Standard Bank
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Consumer Trends

South Africa | Macroeconomics

Homes for first-time buyers are more affordable than a decade ago

House prices and instalments have changed for the better for first-time buyers since 2006

- We use Standard Bank's mortgage applications data to assess how the affordability of homes for first-time buyers has changed since 2006, from both a structural and a cyclical perspective. We do this by tracking Standard Bank's two affordability indices for median first-time buyers i.e. SBR's price-to-income ratio (PTI) and instalment-to-income ratio (ITI). As part of our cyclical affordability assessment we also monitor the size of a median loan granted as ratio of the purchase price, or loan-to-price index.

- We focus on first-time buyers, and our study can be interpreted as a "means test" for the average aspirant first-time buyer accessing the mortgage market. Comprising 19% of net household wealth (as at 2015), residential assets are an important determinant of SA's consumptive capacity and driver of living standards. Given that Standard Bank has the biggest mortgage book by value in SA, we believe that our net is cast wide enough to capture a representative first-time buyer in SA.

Main findings

- **In the first quarter of 2016, the median first-time buyer earned approximately R29,000 pm**, and falls within our Emerging Middle Income group, i.e. with household income of R16,418 - R33,333.

- **Analysing income, house price and instalment trends for a first-time buyers over the last decade, we show that mortgage affordability has structurally improved.** This is largely due to the median income of a first time buyer growing faster than the median price of a house demanded by a first time buyer, combined with historically low interest rates. With house prices lagging income, and interest rates remaining low, thus anchoring the cost of servicing a mortgage, a median first-time buyer is in a relatively better position to acquire and pay for their home than they were a decade ago.

  However, from a business cycle perspective affordability is worsening, because GDP growth is slowing and SA has entered a downward phase of its business cycle. GDP drives income and the demand for mortgages, as well as banks' appetite for risk and consequently the supply of mortgages.

  We note that in the last downward phase of SA's business cycle, income growth took a while to respond to slower GDP growth. In keeping with this trend, as SA entered the latest downward phase of its business cycle in December 2013, income growth continued to rise for almost two years, and began slowing in Q3 2015.

  From a supply of mortgages perspective, we find that the average loan-to-purchase price (LTP) leads GDP growth, indicating a forward-looking approach in bank lending practices. A median first-time buyer generally qualifies for a smaller loan as a percentage of the purchase price as GDP slows and interest rates rise. In the current cycle, the loan-to-purchase price started declining in Q3 2013.

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SBR's two Affordability Indices

- ***Affordability Index 1: price-to-income ratio (PTI)*** *measures the proportion of median annual income to the median purchase price over time, indexed to Q1:06. Declining PTI indicates improving affordability.*
  - **Over the past decade, income for first-time buyers has outpaced house prices**. Median income has grown 92%, from R15,000 pm in Q1:06 to R29,000 pm in Q1:16. The median house price (for the related income bracket) has grown 74% (from R390,000 to R625,000). SBR's PTI ratio has declined 7.0% from 1.0 to 0.93, as mortgage affordability has improved.
  - Our finding also applies to an average household. Over the last decade, average remuneration per worker grew 150% outpacing house prices, as measured by Standard Bank House Price Index which grew 85% over the same period.
- ***Affordability Index 2: instalment-to-income ratio (ITI)*** *measures the proportion of median mortgage instalment to median monthly income over time, indexed to Q1:06. Declining ITI indicates improving affordability.*
  - **Over the past decade, income for first-time buyers has outpaced growth in monthly mortgage instalments**. The median first-time instalment has grown from R3,510 p/m in Q1:06 to R6,345 p/m in Q1:16 i.e. instalments have grown 81%. Comparatively, over this period, income has grown 92%. This has improved mortgage affordability, as measured by the instalment to income ratio.

