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Emerging Markets
CEEMEA

South Africa Macro View

Macro themes for 2014: Theme #2 - The Monetary Policy Transmission Mechanism

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- **Interest rates have risen** — Following the 50bp rate hike surprise in January 2014 we now expect the SARB to hike twice again — 50bp up in March and 50bp up in July. Key to forecasting how much the SARB will hike rates, is understanding how the transmission mechanism may work.
- **The credit channel transmission mechanism** — We set out the credit channel as a transmission mechanism that affects domestic demand via private sector credit extension in two ways: (1) Households — as interest rates rise, the cost of credit increases, raising debt-servicing costs and discouraging credit extension. This lowers consumption growth. (2) Corporates — higher policy rates hamper company earnings, which depresses corporate credit and therefore private sector investment. Both lower demand-driven inflation in the economy.
- **Comparing previous hiking cycles** — A comparison of household credit, consumption and inflation ahead of each previous hiking cycle provides some support for the SARB's decision to hike rates. Our findings show that while household credit is proving slower than before all previous hiking cycles, discretionary consumption is stronger than all cycles except the credit-fuelled 06-08 period. While this may simply be due to the lagged effect of consumption playing 'catch-up' after the 2009 recession, it still goes some way in explaining why present day CPI and core inflation are running higher than the lead-up to any other hiking cycle.
- **Credit channel intact** — If rate hikes curb demand-led inflation by increasing the cost of credit and dampening disposable incomes, then a cumulative 150bp in rate hikes would keep inflation relatively 'anchored'. Our calculations show that discretionary spending is the most leveraged type of consumption to interest rates and that the re-pricing of credit since the 2009 recession may mean a greater sensitivity of new credit to rate hikes.
- **Corporates: more worrying** — We show that a hiking cycle brings on slower, and often negative, earnings growth and that at present, corporate earnings are lower than in the lead-up to all previous hiking cycles, except 2002. This has left corporate credit lower than ever before and with further rate hikes likely, private sector investment should face increased headwinds in an already challenging environment.
- **Bottom line**— A comparison of the credit channel transmission mechanism in the lead-up to hiking cycles suggests that rate hikes are effective in lowering future inflation. But we also believe that the economy can handle at most, 150bp higher in total. Any more than this and the drag to the economy is significant, in our view.

Related Reports

South Africa Macro View - Macro themes for 2014: Theme #1 - Politics

South Africa Macro Flash - The hawks swoop in: repo rate up 50bp

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South Africa Monetary Policy Watch

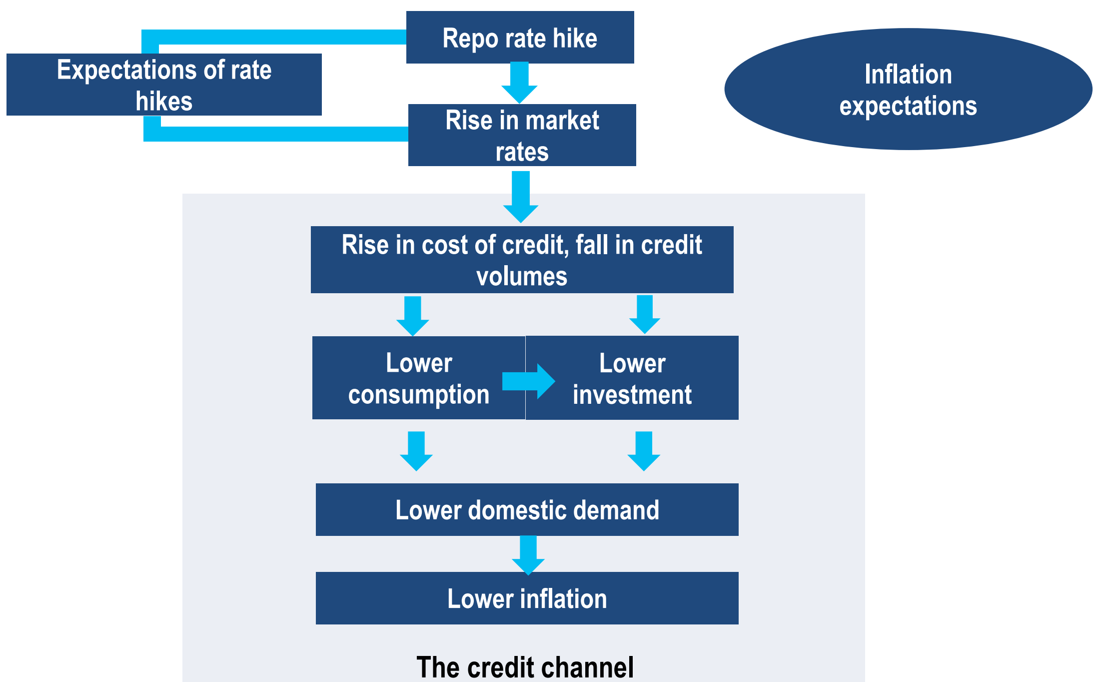
Comparing hiking cycles: the credit channel

