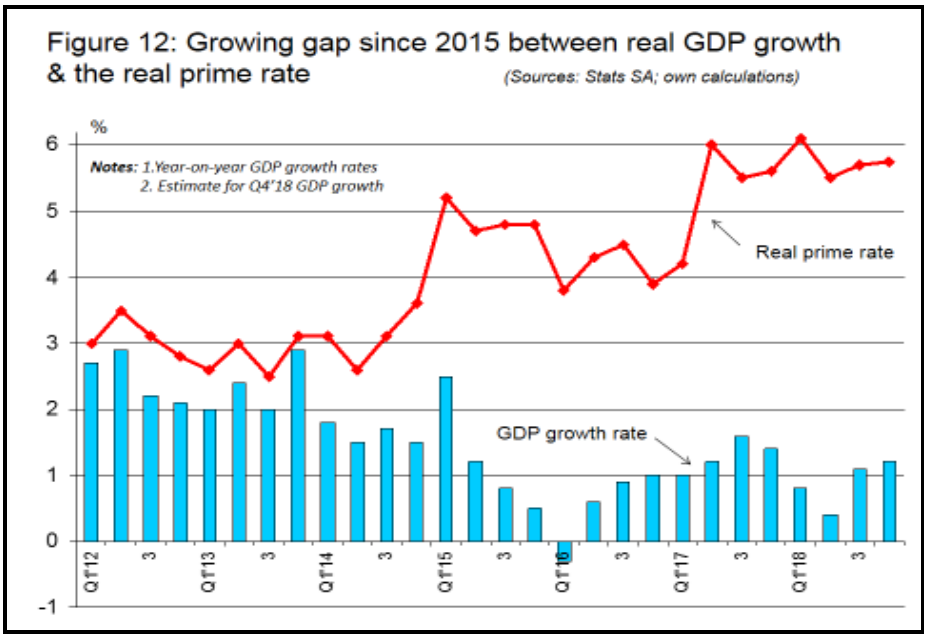
It needs to be pointed out that private sector credit extension represents more than 71% of South Africa's GDP (as at the third quarter of 2018) and any movement in the benchmark repurchase rate (the so-called repo rate) of the Reserve Bank will inevitably exert a significant impact on aggregate economic activity.

The damage that restrictive monetary policy has inflicted on the South African economy manifests itself mainly in a relatively high cost of capital and cost of servicing debt. In combination, this supresses demand in the economy, ultimately leading to lower production and a lower level for the country's GDP.

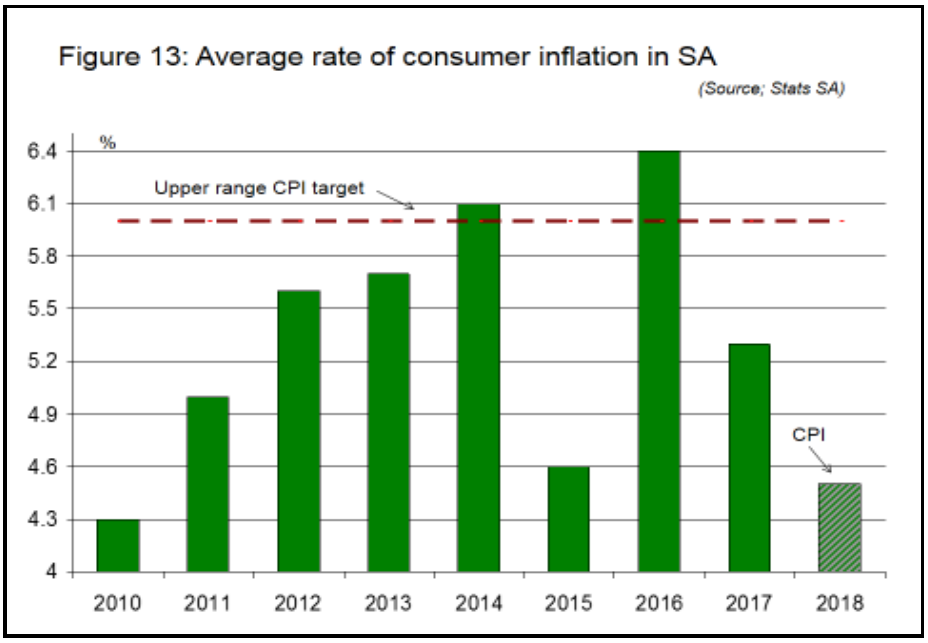
A number of compelling reasons exist for becoming increasingly frustrated at the MPC's lack of understanding of the dire need for interest rate relief in South Africa. Eleven of the most relevant are as follows:

i. The monetary policy mission statements of virtually all the World's central banks, including the SARB, clearly state the need to strike a balance between maintaining price stability, on the one hand, and ensuring adequate levels of economic growth and employment creation, on the other hand. Ever since the departure of Gill Marcus, the previous Governor of the Reserve Bank, this balance has not been present, with a notable shift having occurred towards restrictive monetary policy.

ii. The inverse correlation between interest rates and GDP growth have been confirmed globally via substantial research, including econometric modelling. In South Africa's case, a vivid example has been provided by the departure from the Gill Marcus era (2009 to 2014), when the real prime rate was maintained at a level of around 3% - marginally higher than in most of South Africa's key trading partners, but low enough to secure an average annual real GDP growth rate of 2.6%. Since her departure, the average real prime rate has increased to a current level that is more than 90% higher, whilst real GDP growth has plummeted to an average annual rate of 0.6% (see figure 12).



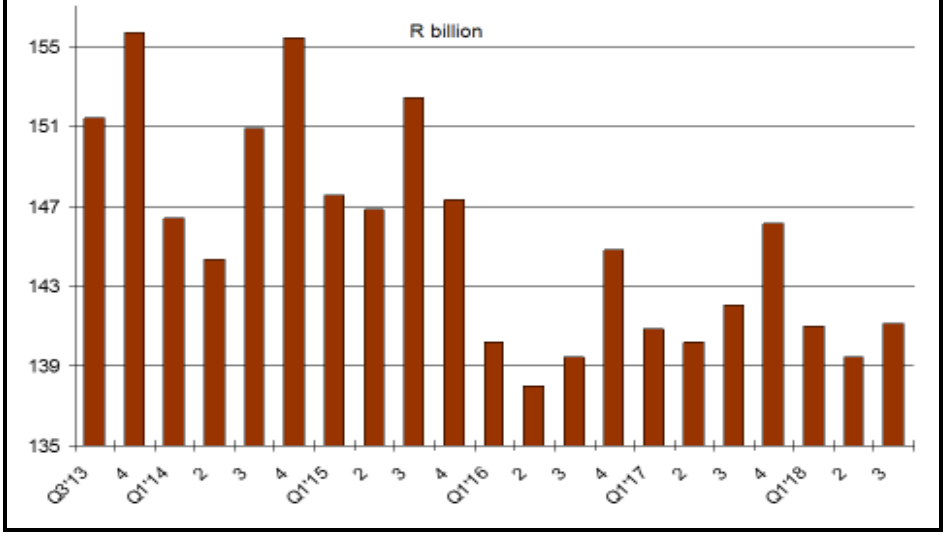
iii. It has become abundantly clear that the Reserve Bank regularly errs on the side of the cautious when making inflation predictions, ostensibly because of fears over exchange rate weakness and the misguided results of the Bank's surveys on inflation expectations. At the end of 2018, South Africa's consumer price index (CPI) had been comfortably within the target range of 3% to 6% for 21 successive quarters, in sharp contrast to the negative sentiments over the prospect for higher inflation that has accompanied many of the MPC statements over the past five years (see figure 13).



iv. Manufacturers have stated that the high level of unutilised productive capacity (approaching 20%) in this crucially important sector is mainly the result of insufficient demand in the economy. To the extent that the latter was caused by high interest rates, the Reserve Bank has paradoxically contributed to an increase in cost-push inflation, via higher fixed overhead costs per unit.

v. Private sector capital formation, which is interest rate sensitive (via the effective cost of capital), has been on a declining trend since 2014, as illustrated by figure 14. Since then, this indicator, which is a crucial determinant of future GDP growth, has declined by more than 9% (in real terms). Lower levels of capital formation exert a two-pronged negative impact on a country's economy – firstly by a lower level of current demand and secondly via the curtailment of future economic output as a result of insufficient productive capacity once aggregate demand has recovered.

