Private and confidential

Economic overview

Consumer to outperform producer; Stagflationary implications of Eskom; Risks to the rand; Will SA be downgraded?

Rallies in rand and rates likely to fade

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Implications of shift to a lower potential growth path

Economic Recovery was supported by fiscal spending = counter & pro-cyclical fiscal policy

=>Fiscal Fatigue: This is not one long downward phase of the business cycle; countercyclical fiscal policy could not continue indefinitely

Public Policy needs to adapt to a lower growth trend, specifically :

- Risks to revenue projections
- Demands on social welfare programs which will remain elevated
- Increased reliance on big business to provide social services and infrastructure
- Excessive reliance on accommodative monetary policy
- No meaningful growth in non-cyclical components of consumption, production and investment
 - Minimal private sector capacity expansion => **Capex cycle is delayed**, has not responded to low interest rates
 - \Rightarrow exacerbates **youth unemployment** (49.8%), => escalates existing social unrest.
 - lack of demand => disinflationary global environment => Low global interest rates
 - Lower commodity prices, which remain more a function of global supply side factors, since demand is absent

Reduced levels of global trade i.e. weak external demand, protectionism



1

GDP 2015: 2.0% 2016: 1.7%

PCE 2015: 1.7% 2016: 0.5%

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GDP: The Structure of economy has changed

GDP

Real GDE has been greater than GDP since Q2:2011



- For the first time since 1960, expenditure is greater than production.
 - Mining and manufacturing vs. consumption
- This is putting pressure on our current account deficit; consequently the ZAR is more vulnerable to depreciation.





- SA's non-cyclical GDP growth has under-performed since late 1980's such that growth has been more cyclical and less structural.
- Sowing the seeds of lower potential GDP growth



PCE: The effect of oil post the fuel levy: A top down analysis

PCE

Real wage growth expected to rise to 2.0% in 2015, from 0.7% in 2014

PCE is in a cyclical slowdown

Windfall from the oil should assist PCE in 2015.

Nominal wage

agreements may be lower in 2016



Historically, real wage growth of 2.0% = PCE growth of 1.2%



- In 2015, we estimate real wage inflation of 2.0%. We assume nominal wages of 7.0%.
- In 2016 We expect nominal wage inflation to fall to 6.5%, in lagged response to lower inflation in 2015.
- This results in real wage growth falling to 0.8% (6.5-5.7).
- If we are correct and nominal wages adjust lower in 2016, then the windfall from lower oil will be temporary.

- Historically, 2.0% y/y real wage inflation results in PCE of 1.2% y/y.
- Real wage inflation of 0.8% should result in PCE growth of 0.5% in 2016



Wealth effects are supportive of PCE

Net household wealth leads PCE by a year, and remains robust

PCE

Net household wealth grew an estimated 12.2% in 2014, down from 14.5% in 2013, but still supportive of PCE.

Net household wealth supports nominal PCE growth of around 9% in 2015, or 4% in real terms



⁻Net Worth, %, rhs -Household Consumption Expenditure (Lagged 12 months)

...and partly due to deleveraging with respect to residential assets



Total returns per asset class



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Source all charts: Stats SA, SARB, SBGS Analysis

...partly due to stable growth in financial assets

Electricity's constraint to growth

Eskom

Electricity supply is in decline (GwH)

Medupi:

The first unit of Medupi, originally scheduled to come online by the end of 2013, is now expected to come online in Q4 2015. Medupi will be brought online at intervals all units will be fully commissioned by 2018



Shortage of capacity for the coming 3 years appears to be unavoidable

- The Group's generating fleet should on average have an energy availability factor ("EAF") of 80%,10% of planned maintenance outages and 10% of unplanned outages
- As at 30 September 2014, the EAF was 76.8%.
- The operating reserve margin has declined since 2008 by approximately 1.3% in FY2014 to 4.8% in FY2013
- And, excluding generation capacity from the open cycle gas turbines (OCGTs), the operating reserve margin is negative i.e -5.3% in FY2014 and -1.7% in FY2013, respectively.

Kusile:

Commissioning of the first unit in the 1H 2017



Eskom and Supply: SA has become remarkably more electricity efficient

Key points

The 5yr average elasticity of electricity wrt GDP is negative



Electricity demand under different GDP growth scenarios, using historical elasticity of 0.72



- The extent to which the economy has adapted to the electricity supply constraint is remarkable.
- If we assume elasticity of demand pre 2011 of 0.72, (on which the IRP was based), SA would have required significantly more electricity to sustain current levels of growth.
- Although growth in electricity supply has averaged -0.6% since 2011, it has managed to sustain growth of 2.3%.
- SA has become far more electricity efficient, \Rightarrow
- A negative Ed has negative revenue implications for Eskom and tariff implications for consumers.