Following the surprise 50bp rate hike at the January 2014 MPC meeting, it is imperative to understand the impact of higher interest rates on the economy (see South Africa Macro Flash - The hawks swoop in: repo rate up 50bp). We set out the monetary policy transmission mechanism as a chain of economic events set in motion by a change in the repo rate. Thereafter we compare the credit channel transmission mechanism across the lead-up to prior hiking cycles.

The credit channel transmission mechanism is critical in justifying rate hikes

The credit channel refers to the transmission mechanism that affects domestic demand via private sector credit extension. The theory states that as interest rates rise, the cost of credit increases, which discourages the take-up of new credit while concurrently raising the cost of existing credit. This lowers consumption growth, which leads to lower inflation.

Figure 1. The credit channel transmission mechanism



Source: Citi Research

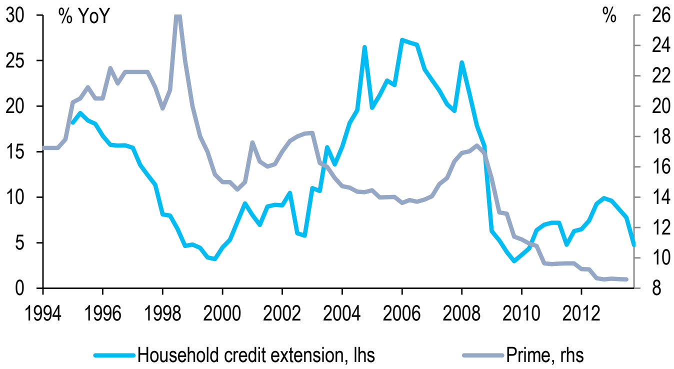
Hikes dampen domestic demand and inflation

Household credit has proved an effective transmission mechanism due to the dominance of variable rate credit

In South Africa the household credit channel has proved a rather effective transmission mechanism over time as 95% of gross loans are extended at variable lending rates, thereby adjusting to the SARB's prime interest rate decision almost immediately after an MPC announcement[1]. Figure 2 and 3 show that rate hikes have slowed the take-up of household credit and raised debt-servicing costs in every cycle since 1994, which then resulted in slower household consumption growth 2-3 quarters later.

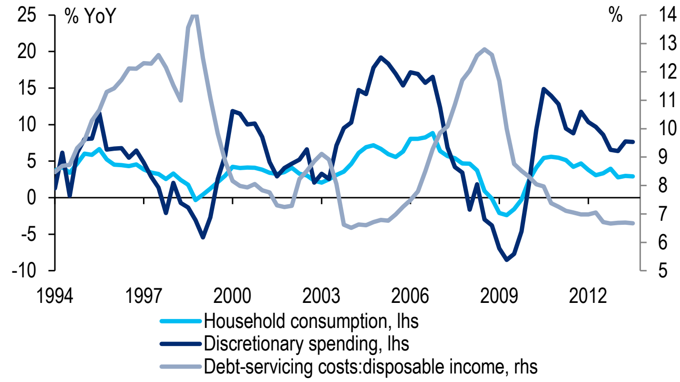
[1] Our banks analyst calculated that the proportion of fixed rate loans across the 'big 4' banks (Standard Bank, Nedbank, FirstRand, ABSA) was 5% as of 30 June 2013.