Figure 14: Fixed capital formation by the private sector at constant 2018 prices *(Sources: SARB, own calculations)*

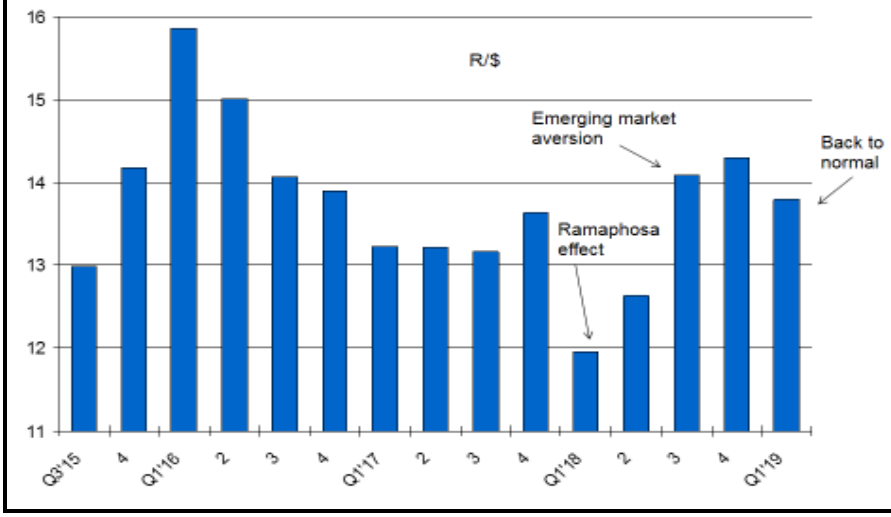


vi. The producer price index (PPI) has remained below 6%, on average for the past two years, with the dominant product group of food & beverages ending 2018 on an annualised rate of increase of merely 2.6% (this group accounts for more than a third of the PPI). Coal and petroleum products, which account for more than 10% of the PPI, remains at a relatively high historical rate of price increase, but will be declining substantially in 2019, due to the lower oil price and recent strengthening of the rand exchange rate. It is clear that the MPC has not factored in these positive developments into its inflation expectations, particularly with regard to the exchange rate.

vii. Due to fundamental balance of payments stability, combined with the retention of investment grade for the country's sovereign bonds by the influential credit ratings agency *Moody's Investor Services,* the rand always recovers after a temporary bout of weakness, usually caused by emerging market aversion, in general and a measure of

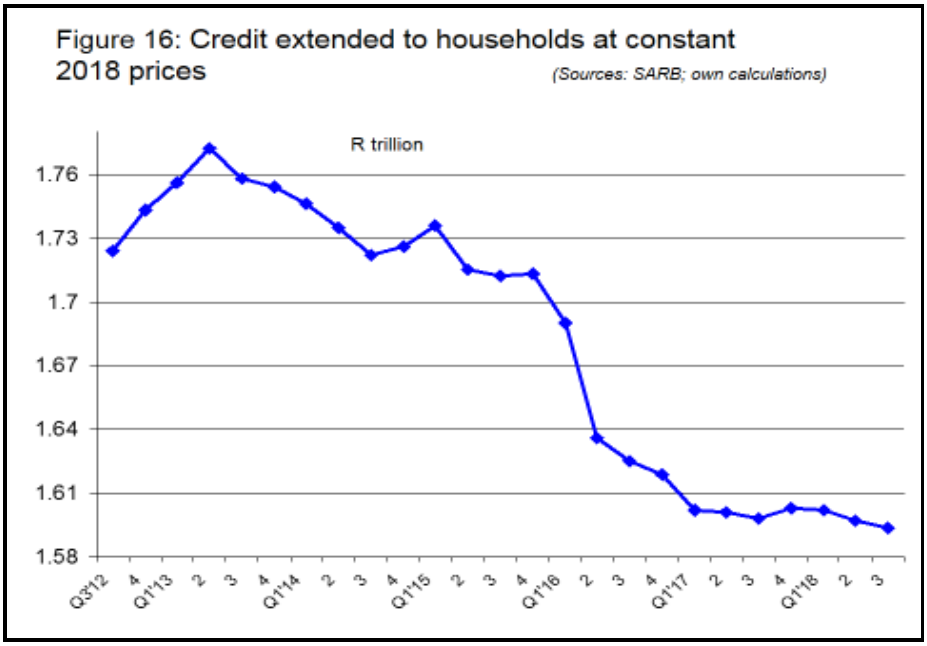
domestic political uncertainty. This phenomenon has not been adequately recognised in MPC forecasts for inflation and, hence, interest rate decisions tend to err on the side of the cautious. During the first six weeks of 2019, the rand had recovered by 15% to the US dollar from its level in the first quarter of 2016 (see figure 15).

Figure 15: Average quarterly Rand/$ exchange rate 15% stronger than in early 2016 *(Sources: SARB, own calculations)*



viii. High interest rates have contributed to a sustained declining trend in household credit extension, which, in turn, has impacted negatively on private consumption expenditure. The latter represents more than 58% of South Africa's GDP and the high cost of credit has undoubtedly subdued the growth of this dominant demand category. In real terms, household credit has been on a declining trend ever since 2013 (see figure 16).

Figure 16: Credit extended to households at constant 2018 prices *(Sources: SARB; own calculations)*

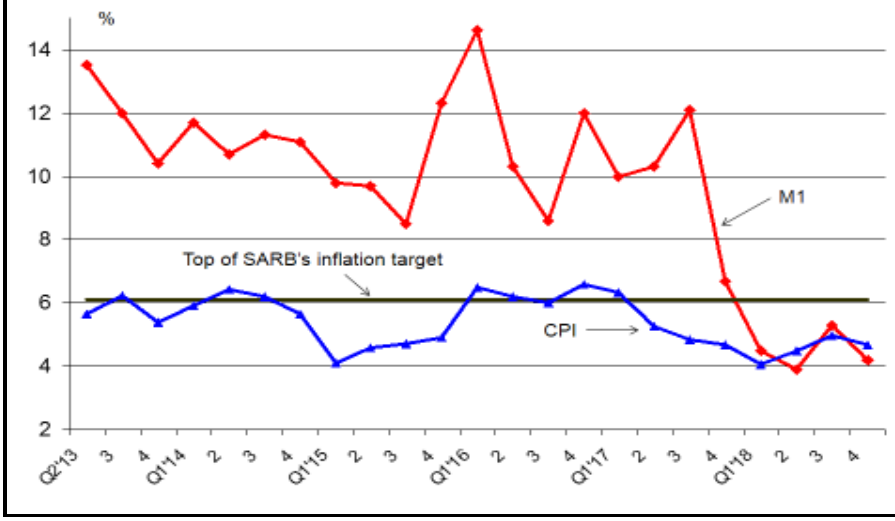


ix. The MPC places undue emphasis on the survey of inflation expectations conducted by the Stellenbosch Bureau for Economic Research (BER), despite four glaring deficiencies in this kind of survey. Firstly, the opinion of trade unions will tend to be biased towards over-estimation, as higher inflation strengthens their hand in negotiating wage increases. Secondly, none of the participants are required to possess the experience or qualifications expected of economic forecasters. Thirdly, neither the BER nor the Reserve Bank audits the forecasting models utilised by the three groups of surveyed participants. Lastly, the survey results have a very poor track record in accurately forecasting inflation trends.

x. Restrictive monetary policy has led to a fairly dramatic declining trend in the growth of the country's money supply (M1). After averaging year-on-year growth of just above 10% between 2013 and the third quarter of 2017, M1 money supply growth dropped sharply to below the upper level of the Reserve Bank's inflation target range and at the end of 2018, it was even lower than the CPI. Sustained periods of very low money supply growth are traditionally associated with economic recessions or very low GDP growth.