We will explore both of these in more detail

Median elasticity and growth of electricity over the past 4 years has become negative

| | Electricity intensity | | Ela | Elasticity of electricity | | |
|--------------------|-----------------------|----------------------|---------------------|---------------------------|--------|--|
| | (Kwh/ZAR 2010) | Electricity growth 9 | %y/y der | vrt GDP | | |
| Vledian pre 2000 | 0.108 | ŝ | 3.1 <mark>78</mark> | | 1.089 | |
| Vledian2001 - 2007 | 0.108 | ÷ | 3.614 | | 0.748 | |
| Vledian 2007-2011 | 0.096 | |).947 | | 0.794 | |
| Vledian 2011-2015 | 0.088 | -(|).583 📕 | | -0.344 | |



7

Electricity demand vs. supply: Scenario

| | Eskom' s Supply vs. Demand | | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|-----|---|-----------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| q | Peak demand (Actual) | | 34,590 | 35,837 | | | | | | | | | | |
| Jan | 2015 - 2017 Ed = -0.07 & 2.0% GDP gi | rowth | 34,590 | 35,837 | 35,788 | 35,740 | | | | | | | | |
| Den | 2018 - 2025 Ed = 0.47 & 2.5% GDP gro | owth | | | | | 36,164 | 36,593 | 37,028 | 37,468 | 37,913 | 38,363 | 38,818 | 39,279 |
| | 2018 - 2025 Ed = 0.47 & 3.0% GDP gro | owth | | | | | 36,224 | 36,740 | 37,264 | 37,795 | 38,334 | 38,880 | 39,434 | 39,996 |
| | Eskom generating capacity (MW) in | clu OCGTs | 41,995 | 42,330 | 43,224 | 43,890 | 46,150 | 47,844 | 49,852 | 52,056 | 51,906 | 51,086 | 50,636 | 49,366 |
| | Eskom + non Eskom capacity (MW) | | 45,325 | 45,660 | 46,554 | 47,220 | 49,480 | 51,174 | 53,182 | 55,386 | 55,236 | 54,416 | 53,966 | 52,696 |
| | EAF (Energy Availability factor) | | 77 | 71 | 75 | 77 | 78 | 80 | 80 | 80 | 80 | 85 | 85 | 85 |
| | Available energy | | 34,900 | 32,419 | 34,916 | 36,265 | 38,594 | 40,939 | 42,546 | 44,309 | 44,189 | 46,254 | 45,871 | 44,792 |
| | Camden, Grootveli | 2,600 | | | | | | | | | | | | |
| | Komati | 900 | | | | | | | | | | | | |
| _ | Arnot | 2,220 | | | | | | | | | | | | |
| | Ankerlig & Gourikwa (OCGTs) | 2,100 | | | | | | | | | | | | |
| Sup | Medupi | 4,764 | | | 794 | | 794 | 794 | 1,588 | 794 | | | | |
| | Kusile | 4,800 | | | | | 800 | 800 | 800 | 1,600 | 800 | | | |
| | Ingula (pumped-storage) | 1,332 | | | | 666 | 666 | | | | | | | |
| | Sere | 100 | | | 100 | | | | | | | | | |
| | Solar thermal (Upington) | 100 | | | | | | 100 | | | | | | |
| | Decommissioning | (4,060) | | | | | | | (380) | -190 | -950 | -820 | -450 | -1270 |
| | TOTAL new capacity | 18,916 | | - | 894 | 666 | 2,260 | 1,694 | 2,008 | 2,204 | (150) | (820) | (450) | (1,270) |
| | Supply minus demand | | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
| | 2015 - 2017 Ed = -0.07 & 2.0% GDP | growth | 310 | (3,418) | (873) | 525 | | | | | | | | |
| | 2018 - 2025 Ed = 0.47 & 2.5% GDP growth | | 310 | | | | 2,370 | 4,199 | 5,282 | 6,514 | 5,855 | 7,374 | 6,437 | 4,796 |
| | 2018 - 2025 Ed = 0.47 & 3.0% GDP g | growth | 310 | | | | 1,465 | 3,369 | 4,530 | 5,841 | 5,265 | 6,867 | 6,017 | 4,464 |



Growth is constrained to 2% until 2017, if build plan is on schedule

We will face constrained supply over the next two years, even if the elasticity of electricity demand to GDP is negative

- The electricity supply constraint should be at its peak this year (2015).
- We will remain constrained in 2016, despite Medupi's unit 6 coming online.
- Capacity should become less constrained in 2018 as Kusile and the second 666MWs of Ingula come online.
- We face excess supply from 2018 onwards, even if we begin to revert to pre crisis electricity intensity

Electricity intensity can start increasing in 2018



Electricity demand scenarios

Eskom

"From an industrial consumer perspective there is a strong indication that electricity prices have reached the threshold for a more price-elastic demand" (Eskom, 2015).

Quantifying the impact of prices on electricity demand:

The impact is reflected by assuming a progressive decline in electricity intensity





A new set of demand trajectories have been developed:

- The CSIR Green Shoots forecast, based on the NDP's average 5,4 % GDP growth to 2030, but assuming significant shifts in economic activity away from classical energy-intensive industries, results in an average annual electricity demand growth of 2,7 % to 2030 (and only 1,9% to 2050)
- The CSIR Weathering the Storm forecast has a 2,9 % GDP growth to 2030 and results in a 1,8 % average annual electricity demand growth to 2030.

