FUNDING AND LIQUIDITY CONDITIONS

Non-deal roadshow

May 2017

FIRSTRAND BANK

Agenda

- Macroeconomic environment
  - Fiscal conditions, local currency rating implications, EM case studies
  - Fair value for investors to enter market – risk/return perspective
- Funding and liquidity
  - Ratings implications
    - Financial stability considerations
    - Regulations and mandates
  - Funding conditions

MACROECONOMIC ENVIRONMENT

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Possible reasons for local currency (LC) downgrade

Macro regime: policy uncertainty and reform stagnation

Macro regime: policy changes introduce fiscal risk

1

Fiscal deterioration

- Policymakers' ability to maintain fiscal discipline erodes and debt stock increases
- Real interest rates increases to compensate investors for increased sovereign risk
- Cost of SA new debt issuance increases

2

Debt monetisation (inflation/currency)

- Policymakers' ability to keep currency stable and/or control inflation erodes
- Inflation risk premium required by bond investors increases
- Cost of SA inflation-linked debt increases
- Cost of SA new debt issuance increases

3

Marked institutional deterioration/trend growth hit

- Deterioration in "the rules of the game"
- Reflects in markedly lower growth, fiscal slippage and/or higher inflation
- Yields lift in reaction to concerns about fiscal deterioration and/or debt monetisation

Policy uncertainty and reform stagnation: some challenges

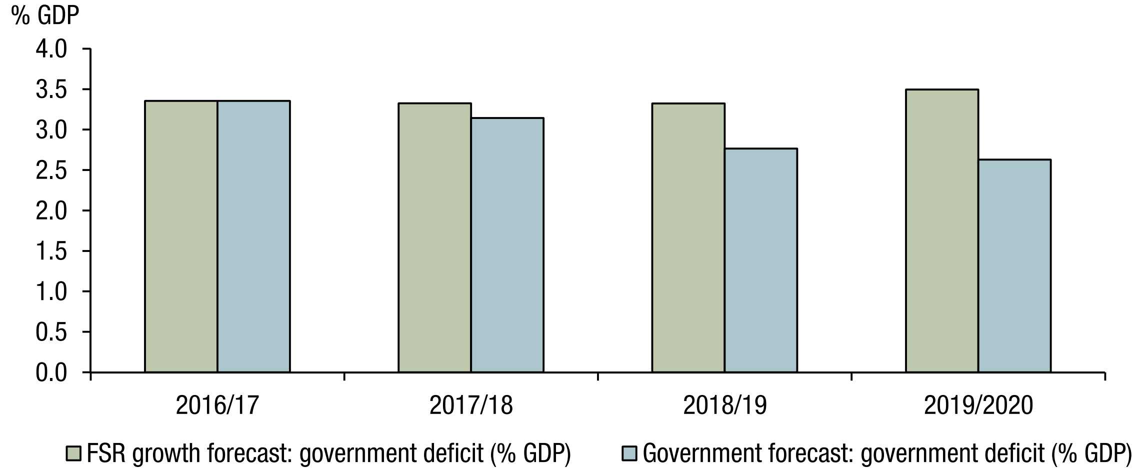
Macro regime: policy uncertainty and reform stagnation

1

Fiscal deterioration

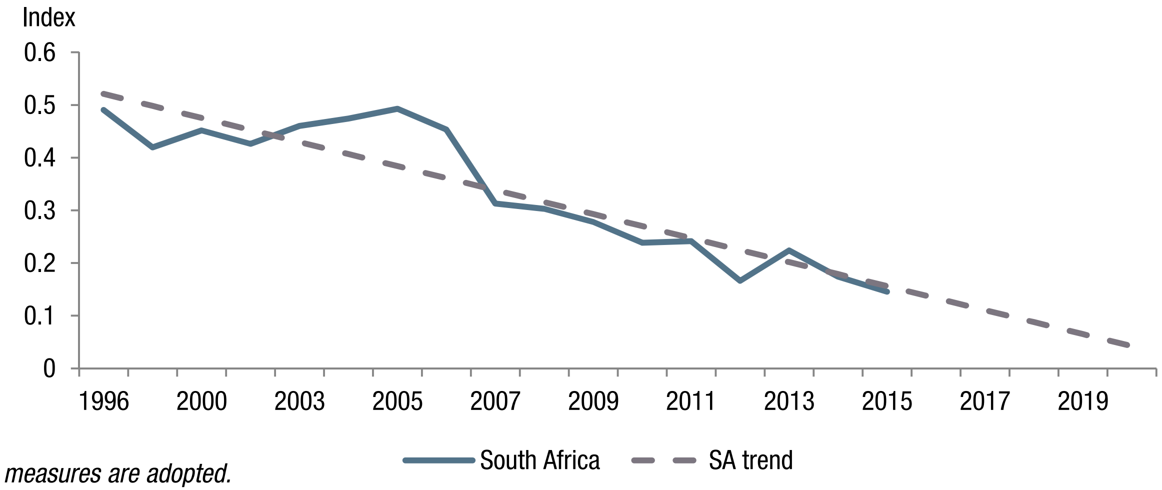
- Policymakers' ability to maintain fiscal discipline erodes and debt stock increases
- Real interest rates increases to compensate investors for increased sovereign risk
- Cost of SA new debt issuance increases

Estimated fiscal deficit based on FSR growth forecast*



Additional challenges (not in estimate): tax buoyancy ratio and SoE financing requirements (budgeted funding requirements and unexpected funding requirements)

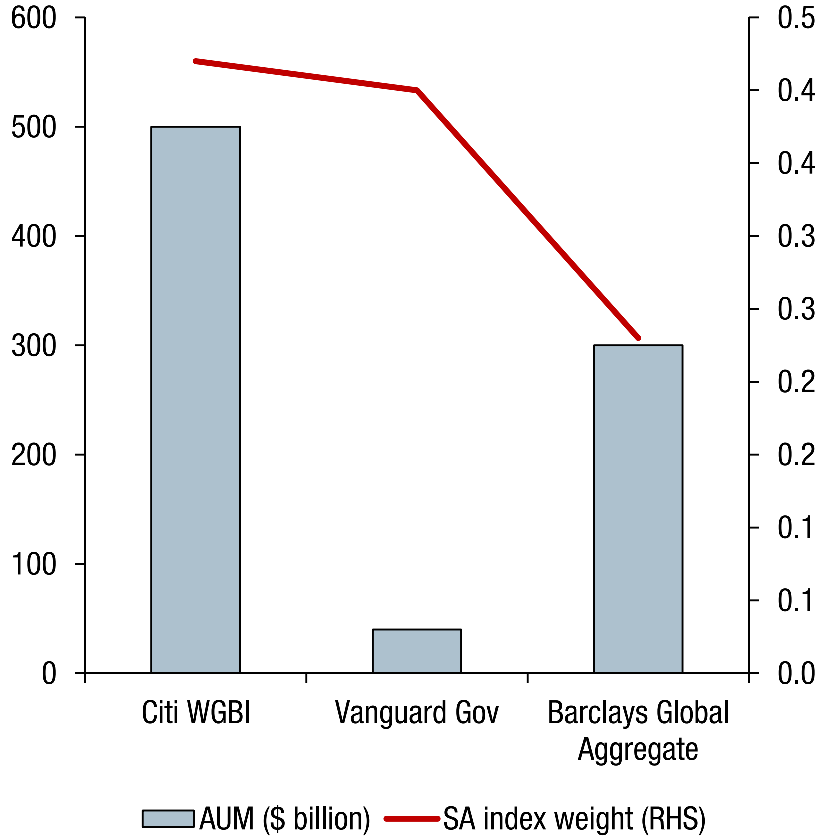
South African economic institutional strength and trend extrapolation



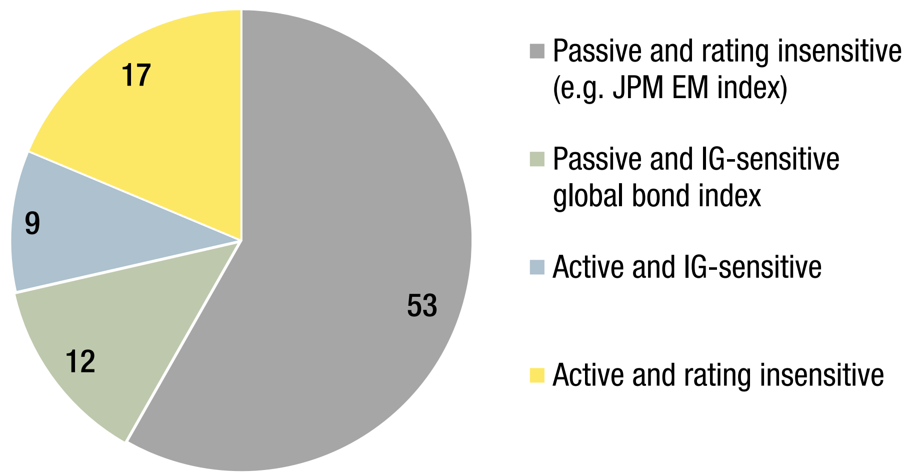
* *This fiscal balance assumes no corrective spending or revenue measures are adopted.*

Outflow potential in response to further LC downgrades

Bond indices that require investment grade (IG)



Rating sensitivity of LC government bond investors

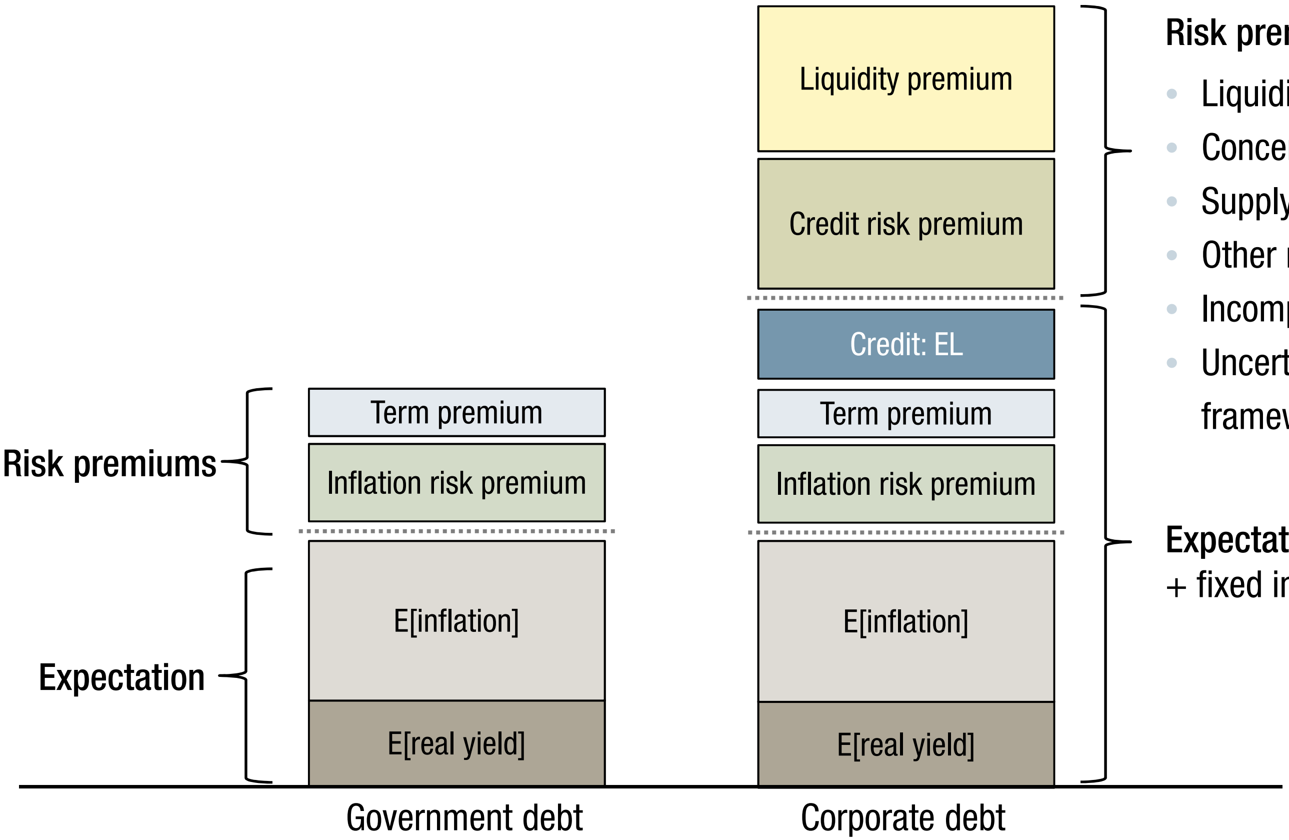


- Foreigners own around 36% of the outstanding amount of SA's LC bonds. About 20% of such foreign investors are IG rating-sensitive.
- **Popular LC bond indices on the left all require LC IG ratings.**
- **IMF estimates forced sales could amount to around 2.5% of GDP (around R110 billion).**

LC rating must be sub-investment grade by both Moody's and S&P for SA to lose its spot in the WGBI

Sources: National Treasury, IMF.