Figure 17: Growth rates for the money supply and inflation

(Sources: SARB; own calculations)



xi. The number of unemployed people in South Africa (including discouraged work-seekers) has increased by more than 560,000 over the past year and now stands at an alarming total figure of just below nine million people. Rising unemployment creates a fertile breeding ground for elevating the already high levels of crime and civil unrest in the country, a phenomenon that plays into the hands of radically-minded organisations and that further hampers the country's ability to expand productive capacity via both domestic and foreign direct investment.

In addition to the above arguments and supportive quantitative trends, the technical recession experienced in 2018 has placed undue pressure on the country's public finances, with the investment grade status of South Africa's sovereign bonds (by *Moody's*) hanging by a thread.

When inflation targeting was officially adopted 18 years ago, it was never the intention to fix the chosen target range of 3% to 6%, but to consider future adjustments, depending on the overall state of the economy. It should be abundantly clear that the policy objectives of job creation and growth currently far outweigh the need for further reductions of a relatively stable and low inflation rate.

At no point in South Africa's modern history has there been such an urgent need to shift the economic policy emphasis to higher growth and employment creation. The country is still experiencing low levels of confidence caused by the lingering effects of state capture, large-scale corruption and public sector mismanagement that occurred under the Zuma-administration, whilst job growth is lethargic.

Against this background, the MPC's dogged insistence on keeping interest rates high defies comprehension, especially as Inflation is low and relatively stable.

Although South Africa's future growth prospects have improved as a result of the new-found pragmatism of President Cyril Ramaphosa, as demonstrated in his recent State of the Nation Address (SONA), as well as concerted attempts to combat corruption, confidence levels amongst consumers and businesses alike remain low.

Government has proclaimed a renewed commitment aimed at identifying and removing obstacles to higher growth and employment creation. Unfortunately, the leeway for significant short-term fiscal stimulation remains constrained by slow taxation revenue growth. The other key policy option, namely accommodating monetary policy, remains available, but is in limbo.

The case for stimulating the economy via lower interest rates is compelling. If 50% of holders of total private sector credit lower their monthly repayments in response to a one percentage drop in the prime rate, it will unleash more than R17billion of demand via increased capital formation and household consumption expenditure.

This could ultimately create more than 200,000 jobs and significantly broaden the tax base (based on the ratio of GDP to total employment & input/output table multipliers).

The current monetary policy stance of the Reserve Bank is akin to self-inflicted economic sanctions. It is time to deal decisively with South Africa's most pressing economic policy priority, namely higher growth and employment creation. Lower interest rates will facilitate this.

5. Modeling the impact of unsecured lending on GDP

5.1 Data

1.1 Data sources

The data was sourced from the South African Reserve Bank on a quarterly basis and included:

- Expenditure on gross domestic product (current prices, R million, period)
- Credit extension by all monetary institutions: Credit extended to the domestic private sector: Loans and advances - Other loans and advances (R millions - end of period)
- Credit extension by all monetary institutions: Credit extended to the domestic private sector: Loans and advances - Mortgage advances (R millions - end of period)
- Credit extension by all monetary institutions: Credit extended to the domestic private sector: Loans and advances – Leasing finance (R millions - end of period)
- Credit extension by all monetary institutions: Credit extended to the domestic private sector: Loans and advances – Instalment sales (R millions – end of period)
- Credit extension by all monetary institutions: Credit extended to the domestic private sector: Total credit extended to the private sector (R millions - end of period)
- Sample: 1q2000 to 3q2018; 75 observations
- New credit was sourced from the NCR and was only available from 4q2007.

1.2 Data transformations

The data was transformed into logarithmic form (coefficients can be interpreted as elasticities).

1.3 Calculations and proxies

Other loans and advances represent the proxy for unsecured lending (UNSEC) and the sum of mortgage advances; leasing finance and instalment sales represents the proxy for secured lending (SEC)

5.2 Method and specification

The simple ordinary least square (OLS) method was used to model the impact of unsecured lending and new credit on GDP. There are two scenarios.

a) Scenario 1

In Scenario 1 the assumption is that UNSEC grows at the same pace as SEC from 2009 onwards. The impact of this assumption will be measured on GDP.

b) Scenario 2

Scenario 2 will determine the impact of new credit (NEW_CRED) without Micro-financing institutions (MFIs) on GDP from 2015 onwards. MFI credit has been modelled to account for around 3.6% of NEW CRED, based on recent trends in the composition of private sector credit extension.

5.3 Results for Scenario 1

Estimation results

Table 5.1

HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.573242	0.341454	7.536131	0.0000
LOG(UNSEC)	0.806415	0.025109	32.11601	0.0000

R-squared	0.978980	Mean dependent var	13.27826
Adjusted R-squared	0.978692	S.D. dependent var	0.510895
S.E. of regression	0.074576	Akaike info criterion	-2.327697
Sum squared resid	0.405993	Schwarz criterion	-2.265897
Log likelihood	89.28864	Hannan-Quinn criter.	-2.303021
F-statistic	3399.953	Durbin-Watson stat	0.566164
Prob(F-statistic)	0.000000	Wald F-statistic	1031.438
Prob(Wald F-statistic)	0.000000		

Evaluation

Unsecured lending (Table 5.1) is found to be significant in explaining GDP in Scenario 1, with a positive sign (positive relationship with GDP). The interpretation of the coefficient is as follows: for a 1 % change in Unsecured lending (UNSEC), GDP will change by 0.81%.

The adjusted R^2 is 0.98, which means that the said explanatory variable explains 98% of GDP. All the second order diagnostic testing was done and the model was corrected for autocorrelation and heteroscedasticity. The residuals were normally distributed and showed the models were stable. Additionally, the residuals were stationary, indicating that co-integration exists between GDP and UNSEC, indicating a long-run equilibrium relationship. The adjustment towards this equilibrium, if a shock occurs, is slow, adjusting at 0.22% (Table 5.2) per period.