Electricity intensity/demand has fallen to historical lows, well below levels predicted by Eskom and CSIR



Electricity intensity

Key points

Electricity intensity falling to historical lows...



Electricity intensity anticipated by updated IRP2010





Well below levels predicted by Eskom and CSIR



- The impact of prices on electricity demand was reflected by Eskom 's assumption of a progressive decline in electricity intensity of GDP.
- However, the decline in electricity intensity (as measured by the electricity sent-out in kWh required to produce one rand of total gross value added (in constant 2005 rands) in the South African economy) over the past three years has exceeded the expectation in the CSIR Moderate forecast and that of the SO Moderate and Low forecasts



Eskom and the IRP 2010's updated elasticity price path

Key points

IRP 2010 updated price paths



Administered prices form a floor for core inflation



-Administered Prices exclu Petrol & Paraffin -Core Inflation (rhs)

- "Even in the Base Case without the constraint of the MYPD3 price the electricity price would rise to 90c/kWh by 2018 before starting to decline thereafter.
- The revenue price paths in Figure 15 show how electricity prices would have to increase steeply in the next five to ten years if demand is much lower than the current MYPD3 expectation in order to generate the required revenue to fund the current build. This is shown in the extreme case of the Weathering the Storm scenario where prices rise to 95 c/kWh before declining eventually to 71 c/kWh in 2031"



The 'R225Bn shortfall' updated: sales & revenue disappoint

| | MYPD3 | | | NERSA | | | ACTUAL & estimates | | | Revenue shortfall | | | |
|------------|---------|-----------|-----------|-------------|-----------|----------|--------------------|-----------|---------|-------------------|-------------|-----------|-----------|
| | | | | | | | | | | | | | |
| | | Targeted | | | | | | Total | | | | | |
| | | revenue, | Total | | | Nersa's | Actual & | actual & | Total | | ACTUAL/SBGS | ACTUAL + | Annual |
| | 16% | domestic | allowed | Projected | | expected | projected | projected | revenue | NERSA vs | projections | bad debts | cash |
| | tarriff | sales | revenue | total sales | | revenue | Sales | revenue | inclu | MYPD3 | minus NERSA | minus | shortfall |
| | (c/kwh) | (Rmn) | (Rm) | (kwh) | 8% tariff | (Rm) | (Kwh) | (Rm) | arrears | (Rm) | (Rm) | NERSA | (Rm) |
| 2013/14(A) | 0.71 | 153,935 | 160,547 | 227,404 | 0.66 | 149,937 | 217,903 | 139,506 | 137,949 | (10,610) | (10,431) | (11,988) | (21,041) |
| 2014/15 e | 0.82 | 179,604 | 188,201 | 229,513 | 0.71 | 162,382 | 214,967 | 152,091 | 148,647 | (25,818) | (10,291) | (13,735) | (36,110) |
| 2015/16 | 0.95 | 212,758 | 223,856 | 235,638 | 0.76 | 180,051 | 214,967 | 171,393 | 169,058 | (43,805) | (8,658) | (10,993) | (52,463) |
| 2016/17 | 1.10 | 248,332 | 263,023 | 239,112 | 0.83 | 197,339 | 215,977 | 178,246 | 174,119 | (65,684) | (19,093) | (23,220) | (84,777) |
| 2017/18 | 1.28 | 293,501 | 312,353 | 244,026 | 0.89 | 217,500 | 216,992 | 193,405 | 188,840 | (94,853) | (24,095) | (28,660) | (118,948) |
| Avg/total | | 1,088,130 | 1,147,980 | 1.8 | | 907,210 | 0.3 | 834,642 | 818,614 | (240,771) | (33,848) | (88,596) | (274,618) |

Nersa sales growth unrealistic Our estimate of the Initial shortfall

- We anticipate that the **shortfall has grown** since mid 2013, when Eskom first estimated it at R225Bn:
 - In 2013/14 revenue disappointed Nersa's projection by R10.4Bn, due to 12,400Kwh less in domestic sales. If we include bad debts the shortfall for the year rises to R12Bn.
 - In 2014/15 we estimate sales fell, partly due to load shedding, adding another R10.3Bn to the shortfall.
 - If we keep sales growth flat at 2014/15's estimated level (despite average sales growth of -0.5% on average p.a. since 2011), the total MYPD3 shortfall increases by R34Bn to R275Bn, and by R88Bn to R330Bn if bad debts remain at current levels.
 - If these revenue shortfalls are incurred, in theory Eskom should be allowed to claim the revenue back via the RCA mechanism.
 - Eskom will use the RCA mechanism annually, however a 3 year gap has opened up between when additional costs and/or revenue shortfalls are incurred and when the tariff can increase to reclaim it.
 - ▶ In principle Eskom should also be able to claim 3 years of interest on the amount awarded.
 - The extent to which shortfall can increase just due to lower sales and arrears, puts the R23Bn equity injection into perspective.