Components of fixed income risk premiums



Risk premiums

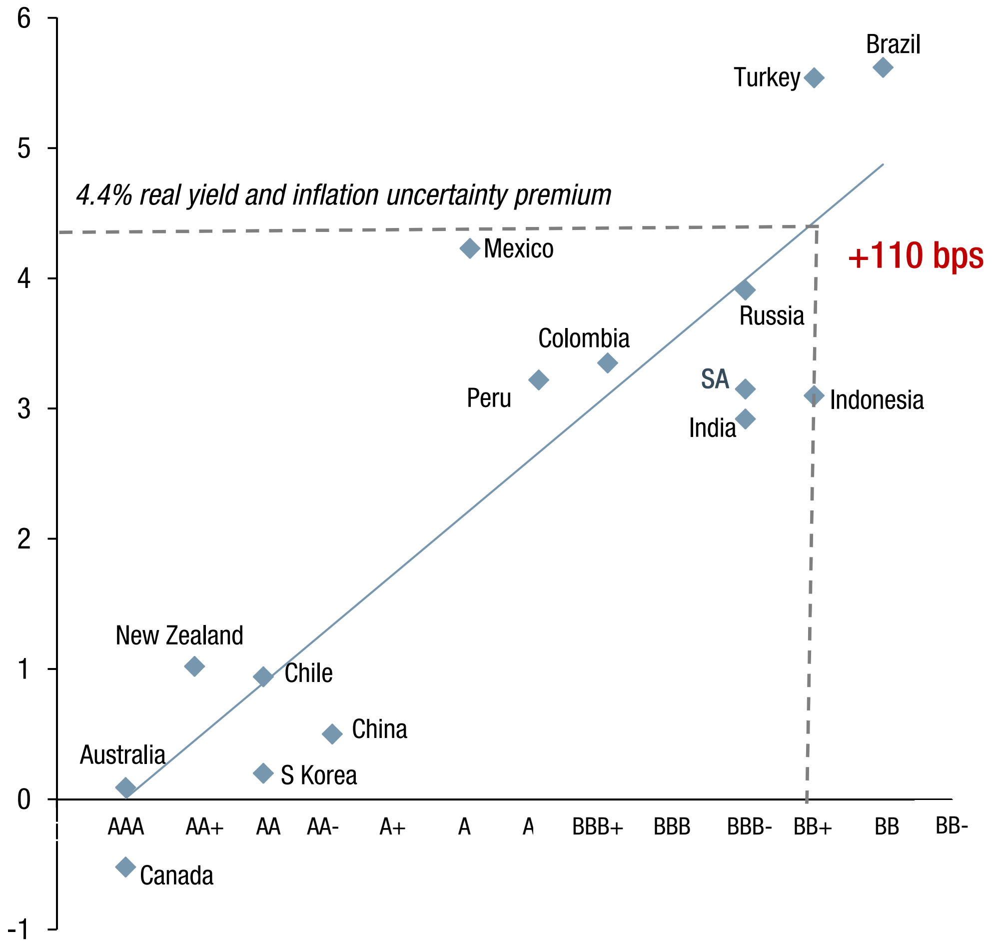
- Liquidity risk premium
- Concentration risk premium
- Supply constraints
- Other risk premiums
- Incomplete closed market
- Uncertainty arising from resolution framework

Expectation
+ fixed income premium

Depending on the nature of the risk premium, market action to restore equilibrium would be very different

Cross-country comparison of real yield and inflation uncertainty premium

A comparison of real yield and inflation premium across local currency ratings (%)

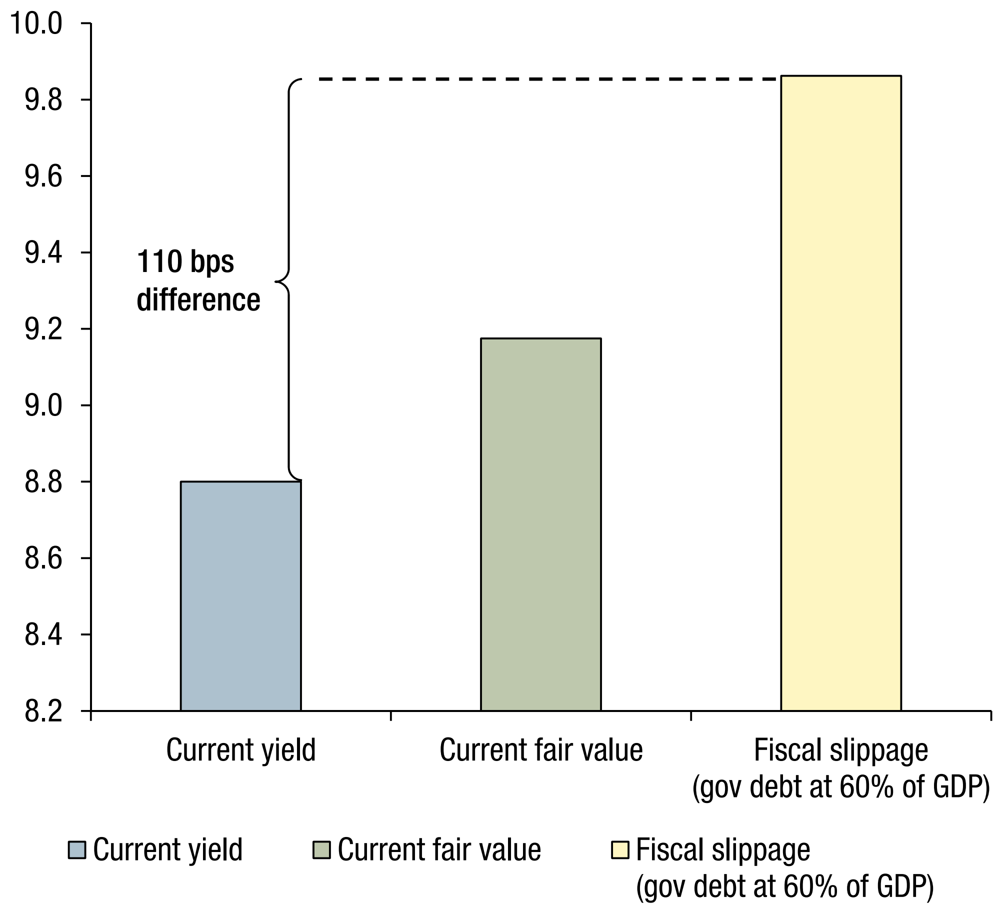


Sources: Bloomberg, http://www.centralbanknews.info/p/inflation-targets.html.

- Local currency 10-year yield = real yield + expected inflation + inflation uncertainty premium
- Real yield and inflation uncertainty premium = local currency 10-year yield – expected inflation
- Assume expected inflation is the central bank inflation target
- Comparison with other local currency debt and inflation targets suggests:
  1. Real yield and inflation risk premium of 4.4%
  2. Add inflation target of 5.5%
  3. Nominal 10-year yield of 9.9% if SA is downgraded to sub-investment grade local currency debt
- Analysis assumes global risk-free real yields unchanged at 40 bps (US 10-year TIPS yield)

Yield impacts: 10-year yield scenario analysis

Estimates for a scenario of fiscal slippage (assume 60% debt to GDP ratio) – yield to maturity (%)



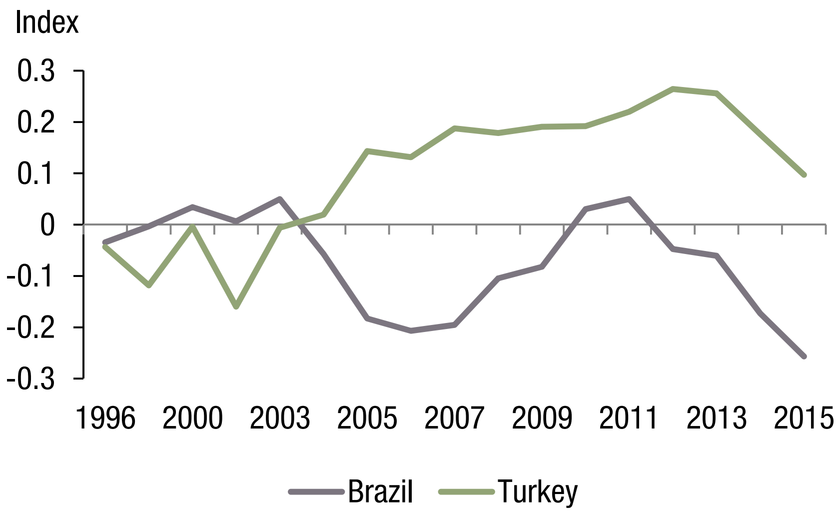
10-year yield model (regression equation)

Variable	Coefficient	t-statistic
Constant	1.82	3.11
US real yield	0.34	3.55
Trend inflation	0.44	5.74
Government debt	6.87	5.67
Repo rate	0.19	4.50

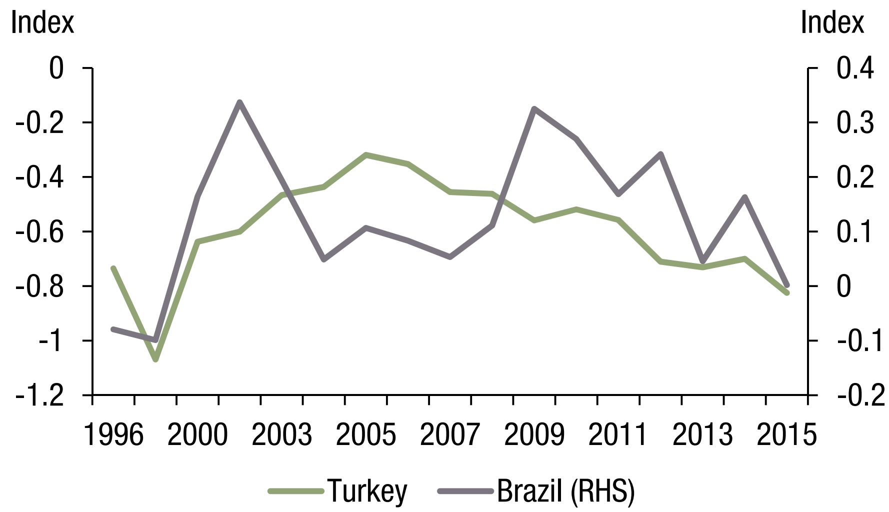
- Regression analysis confirms a lift in yields by 50 – 100 bps in response to fiscal slippage
- 10-year yield between 9.5% – 10%
- Analysis assumes global risk-free real yield at 50bps