Table 5.2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.024808	0.007663	3.237312	0.0018
DLOG(UNSEC)	-0.062268	0.217119	-0.286794	0.7751
RES(-1)	-0.224839	0.077401	-2.904845	0.0049

Assumption

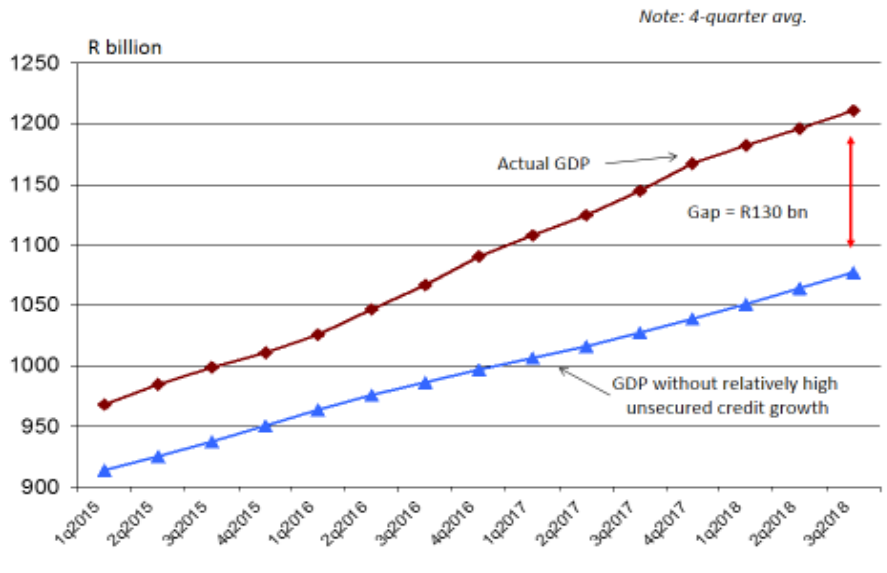
Scenario 1 assumes that UNSEC grows at the same pace as SEC from 2009 to indicate the impact on GDP.

Table 5.3

	GDP current actual	GDP estimate	Difference
	Benchmark (R million)	***Scenario 1 (R million)***	
1q2015	947,761	919,226	-28,535
2q2015	1,008,706	951,093	-57,613
3q2015	1,017,426	964,277	-53,149
4q2015	1,070,103	966,521	-103,582
1q2016	1,006,521	971,245	-35,276
2q2016	1,092,438	1,001,353	-91,085
3q2016	1,096,226	1,008,230	-87,996
4q2016	1,164,478	1,007,950	-156,528
1q2017	1,078,626	1,009,224	-69,402
2q2017	1,157,584	1,038,683	-118,901
3q2017	1,178,301	1,054,506	-123,795
4q2017	1,254,408	1,054,143	-200,265
1q2018	1,136,793	1,057,457	-79,336
2q2018	1,215,078	1,089,627	-125,451
3q2018	1,236,236	1,105,995	-130,241

The results in table 5.3 indicate that the GDP figures will be lower if UNSEC had grown at the same rate as SEC. Figure 18 illustrates the GDP gap that would have developed in this case.

Figure 18: Impact on GDP if unsecured lending had grown at the same rate as secured lending since 2010



5.4 Results for Scenario 2

Estimation results

Table 5.4

HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.014632	1.350459	3.713280	0.0006
LOG(NEW_CRED)	0.752110	0.117592	6.395928	0.0000

R-squared	0.678198	Mean dependent var	13.65252
Adjusted R-squared	0.670536	S.D. dependent var	0.244732
S.E. of regression	0.140474	Akaike info criterion	-1.043206
Sum squared resid	0.828778	Schwarz criterion	-0.962106
Log likelihood	24.95053	Hannan-Quinn criter.	-1.013130
F-statistic	88.51506	Durbin-Watson stat	0.151072
Prob(F-statistic)	0.000000	Wald F-statistic	40.90789
Prob(Wald F-statistic)	0.000000		

Evaluation

New credit (Table 5.4) is found to be significant in explaining GDP in Scenario 2, with a positive sign (positive relationship with GDP). The interpretation of the coefficient is as follows: for a 1 % change in new credit (NEW_CRED) GDP will change by 0.75%.

The adjusted R^2 is 0.68, which means that the said explanatory variable explains 68% of the variability in GDP. All the second order diagnostic testing was done and the model was corrected for autocorrelation and heteroscedasticity. The residuals were normally distributed and showed the models were stable. Additionally, the residuals were stationary which means that co-integration exists between GDP and new credit, therefore a long-run equilibrium relationship exists between these two variables. The adjustment towards this equilibrium, if a shock occurs is slow, adjusting at 0.12% (Table 5.5) per period.

Table 5.5

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.015104	0.006020	2.509076	0.0163
DLOG(NEW_CRED)	0.462349	0.067726	6.826713	0.0000
RES(-1)	-0.115037	0.046585	-2.469409	0.0179

Assumption

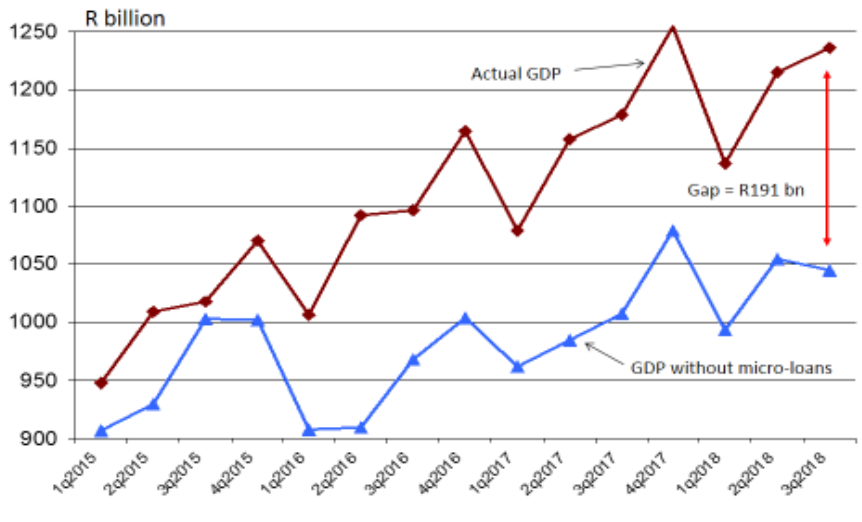
MFI accounts for 3.6% of new credit, the assumption in Scenario 2 is to determine what the impact of new credit will be on GDP if MFI is excluded from new credit.

Table 5.6

	GDP current actual	GDP estimate	Difference
	Benchmark (R million)	***Scenario 2 (R million)***	
1q2015	947,761	907,237	-40,524
2q2015	1,008,706	929,331	-79,375
3q2015	1,017,426	1,003,087	-14,339
4q2015	1,070,103	1,001,746	-68,357
1q2016	1,006,521	908,040	-98,481
2q2016	1,092,438	909,900	-182,538
3q2016	1,096,226	968,107	-128,119
4q2016	1,164,478	1,003,978	-160,500
1q2017	1,078,626	962,106	-116,520
2q2017	1,157,584	984,791	-172,793
3q2017	1,178,301	1,007,558	-170,743
4q2017	1,254,408	1,079,084	-175,324
1q2018	1,136,793	993,782	-143,011
2q2018	1,215,078	1,054,716	-160,362
3q2018	1,236,236	1,044,867	-191,369

Table 5.6 indicates that GDP will be lower when the MFI component is excluded from new credit extension since 2015, as also illustrated by figure 19.

Figure 19: Impact on GDP in the absence of micro-lending since 2015



6. A composite index of household financial resilience (HFR)

The purpose of designing an Index of HFR is related to its relevance for any assessment of the state of micro-lending in South Africa from the perspective of the income required for the repayment of credit. Without income of some kind, individuals would not be able to qualify for loans that allow for expanded access to the full range of goods and services that comprise private consumption expenditure, as well as the funding of working capital required to sustain or expand small and micro businesses.

One aspect that has been neglected in the on-going discourse over the role of MFIs is the other side of the debt coin, namely the income that is required to repay debt. In an attempt to provide clear and quantitative guidance on the disposition of South African households, on average, to engage in viable borrowing activities, it was decided to design a composite index that portrays the financial resilience of households.

