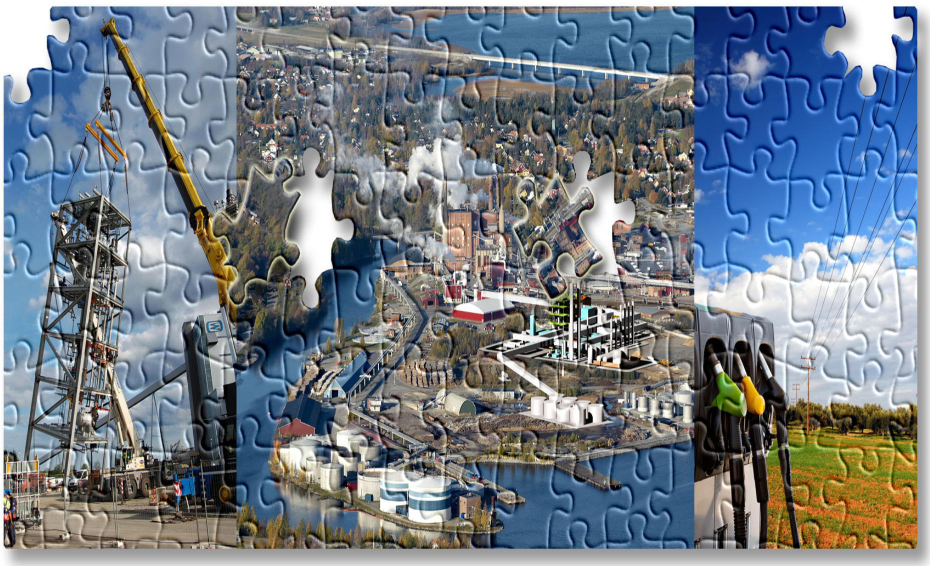

Altron Fintech Short-term Credit Impact (AFSCI) Index

Q1 2021

Tracking the impact of short-term credit extension on the South African economy

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Altron Fintech Short-term Credit Impact (AFSCI) Index

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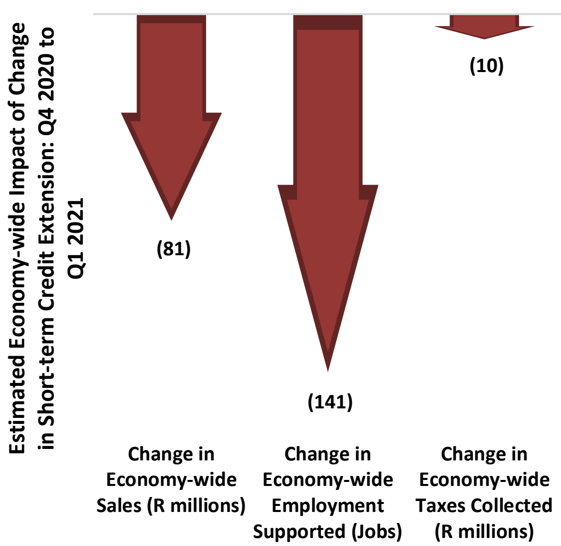
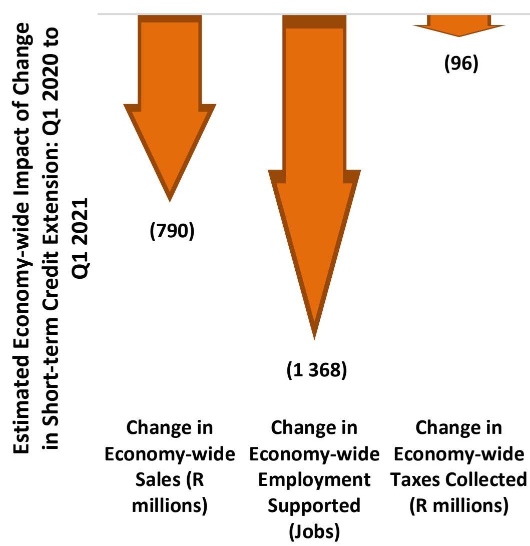
Highlights

Latest AFSCI Index compared to previous quarter	**-1.4%**
Latest AFSCI Index compared to a year earlier	**-12.3%**





Objective

While short-term credit makes up a very small share of total consumer credit, it is an important market for a number of reasons that are discussed and analysed in greater detail in this document. Short-term credit provides:

- first-time access to credit to many people who have never had access before;
- lower-income households with a proportionately greater share of credit than is advanced to them by other forms of credit;
- a source of funding to households with low incomes and limited wealth assets in the event of unforeseen developments and emergencies;
- finance to micro-business for working capital and stock and asset purchases; and
- a barometer of the financial health of a vulnerable, and often neglected, portion of South Africa's population.

Despite this it is a relatively poorly understood form of credit. The Altron Fintech Short-term Credit Impact (AFSCI) Index seeks to change this by analysing the role that this form of credit plays in the economy through its support of sales, employment and tax collections.

Looking forward, the exposure that Altron Fintech has to this market will be used to collect data and develop a better understanding of who accesses short-term credit and what the funds advanced are used for.

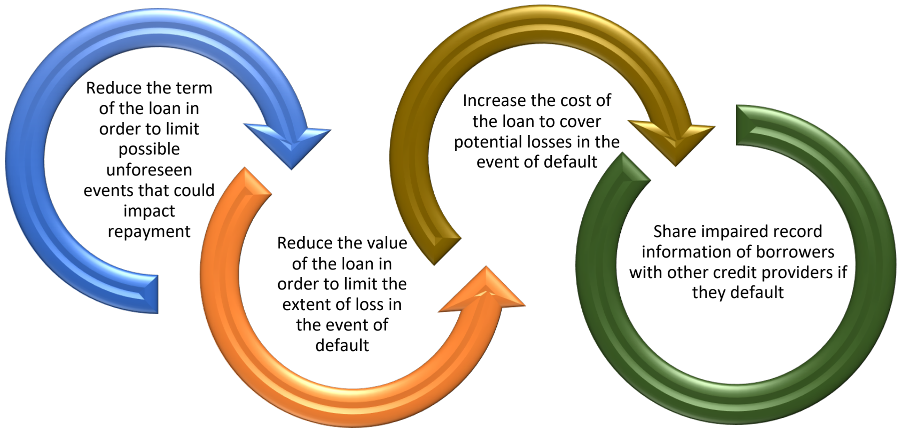
Introduction

Credit allows those with access to it to bring forward purchases and to make investments in assets and income generating activities. **Net additions to the value of credit advanced therefore stimulate current levels of economic activity above what they otherwise would have been**. Of course, at the level of an indebted individual or firm, the servicing and repayment of debt reduces their future levels of discretionary income and spending, but in the aggregate the effects tend to be more redistributional than contractionary: the discretionary incomes of savers and lenders increase while those of borrowers decrease by a similar amount. **The stimulatory effects of credit extension therefore depend largely on what the loans advanced are used to purchase**. The economic impact of purchasing local-made goods and services will be different to that associated with the purchase of imported products. Similarly, the purchase of assets that generate future returns that exceed the costs of that credit is different to the purchase of consumption goods and services from which no enduring benefits or returns can be derived, or of assets that do not generate a net positive return. Credit can act as a shock absorber for the economy, smoothing out cyclical bumps by allowing future incomes to be discounted to the present. However, when credit is advanced without due regard for the capacity of borrowers to repay the debt, it can also be a significant source of economic instability – as evidenced by the global financial crisis in 2008.