Move to sub-investment grade: Brazilian and Turkish macros

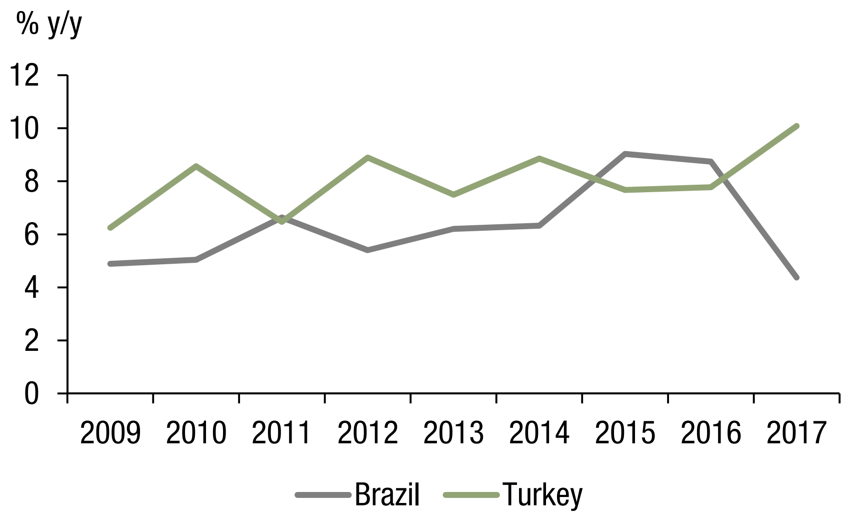
Economic institutional strength



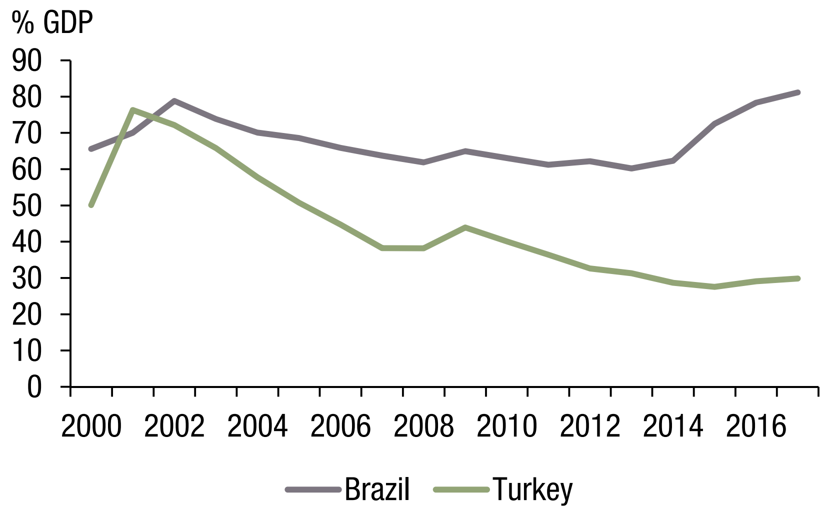
Political institutional strength



Inflation rates



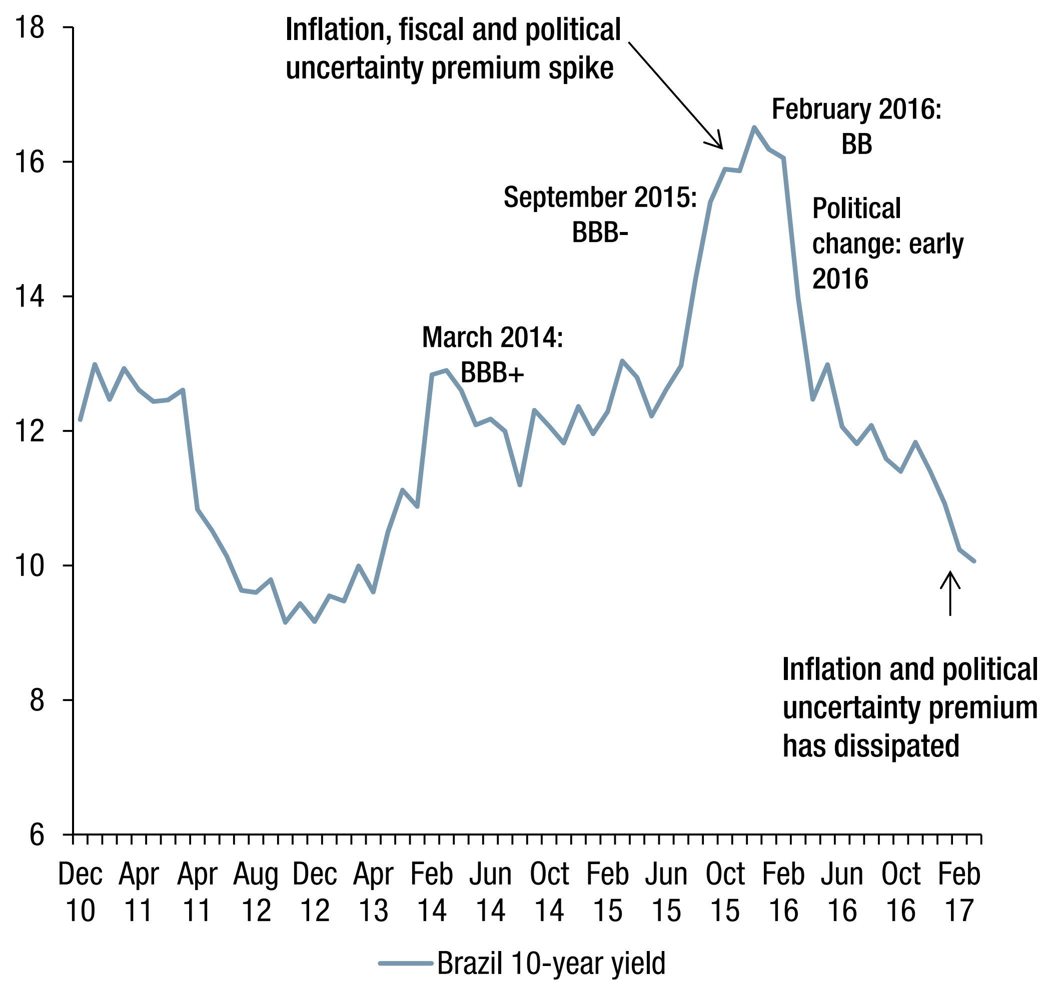
Government debt to GDP ratios



Sources: IMF, World-Wide Governance Indicators, FirstRand.

Move to sub-investment grade: Brazilian yield experience

Brazilian 10-year yield through the downgrade cycle (%)

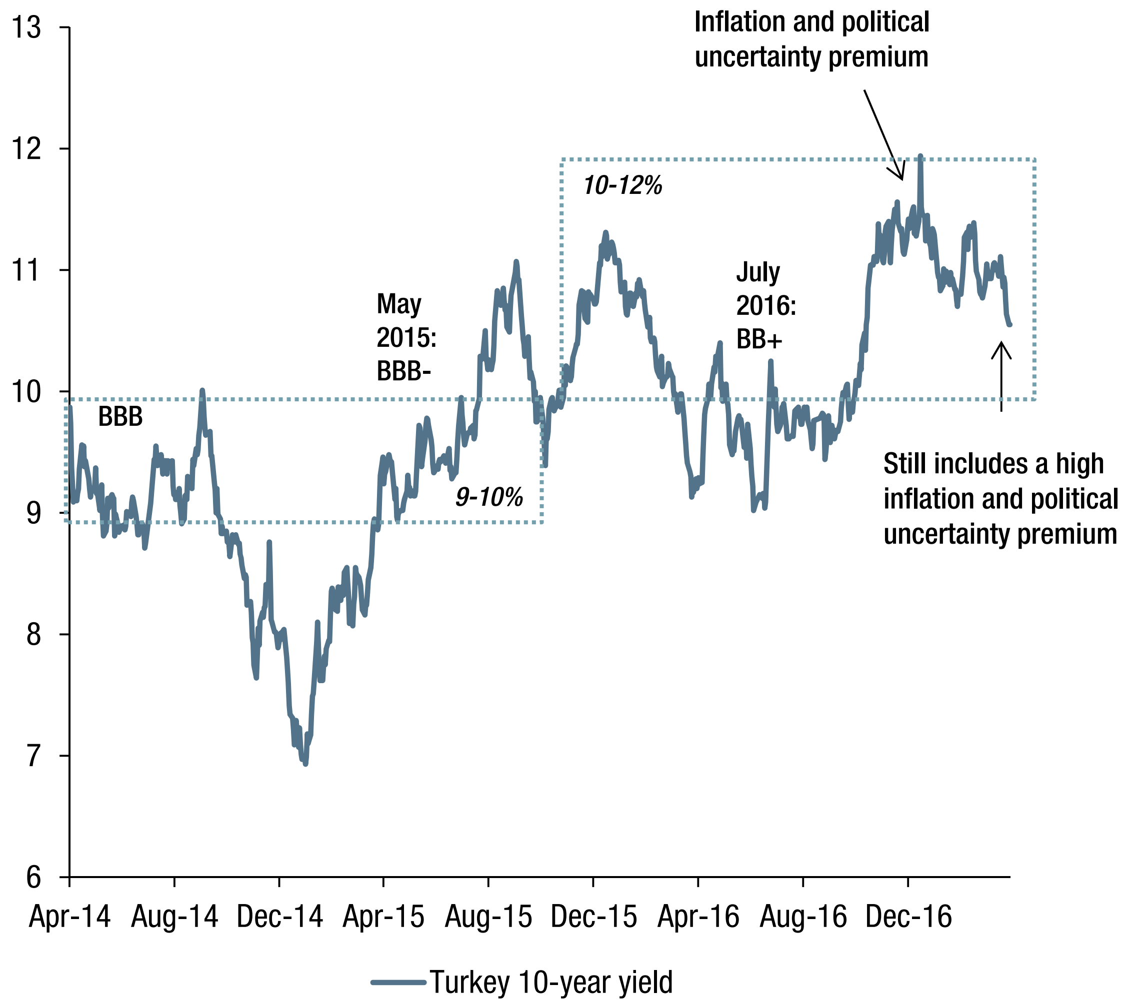


- Brazil's 10-year yield lifted from 13% to 16.5% during the period where its local currency rating fell to sub-investment grade
- **Political uncertainty increased**
- **Currency weakened 84%** in run-up to September downgrade
- **Inflation increased** from 6% to 10.7% over this time period
- **Government debt** to GDP ratio jumped by 10 percentage points preceding the downgrades
- Central bank policy rate increased from 10% to 14%
- Political change resulted in **more certainty**
- Inflation uncertainty **dissipated**

Sources: Bloomberg.

Move to sub-investment grade: Turkish yield experience

Turkish 10-year yield through the downgrade cycle (%)

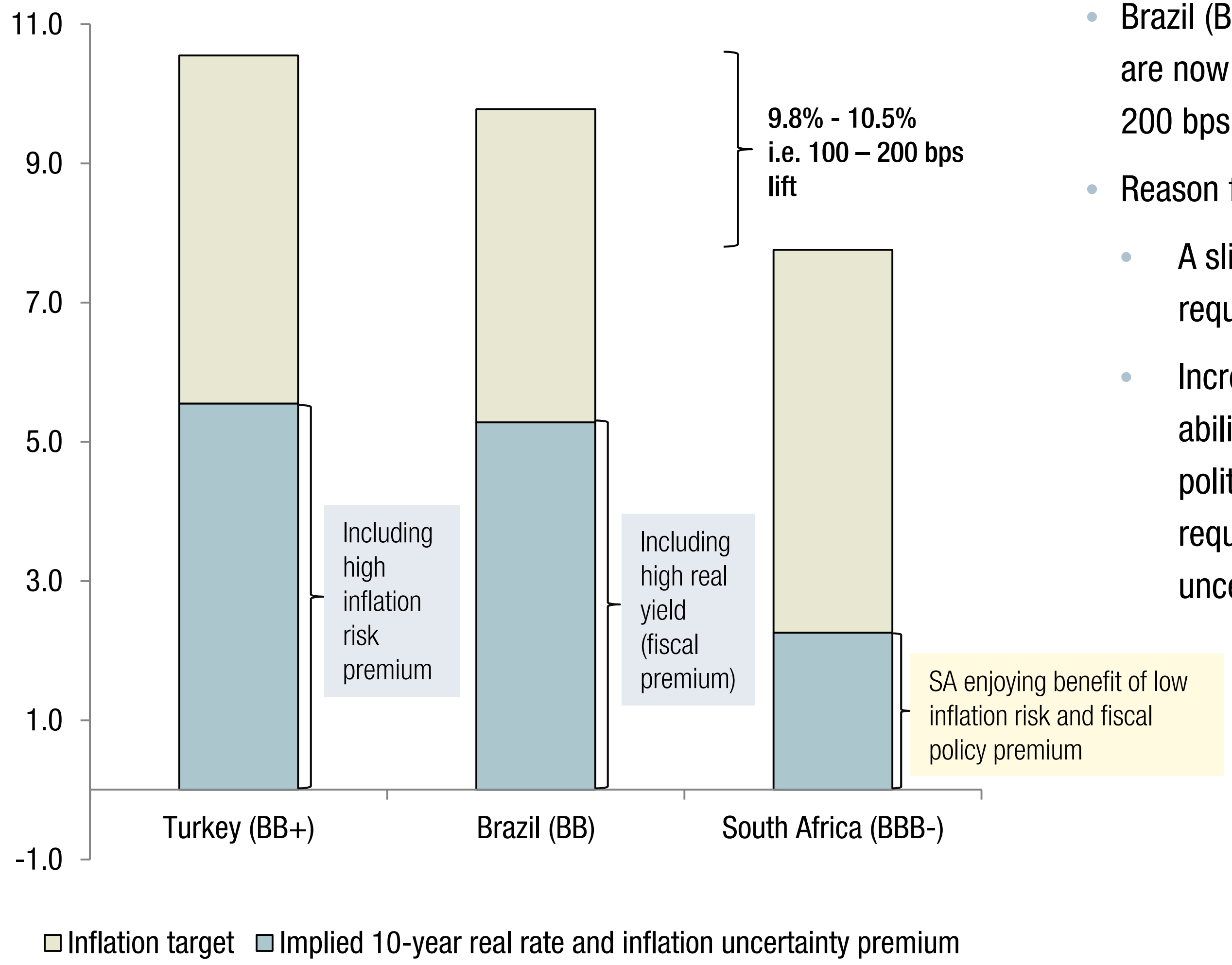


- Turkey's 10-year yield lifted from a range of 9 – 10% to 10 – 12% in downgrade cycle
- **Currency weakened 25%** over the downgrade period (from start 2015 to mid-2016)
- **Inflation averaged around 7.7% during downgrade period (not a marked increase)**
- **Political uncertainty increased**
- **Inflation has started to spike** in recent months (now at 11.29%)
- **Government debt** to GDP ratio remained relatively stable at 30%
- Central bank policy rate remained (more-or-less) unchanged over this period