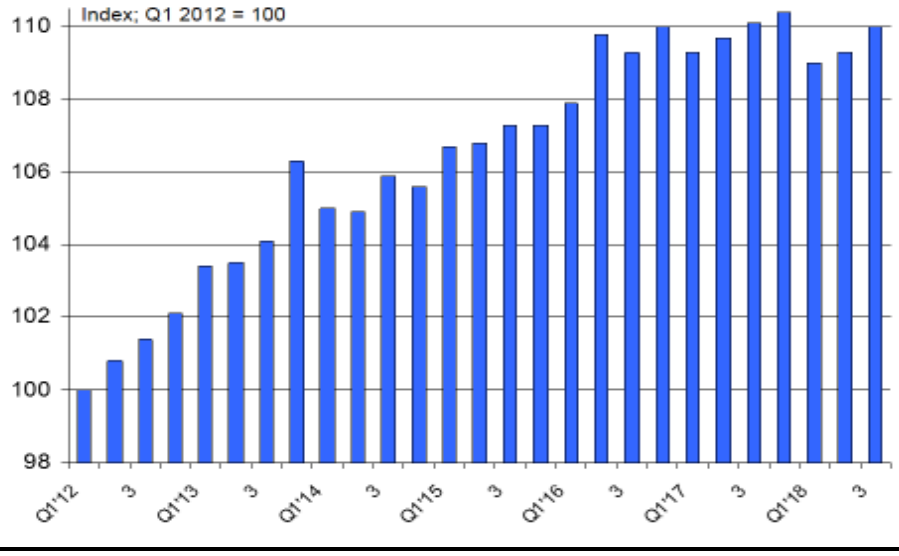
The index comprises 16 different indicators, which are listed below, with their respective weighting in the index. Figure 20 depicts the trends in the index from its base period (equal to 100) in the first quarter of 2012 to the third quarter of 2018 (the latest quarter for which data for all the constituent indicators are available). The figures that follow illustrate trends in the individual indicators.

Table 6.1 Index of Household Financial Resilience (HFR) Constituent indicators and their weighting

Indicator	Weighting (%)
Labour remuneration - private sector	4.7
Labour remuneration - public sector	15.3
Employment - public sector	2.3
Employment - private sector	7.7
Labour remuneration/GDP ratio	5.0
Household consumption expenditure	5.0
Household disposable income/debt ratio	5.0
Household disposable income/debt cost ratio	10.0
Household disposable income	12.5
Credit extension to households (reciprocal)	5.0
Individual civil debt defaults (reciprocal)	2.5
Household wealth/disposable income ratio	5.0
Bank asset/debt impairment ratio	5.0
Short-term insurance premiums	5.0
Long-term insurance claims paid (retirement)	5.0
Long-term insurance claims paid (death & other)	5.0
HFR Index	100

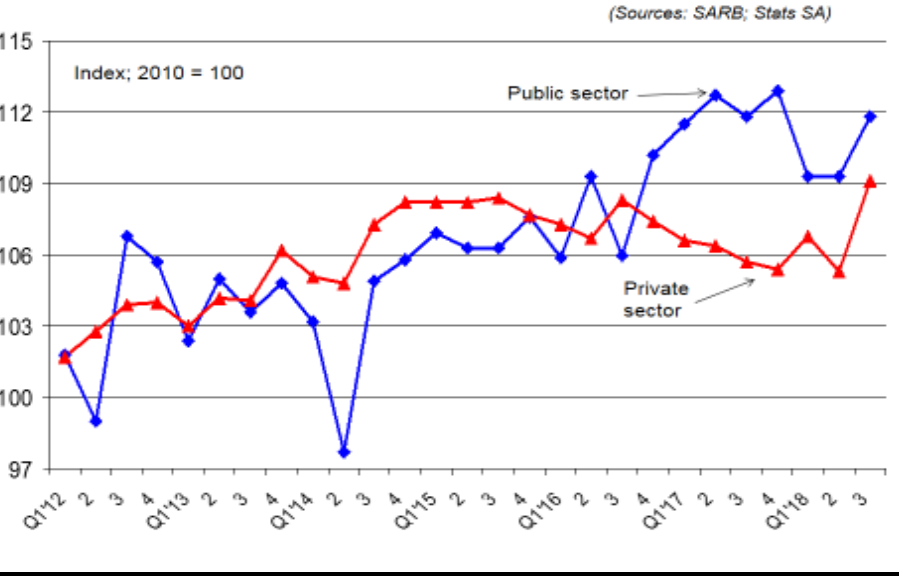
Figure 20 depicts the overall result of the 16 indicators listed in table 6.1. It is fairly apparent that the Index tends to peak during the fourth quarter of each year, due to the importance of salaries and wages in the HFR and the fact that a significant proportion of workers receive their annual bonuses in December.

Figure 20: MFSA Index of Household Financial Resilience (HFR)

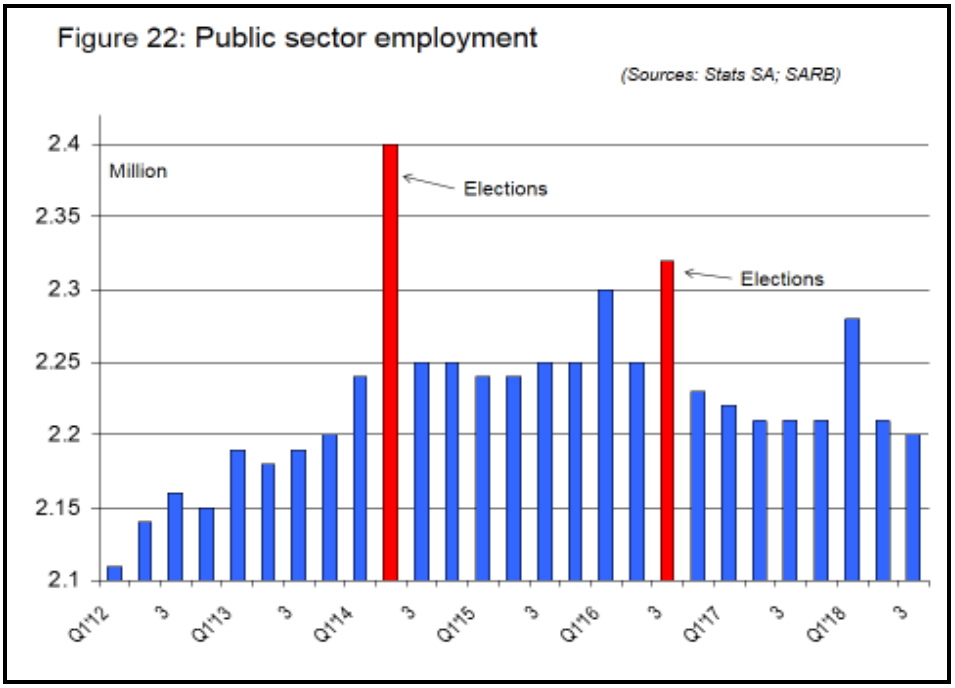


It is also apparent from figure 20 that household financial resilience has stagnated during the past three years, which is explained to some extent by the declining trend in real salaries in the private sector since 2016 (figure 21).

Figure 21: Real remuneration per worker



In contrast to the trends with regard to real remuneration, public sector employment has been in declining mode since the 2016 municipal elections, except for a spike during the first quarter of 2018 (see figure 22).



It is encouraging to note that private sector employment has grown significantly over the past eight quarters, despite the absence of real growth in remuneration levels (see figure 23).