Figure 2. Higher lending rates discourages credit growth



Source: SARB, Citi Research

Figure 3. Discretionary spending is more sensitive to rate hikes



Source: SARB, Citi Research *Discretionary: Durables + semi-durables

Rate hikes lower real incomes which impacts discretionary spending quicker than non-discretionary spending

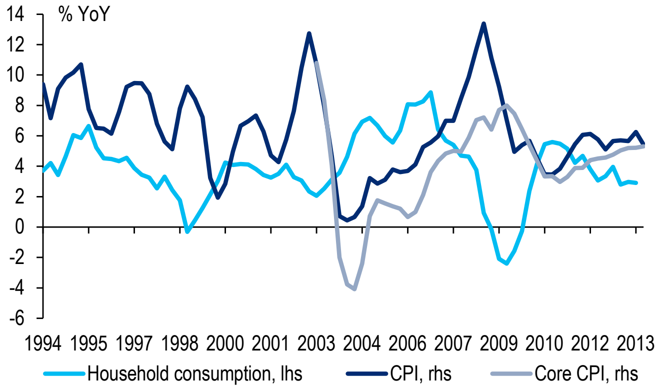
The extent to which household consumption decelerates depends on the pace and magnitude of the total hiking cycle (amongst other factors, such as credit take-up, wages, inflation and employment). The pace of deceleration also differs across the sub-categories of consumption. As debt-servicing costs rise, real disposable incomes are compromised. Our calculations show that for every 1% decrease in real disposable income there is a larger decline in spending on semi-durables (1.7%) and durable goods (1.5%) than that of services (1.3%) and non-durable goods (0.5%). This seems reasonable given that consumers cut back on discretionary goods when incomes are stretched. What's more, the relationship between rates, income and spending is non-linear so, the higher rates go, the greater the loss to household consumption.

The credit channel transmission mechanism is effective in lowering inflation and has only resulted in a GDP slump in 1998

A critical question for the credit channel is whether it has been effective in lowering inflation in the face of rate hikes. History suggests so, as all hiking cycles have been followed by slower consumption growth and lower CPI with a simultaneous lowering in core inflation[2] (figure 4). Another critical question is whether this has ever been overly detrimental to economic growth. We only find one instance of this in the onset of the 1998 Asian crisis when the SARB used FX reserves and rate hikes to defend the depreciating currency, hiking rates 700bp in 3 months. Though inflation slowed rapidly (from 9.2% YoY in Q4 98 to 1.9% YoY in Q4 99), GDP hit a low of 0.1% YoY in Q2 98 from 3.3% YoY in Q2 87.

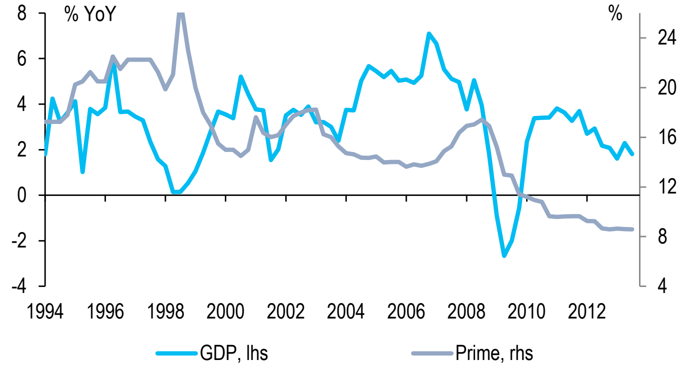
[2] Available from 2003 onwards

Figure 4. Slower consumption has contributed to lower inflation



Source: SARB, StatsSA, Citi Research

Figure 5. Only in 1998 did the economy suffer a great deal from hikes



Source: SARB, Citi Research

Comparing hiking cycles

We compare the performance of various indicators in the lead-up to previous hiking cycles