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OCGT & STPPP cost over runs

Eskom based this on:

- Average diesel price of **R7.21/I**, which includes a rebate of R3.10/I and a wholesale discount of 0.3c/I.
- OCGTs will run for approximately 8 hours a day.

OCGT usage has been far higher than Nersa or Eskom had factored into either the allowed revenue or the cost reflective tariff.

| | Claw back | via RCA | Part of Eskom's re-opener application | | | | |
|------------------------------------|-----------|---------|---------------------------------------|---------|---------|--------|--|
| 1 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | Total | |
| OCGT applied for in the MYPD3 (Rm) | 3,592 | 3,258 | 1,788 | 1,898 | 2,056 | 5,742 | |
| Awarded by NERSA (Rm) | 2,537 | 2,710 | 1,508 | 1,599 | 1,724 | 4,831 | |
| Actual & projected OCGT costs | 10,600 | 10,400 | 12,458 | 12,458 | 12,458 | 37,374 | |
| Cost overrun | 8,063 | 7,690 | 10,950 | 10,859 | 10,734 | 32,543 | |

*SBGS estimate in greyed out cell

Source: Eskom's re-opener application and SGBS

In 2013/14 actual cost was R10.6Bn = cost over run of R8Bn

- In 2014/15 we estimate OCGTs cost Eskom R10.4Bn = cost over run of R7.7Bn
- In their re-opener application Eskom estimated cost over-runs of R10.5Bn, R10.9Bn and R10.7Bn over the next 3 years.
- OCGTs generate electricity at a cost of R2.30/kWh, and Eskom sells it at an average price of R0.71c/kWh.
- TIPS estimates load shedding costs the economy between R9 and R15/kWh, (estimated at between R8Bn and R11Bn per month), while OCGTs cost between R2.30 and R3.00/kWh (on average R1.2Bn R1.5Bn per month).

STPPP's The renewal of Short Term Power Purchasing Programmes

Costs arising from the need to renew STPPPs for the next three years are about R6Bn p.a. or R17.5Bn in total



Tariff implications

The re-opener versus the RCA mechanism

Both the OCGT and STPPP costs must either be recovered through a higher electricity tariff in the year that the costs are incurred, or they must be clawed back via the RCA mechanism, which entails a 3 year delay e.g. cost overruns incurred in 2013/14 and 2014/15 can only be reclaimed via tariff hikes in 2016/17 and 2017/18 respectively. Eskom argues that the RCA mechanism requires that it has a far healthier cash flow profile.



Tariff implication: 2016/17

2016/17 Tariff:

- ...starting at 76.42c/kwh (average tariff for 2015/16) + 8% increase already approved = 82.53c/kwh
- <u>RCA application for 2013/14 (MYPD3 year 1) submitted March 2015: We expect the application includes:</u>
 - R10.4Bn of revenue losses and
 - R8.0Bn of OCGT cost overruns
 - Totaling R18.4Bn This would result in an 9.4% tariff increase, or 8.5c/kwh
- The full re-opener: OCGT and STPPP
 - OCGT over run for 2016/17 is estimated at R10.9Bn or 5.0c/kwh
 - STPPP costs for 2016/17 are estimated at R8.9Bn or 2.7c/Kwh
 - Totaling **R16.7Bn** This would result in an 9.1% tariff increase or 7.7c/kwh

| 2016/17 | Rbn | c/kwh | cumulative c/kwh | ppts tariff increase | cumulative tariff % |
|-----------------------------|--------|-------|---------------------|-------------------------|------------------------|
| Aproved tariff in 2015/16 | | | 76.42 | | |
| MYPD3 orginal 8% increase | | 6.11 | 82.53 | 8.0 | 8.0 |
| MYPD3 re-opener: OCGT cost | 10.859 | 4.98 | 87.51 | 6.0 | 14.0 |
| MYPD3 re-opener: STIPP cost | 5.879 | 2.69 | 90.20 | 3.1 | 17.1 |
| 2013/14 RCA application | 18.50 | 8.48 | 98.68 | 9.4 | 26.5 |
| TOTAL | | 22.26 | | 26.5 | |

We expect Eskom will request 26.5%, may only get 16%





16

Tariff implications: 2017/18

2017/18 Tariff:

- ...starting at 82.53c/kwh + 8% increase already approved = 89.13c/kwh
- RCA application for 2014/15 (MYPD3 year 2): We expect the application will include:
 - R10.3Bn of revenue losses and
 - R7.7Bn of OCGT cost overruns
 - Totaling **R18Bn** This would result in an **9.8%** tariff increase, or 8.1c/kwh
- The full re-opener: OCGT and STPPP
 - OCGT over run for 2017/18 is estimated at R10.7Bn or 4.8c/kwh
 - STPPP costs for 2017/18 are estimated at R6.3Bn or 2.8c/Kwh
 - Totaling R17Bn This would in an 9.2% tariff increase or 7.6c/kwh

| | | | cumulative | ppts tariff | cumulative |
|-----------------------------|-------|-------|------------|-------------|------------|
| 2017/18 | Rbn | c/kwh | c/kwh | increase | tariff % |
| Approved tariff in 2016/17 | | | 82.53 | | |
| MYPD3 orginal 8% increase | | 6.60 | 89.13 | 8.0 | 8.0 |
| MYPD3 re-opener: OCGT cost | 10.73 | 4.81 | 93.94 | 5.8 | 13.8 |
| MYPD3 re-opener: STIPP cost | 6.28 | 2.81 | 96.75 | 3.4 | 17.2 |
| 2014/154 RCA application | 18.00 | 8.06 | 104.82 | 9.8 | 27.0 |
| TOTAL | | 22.29 | | 27.0 | |