The ability of individuals and firms to access credit is an important part of financial inclusion. In its 2014 Global Financial Development Report on Financial Inclusion the World Bank confirmed **that access to financial services plays "a critical role in reducing extreme poverty, boosting shared prosperity, and supporting inclusive and sustainable development"**. It also notes that there are qualitative differences in the socio-economic impact of greater access to different types of financial services. For example, a bank account that lies dormant provides little benefit to the holder, but an account that facilitates payments and secure savings activities is especially beneficial to poor households. Similarly, being able to insure against the risk of loss can be important in enabling individuals and firms to remain solvent and functional in the face of unexpected loss events – such as the Covid-19 pandemic and the recent rioting and looting in Kwazulu-Natal and Gauteng. Access to credit is especially important for small, young and growing firms, and to poorer households with limited financial and wealth assets to see them through disruptions to their incomes.

When credit providers extend credit to individuals or firms they inevitably have to deal with information asymmetry, where borrowers fail, or are unable, to disclose all relevant information regarding their financial circumstances and their ability to repay the loan. As a result, credit providers may extend credit, or fail to adequately price loans, to those individuals and firms that have a relatively higher probability of default. This is known as adverse selection. **Credit providers have four ways of limiting the risk of default on credit that is extended**, as illustrated below. These actions are typically used in combination and may be eased as the borrower develops a credit history that helps to reduce the information asymmetry and enables the credit provider to more accurately assess the risk of default.

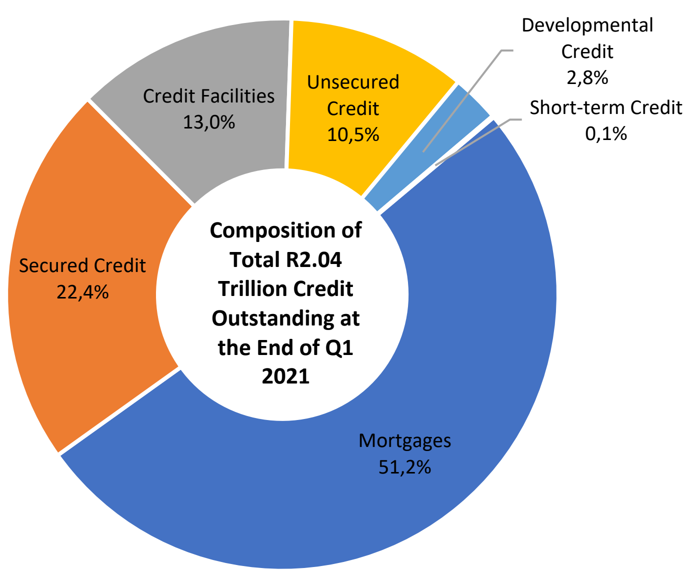
Figure 1: Ways that credit providers mitigate the risk of default



The types and scale of credit extension in South Africa

The National Credit Regulator recognizes and collects data on different types of credit. These are mortgages, secured credit, credit facilities, unsecured credit, short-term credit and developmental credit. As at the end of the first quarter of 2021, the value of credit still on the books of registered credit providers amounted to R2.04 trillion. **Over 51% of this consisted of mortgages, more than 22% was secured credit and short-term credit only accounted for 0.1% of the total**. The values outstanding on the gross debtors' book at the start of a particular period, plus any new credit advanced during the period, less the value of loans repaid and written-off gives rise to the values of the gross debtors' book at the end of the period.

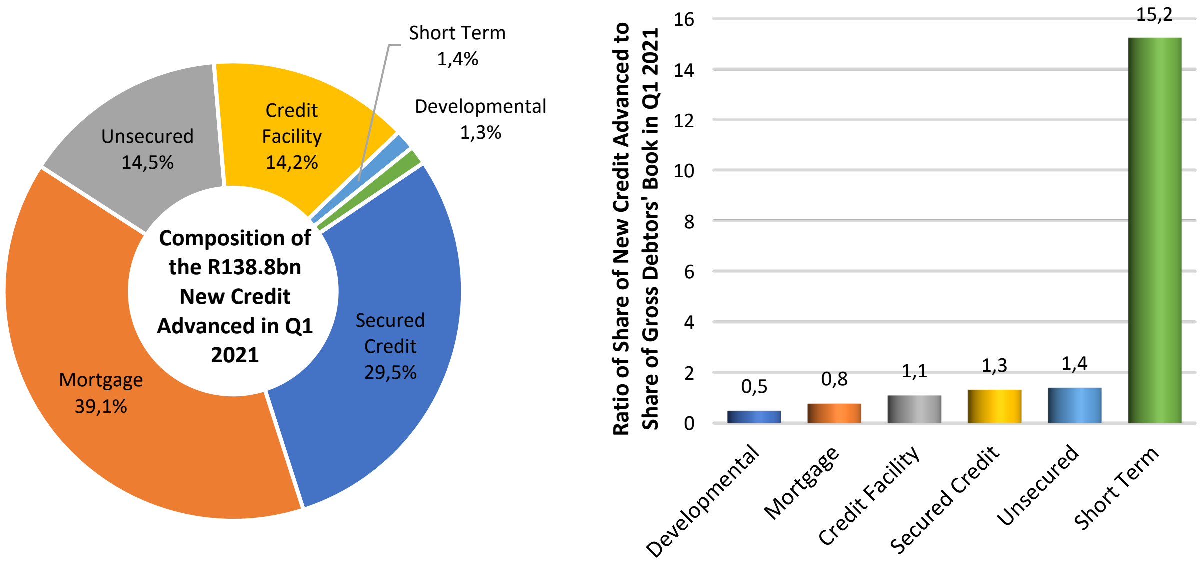
Figure 2: Value of the gross debtors' book of registered credit providers as at the end of Q1 2021



Source of data: National Credit Regulator

The characteristics of these different types of credit impact their shares of total credit. Mortgages tend to have terms of 15 to 20 years and will therefore stay on the books of the credit provider for much longer than a short-term loan with a term of six months, or a "payday" loan with a term of less than a month. As a result of this "churn" **the share of the value of new credit advanced by short-term credit providers in the first quarter of 2021 was over 15 times greater than its share of total outstanding debt at the end of that quarter**. Short-term credit accounted for 1.4% of total new advances in this period, but less than 0.1% of the gross debtors' book at the end of Q1 2021.