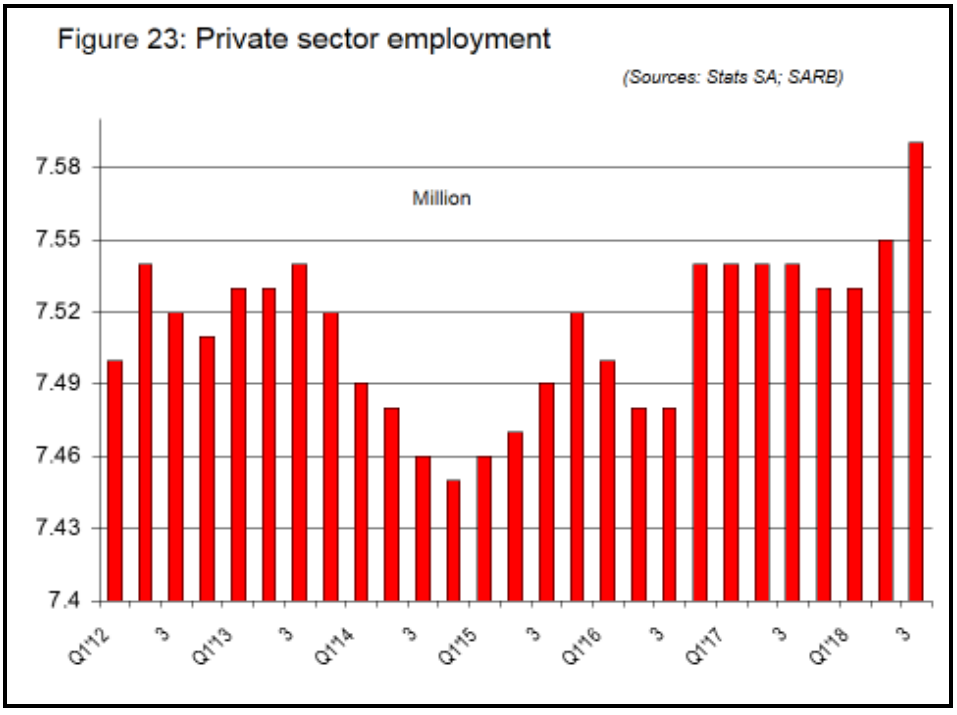


Figure 24 depicts two discernible trends, namely upward momentum in the ratio of labour remuneration to GDP and also a traditional downward movement in the third quarter. The latter is explained to some extent by the payment of interim dividends by JSE-listed companies.

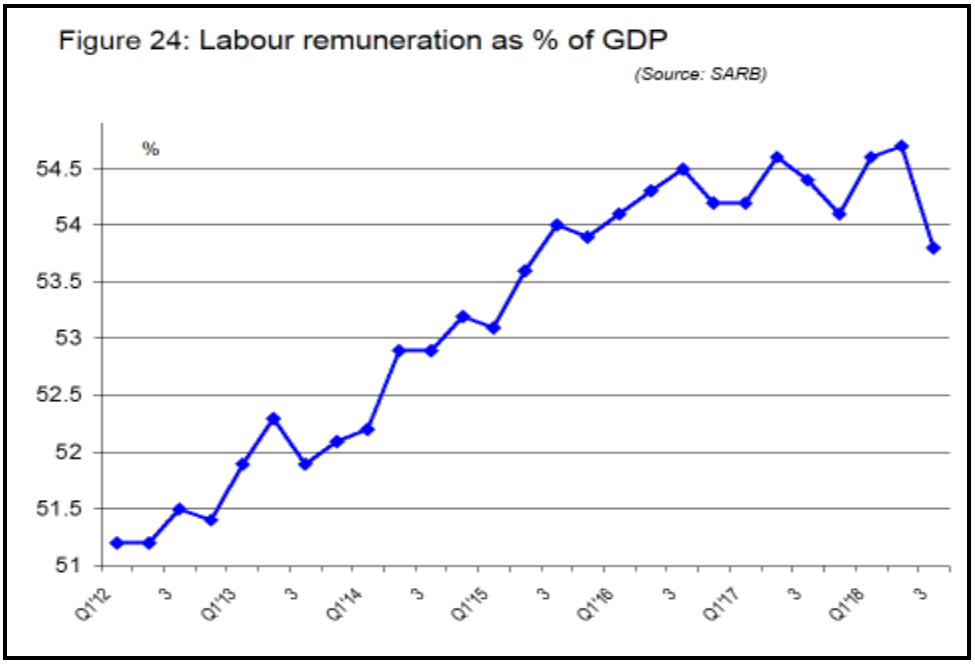
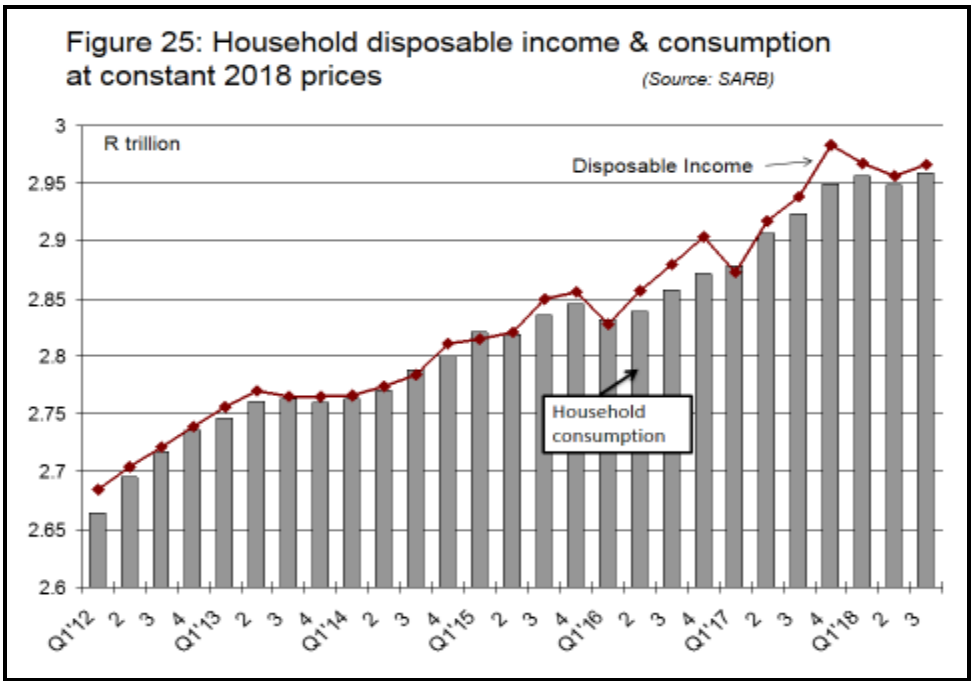


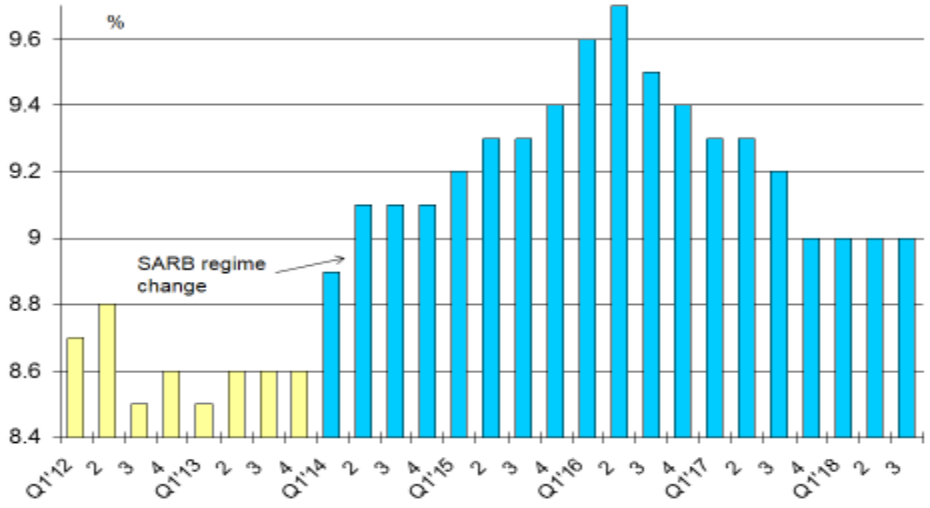
Figure 25 illustrates the existence of near-parity between household consumption and household disposable income, a characteristic of the South African economy, both of which have improved marginally over the past year.