We expect Eskom will request 27%, but only get 16%





Source all charts: Stats SA, Bloomberg, SBGS Analysis

Re-phasing of returns

Re-phasing of returns : extract below from the page 8 of NERSA's RfD, issued in response to Eskom's MYPD2 2012/13 RCA to lower the 25% tariff increase to 16% for that year.

RE-PHASING OF RETURNS

- 33. In its application (Appendix 1), Eskom has presented a figure of R8,843 million which represents the return which it proposes to be re-phased. On NERSA's request for an explanation of what Eskom understood re-phasing to mean, Eskom responded as follows: 'the term re-phasing means that amount is not lost but will be recovered in future years.'
- NERSA granted Eskom permission to re-phase **R8,105Mn**.
- In theory Eskom can claim the R8,105Mn from any year's tariff



CPI Inflation

2015: 4.5% 2016: 5.7%

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Inflation forecast

CPI

Inflation forecast

| | СРІ | Food | Oil | USDZAR | elec |
|---------|-----|------|------|--------|------|
| 2015:q1 | 4.1 | 6.3 | 55.2 | 11.74 | |
| 2015:q2 | 4.6 | 4.7 | 63.5 | 12.08 | |
| 2015:q3 | 4.6 | 4.6 | 55.0 | 12.31 | |
| 2015:q4 | 4.7 | 4.5 | 55.0 | 12.12 | |
| 2016:q1 | 6.0 | 4.4 | 58.0 | 12.07 | |
| 2016:q2 | 5.2 | 4.9 | 58.0 | 12.37 | |
| 2016:q3 | 5.5 | 5.7 | 58.0 | 12.63 | 17.0 |
| 2016:q4 | 6.0 | 6.6 | 58.0 | 12.38 | |
| 2014 | 6.1 | 7.8 | 97.0 | 10.70 | |
| 2015 | 4.5 | 5.0 | 57.2 | 12.06 | |
| 2016 | 5.7 | 5.4 | 58.0 | 12.36 | |

CPI in 2016 assuming different electricity price increases



2015: 4.5% y/y

- 1. Oil price assumption \$55/bbl \$60/bbl.
- 2. USDZAR is expected to average 12.31 and 12.12, in Q3 and Q4
- 3. Food inflation faces opposing forces: rising maize prices versus benign oil, wheat and soybean prices
 - ... to rise gradually and unevenly to end 2016

2016: 5.7 % y/y

- Oil averages \$58/bbl
- USDZAR averages 12.36
- Electricity:
 - 16% tariff increase assumed.
 - If 25% awarded CPI to average 5.8%
- **Food** ends the year at 7.0%



The CAD – a growing concern

USDZAR more sensitive now

- South Africa has been running a current account deficit (CAD) – and a fairly wide deficit, compared to peers – for over a decade.
- One can approach the exchange rate and the CA from two angles.
 - Firstly, how do changes in the exchange rate result in a change in the CA?
 - Secondly, how do changes in the CA affect the exchange rate?
- We focus on the latter angle.
- We are interested in two questions:
 - How has the USDZAR sensitivity to the CA changed over time?
 - How should we interpret the future developments in the CA on the USDZAR?

South Africa CA as % of GDP



CA as % of GDP vs. fiscal deficit as % of GDP



21



Wages: When the total wage bill is fixed employment has to give Public sector wage deal as a recent example

The public sector wage agreement – the real deal

NT committed to consolidation, but pressure builds

- We calculate a basic salary slip for the average public sector employee.
- We project the potential impact of:
 - (1) the basic salary adjustment
 - (2) housing allowance
 - (3) medical aid benefit
- We believe that the medical aid benefits are large and could potentially have a negative impact on the wage bill in especially the 2015/16 fiscal year.

No claw-back mechanism – important implications

- Wage settlements in the public sector will now be truly forward looking with no recourse to actual inflation prints.
- The National Treasury (NT) inflation forecast will become a very important component in fiscal policy.
 - If the NT's forecast is to high relative to the actual inflation forecast, it may put additional pressure on the Budget.
 - If NT's forecast is to low, public sector unions may become disgruntled which may lead to further labour disruptions.
 - The risk is that the NT's inflation forecast become a point of political interference.
- It will become even more important for the SARB to anchor inflation.
 - A forward-looking wage settlement will allow the SARB to play a more effective role in wage settlements (in the public sector at least) and thereby also allow the SARB to more actively effect inflation.
 - Because wages will be determined on expected inflation with no claw-back to actual inflation outcomes, the SARB is likely to be even more resolute to bring down inflation expectations closer to the mid-point of their target range.