Figure 3: The contribution of types of new credit advanced and the ratio of shares of new credit advanced to shares of the gross debtors' book in Q1 2021



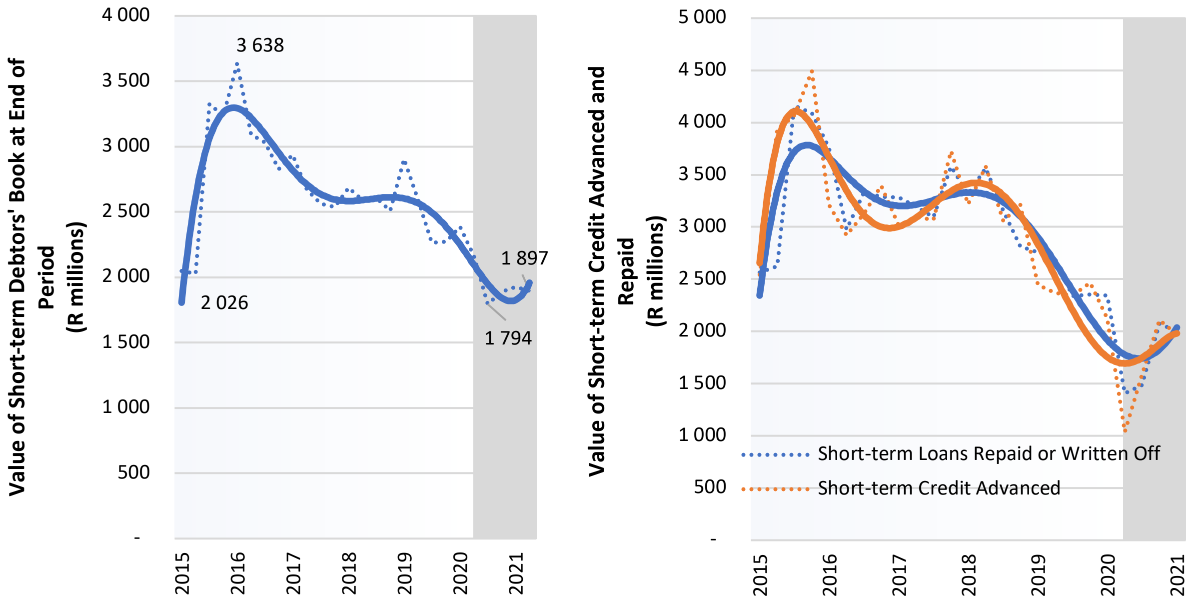
Source of data: National Credit Regulator

The dynamics of the short-term credit market

In the South African context, **short-term credit is defined as loans with values not exceeding R8,000 that are repayable within six months**. These characteristics make it a common entry point for borrowers seeking credit for the first time, and a useful training ground for the responsible use of credit. Since the value of initial loans are typically small and the term of loans are relatively short, their costs - expressed in terms of the annual percentage rate (APR) - are comparatively high. At the same time, there are benefits to borrowers of building a positive credit history by repaying the loan and significant disincentives (penalty interest and adverse listings) attached to default.

Since the end of 2015 the value of short-term loans outstanding has trended lower – from a peak of R3.6 billion to less than R1.8 billion at the height of the Covid-19 stage 5 lockdown in the second quarter of 2020. This represents a decline of 48% and was the result not just of lower new credit advances – which fell from almost R4.5 billion at the end of 2015 to just over R1 billion in Q2 2020 – but also extended periods where the value of loan repayments and write-offs exceeded that of new advances. In the first quarter of 2021, the value of short-term loans repaid or written-off was R27 million more than the value of new short-term credit advanced.

Figure 4: Value of gross debtors' book (left hand graph) and value of new advances, repayments and write-offs (right hand graph) for short-term lending



Source of data: National Credit Regulator

In line with the progressive decline in the value of short-term loans advanced, there has also been a steady decline in the number of loans extended – from 2.2 million in the fourth quarter of 2015 to just 431,000 at the height of the lockdown in the second quarter of 2020. **In the first quarter of 2021 just over 715,000 new short-term loans were advanced – down from 762,000 in the fourth quarter of 2020**.

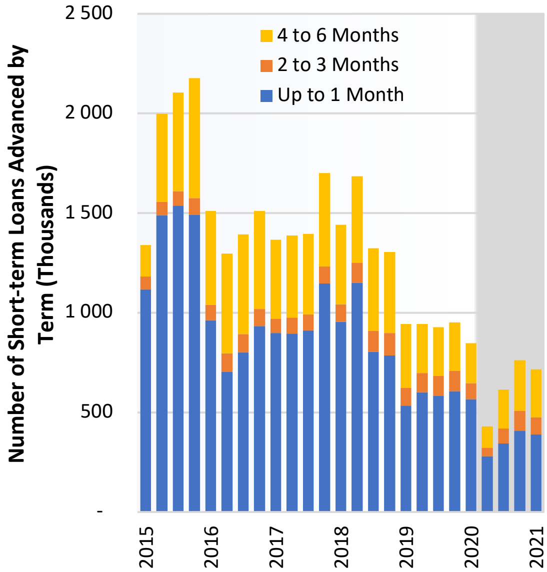
In tandem with the decline in both the value and number of loans advanced, there has also been an interesting shift in the term of loans advanced. **Whereas loans with a term of up to one month (i.e. "payday" loans) accounted for 74% of the value of short-term loans advanced in the first quarter of 2015, by the first quarter of 2021, they only accounted for 37%. Over the same period, the share of loans with a term of 4 to 6 months increased from 19% to 50% and those with a term of 2 to 3 months doubled their share from 7% to 13%.**

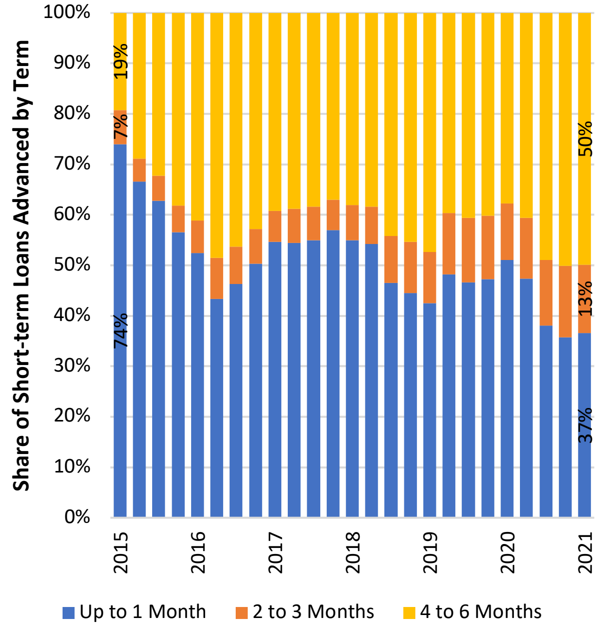
Some of the factors contributing to these trends include:

- A stagnating economy where average rates of real economic growth have been lower than the rate of population growth - resulting in declining real per capita incomes.
- Employment levels that – prior to the Covid-19 pandemic had remained relatively flat for a number of years. The pandemic has caused total employment at the end of the first quarter of 2021 to be 1.4 million lower than a year earlier.
- Increased competition from other credit providers – particularly those offering higher value and longer-term unsecured loans.