Mortgage affordability for first-time buyers has improved

Data and methodology

We use Standard Bank mortgage applications data to assess how the circumstances of first-time buyers has changed from 2006 to 2016 using a sample of first-time buyers over the past decade. We use applications, as opposed to grants data, as the latter can suffer selection bias. Given that Standard Bank has the biggest loan book by value in SA, our net is cast wide enough to capture a representative first-time buyer in SA.

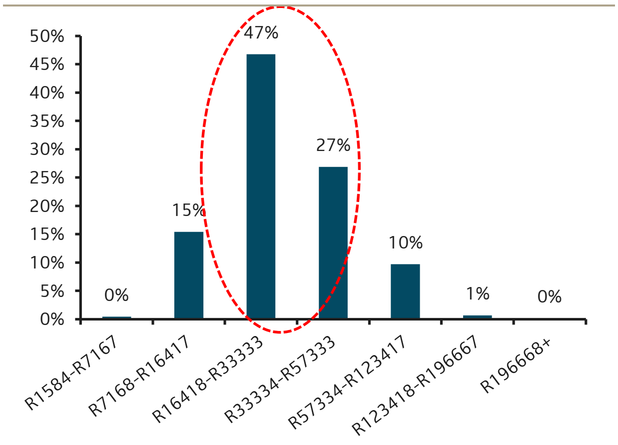
This study can be interpreted as a means test for an average first-time buyer to gain access to the mortgage market, in order to acquire a residential asset. Household residential assets form an important component of household net wealth (defined as total assets of households less financial liabilities) and in 2015 net residential assets (i.e. residential assets less mortgage liabilities) comprised 19% of net wealth. Residential assets are an important determinant of SA's consumptive capacity and driver of living standards and wealth creation.

We focus on first-time buyers because the inflow of new buyers is vital for the overall health of the housing market by pumping in new demand and creating necessary liquidity. Therefore, a slowdown in this group of buyers due to financial limitations or softening labour markets will eventually reflect in the overall housing market.

Characteristics of the median first-time buyer 2015/2016

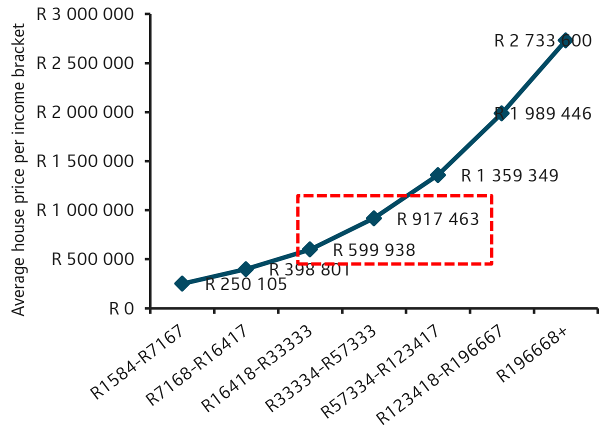
Approximately 75% of mortgages are granted to first time buyers who earn between R16,418 and R57,333 per month (Figure 1). We note that the average purchase price of homes demanded by first time buyers ranges between R600,000 and R920,000 (Figure 2).

Figure 1: First time buyer demand distribution: Middle income earners drive demand for mortgages, in volume terms



Source: SBR

Figure 2: Middle income earners (R16,418 – RR57,333) demand houses priced between R600,000 and R920,000



Source: SBR

In the first quarter of 2016, the median first-time buyer earned R28,869 and sought to acquire a home with a purchase price of R625,000. Based on this we calculate that the median monthly instalment (capital and interest repayments) of a median first-time buyer in Q1:16 was R6,346.00 and accounted for 22% of income (Figure 3).