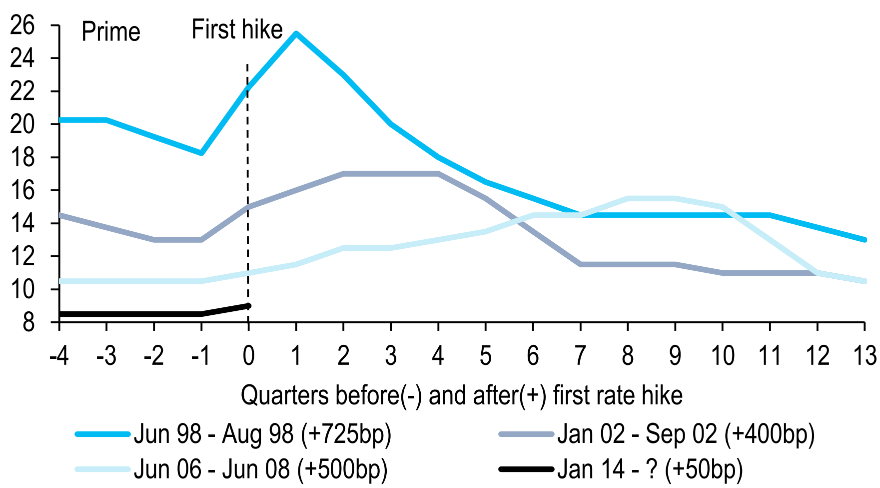
To understand whether the credit channel will prove an effective mechanism this time around, we compare the performance of various indicators a year prior to each hiking cycle[3] (figures 6 and 7).

Figure 6. Historical hiking cycles in South Africa (post-1994)

Start (date)	End (date)	Start (prime)	End (prime)	Start (repo)	End (repo)	Total hikes (prime)
11 Jun 1998	10 Sep 1998	18.25%	25.50%	17.50%	21.90%	725bp
17 Jan 2002	13 Sep 2002	13.00%	17.00%	10.50%	13.50%	400bp
08 Jun 2006	13 Jun 2008	10.50%	15.50%	7.00%	12.00%	500bp
30 Jan 2014	?	8.50%	10.0% F	5.00%	6.5% F	150bp F

Source: SARB, Citi Research

Figure 7. Historical hiking cycles in South Africa



Source: Citi Research, SARB

[3] We index each indicator to 4 quarters prior to the time of the first rate hike

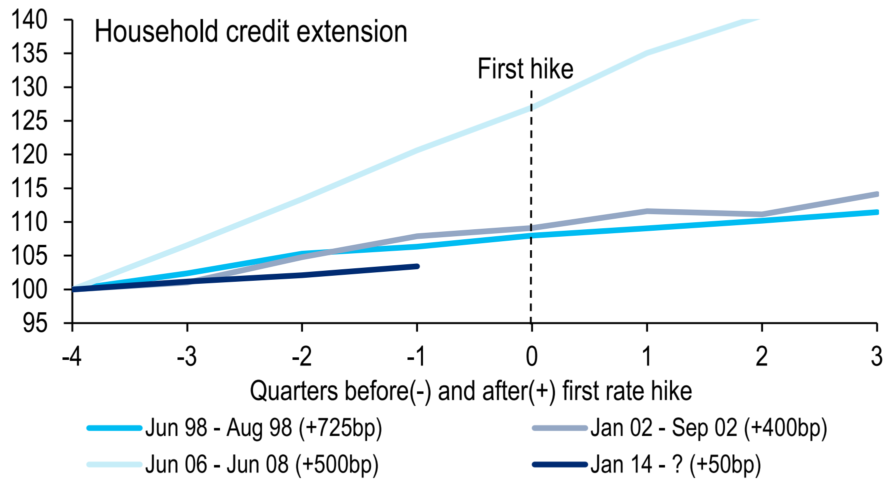
Indicator #1: Household credit

Lending standards have remained tight and household indebtedness has only shown modest deleveraging since the 2009 recession. As a result, household credit has remained lacklustre, slowing to 5.5% YoY in December 2013.

Household credit is lower than the lead-up to previous hiking cycles

Comparing household credit a year before each hiking cycle shows that the current cycle is closest to that of the 1998 period when household credit was already slowing (to 8.0% YoY (from 15.0% YoY a year before) when rates started rising (figure 8). This is in contrast to an increasing trend leading into the 2002 and 2006-08 hiking cycles when household credit was on a rising trend, measuring a respective 11.5% YoY and 27.0% YoY. Despite the lack of momentum in credit growth, we are concerned that because of a higher pricing of credit since 2009, the sensitivity of consumers to rate hikes may have increased. At present, the lending rate of mortgage advances is generally in line with the prime interest rate however, prior to the 2009 recession, many mortgages enjoyed lending rates of between 0.5%-1.5% below prime. This suggests that the impact of the January 50bp rate hike is relatively greater for credit extended post-2008 than credit extended before 2008.