The net result has been a steady reduction in the number of credit-worthy applicants – especially those entering the credit market for the first time. This is partly reflected in the increase in the percentage of applications for credit across all credit types that were rejected. **In the first quarter of 2015 53% of applications were rejected. By the first quarter of 2021 this had risen to 62% - down from 67% in the second quarter of 2020, when the lockdown was at its most severe.**

Figure 5: Number of short-term loans advanced by term and the term composition of new advances

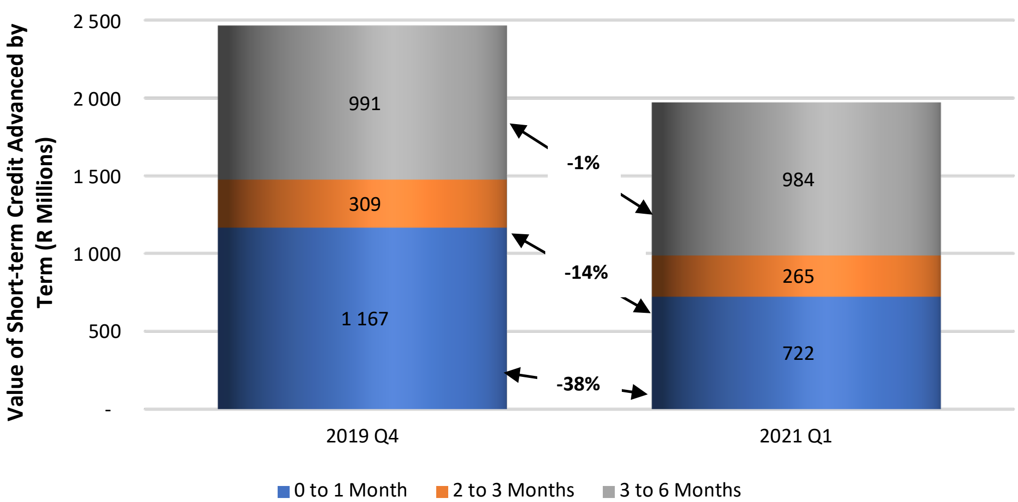




Source of data: National Credit Regulator

The Covid-19 pandemic has resulted in a pronounced shift in short-term lending patterns. **Not only did the total value of advances decline by 20% between the fourth quarter of 2019 and the first quarter of 2021, but there was also a dramatic shift in the term structure of the lending**. The value of loans with a term of up to 1 month dropped by 38%, those with a term of 2 to 3 months declined by 14% and loans with a term of 4 to 6 months decreased in value by only 1%.

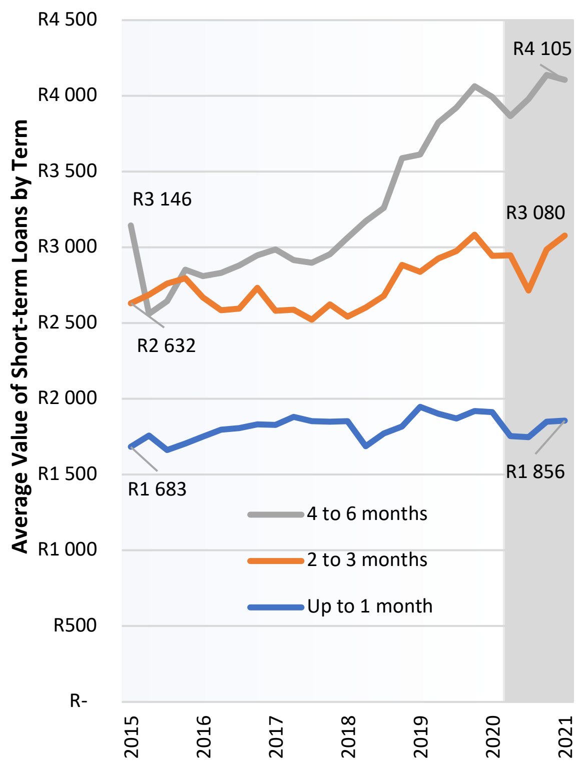
Figure 6: The impact of the Covid-19 pandemic on the value and term structure of short-term lending

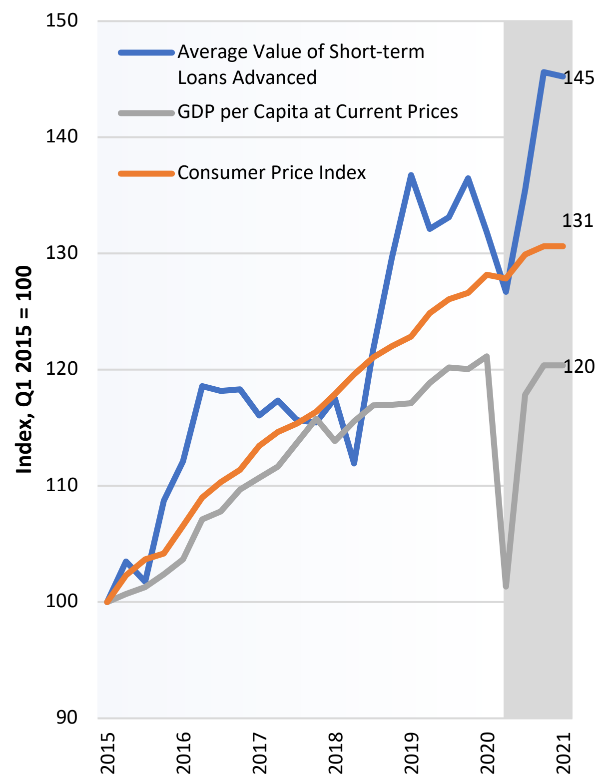


Source of data: National Credit Regulator

In the fourth quarter of 2020, the average value of a short-term loan with a term of up to 1 month was R1,850. The equivalent averages for loans with terms of 2 to 3 and 4 to 6 months were R2,987 and R4,139 respectively. **Between the start of 2015 and the first quarter of 2021, the average value of all short-term loans increased by 45%, compared with increases in consumer prices of 31% and GDP per capita of 20% over the same period.**

Figure 7: Average value of short-term loans by term (left hand graph) and in comparison with the CPI and GDP per capita (right hand graph)





Sources of data: National Credit Regulator, Statistics South Africa

While people in lower income groups have only been able to access a small and declining share of total credit extended, their shares of short-term credit have been significantly higher. For example, across all types of credit, applicants with monthly incomes of between R0 and R3,500 and between R3,501 and R5,500 were each only able to access 1% of total credit advanced in the first quarter of 2021, while those with incomes of between R5,501 and R7,500 and R7,501 and R10,000 each accessed 2% of total credit. People with monthly incomes greater than R15,000 received 89% of the total credit extended.

Figure 8: The extent to which all types of credit were accessed by individuals in different income groups