Sources: Bloomberg.

Brazil and Turkey bond yields: the sub-investment grade experience

A comparison of 10-year local currency bond yields (non-investment grade LC rating) – yield to maturity (%)



- Brazil (BB) and Turkish (BB+) local currency yields are now between 9.8% – 10.5% (i.e. 100 – 200 bps from current SA levels)
- Reason for the higher yields seems related to:
  - A slippage in fiscal anchor (e.g. Brazil) which requires an increase in real yields
  - Increased uncertainty around policymakers' ability to control currency and inflation and political uncertainty (e.g. Turkey) which requires an increase in the inflation uncertainty premium

Sources: Bloomberg.

Policy changes introduce fiscal risk: moving beyond (only) a downgrade concern

Macro regime: policy changes introduce fiscal risk

2

3

Debt monetisation (inflation/currency)

- Policymakers' ability to keep currency stable and/or control inflation erodes
- Inflation risk premium required by bond investors increases
- Cost of SA inflation-linked debt increases
- Cost of SA new debt issuance lifts

Marked institutional deterioration/trend growth hit

- Deterioration in "the rules of the game"
- Reflects in markedly lower growth, fiscal slippage and/or higher inflation
- Yields lift in reaction to concerns about fiscal deterioration and/or debt monetisation

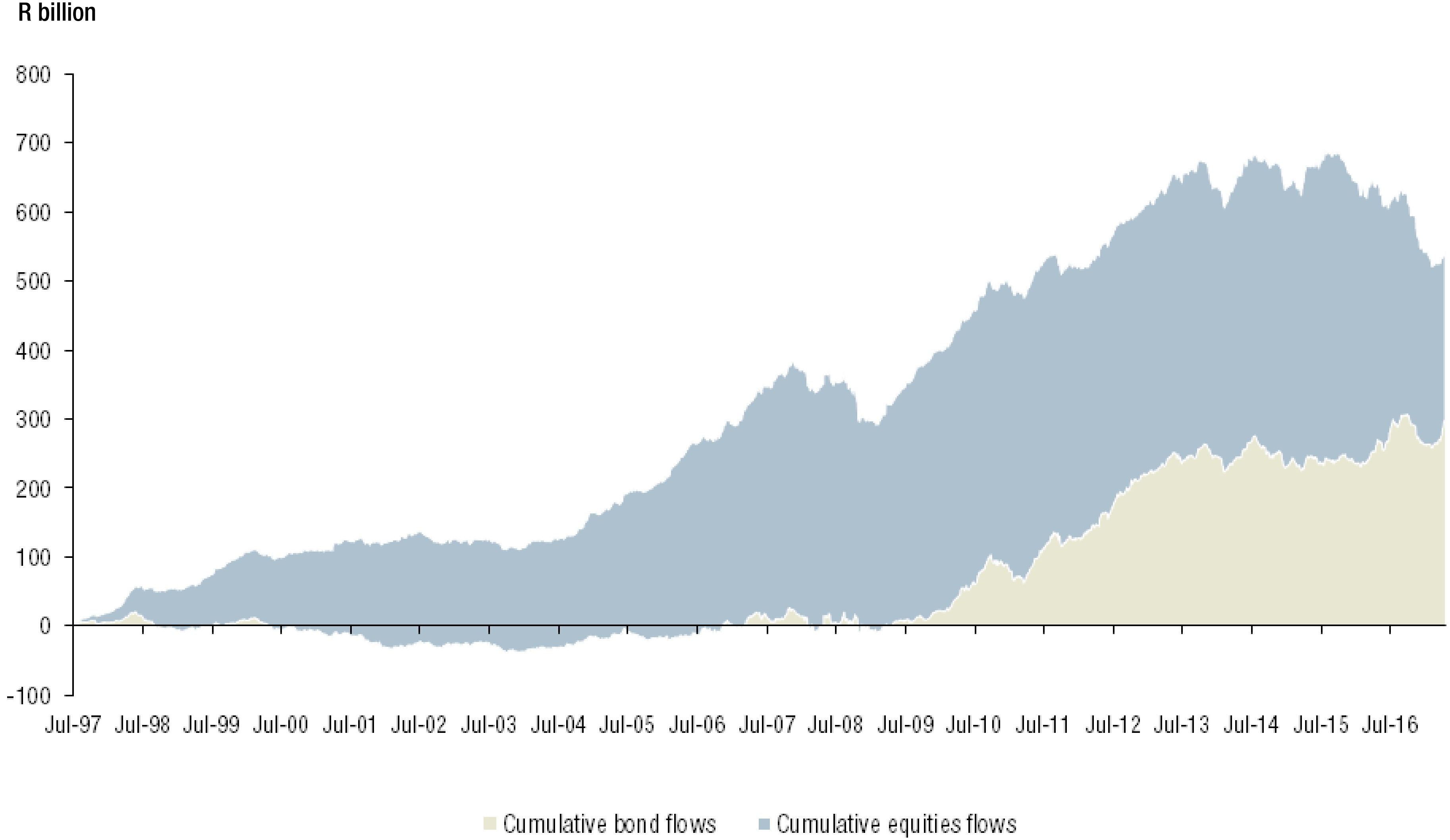
- Foreigners own around 39% of the outstanding amount of SA's LC bonds and significant portion of the equity market
- Both SA real yields and inflation risk premium will have to increase to attract foreign capital and compensate for inflation risk
- Brazil and Turkey real yields and inflation risk premium stands around 5.5%. This puts SA 10-year yield closer to 11% (assuming inflation target of 5.5%)
- Assuming Brazil's economic institutional strength (-0.25) level and debt to GDP ratio (80%) puts SA's local currency rating at BB

Sources: IMF, World-Wide Governance Indicators, FirstRand.

Some other impacts to consider

- Foreign mandate impact
  - Foreign FDI and fund portfolio flows
  - Indices
- Need to proactively address implications via local regulators
  - Solvency Assessment and Management (SAM), life and insurance capital requirements punitive for exposure (including SA banks)
  - Collective investment schemes
  - Pension funds
- Profile of external funders may change from real money investors to opportunistic funders, impacts new issuances (availability, price and volatility)

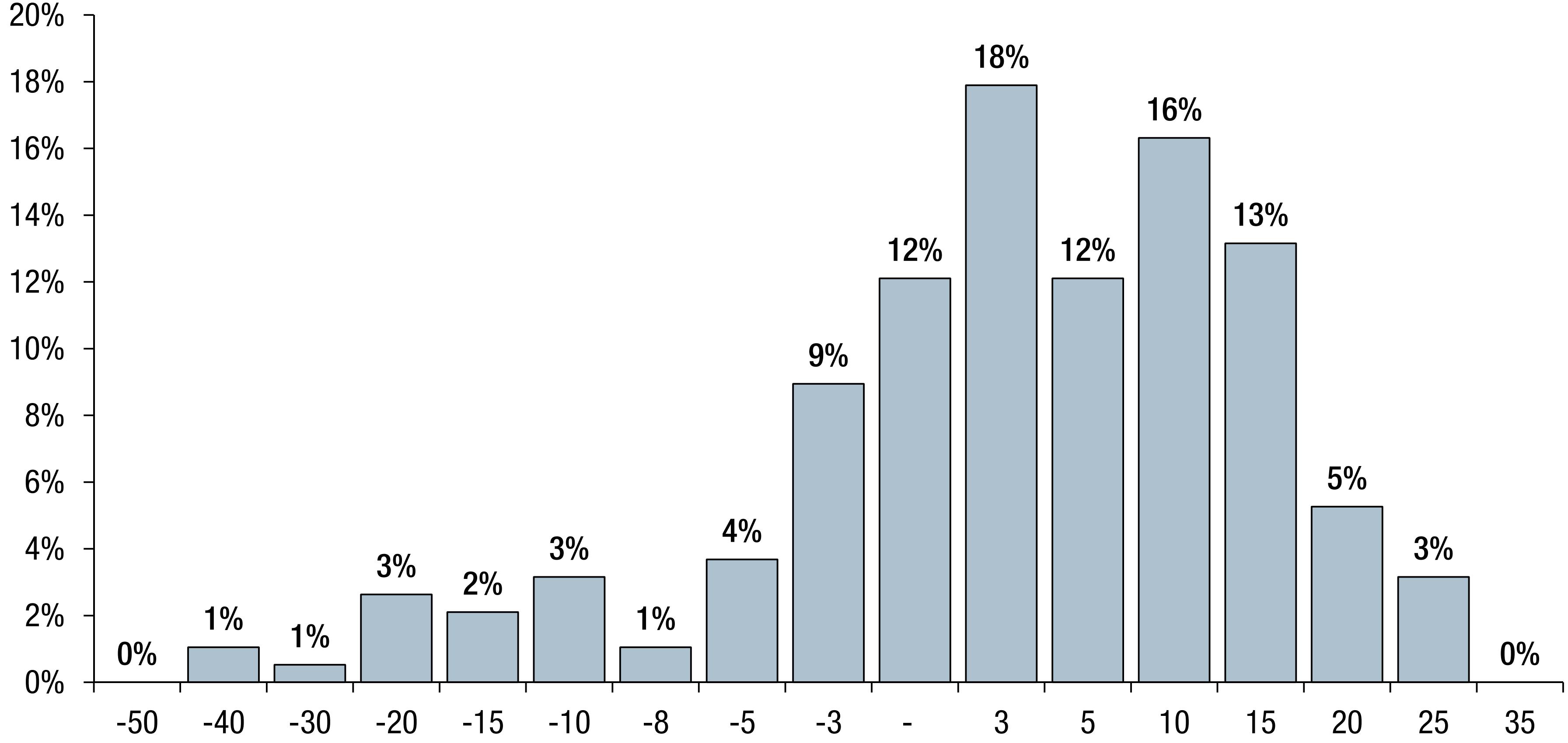
Cumulative flows – excluding mark-to-market gains and losses