The negative impact on household debt service costs exerted by the return to restrictive monetary policy since 2015 is confirmed by figure 26 (as discussed in some detail in section 4). This has abated somewhat, due to the recent decline in real household credit extension.

Figure 26: Debt service cost as % of household disposable income

(Source: SARB)



Any suggestion that South African households are overly indebted at a macro level is dispelled by the trend in figure 27, which means that it takes the average household approximately nine months to repay all its debt from disposable income sources. The comparable time-frame for Australia in two years.

Figure 27: Ratio of household disposable income to household debt

(Source: SARB)

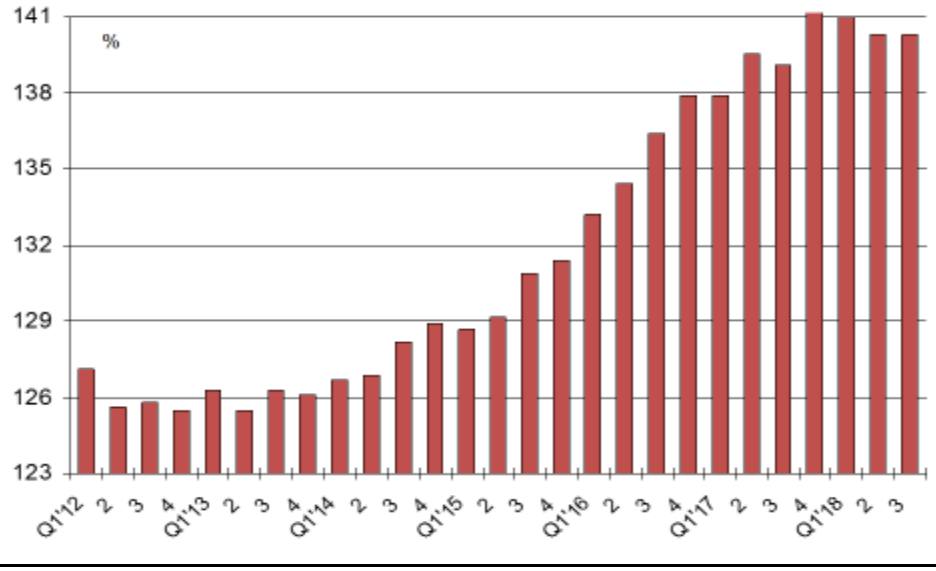


Figure 28 paints a gloomy picture of the level of activity in the credit industry and also explains to a large extent the lethargy in the country's overall economic performance, especially since 2015. The total value of household credit has declined by 10% since the 2nd quarter of 2013.

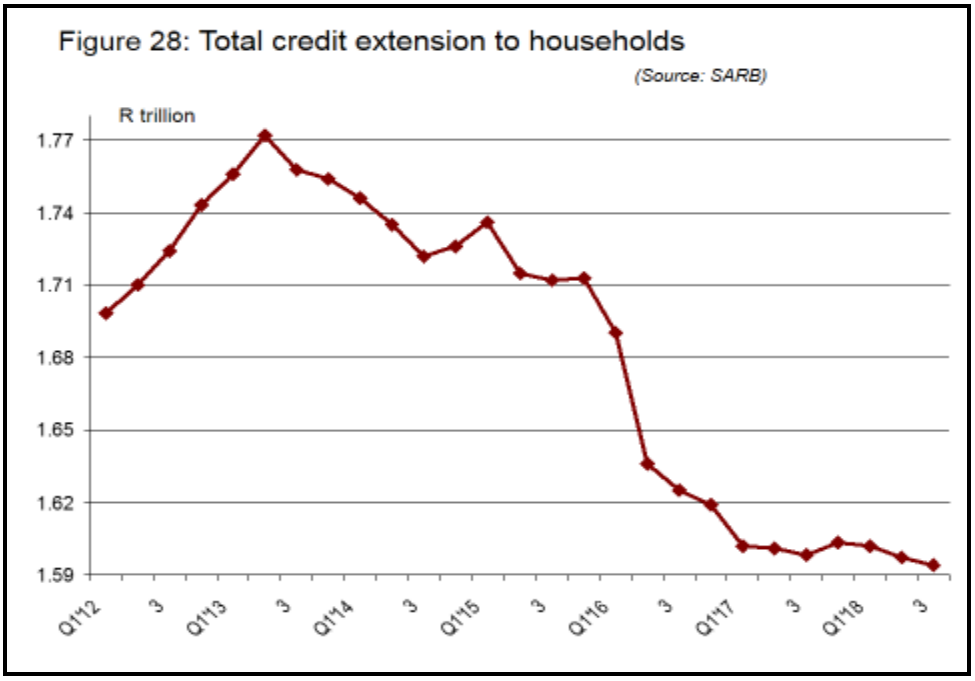
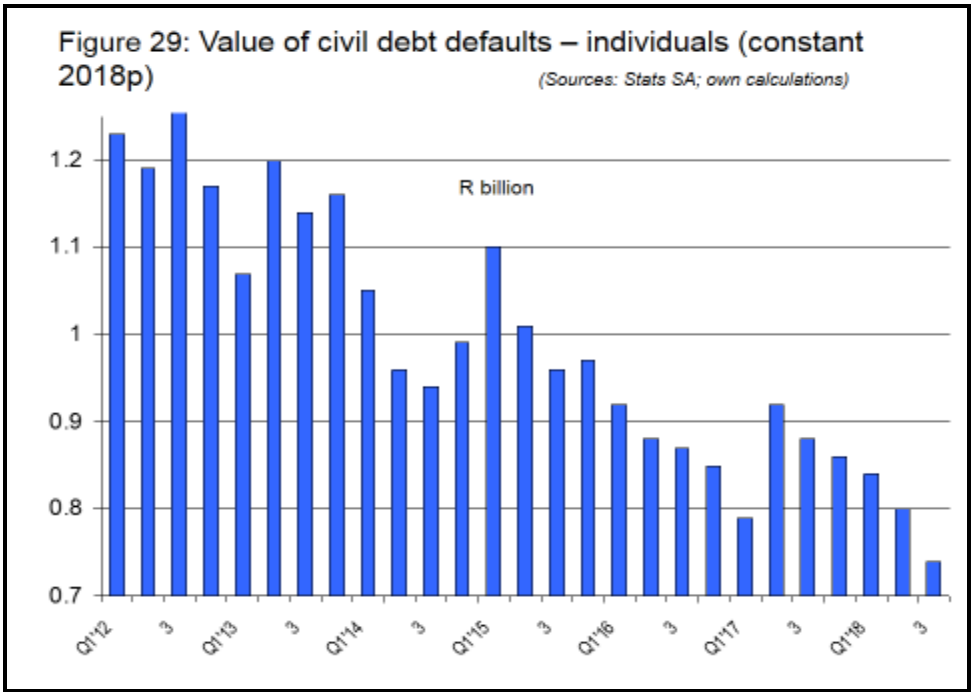