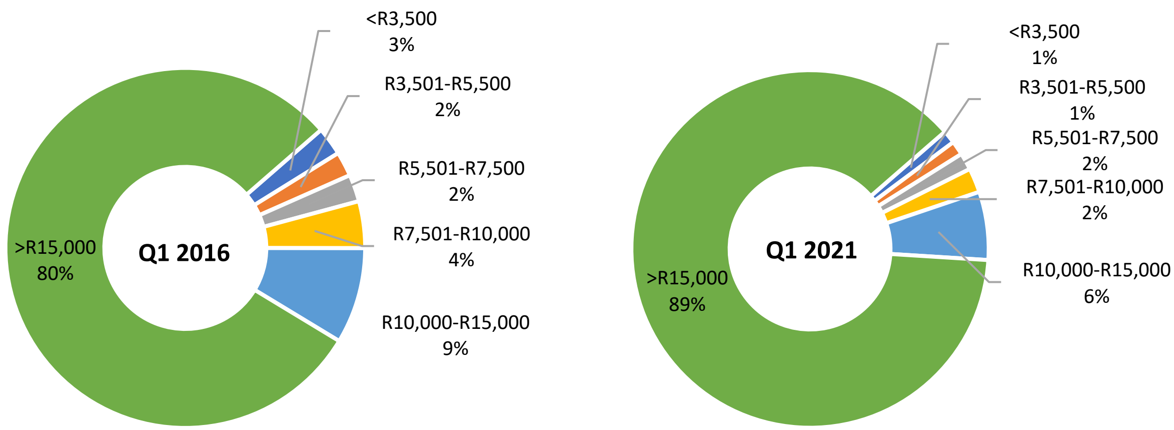
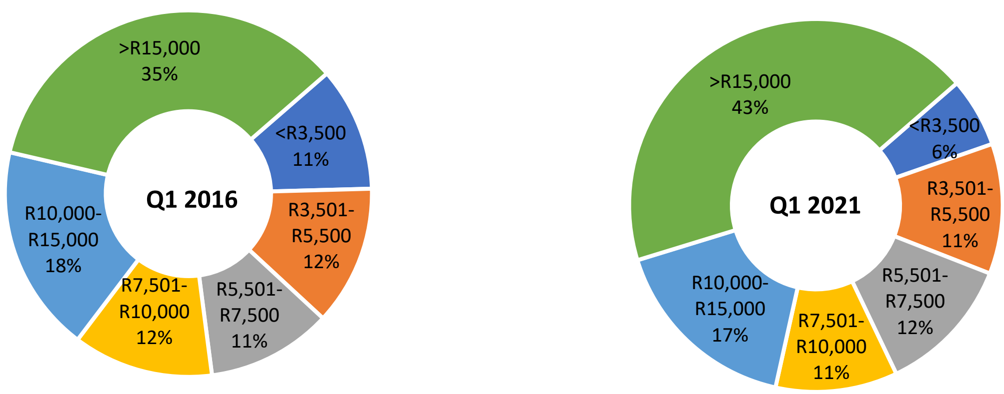


Figure 9: The extent to which short-term credit was accessed by individuals from different income groups

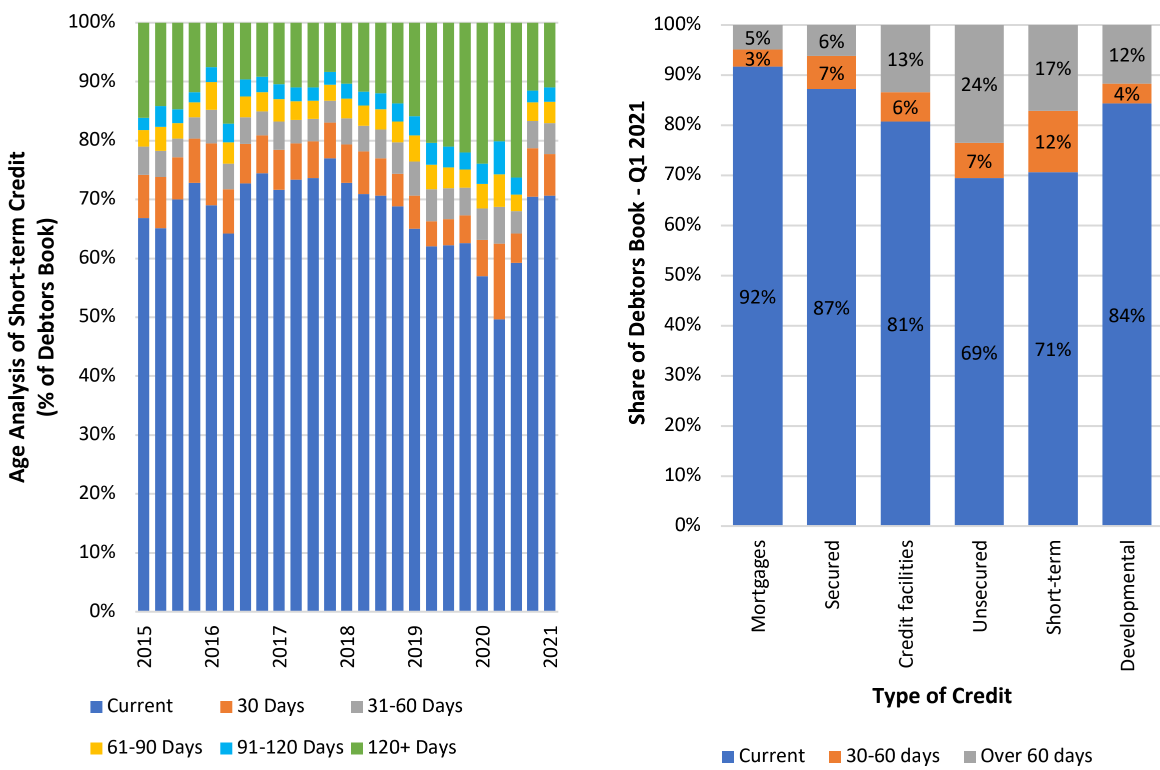


Source of data: National Credit Regulator

By contrast, people with monthly incomes of less than R3,500 were able to access 6% of the value of short-term advances while those earning between R3,501 and R5,500 and between R5,501 and R7,500 accessed 11% and 12% respectively. **Fifty-seven percent of the value short-term credit advanced in the first quarter of 2021 was extended to people with monthly incomes of less than R15,000, but this group could only access 11% of total credit extended in the same period.**

Given the unexpected impact of the Covid-19 pandemic on lives and livelihoods it is not surprising that the proportion of the value of short-term credit outstanding that was in arrears by more than 30 days increased to 37% in the second quarter of 2020. This was higher than at any time since the start of 2015. **However, as the economy re-opened and lockdown conditions were eased, this share dropped to 29% in the first quarter of 2021- which is on par with levels last seen in 2018.**

Figure 10: Trends in the share of the short-term debtors' book in arrears (left hand graph) and a comparison of arrears rates for different types of credit in Q1 2021 (right hand graph)



Source of data: National Credit Regulator

Short-term credit had a lower proportion of debtors that were current than all other types of credit apart from unsecured loans in the first quarter of 2021. However, the share of its debtors' book that was over 60 days in arrears was lower (17%) than for unsecured lending (24%).

The economic impact of short-term credit on the economy

Credit extension injects money that was previously out of circulation back into the economy. Purchases of consumable goods, intermediate inputs and assets generates a stream of economic activity and incomes that are not limited to the business from which the purchase is made. Four distinct impacts can be identified:

i) The **initial impact** on the business where the order is placed. In order to provide the good or service that business needs to employ factors of production (labour, capital, land and entrepreneurship) and to pay them an income.