Figure 8. Household credit has performed poorly in the lead-up to the first 2014rate hike



Source: SARB, Citi Research

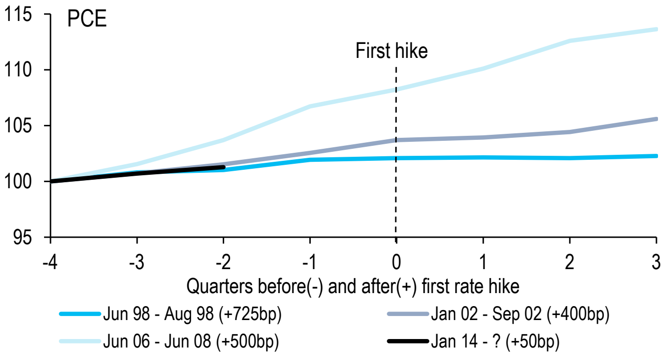
Indicator #2: Consumer spending

Total consumer spending is generally in line with the lead-up to previous hiking cycles

In contrast to low household credit, consumption has actually been performing fairly in line with its historical trends ahead of previous hiking cycles (figure 9). The only exception was the lead-up to the 2006-08 hiking cycle where consumption was exceptionally robust; however, this was also an exceptional period of robust credit extension.

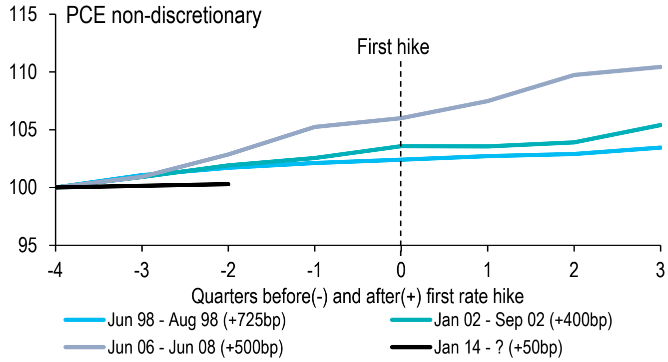
Interestingly, a split of household consumption into non-discretionary (services and non-durables) and discretionary (durables and semi-durables) spending shows that while non-discretionary spending has struggled in the lead-up to the January rate hike (figure 10), discretionary consumption has actually proved stronger than usual (figures 11). Again, the only exception here was the credit-fuelled 2006-08 era.

Figure 9. Household consumption in line with historical trends



Source: SARB, Citi Research

Figure 10. Non-discretionary spending running below historical trends

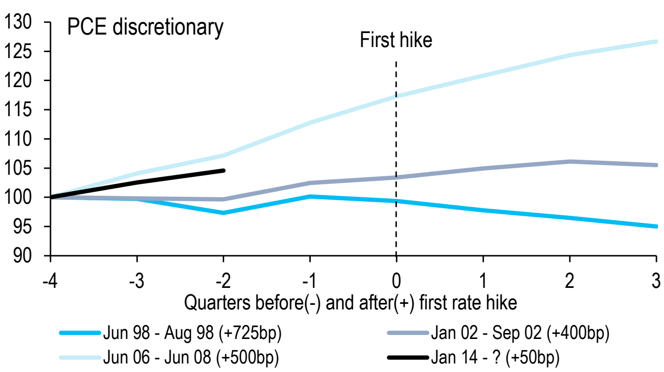


Source: SARB, Citi Research

A split reveals that discretionary spending has actually proved relatively strong