A refresher: the deal in brief (Resolution 2)

Salary adjustments:

- For 1 Apr'15 to 31 Mar'16 (effective 1 Apr'15): Adjustment of 7%.
- For 1 Apr'16 to 31 Mar'17 (effective 1 Apr'16): Adjustment of average CPI for 2016 plus 1%.
- For 1 Apr'17 to 31 Mar'18 (effective 1 Apr'17): Adjustment of average CPI for 2017 plus 1%.

The forecast of National Treasury will be used to determine the average projected CPI.

Resolution 8 signed on 26 June removed the following section of clause 3

- If the actual CPI for the period is higher than the projected average for that period, the difference will be added to the adjustment from the following year.
- If the actual CPI for the period is lower than the projected average for that period, the difference will be deducted from the adjustment for the following year.

The housing allowance:

• The housing allowance increases from R900 p.m. to R1,200 p.m. per employee in 2015/16 and stays at R1,200 throughout the multi-year salary adjustment.

Medical assistance:

Medical aid contribution will increase by 28.5% effective 1 Jan'15. Then, in subsequent years, adjustments to the medical assistance subsidy will increase by the Medical Price Index. This subsidy is subject to:

- A maximum cap of R925 per principal member and the first dependant and R565 per each additional dependant p.m.; and
- A maximum of R3,454 p.m.



Calculating the total wage bill – an additional R50.5bn

Our estimate vs. the Budget

- The growth rate of compensation of employees under the wage deal will be higher than the Budget estimate.
- Most of the wage increases are front-loaded, with the burden in 2015/16.
- Over the MTEF, the wage bill may increase on average by 7.9% vs. the Budget estimate of 6.6%.

Contribution to compensation growth rates for employees



Medical Housing Salary ----- 2015 Budget Employee compensation growth

Comparing our estimate of the wage deal to the Budget

| | 2014/15 | 2015/16 | 2016/17 | 2017/18 | Ave (3y deal) |
|---|-----------|-----------|-----------|-----------|---------------|
| Compensation of employees as per 2015 Budget (Rm) | 445 289 | 479 511 | 509 638 | 539 563 | |
| | | | | | |
| Number of Employees (millions) | 1 570 000 | 1 570 000 | 1 570 000 | 1 570 000 | |
| Average Compensation per employee p.a. | 283 623 | 314 552 | 335 020 | 356 318 | |
| Average Compensation per employee p.m. | 23 635 | 26 212 | 27 918 | 29 693 | |
| Estimate for Compensation to employees after wage deal (Rm) | - | 493 847 | 525 982 | 559 420 | |
| Difference between estimate and budget (Rm) | - | 14 336 | 16 344 | 19 857 | |
| Compensation of employees growth rate per 2015 Budget | - | 7.7% | 6.3% | 5.9% | 6.6% |
| Compensation growth rate (estimate post wage deal) | - | 10.90% | 6.51% | 6.36% | 7.92% |



Sources for all charts: National Treasury; Standard Bank Research

The deficit will be wider; jobs need to be cut or funds need to be diverted

The impact on the Budget and/or employment

- The growth rate of compensation of employees under the wage deal will be much higher than the Budget estimate throughout the forecast period, with most of the increases frontloaded in 2015/16.
- Keeping nominal GDP growth unchanged, the budget deficit will be at -4.3% as a percentage of GDP in 2015/16 (compared to an estimate of 3.9% in the 2015 Budget).
- In 2016/17, the Budget deficit goes to -3.0% (compared to 2.6% in the Budget) and, in 2017/18, the deficit is -2.9% (compared to 2.5% in the Budget).