Figure 3: Characteristics of a first-time buyer Q1:15 - Q1:16

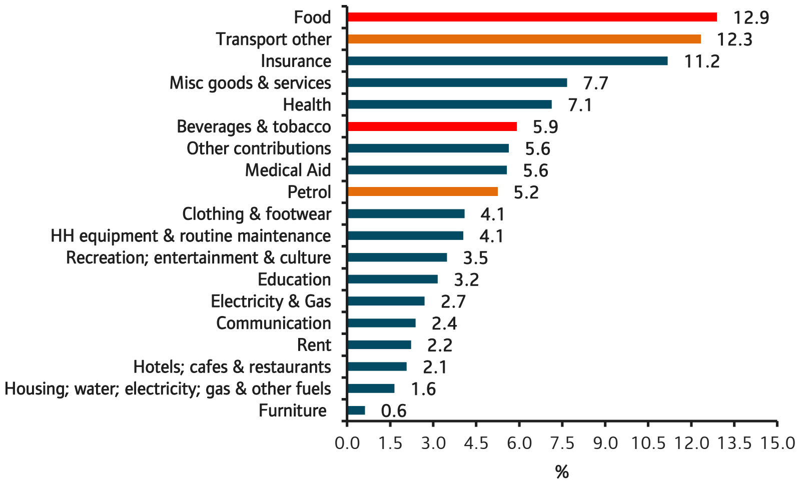
	INCOME	INSTALMENT	INSTALMENT TO INCOME (%)	HOUSE PRICE
Q1 2015	R 25 825	R 5 609	21.72	R 550 000
Q2 2015	R 26 400	R 5 647	21.39	R 589 000
Q3 2015	R 28 385	R 6 003	21.15	R 610 000
Q4 2015	R 28 319	R 5 998	21.18	R 600 390
Q1 2016	R 28 869	R 6 346	21.98	R 625 000

Source: SBR

In 2016, the disposable income of the Emerging Middle Income group has come under pressure

Based on our previous research work which used BMR data to categorised the South African household by income group (see our report Consumer Expenditure Trends, published 17 May), our median first-time home buyer falls into a consumer segment that we describe as Emerging Middle Income, with household income of between R16,418-R33,333 p/m. Our research revealed that, on average, 17.5% of this income group's household expenditure is on transport and petrol, and 19% on food, beverages and tobacco (Figure 4). As such, global commodity prices and the exchange rate, via food, petrol and vehicle price inflation are important factors for our median first-time buyer's disposable income. In 2016, the disposable income of the Emerging Middle Income group is under pressure due to SA's currency weakness combined with the effects of a domestic drought resulting in large amounts of maize and wheat being imported. In addition the global oil price has started to recover.

Figure 4: Typical spending patterns of an emerging middle income household: transport and petrol account for 17.5% and food, beverages and tobacco account for 19% of total expenditure*



**We note that these figures are based on an average household falling into this income group. To this end, some households within the group may not actually spend on all the items listed above. These figures are meant to give an aggregated view on spending patterns.*

Affordability for first-time home buyers has structurally improved

Median income growth has outpaced median house price growth, improving affordability.

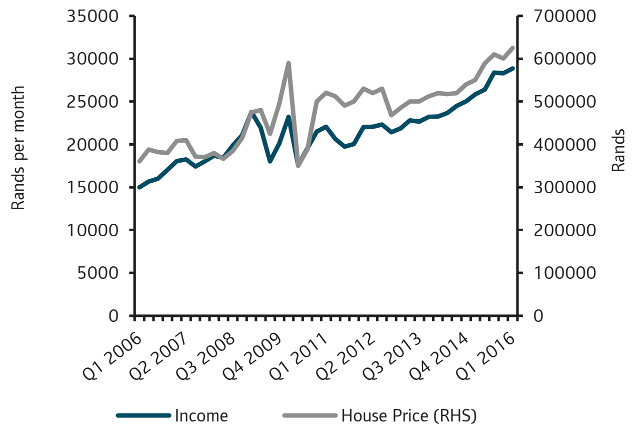
***Affordability Index 1: SBR's price-to-income ratio (PTI)** measures the ratio of median annual income to median purchase price over time, indexed to Q1:06. A declining PTI ratio indicates improving affordability.*

Over the past decade, the median income of a first-time home buyer has grown from around R15,000 in Q1:06 to R28,869 in Q1:16 (Figure 5). Over the same period, prices of the homes demanded by first time buyers grew from R360,185 to R625,000. Comparatively, over this period, income growth of 92% has outpaced house price growth of 74% (Figure 6).