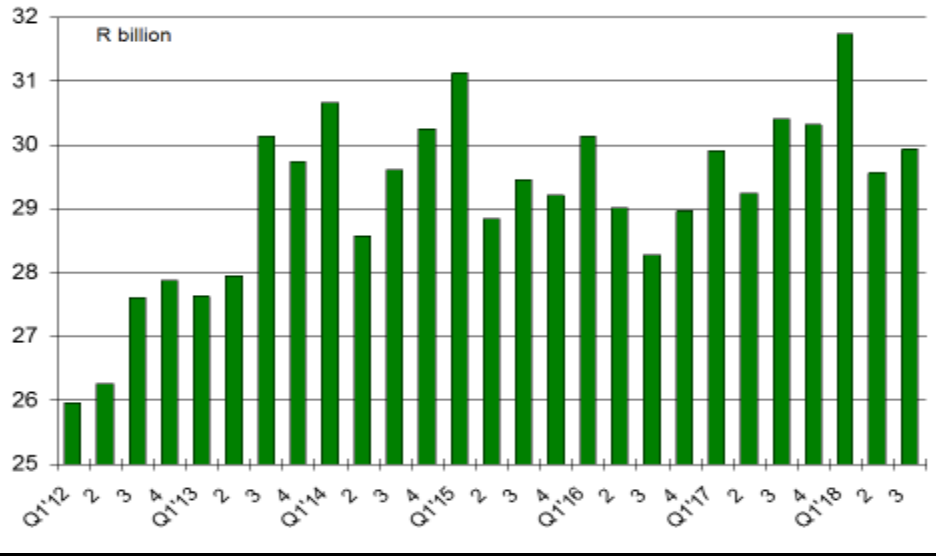
Figure 29 depicts an encouraging trend in the credit industry, namely a consistent decline since 2012 in the real value of civil debt defaults (the reciprocal features in the overall index).



The reason for including the real value of short-term insurance premiums is related to the fact that increases in the value of this indicator often signals the enhanced affordability of tangible assets, such as motor vehicles, equipment and furniture. Figure 30 depicts a fairly stable medium-term trend in this indicator.

Figure 30: Short-term insurers – premiums received (constant 2018p)

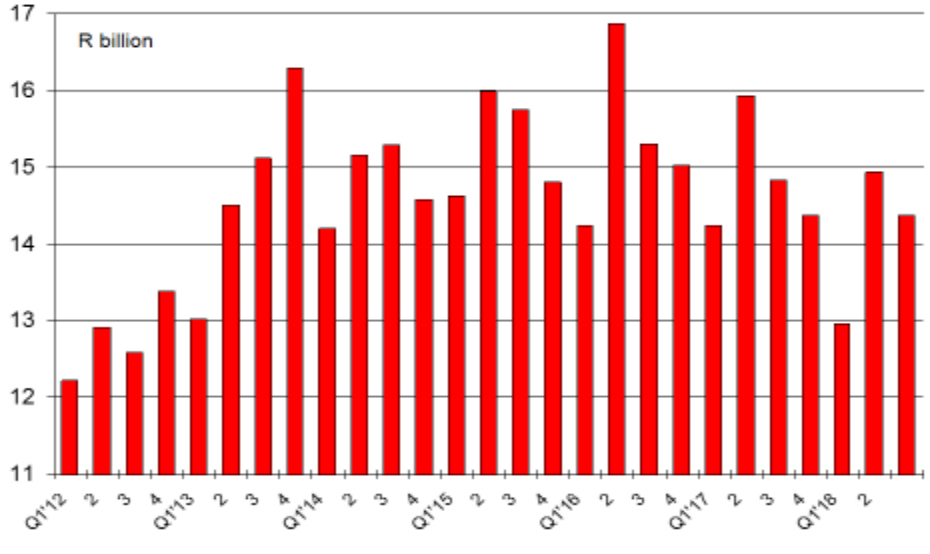
(Sources: SARB; own calculations)



Long-term insurance claims paid on retirement and to deceased estates constitute important sources of revenue to the relevant beneficiaries and have therefore been included in the HFR Index. Figures 31 & 32 depict declining trends for both of these indicators since 2016.

Figure 31: Long-term insurers – claims paid on retirement (constant 2018p)

(Sources: SARB; own calculations)



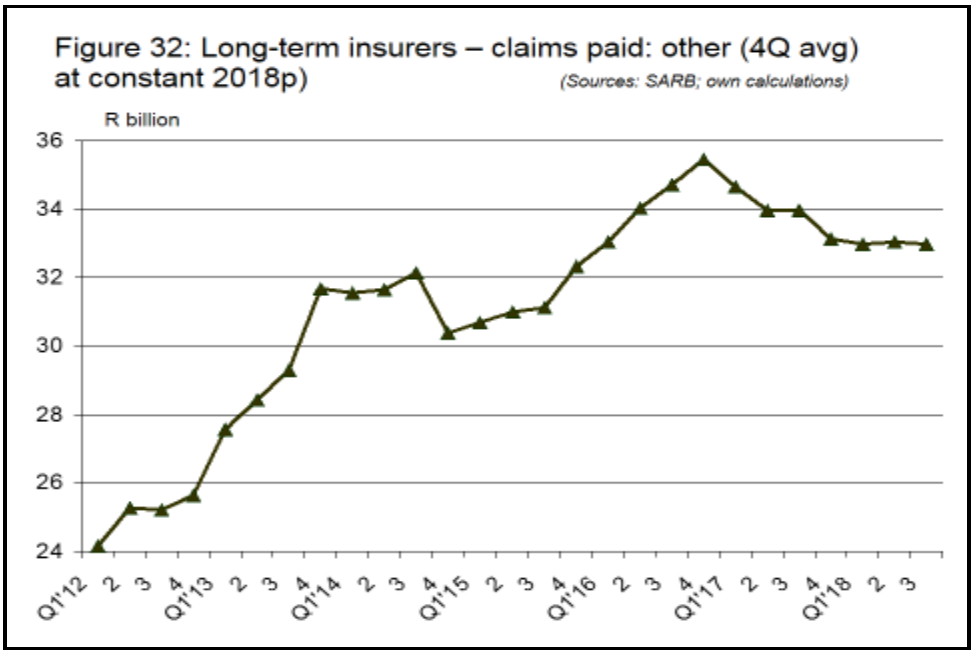


Table 6.2 ranks the % changes to the indicators over the past year and since inception.

Table 6.2: Index of Household Financial Resilience (HFR)
Ranking of % change of indicators

Indicator	Q3'17 to Q3'18 %	Q1'12 to Q3'18 %
Individual civil debt defaults (reciprocal)	19.6	66.8
Long-term insurance claims paid (death & other)	-0.7	38.2
Long-term insurance claims paid (retirement)	-3.1	17.7
Short-term insurance premiums	-1.6	15.3
Household consumption expenditure	1.2	11
Household disposable income	0.9	10.5
Household disposable income/debt cost ratio	0.8	10.4
HFR Index	-0.2	10
Household wealth/disposable income ratio	-2.9	9.9
Labour remuneration - private sector	0.0	9.8
Labour remuneration - public sector	3.2	7.3
Credit extension to households (reciprocal)	0.3	6.6
Labour remuneration/GDP ratio	-1.1	5.1
Employment - public sector	-0.3	4.6
Employment - private sector	0.8	1.3
Household disposable income/debt ratio	2.2	-3.3
Bank asset/debt impairment ratio	-23.4	-17.1

Note: *Ranked by % change since base period (Q1 2012)*