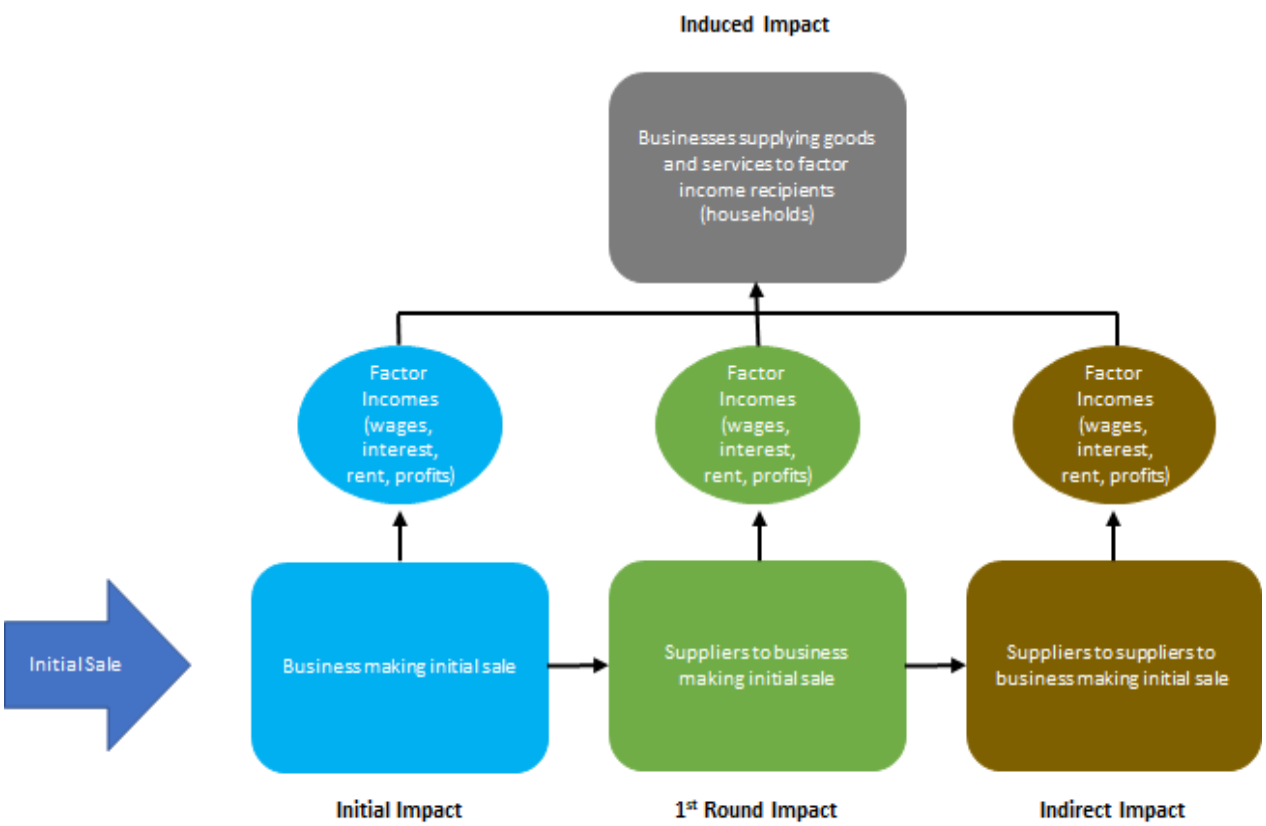
ii) These factors of production generally cannot produce the good or service that is being purchased without procuring inputs from other businesses. This generates sales and factor incomes in those businesses. This is called the **first round impact**.

iii) Those businesses, in turn, need to purchase inputs from their suppliers, which generates sales and incomes in other sectors. This is called the **indirect impact**.

iv) Finally, when all the factor incomes generated through the initial, first round and indirect impacts are spent, this generates sales and incomes in other consumer goods and services sectors. This is called the **induced impact**.

The sum of these four impacts gives rise to the **economy-wide impact** of the initial sale, which is typically greater than (a multiple of) that sale. The mathematical estimation of these various impacts results in multipliers that can be used to quantify the likely impact of sales in different sectors of the economy on output, GDP, employment and tax collections amongst others. These multipliers will be impacted by the ratio of the intermediate inputs that need to be purchased in order to produce the good or service to the additional value that gets added by the business making the sale and the extent to which products and intermediate inputs used in the production of the good or service are imported.

Figure 11: The different types of impacts that accompany a sales order

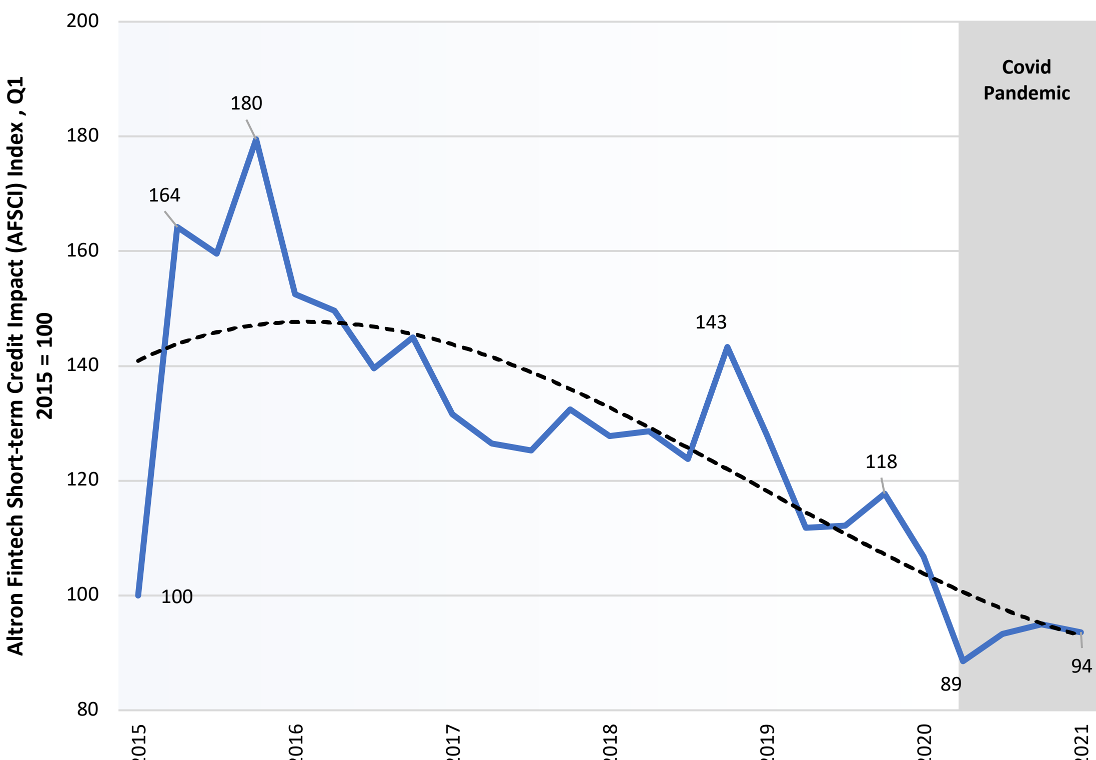


Using these multipliers it is possible to estimate the impact of short-term credit extension on the economy. A detailed explanation of the approach adopted, as well as relevant data is shown in Annexure A.