The ratio of income to prices, as shown in Figure 13 has resulted in improved mortgage affordability for first time buyers, as depicted by a 7.0% decline in the PTI index, from 1.0 in Q1:06 to 0.93 in Q1:16.

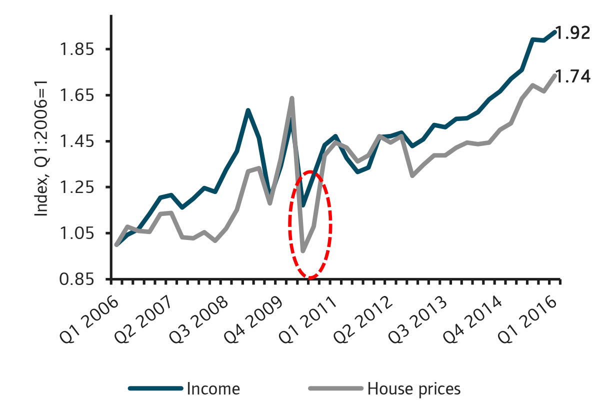
Our finding, that income versus house price growth has improved affordability over the period, can be extended more broadly to all home buyers. Average remuneration per worker for those employed in the formal non-agricultural sector has grown 150%, versus Standard Bank's house price index which shows growth of 85% on an average house (Figure 7). Therefore, even in the context of an average consumer, growth in income seems to have assisted mortgage affordability.

Figure 5: Median income has grown from R15,000 to R29,000 & median house price from R390,000 to R625,000



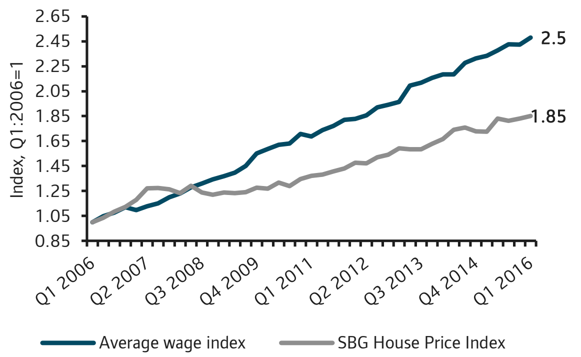
Source: SARB, SBR

Figure 6: First-time buyer income has outpaced house prices; income has grown 92%, while purchase price has grown 1.74 times (74%)



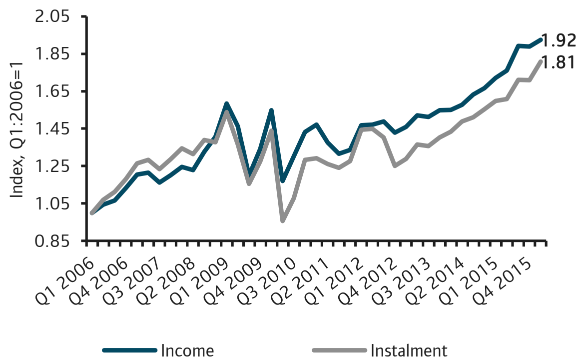
Source: SARB, SBR

Figure 7: Improved affordability for the average formally employed worker in SA



Source: SBR

Figure 8: Median first-time buyer incomes have out-paced mortgage instalments



Source: SBR

Median income growth has outpaced instalments, thus improving mortgage affordability

Affordability Index 2: SBR's instalment-to-income ratio (ITI) measures the proportion of median mortgage instalment to median monthly income over time, indexed to Q1:06. A declining ITI indicates improving affordability.