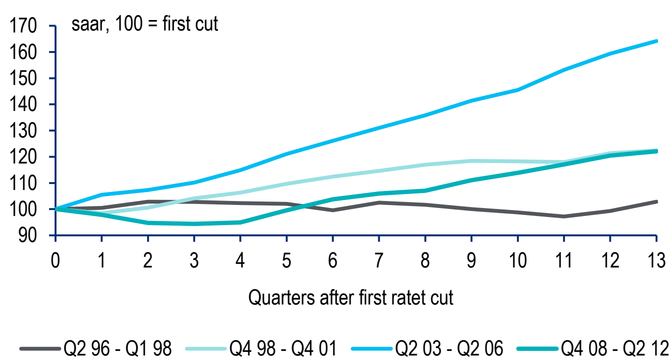
We believe that the ramp-up in discretionary spending is largely due to a 'delayed' post-2009 consumption cycle. Despite a cumulative 700bp in rate cuts since June 2008, discretionary consumption took a while to recover from the negative implications of recessionary job loss and post-crisis uncertainty. Figure 13 illustrates that when comparing previous rate cutting cycles, discretionary spending eventually gained momentum, one year later than usual. No matter the lags, if current discretionary spending is as relatively robust as the comparison suggests, then it does support the SARB's justification for hiking rates to curb the potential pass-through of significant currency weakness.

Figure 11. Discretionary spending above historical trends



Source: SARB, Citi Research

Figure 12. Rate cuts took a while to benefit discretionary spending



Source: SARB, Citi Research

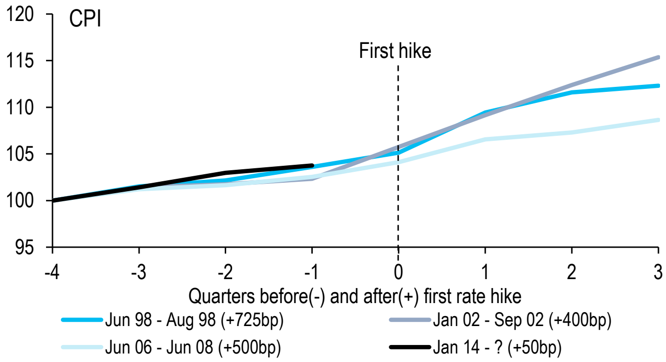
Indicator #3: Consumer inflation

CPI and core have also performed higher than the lead-up to previous hiking cycles

In line with relatively strong discretionary spending in the economy, it is true that CPI has been slightly stronger in the lead-up to the January 2014 rate hike versus previous hiking cycles (figure 13). More striking is that core inflation is above that of its comparable 2006-08 period (figure 14).

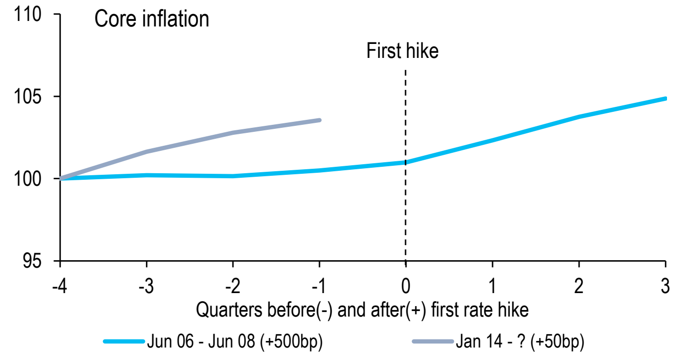
These findings are interesting given the SARB's increasing concern that the pass-through of currency weakness may start to show up more obviously in underlying price pressures. We believe this is why the SARB's core inflation profile ratcheted up in the January MPC statement by 0.2pp in 2014 (to 5.8%) and by 0.6pp in 2015 (to 5.9%). Of course this contributed to its higher CPI profile, which was the eventual justification for the 50bp rate hike.

Figure 13. Higher CPI momentum this time around



Source: SARB, StatsSA, Citi Research

Figure 14. Core inflation is more elevated at present



Source: SARB, StatsSA, Citi Research

Indicator #4: Corporate credit and investment

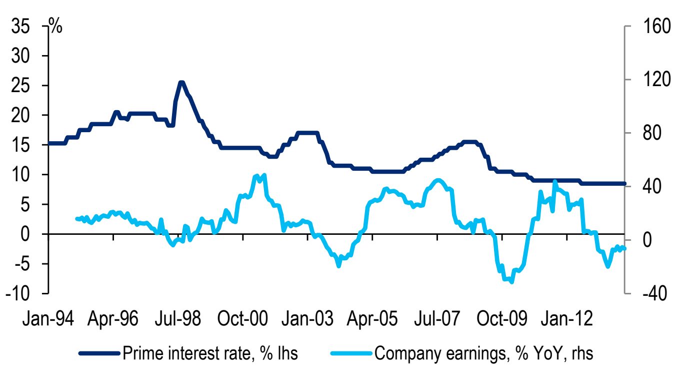
Rate hikes means company earnings are in trouble

Aside from households, higher policy rates also impact corporates. When rate hikes occur, the subsequent slowdown in domestic demand means that company earnings growth slows (figure 15). This in turn weighs down on corporate credit take-up as companies slow spending targets and put investment plans on hold.