Using unallocated reserves to fund the cost over-run



Budget deficit under our estimate of the wage deal



Cumulative redundancies needed to contain costs





Ratings update

Fitch & S&P – market pricing 40% of Non-IG already

The latest view from S&P and Fitch Ratings on South Africa

| | | Fitch | S&P | | | | |
|--------------------------------|--|--|--|--|--|--|--|
| | | Comment | | Comment | | | |
| Long-term foreign currency | BBB (negative) | | BBB- (stable) | | | | |
| Local currency | BBB+ (negative) | | BBB+ (stable) | | | | |
| Country ceiling | A- | | zaAAA | | | | |
| Short-term foreign currency | F3 | | A3 | - | | | |
| GDP | 2.1% (2015) 2.3% (2016) 3.0% (2017) | Real GDP growth has been lacklustre, averaging 2.4% (1.2% in per capita terms) in the five years to 2014, compared with the emerging-market median of 4.9%. | 2.1% (2015) 2.4% (2016) 2.8% (2017) 2.7% ave 2016-2018 | Expect real GDP growth in South Africa to be limited, owing to electricity supply shortages among other factors; there will be a slight acceleration thanks to an increase in electricity generating capacity, domestic consumption, and rising net exports. | | | |
| Current account deficit | -4.5% of GDP (2015) -4.3% of GDP (2016) | The CAD is large at 5.4% of GDP in 2014, reflecting a low savings rate. Non-resident holdings of domestic debt and equities are sizeable. This exposes the country to global liquidity and confidence shocks. The exchange rate has been volatile. | -4.6% of GDP (2015) -4.9% of GDP (2016) | The ratings are constrained by the need to fund the country's sizable current account deficits, although these could narrow from 2014 levels in 2015-2018, owing to the fall in global oil prices (oil constitutes about one-fifth of South Africa's imports) as well as a rebound in exports. | | | |
| Public debt | 48.4% (2014/15) The budget deficit is above peers. General government debt has risen to 48.4% of GDP at end-2014 from 26% at end-2008, above the 'BBB' range median of 42%. However, net debt is in line with peers due to general government deposits of nearly 14% of GDP. | | 44% (2017) | Expect the South African Treasury to abide by its expenditure ceiling, as detailed in the 2015/16 budget, lower-than-forecast growth and other factors may reduce revenues and obstruct fiscal targets. | | | |
| СРІ | 5.0% (2015) 6.2% (2016) | Inflation has been higher than in rating peers in the five years to 2014. | 4.9% (2015) 5.7% (2016) | n/a | | | |
| Key rating drivers | Low growth, twin deficits | Budget and current account deficits are leading to rising public and external debt ratios, while weak economic growth is constraining living standards. | Improvement in GDP | The stable outlook reflects the view of a slight improvement in GDP growth in 2015-2018. | | | |
| | Energy supply constrains growth | Energy supply shortfalls and power cuts have led Fitch to revise down its GDP growth forecasts. | Energy supply | Continued shortages of electricity could jeopardize any possible recovery. | | | |
| | External financing risks | Large external financing needs expose the country to shifts in global liquidity, although the floating exchange rate, moderate foreign currency debts and overseas assets provide buffers against a 'sudden stop' of capital inflows. | External financing risks | Reform efforts remain lackluster, GDP growth low, current-account-deficit financing needs relatively high, general government debt sizable, and external financing flows potentially volatile. | | | |
| | Fiscal consolidation plans | The government has started to tighten fiscal policy to reduce the budget deficit and stabilise the debt/GDP ratio. | Fiscal prudence | Ongoing fiscal prudence and expenditure control will help contain fiscal and external balances. | | | |
| | Public debt, contingent liabilities | The sovereign faces significant contingent liabilities in the form of state-owned enterprise bonds and loans of around 14% of GDP and committed guarantees at 11% of GDP, mainly to Eskom, which is being recapitalised. | Contingent liabilities | S&P views the contingent liabilities as currently limited. SA has R350bn - about 8% of GDP - available in potential guarantees for the state-owned power utility Eskom. Eskom currently uses about R150bn of these guarantees. | | | |
| | Credit strength and buffers | The banking system has a standalone investment-grade rating and low dollarization. Deep local capital markets and favourable government debt structure (91% local currency-denominated and average maturity of 12 years) support financing flexibility. However, unemployment and inequality are high. | Sovereign flexibility | The sovereign's flexibility in its own currency is supported by the independent monetary policy of the central bank, the SARB, and a large and active local currency fixed-income market. | | | |
| Rating sensitivities | Growth and structural reforms | Weak GDP growth and a failure to boost growth potential, for example if there are only nodest structural reforms or are policy measures that damage the investment climate could lead to a downgrade. | Weak business and investment climate | Lower the ratings if external imbalances increase, or funding for SA's CA or fiscal deficits becomes less readily available. Could also lower the ratings if SA's and investment climate weakens, if labour disputes escalate again or GDP growth weakens significantly; if significant electricity shortages persist; or if political tensions increase. | | | |
| | Twin deficits | Slippage against government fiscal targets or failure to narrow the CAD could lead to further rises in public and external debt ratios and a downgrade. | Fiscal policy | Government's fiscal policy flexibility decreases, particularly if public sector wages, fiscal expenditures, or debt-service costs increase more than the agency expects. | | | |



40%-50% of non-investment grade already seems priced in

SA CDS steadily rising

- In recent months, the CDS spread or credit risk premium has been stable around 200 bps.
- The US 10-year treasury yield (the risk-free rate) and the implied currency risk premium responsible for the movement in the domestic 10-year bond yield.
- But if SA moved further down the rating scale, we'd expect the CDS to move towards 250 bps 280 bps.