We tracked the cost of servicing a mortgage for a median first-time buyer over the past 10 years, measured by instalment-to-income ratio (gross income). The median first-time buyer's instalment has grown from R3,510, in Q1:06 to R6,345 in Q1:16, i.e. instalments have grown 81% (Figure 8). Comparatively, over this period, income growth of the first time buyer grew 92% times. Slower growth in instalments is aided by low interest rates for the most part of our study period.

This means that, in relative terms, monthly instalments over the period have become less of a burden on the median first-time buyer due to their income growing faster (Figures 8). Low interest rates for the most part of the period under study (interest rates reached historical lows in Q3:12) have aided affordability by anchoring growth in instalments (Figures 16 and17).

From a cyclical perspective, first time buyer affordability is declining

GDP growth matters for affordability

We estimate that 47% of mortgages granted to first-time buyers were to people falling into SBR's Emerging Middle Income category (Figure 1) (see our report Consumer Expenditure Trends, published 17 May). The data also revealed that salaries and wages are the main source of revenue for this income group, accounting for almost 70%. Therefore, low or negative GDP growth, and consequent job losses, affects demand for mortgages by first-time buyers and the performance of those mortgages already granted (Figures 9 and 12).

SBR's PTI index is yet to deteriorate during the current phase of the business cycle

From a demand perspective (figure 9), household income tends to follow GDP growth, but with a lag of around 18 months. In the last downward phase of SA's business cycle, income growth took a while to respond to a slowdown in GDP growth. In keeping with this trend, as SA entered the latest downward phase of its business cycle in December 2013, income growth continued to rise and only started to slow almost two years later, in Q3 2015. Although income growth has begun to slow, SBR's PTI index is yet to deteriorate during the current phase of the business cycle (Figure 13).

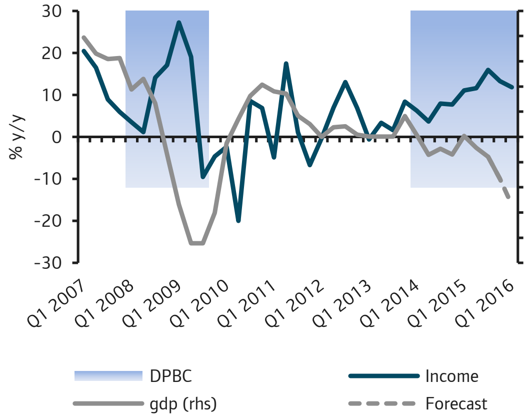
However, the instalment to income ratio is worsening from an affordability perspective

However, the instalment to income ratio is worsening from an affordability perspective; real mortgage instalment inflation rose sharply from 5.1% y/y in Q4:15 to 6.5% y/y in Q1:16 driven primarily by the cumulative 75 bps hike in Q1:16 (Figures 14 and 15).

In the current cycle, the loan-to-purchase price started declining in Q3 2013

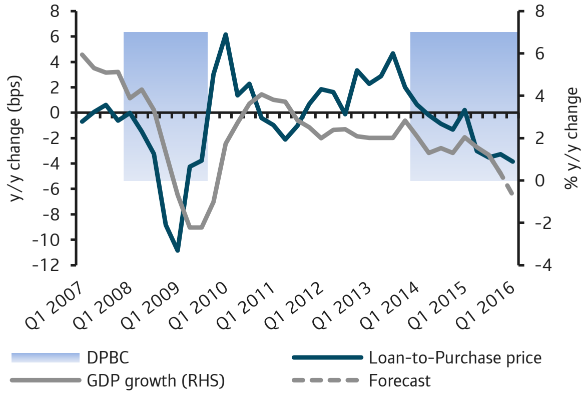
From a supply of mortgages perspective, we find that the average loan-to-purchase price (LTP) leads GDP growth, indicating a forward-looking approach in the lending practices (Figure 10). A median first-time buyer generally qualifies for a smaller loan as a percentage of the purchase price even before GDP growth slows. In the current cycle, the loan-to-purchase price started declining in Q3 2013. SBR's LTP index and prime interest rates relate inversely (Figure 11) and as can be seen in the current cycle, the LTP index has been falling in line with rising interest rates, since Q3:13.