The Altron Fintech Short-term Credit Impact (AFSCI) Index

Since it is the sales that short-term credit extension facilitates that gives rise to its employment-supporting and tax generating impacts, the Altron Fintech Short-term Credit Impact (AFSCI) Index is derived from those sales values. The AFSCI Index is indexed to 100 in the first quarter of 2015. It reached a peak of 180 in the fourth quarter of 2015 but has since trended lower. At the height of the Covid-19 lockdown, it reached a low of 89, but recovered slightly in the subsequent two quarters to end 2020 at 95. In the first quarter of 2021 it dropped slightly to 94. **This means that short-term credit extension was making 6% less of an impact on the economy in the first quarter of 2021 than it was at the start of 2015 and 48% less of an impact than at its peak in the fourth quarter of 2015.**

Figure 12: Altron Fintech Short-term Credit Impact (AFSCI) Index



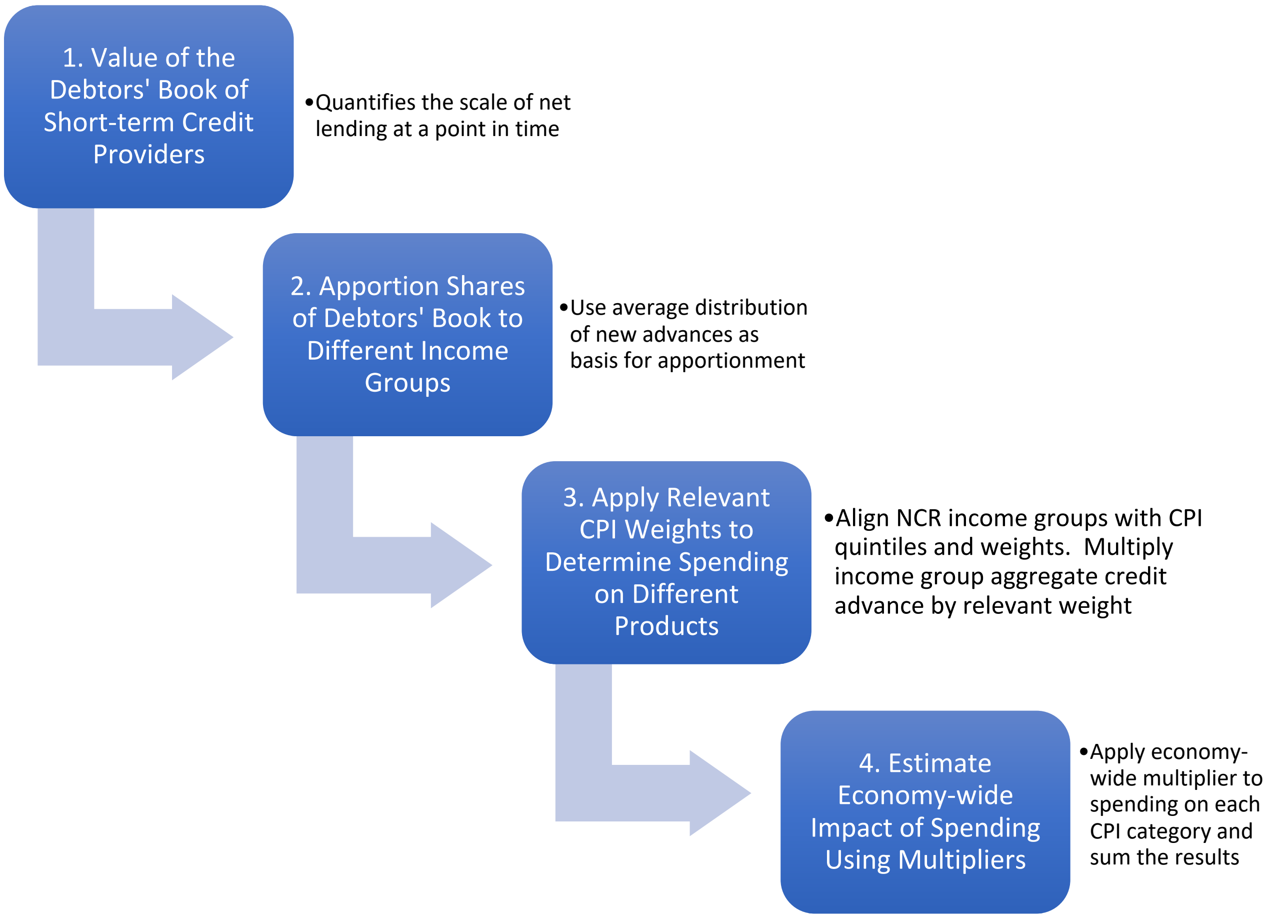
Source of data: National Credit Regulator, Statistics South Africa, Quantec, own calculations

Table 1: Historical values of the Index of Economic Impact of Short-term Credit Extension

Year	Quarter	Index of Economic Impact	Year	Quarter	Index of Economic Impact
2015	1	100	2019	1	128
	2	164		2	112
	3	160		3	112
	4	180		4	118
2016	1	153	2020	1	107
	2	150		2	89
	3	140		3	93
	4	145		4	95
2017	1	132	2021	1	94
	2	126			
	3	125			
	4	132			
2018	1	128			
	2	129			
	3	124			
	4	143			

Annexure A: Explanation of the approach adopted in estimating the economic impact of short-term credit extension

Figure 13: Steps followed to estimate the impact of changes in net short-term credit extension on the economy



1. Value of the gross debtors' book of short-term credit providers

As has already been noted, the value of the gross debtors' book of short-term credit providers has declined steadily over a number of years. While short-term credit providers advanced close to a net additional R1.6 billion in additional credit in the year to end 2015, net credit extension contracted for four out of the five years since then. In the twelve months ending 31 March 2021, the gross debtors' book for short-term credit providers declined by more than R266 million.

Year/Period	Year-on-Year Change in Gross Debtors' Book	Value of Gross Debtors' Book at Year/Period End
2015	1,587,861,761	3,637,649,438
2016	(699,868,774)	2,937,780,664
2017	(253,458,576)	2,684,322,088
2018	220,508,177	2,904,830,265
2019	(518,686,737)	2,386,143,528
2020	(461,443,803)	1,924,699,725
Q1 2021	(266,248,899)	1,897,345,670

Source: National Credit Regulator

Just as net additions to credit extension can generate positive economy-wide economic impacts that are a multiple of the value of the credit extended, so does the contraction of net credit extension generate negative multiplier effects throughout the economy. Businesses that were receiving additional sales as a consequence of the credit made available to their customers will experience a decline in sales. They will then employ fewer factors of production and place order of less value with their suppliers. The process will continue with indirect and induced impacts serving to magnify the negative impacts.

2. Apportionment of net value of short-term credit advanced to different income groups

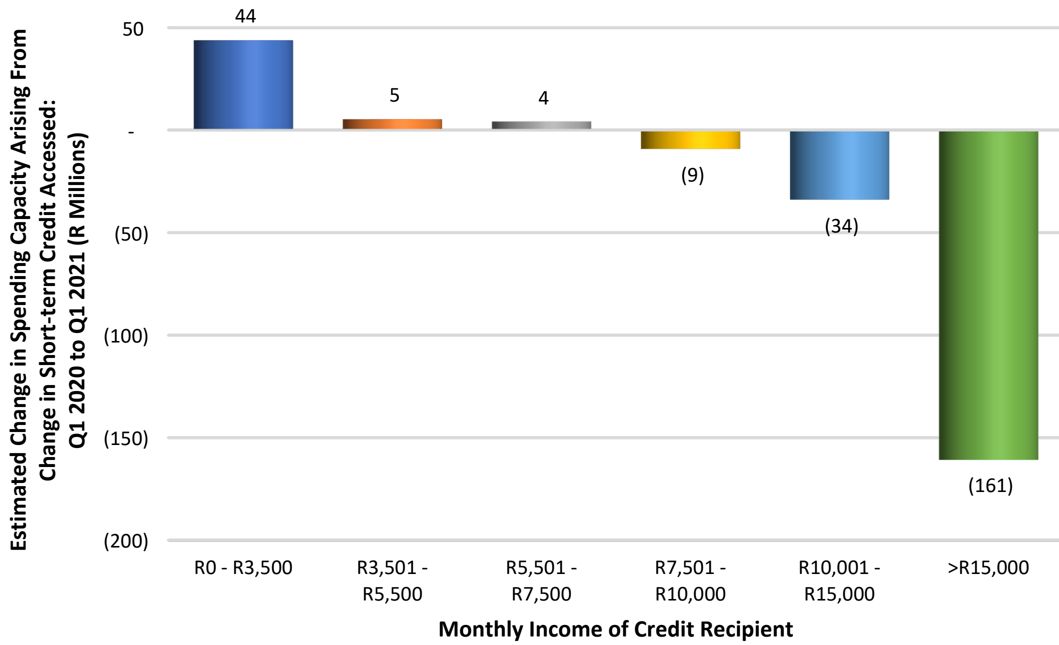
Based on the average distribution of new short-term credit to different income groups over the last three quarters for which data exists, the shares of the value of the gross debtors' book are assumed to be as follows:

Income Group of Borrower (Monthly Income)	Share of Credit Advanced: Q3 2020 to Q1 2021
<R3,500	6%
R3,501-R5,500	12%
R5,501-R7,500	12%
R7,501-R10,000	11%
R10,000-R15,000	17%
>R15,000	42%

Source of data: National Credit Regulator

Applying these shares to the value of the debtors' book at a point in time gives rise to the estimated additional spending capacity by each of the income groups that is supported by their access to short-term credit. Based on the year-on-year change in the value of the gross debtors' book of short-term credit providers, people with monthly incomes of less than R3,500 were able to spend R44 million more on goods and services in the first quarter of 2021 than a year earlier. Those in the R3,501 to R5,500 and R5,501 to R7,500 income brackets had a combined R9 million more to spend while individuals with monthly incomes of between R7,501 and R15,000 had R43 million less to spend and those with monthly incomes above R15,000 had R161 million less available to spend.

Figure 14: Estimated net year-on-year change in spending capacity of different income groups due to change in short-term credit advanced in Q1 2021



Source of data: National Credit Regulator

3. Application of CPI weights per quintile to the short-term credit-funded spending capacity of income groups

The latest CPI weights per expenditure quintile are shown below.

Product Group	**Expenditure Quintile**				
	One (Lowest)	**Two**	**Three**	**Four**	**Five (Highest)**
Food & non-alcoholic beverages	47.56	35.19	27.58	22.76	13.83
Alcoholic beverages & tobacco	3.41	4.96	5.50	6.19	6.24
Clothing & footwear	8.79	6.69	5.71	4.89	3.34
Housing & utilities	16.29	30.26	37.78	35.24	22.05
Household content, equipment & maintenance	2.84	2.67	2.50	2.64	4.76
Health	0.70	0.55	0.51	0.57	1.30
Transport	1.57	2.97	4.70	8.16	16.38
Communication	6.33	4.04	2.91	2.57	2.52
Recreation & culture	2.10	2.82	3.26	3.93	5.44
Education	0.38	0.60	0.85	1.58	3.13
Restaurants & hotels	4.46	3.61	2.91	2.65	2.92
Miscellaneous goods & services	5.61	5.68	5.81	8.84	18.13
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Statistics South Africa

These weights were applied to the relevant shares of short-term credit-funded spending of corresponding income groups. The results were then aggregated.

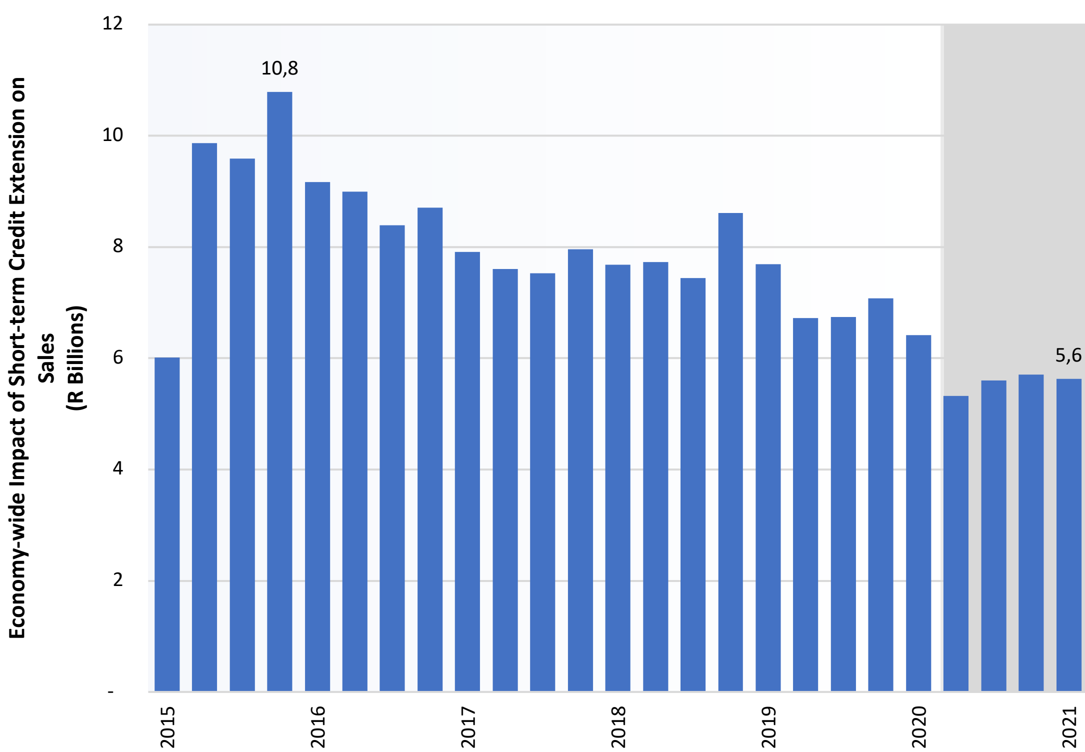
4. Estimation of economy-wide impacts of short-term credit-funded spending using relevant multipliers

Relevant economy-wide multipliers were than applied to the aggregate estimate of the short-term credit extension on spending on each product category. The resulting impacts on sales, employment and tax revenues are reflected in the graphs below. Whereas short-term credit extension was contributing close to R11 billion in sales in the fourth quarter of 2015, this steadily declined in the intervening years to reach R5.6 billion in the first quarter pf 2021. The reduction in short-term credit extension between the first quarter of 2020 and the first quarter of 2021 caused an economy-wide decline in sales of around R790 million.

At its peak, the sales generated as a consequence of short-term credit extension were supporting close to 19,000 employment opportunities throughout the economy. By the first quarter of 2021, this had dropped to less than 10,000 employment opportunities.

The taxes generated as a result of short-term credit extension followed a similar pattern – dropping from close to R1.3 billion in 2015 to around R690 million in the first quarter of 2021.

Figure 15: Estimated economy-wide impact on sales as a result of short-term credit extension



Source of data: National Credit Regulator, Statistics South Africa, Quantec, own calculations

Figure 16: Estimated economy-wide employment supported as a result of the net short-term credit extension

Source of data: National Credit Regulator, Statistics South Africa, Quantec, own calculations

Figure 17: Estimated economy-wide tax collections arising from net short-term credit extension

Source of data: National Credit Regulator, Statistics South Africa, Quantec, own calculations