Historical monthly flow distribution

Monthly flow	Bond	Equities	Total
Max	28.64	17.65	22.77
Min	-21.44	-28.16	-47.60

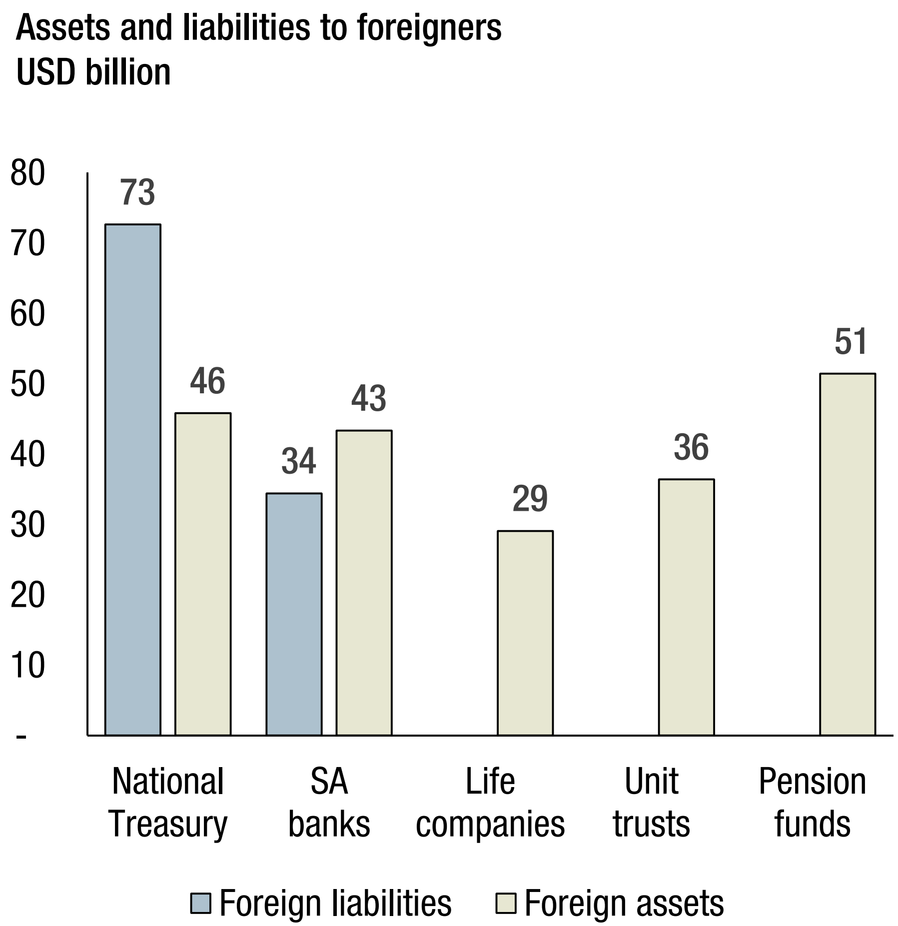
R billion monthly flow size distribution (Jan 01 to Apr 17)

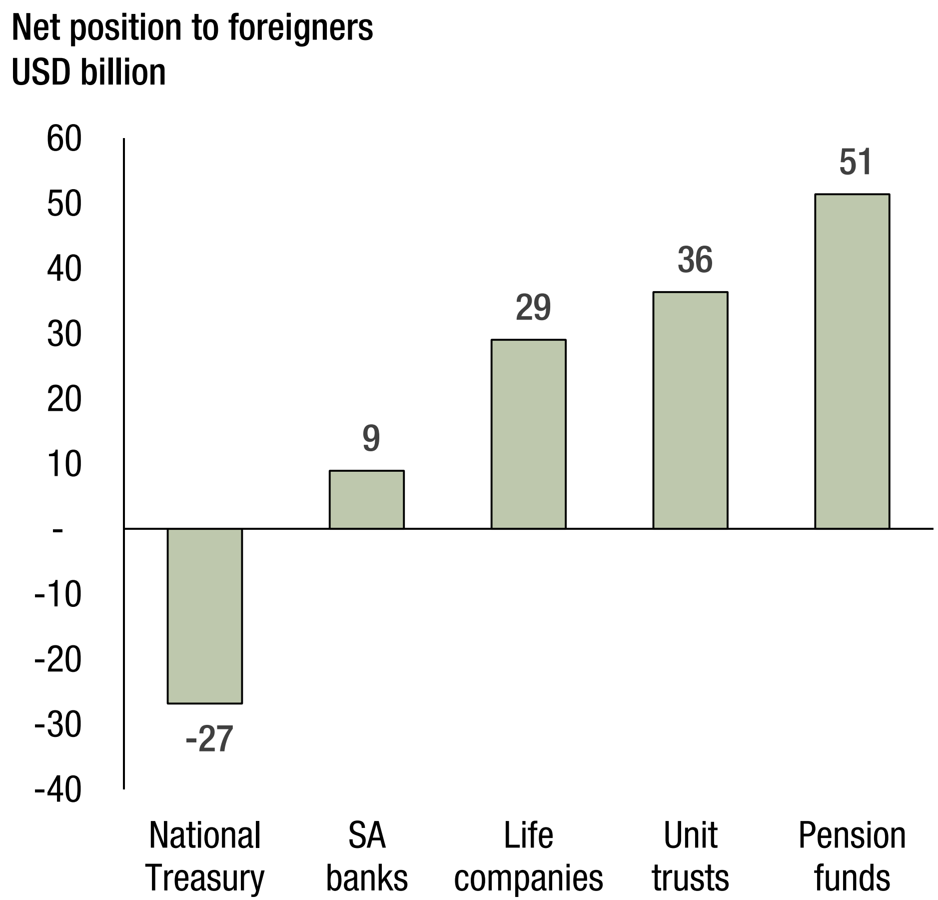


National Treasury's conservative debt management will cushion impact should there be a stress event

- SA ZAR treasury bills
  - Locally held, mainly by banks and MMF's, liquidity risk and sentiment indicator, key role played in liquidity management
- SA ZAR government fixed rate bonds
  - 40% of fixed rate foreign held, impacts issuance and value of existing debt stock
- SA ZAR government inflation-linked bonds
  - Locally held, low liquidity risk, demand may increase, does pose high structural risk

Net foreign funding exposure of SA Inc.





SA appears to be net surplus foreign assets, however, liquidity mismatches remains

Source: SARB Quarterly Bulletin, Dec, 2016, FirstRand Research and estimates.

FUNDING AND LIQUIDITY

Rating implications for SA Inc

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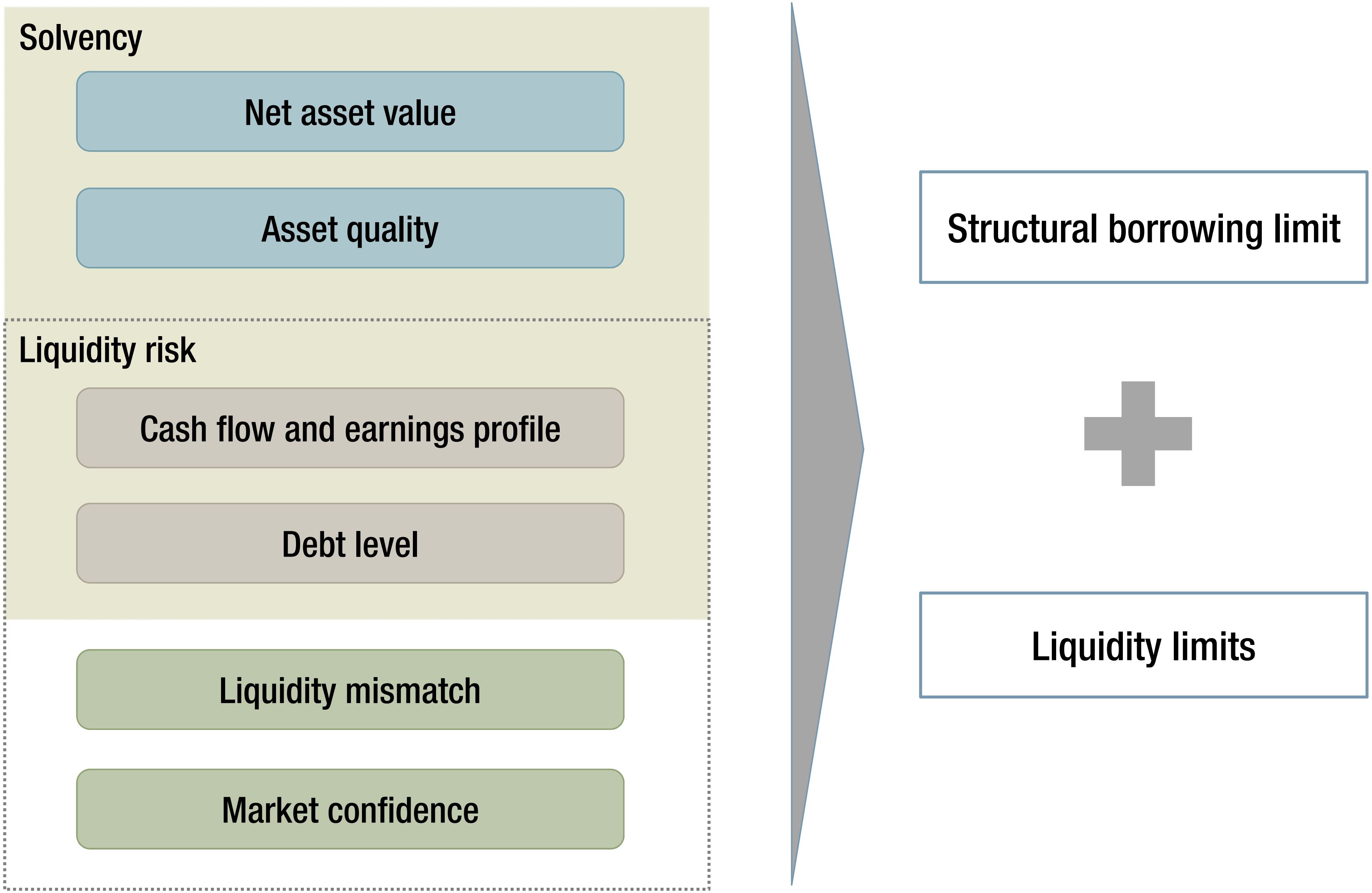
Philosophy on foreign currency external debt

- Framework for the management of external debt should take into account sources of sovereign risk
  - Unsustainable debt path (solvency) crisis
  - Liquidity crisis
  - Exchange rate and macroeconomic crisis
- The group considers external debt of all South African entities
  - Private and public sector (corporate, government and SOEs)
  - Financial institutions
- All these entities utilise SA Inc's repayment capacity
  - Confidence and export receipts

External financing



Liquidity transmission across the financial system

Greater liquidity transmission is required across markets

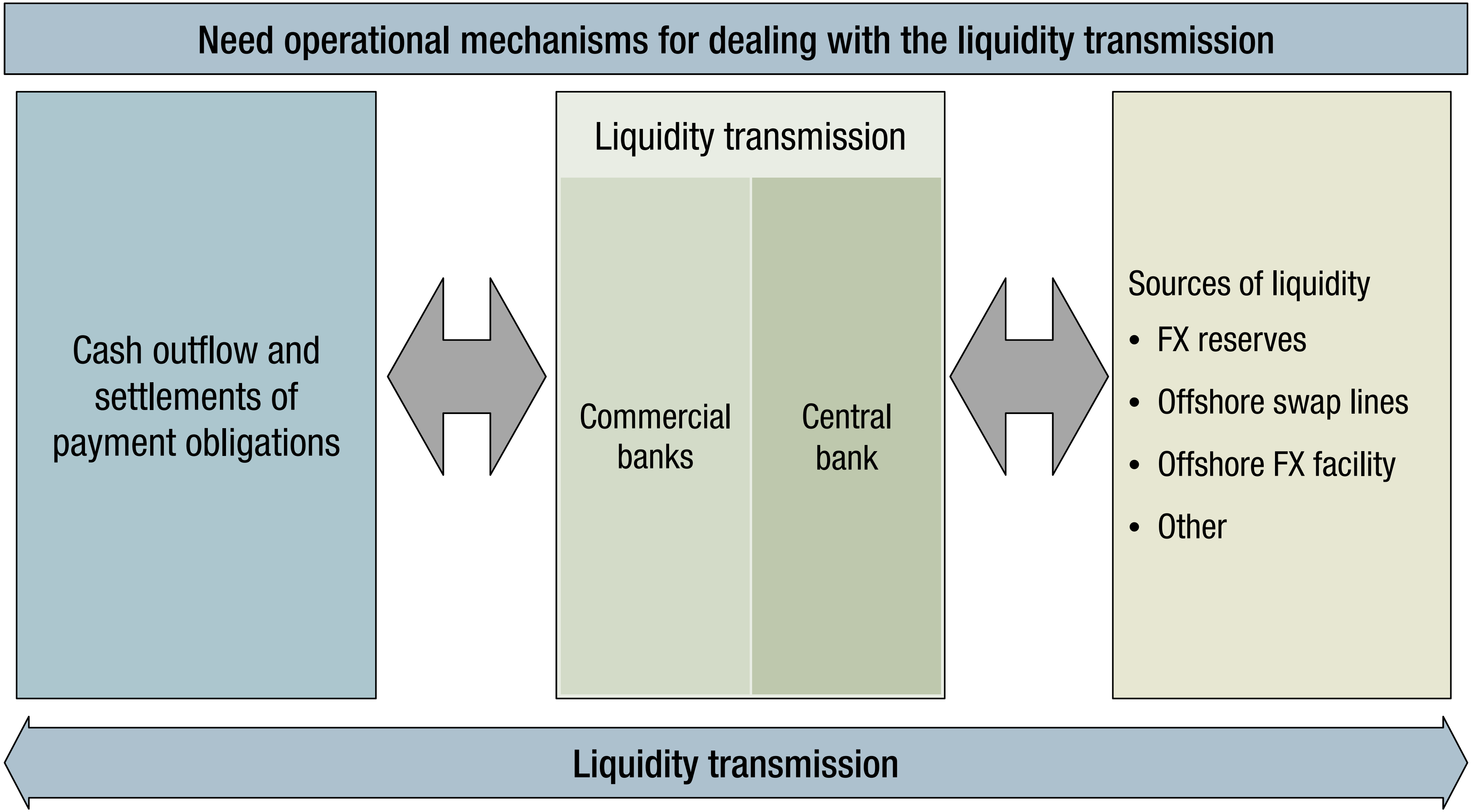
Cash market (funding liquidity)	Repo market (financing liquidity)	FX swap market (cross currency liquidity)