This typically leads to lower corporate credit and poorer private sector investment

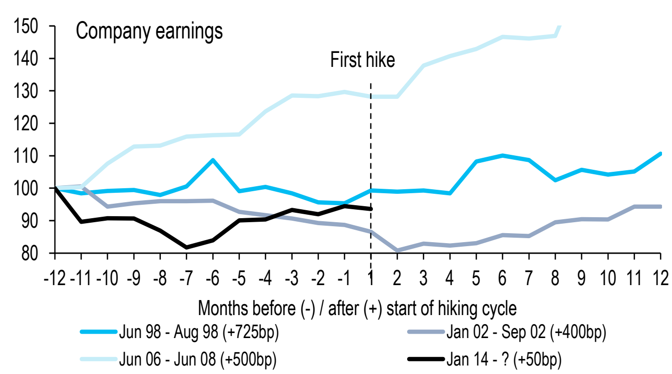
Though company earnings have been rising more recently, they still remain lower than in the lead-up to every hiking cycle except 2002 (figure 16). With potential rate hikes adding to an already-long list of local costs and challenges to production, corporate earnings are likely to decelerate from here on if a cumulative 150bp in hikes occur this year, as we are forecasting. This would discourage the take-up of corporate credit (figure 17) and would then likely weigh down on private sector investment, which is already lower than all previous cycles barring 1998 (figure 20).

Figure 15. Tighter monetary policy squeezes company earnings



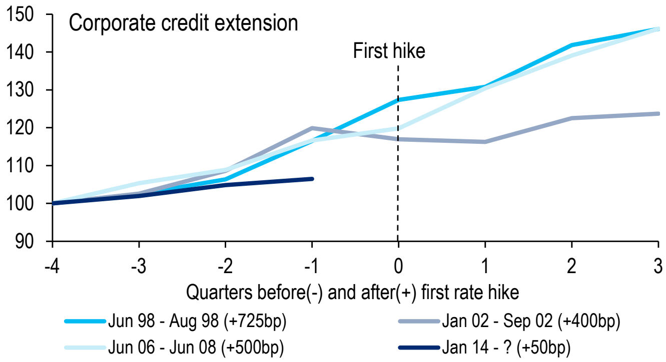
Source: SARB, Citi Research

Figure 16. Company earnings is generally worse-off in this cycle



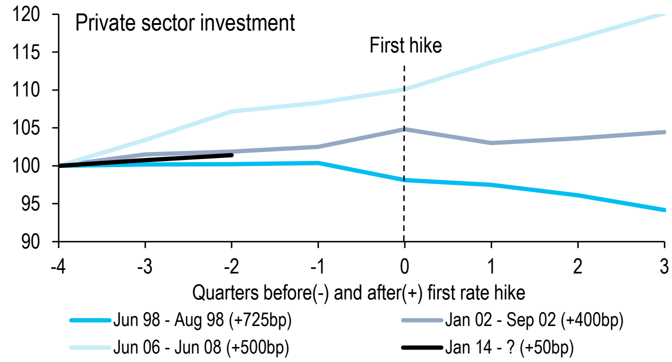
Source: Bloomberg, Citi Research

Figure 17. Corporate credit is lagging



Source: SARB, Citi Research

Figure 18. Private sector investment



Source: SARB, Citi Research

Hiking cycle likely to be moderate and slow

150bp in hikes is GDP - manageable and likely inflation-effective; however, more would be detrimental to the economy

In summary, our findings show that while discretionary household consumption and inflation measures can justify the recent rate hike, the corporate/investment side of the economy remains questionable. Put together, this supports our view that although interest rates are likely to rise further, beyond 150bp, it is likely that the economy will suffer.

Rate view: We forecast a further 50bp rate rise in March and another 50bp rate hike in July 2014.

Appendix A-1

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