Figure 9: Demand side: GDP growth drives income growth; in the current downward phase of the business cycle (DPBC), income has started declining



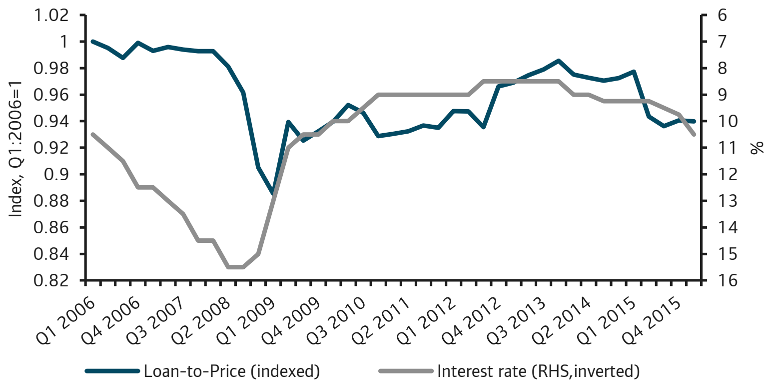
Source: SARB, SBR

Figure 10: Supply side: loan-to-purchase price ratio leads GDP growth.



Source: SARB, SBR

Figure 11: Interest rates lead the LTP index; interest rates matter for risk appetite



Source: SARB, SBR

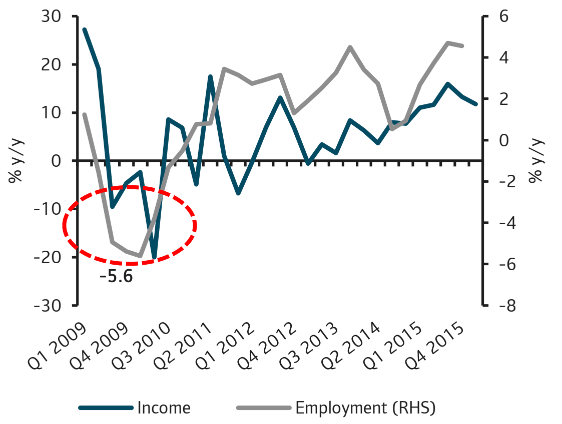
Conclusion

We find that there have been both structural and cyclical elements at play in determining first-time buyer affordability, both from a demand and supply perspective.

The research examined how circumstances have changed both structurally and cyclically over the past decade for a median first-time buyer. Structurally, based on two affordability indices (price-to-income and instalment-to-income) we conclude that a median first-time buyer is in a relatively better position to access and service a mortgage than they were a decade ago. Having analysed income, house prices and instalment trends for a first-time buyer over our study period, we are able to attribute this improved mortgage affordability to income growing faster than house prices and historically low interest rates.

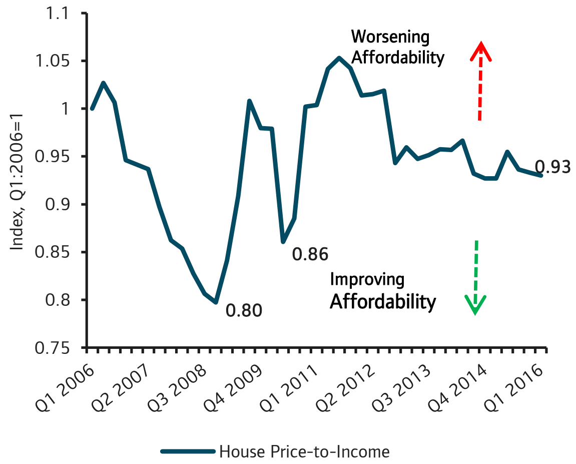
However, cyclically, due to SA being in a downward phase of its business cycle and in a hiking phase of its interest rate cycle, affordability is worsening.