Central bank operations

Charles Goodhart of the BIS Advisory Committee, BOE and LSE explains:

Ultimately, central banking is about providing liquidity and liquidity provision is an essential and central component of financial stability.

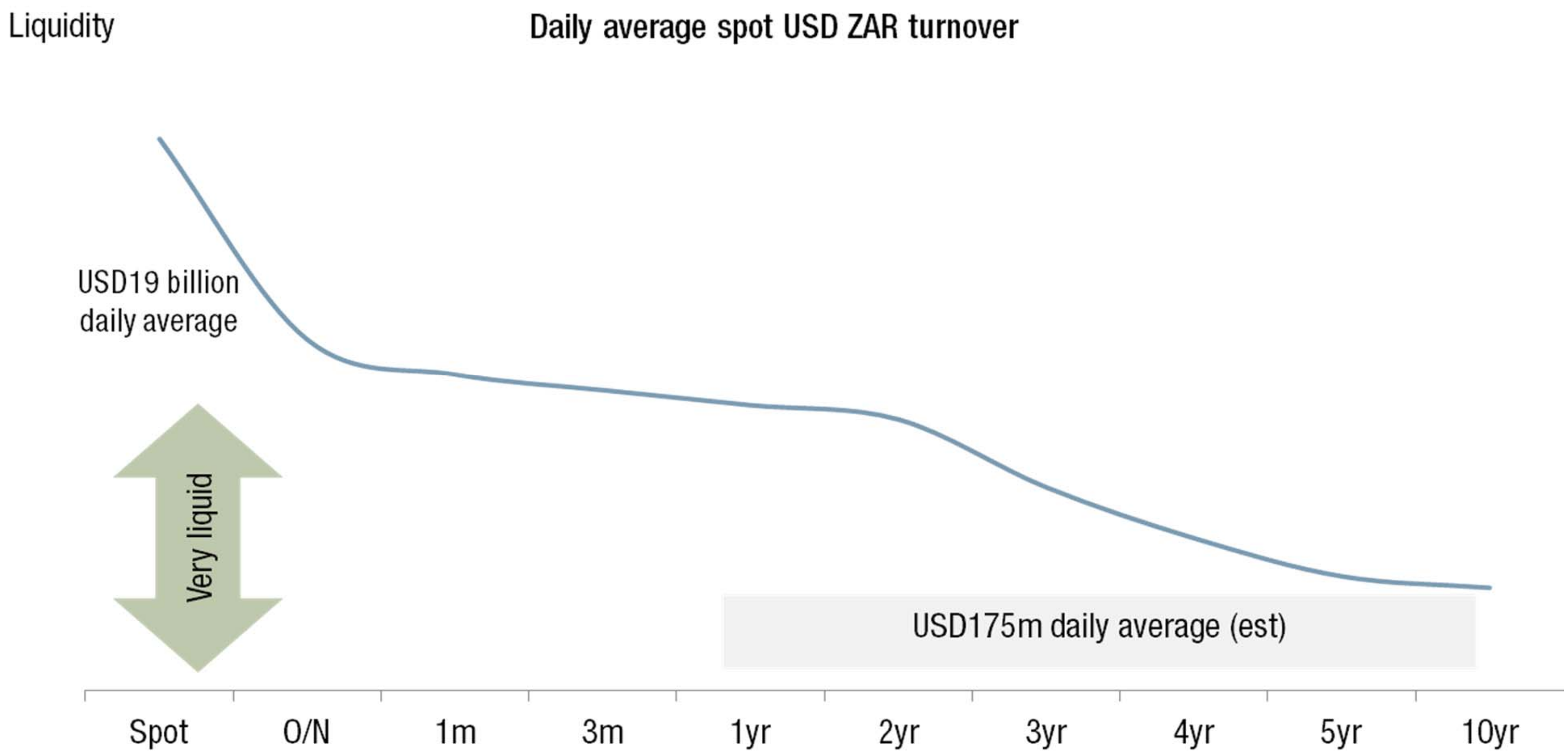
Robust mechanisms for liquidity transmission are required to deal with large outflows



FX swaps and forwards market

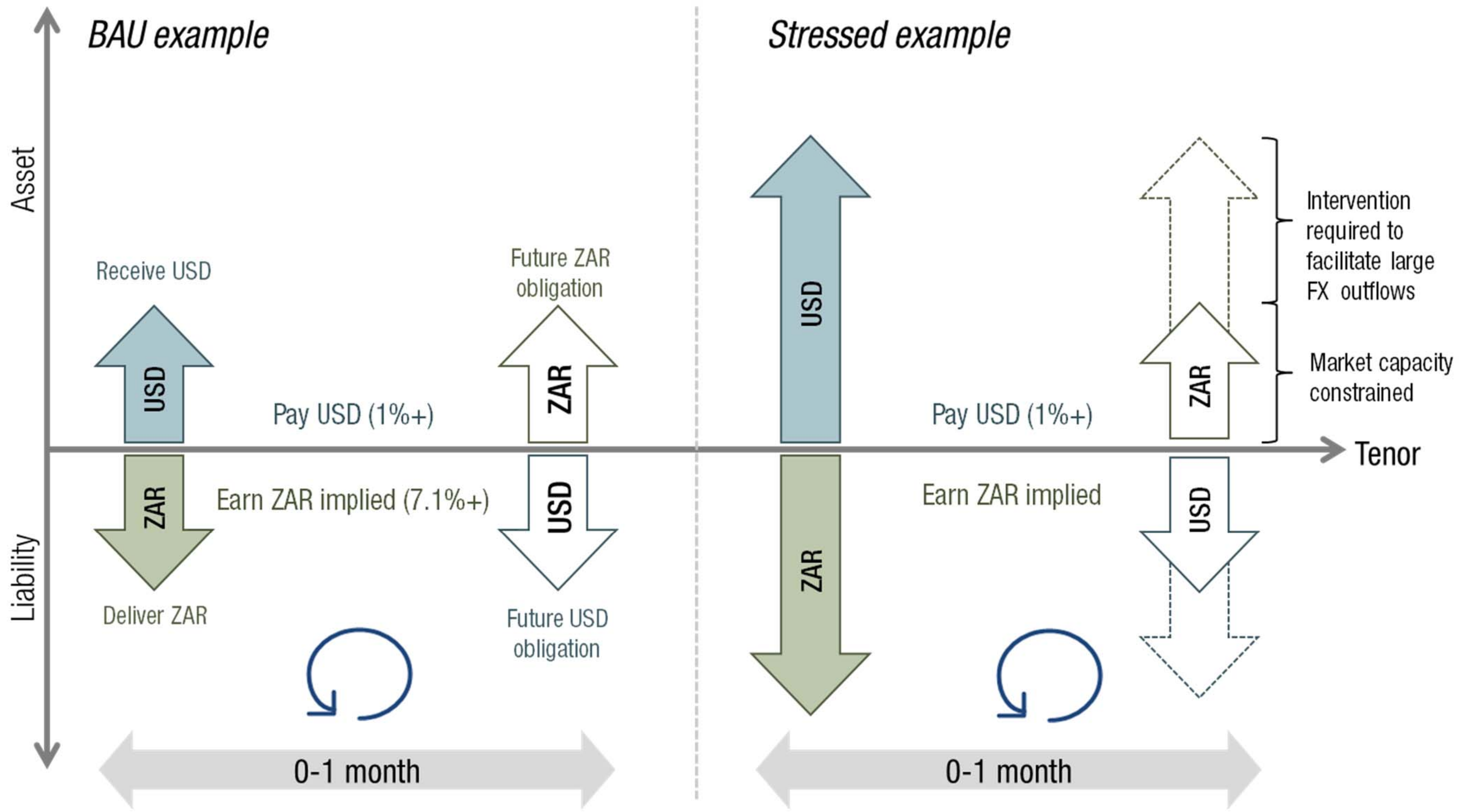
- Swaps don't add debt from an ALM perspective
  - Structural FX risk remains
  - Can address cash management and short-term liquidity risks
- Swap market is more liquid
  - Credit enhanced, cleared, collateralised and secured
- Is the natural transmission mechanism
  - For hedging and protection activity
  - For funding positions of foreigners
    - To fund carry positions
  - For cross currency cash flow management
  - For structural FX balance sheet management

South Africa USD ZAR daily FX turnover



South Africa has very deep and liquid FX markets,
but only in short tenors

USD ZAR forward trade – mechanism to relieve immediate liquidity pressures



South African sovereign credit rating update

South African sovereign credit rating

	Action date	FC	LC	Outlook
S&P	3 April 2017	BB+	BBB-	Negative
Fitch	7 April 2017	BB+	BB+	Stable
Moody's	3 April 2017	Baa2	Baa2	Review for downgrade

South Africa's FC is rated as sub-IG status by 2 agencies. Only Fitch currently rates SA LC as sub-IG; WGBI requires 2 agencies before SA falls out

Source: S&P, Fitch, Moody's.