SA 10y bond decomposition



5y USD CDS comparison per rating band 5y USD CDS – SA vs. EM peers (2004 to 2015)

| | Mean | Minimum | Maximum | 1 St. dev. |
|--------------|------|---------|---------|------------|
| Brazil | 201 | 61 | 903 | 142 |
| Bulgaria | 142 | 13 | 693 | 134 |
| Colombia | 186 | 65 | 643 | 113 |
| Croatia | 205 | 15 | 594 | 154 |
| Hungary | 206 | 10 | 829 | 95 |
| Indonesia | 220 | 92 | 1 255 | 126 |
| Mexico | 116 | 28 | 593 | 70 |
| Panama | 153 | 61 | 599 | 79 |
| Peru | 168 | 60 | 606 | 94 |
| Philippines | 219 | 78 | 825 | 127 |
| Romania | 203 | 17 | 769 | 152 |
| Russia | 180 | 37 | 1 128 | 138 |
| South Africa | 142 | 25 | 655 | 87 |
| Thailand | 98 | 25 | 490 | 60 |
| Turkey | 232 | 112 | 829 | 95 |

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There is asymmetry in pricing country risk

A downgrade hurts more than an upgrade

- Our research indicates that when a country moves from an investment grade rating to a non-investment grade rating (i.e. deteriorating credit metrics), the CDS trades on average 94 bps higher.
- Should South Africa move from investment grade (BBB-) to non-investment grade (BB+), the country's CDS may rise to around 250 280 bps (relative to the average of 150 bps for BBB- rated countries in our sample.

The downgrade premium in CDS – asymmetry in pricing



EM peer comparison of foreign currency sovereign ratings, CDS and local bond yields (1 Jun-15)

| Country | Moody's | S&P | Fitch | 5y USD CDS (bps) | 10-yr bond yield (%) |
|----------------|-----------------|------------------|-----------------|------------------|----------------------|
| Brazil | Baa2 (Negative) | BBB- (Stable) | BBB (Negative) | 239.9 (222.0) | 9.3 (9.1) |
| Bulgaria | Baa2 (Stable) | BB+ (Stable) | BBB- (Stable) | 171.7 (166.0) | 2.5 (2.4 |
| China | Aa3 (Stable) | AA- (Stable) | A+ (Stable) | 91.0 (85.3) | 3.4 (3.5) |
| Chile | Aa3 (Stable) | AA- (Stable) | AA- (Stable) | 92.2 (79.3) | 2.7 (2.8) |
| Colombia | Baa2 (Stable) | BBB (Stable) | BBB (Stable) | 152.4 (145.8) | 6.8 (6.9) |
| Croatia | Ba1 (Negative) | BB (Stable) | BB (Stable) | 267.0 (265.7) | 3.4 (3.6) |
| Czech Republic | A1 (Stable) | AA- (Stable) | A+ (Stable) | 48.7 (47.7) | 0.5 (0.8) |
| Hungary | Ba1 (Stable) | BB+ (Stable) | BB+ (Positive) | 141.2 (139.5) | 3.3 (3.5) |
| India | Baa3 (Positive) | BBB-u (Stable) | BBB- (Stable) | 155.7 (155.4) | 7.8 (7.7) |
| Indonesia | Baa3 (Stable) | BB+ (Positive) | BBB- (Stable) | 157.3 (161.3) | 7.4 (8.1) |
| Mexico | A3 (Stable) | BBB+ (Stable) | BBB+ (Stable) | 116.9 (113.3) | 5.7 (5.9) |
| Panama | Baa2 (Stable) | BBB (Stable) | BBB (Stable) | 131.6 (136.0) | n/a (n/a) |
| Peru | A3 (Stable) | BBB+ (Stable) | BBB+ (Stable) | 130.6 (130.0) | 5.5 (5.9) |
| Philippines | Baa2 (Stable) | BBB (Stable) | BBB- (Stable) | 91.6 (84.9) | 3.8 (4.0) |
| Poland | A2 (Stable) | A- (Positive) | A- (Stable) | 61.5 (59.5) | 2.4 (2.9) |
| Romania | Baa3 (Stable) | BBB- (Stable) | BBB- (Stable) | 114.2 (114.0) | 3.2 (3.5) |
| Russia | Ba1 (Negative) | BB+ (Negative) | BBB- (Negative) | 447.2 (290.1) | 12.0 (10.3) |
| South Africa | Baa2 (Stable) | BBB- (Stable) | BBB (Negative) | 203.7 (198.8) | 7.7 (8.1) |
| Thailand | Baa1 (Stable) | BBB+ (Stable) | BBB+ (Stable) | 105.9 (99.5) | 2.7 (2.8) |
| Turkey | Baa3 (Negative) | BBB-u (Negative) | BBB- (Stable) | 205.1 (203.8) | 8.7 (9.1) |

Sources: S&P. Fitch, Moody's, Bloomberg; Standard Bank Research



Our forecast for the 10-year yield using bond decomposition

We expect the SARB to maintain credibility

- We calculate the implied ZAR risk premium by subtracting both the US 10-year government bond yield and South Africa's 5y USD CDS from the South African 10-year ZAR government bond yield.
- Since 2004, the ZAR risk premium was on average 345 bps and only in late 2008/early 2009 did the risk premium fall substantially below 1 standard deviation (1 standard deviation is 78 bps). We expect this to remain the case. We see the risk premium as a function of the SARB's credibility. As we head towards Jun'16, the market may start pricing a higher credit risk premium ahead of country reviews by S&P and Fitch.

CA as % of GDP vs. fiscal deficit as % of GDP



The implied ZAR risk premium – stationary



The R186 forecast – a decomposition approach





Sources for all charts: Standard Bank Research

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32