Figure 12: Income tracks employment; income growth was lowest in Q2:10 following job losses due to 2009 recession



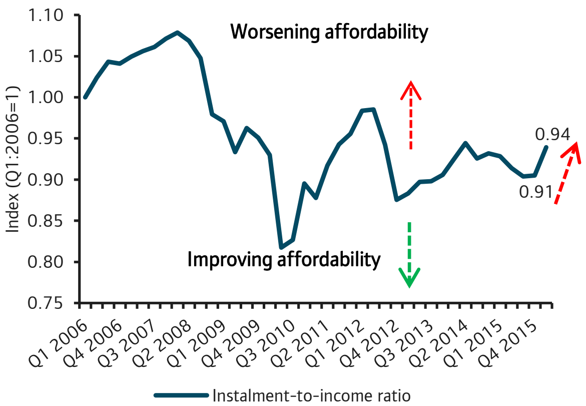
Source: Stats SA, SBR

Figure 13: Affordability Index 1; price to income ratio shows improved affordability over the period



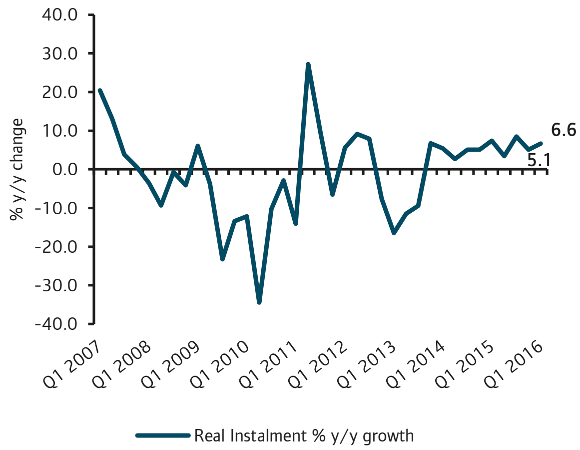
Source: SBR

Figure 14: Affordability Index 2; instalment to income ratio below 1.0 revealing improved affordability over the decade; Q1:16 saw increase, partly due to rate hikes



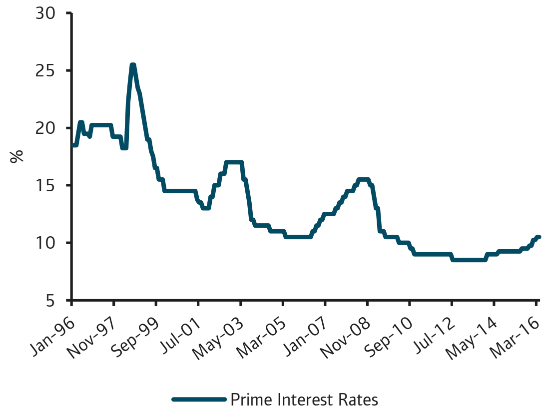
Source: SBR

Figure 15: Instalments in real terms rose by 6.5% y/y in Q1:16, from 5.1% y/y in Q4:15



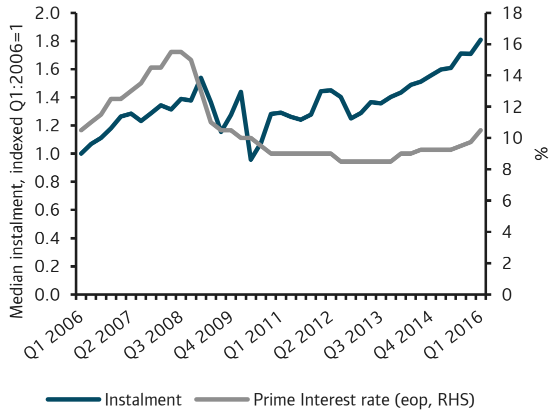
Source: SBR

Figure 16: Interest rates reached historical lows during the period



Source: SARB, SBR

Figure 17: Low interest rates may have helped anchor growth in instalments over the period



Source: SARB, SBR

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