FRB's overall creditworthiness remains unchanged despite S&P rating downgrade

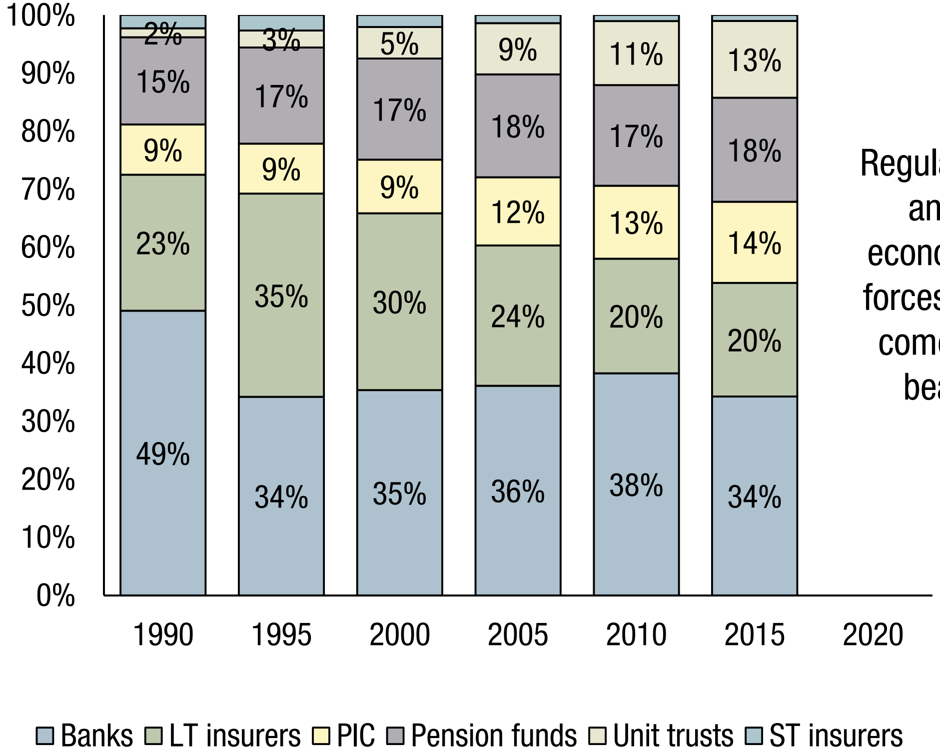
Anchor rating	Economic risk		
Industry risk	5	6	7
4	bbb	bbb-	bb+
5	bbb-	bbb-	bb+

	Anchor	Business position	Capital and earnings	Risk position	Funding and liquidity	SACP/ GCP*	Issuer credit rating (ICR)	
FirstRand Bank	bbb-	Strong (+1)	Adequate (0)	Adequate (0)	Average (0) and adequate (0)	bbb	**BB+**	*-2 notches*
Other banks	bbb-	Strong (+1)	Moderate (-1)	Adequate (0)	Average (0) and adequate (0)	bbb-	**BB+**	*-1 notch*

FRB's SACP remains two notches above the sovereign, sovereign rating acts a ceiling to the bank's SACP

** Standalone credit profile (SACP)/group credit profile (GCP).*

Allocation of savings flows by platform



Regulatory and economic forces will come to bear

- Non-guaranteed liabilities
- Relative value pricing, targeted return hurdles, often based on LDI mandates, and real return targets

Risk-based frameworks

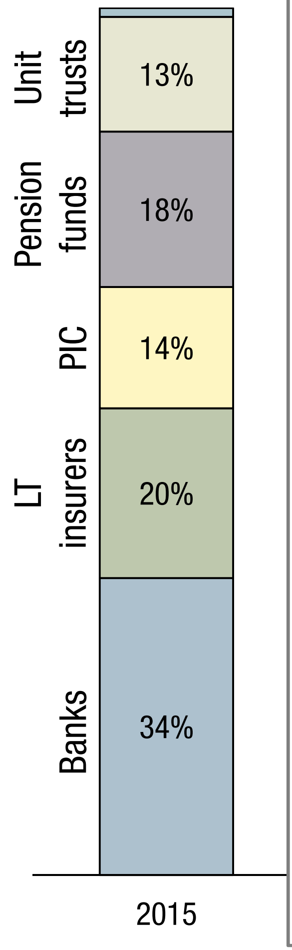
- Basel II and III
- SAM

Regulation and investor requirements have an influence on hurdles and pricing

SARB Quarterly Bulletin, June 2016, data at 31 December 2015.

Savings assets, regulations and ratings

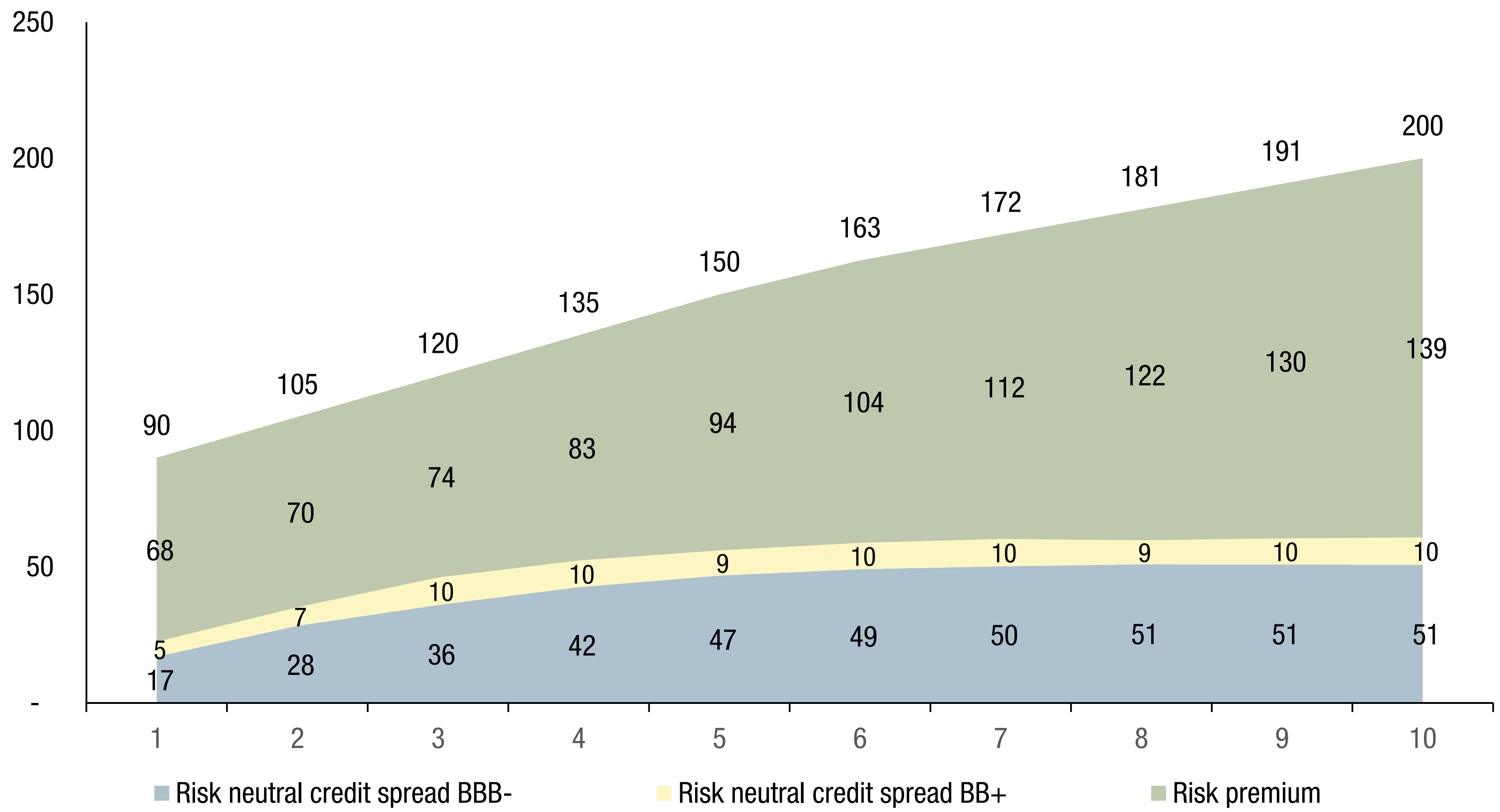
AUM



Regulation	Regulator	Ratings in regulations	Ratings in mandates
CISCA	FSB	Not in regulations	Yes
Reg 28			
SAM			
Basel III	SARB	Included in regulations, PD mapping and HQLA	International banks as counterparty

Funding spread decomposition

FirstRand funding spreads (mid bps)



FUNDING AND LIQUIDITY

Regulatory and funding update

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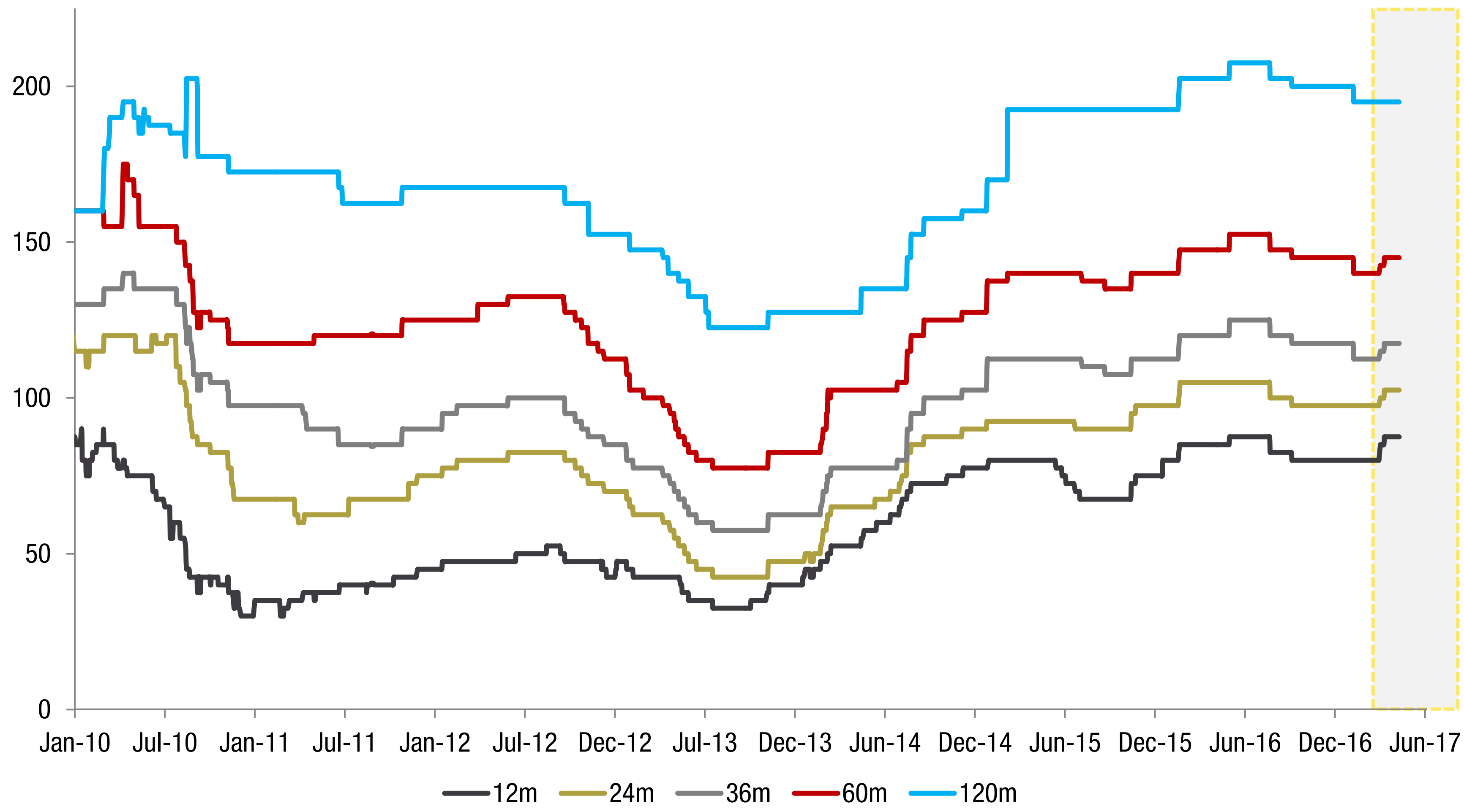
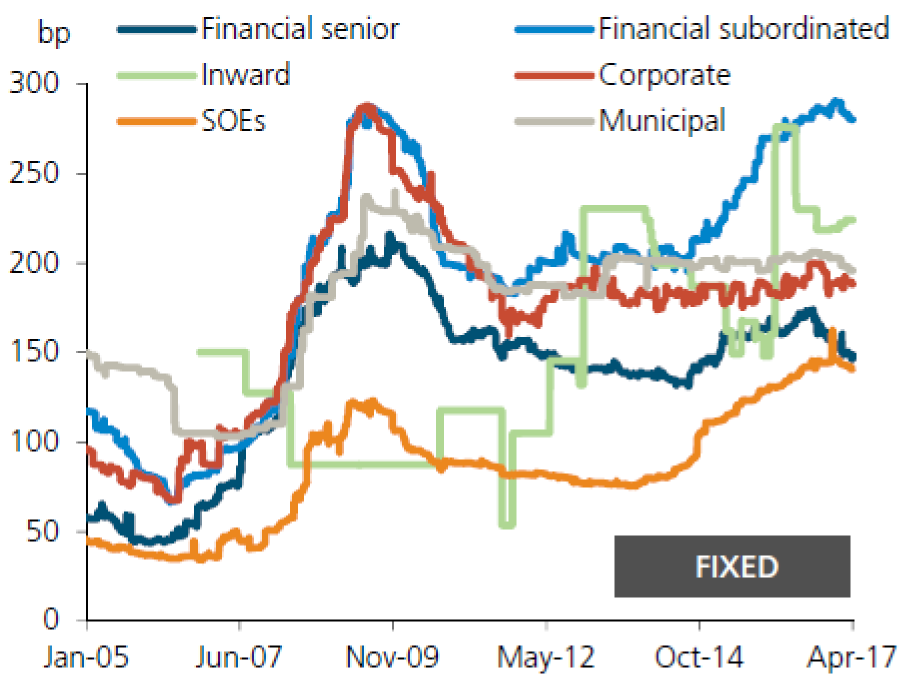
Funding spread pressures returns post downgrade

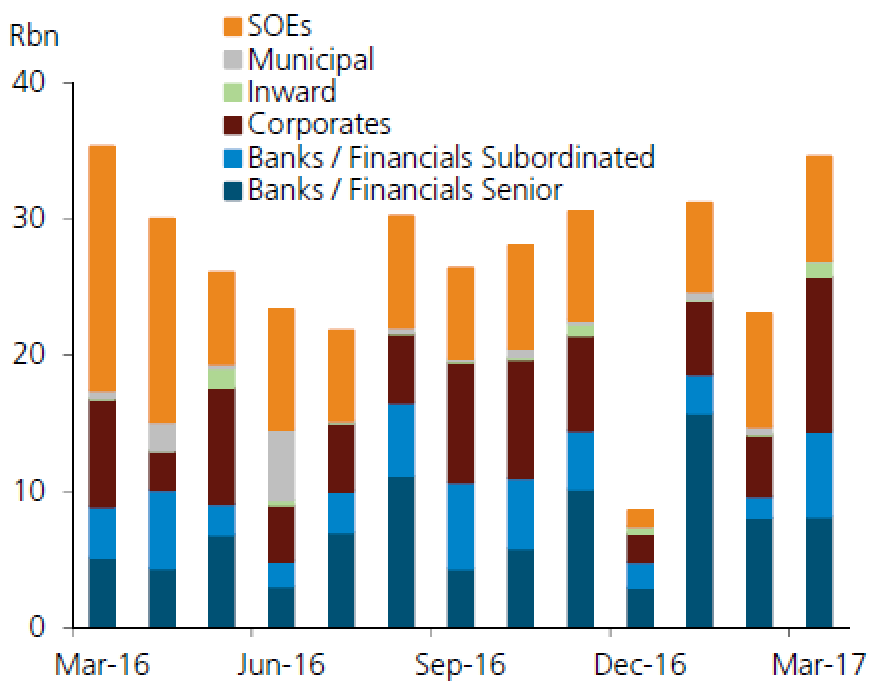
FirstRand Bank funding spreads (mid bps)



Source: Bloomberg <RMBP3>.

SOEs have not been issuing in current environment

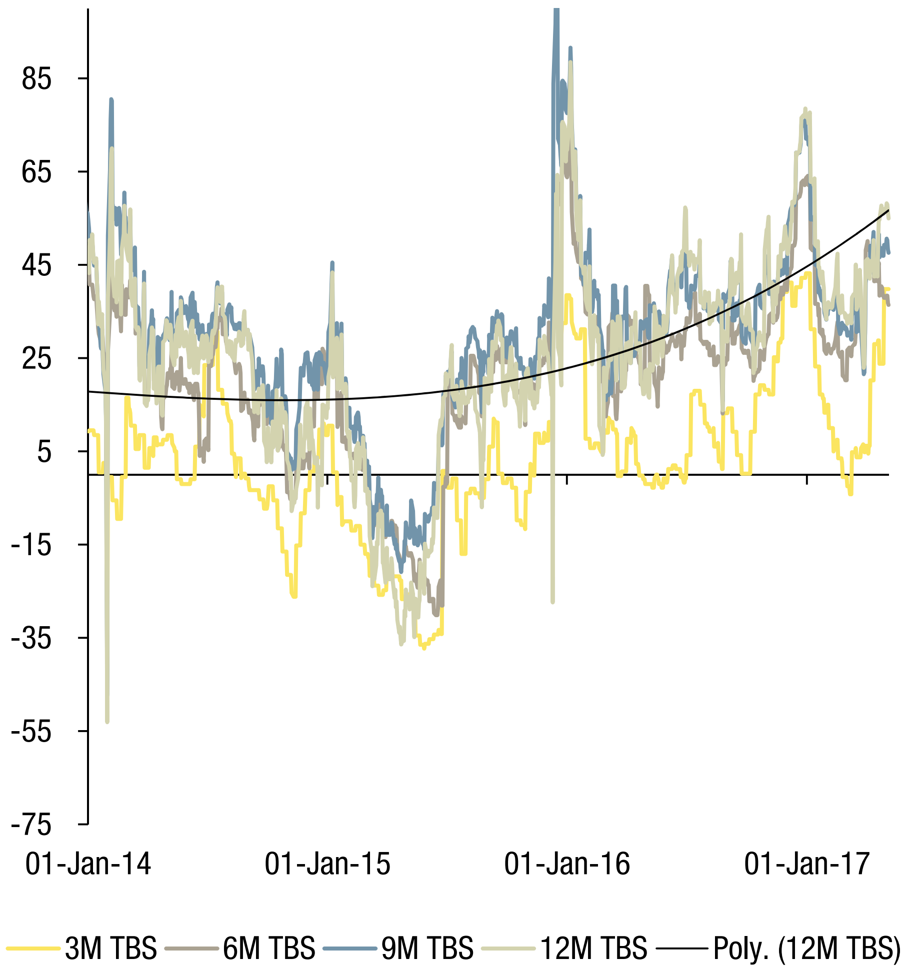


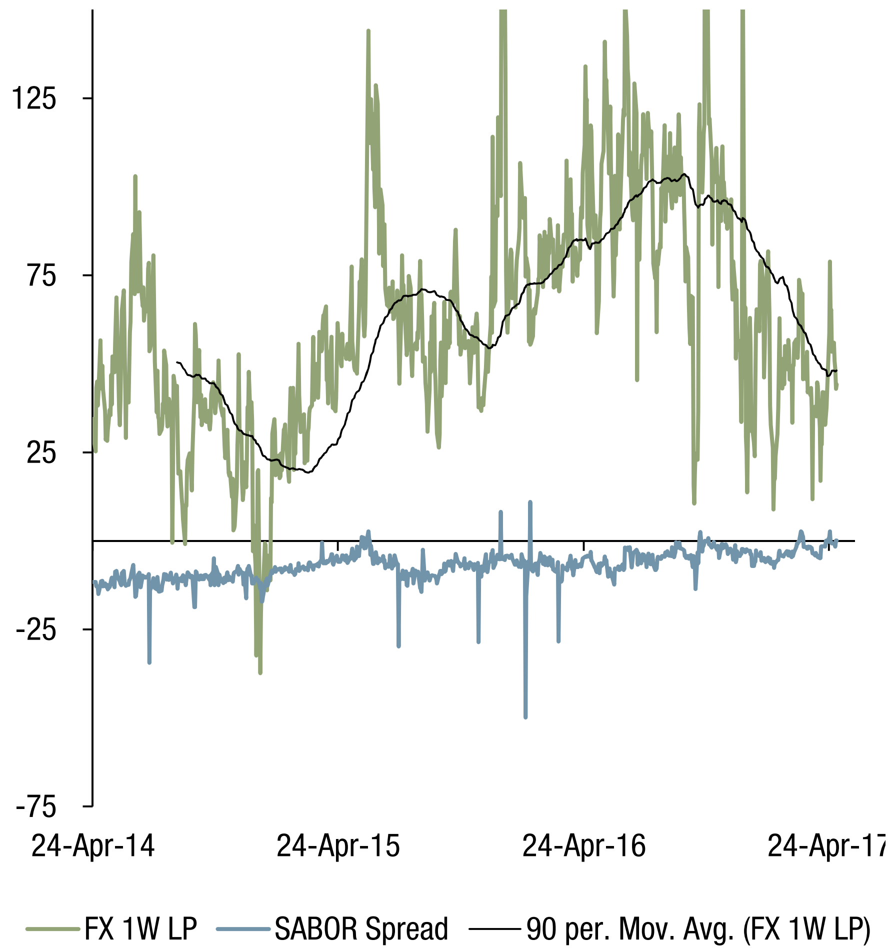


SOE credit spreads have been increasing and are now inverted relative to banks

Source: JSE, I-Net Bridge, RMB Global Markets April 2017.

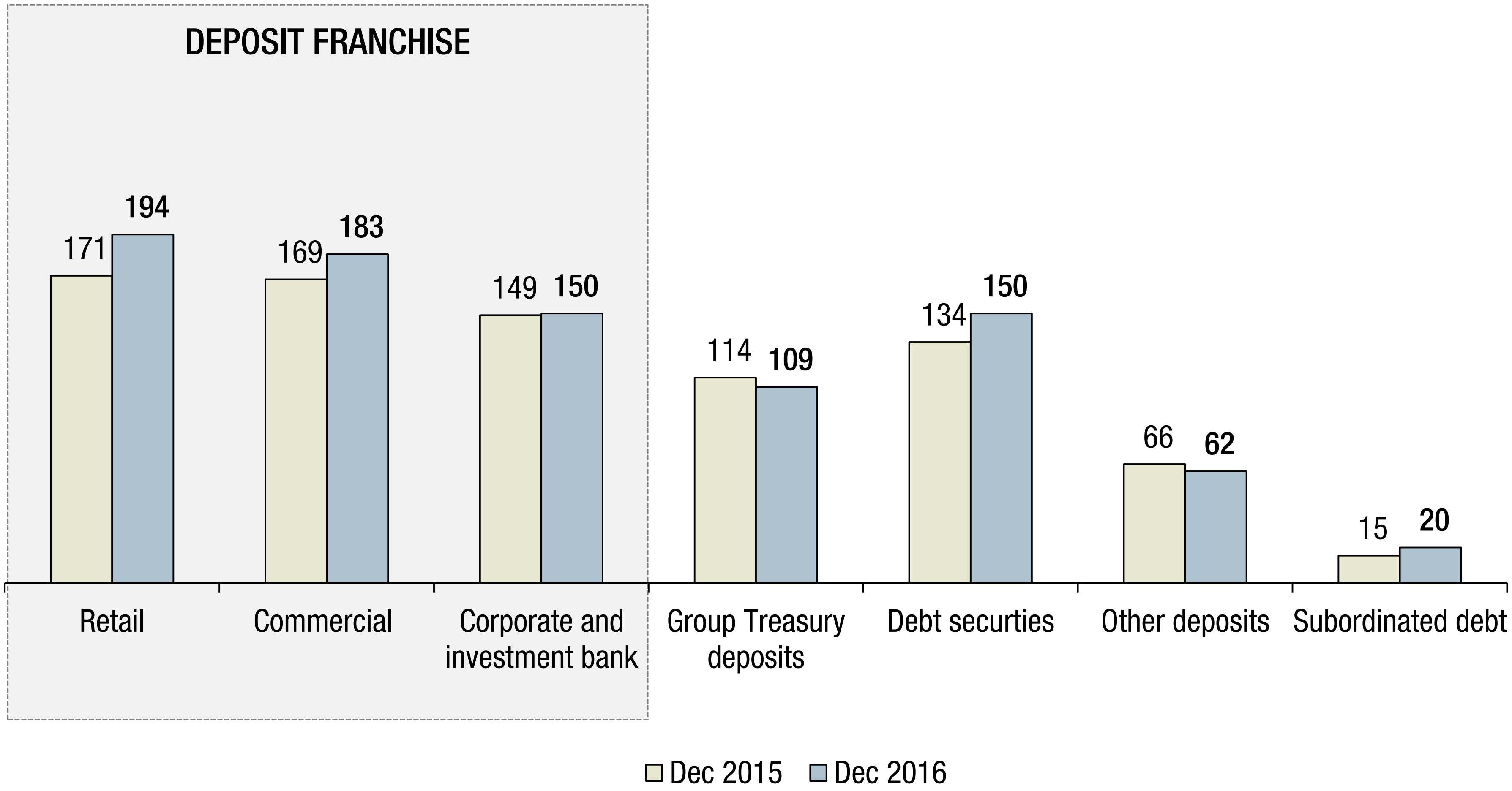
Treasury bill and FX implied spreads



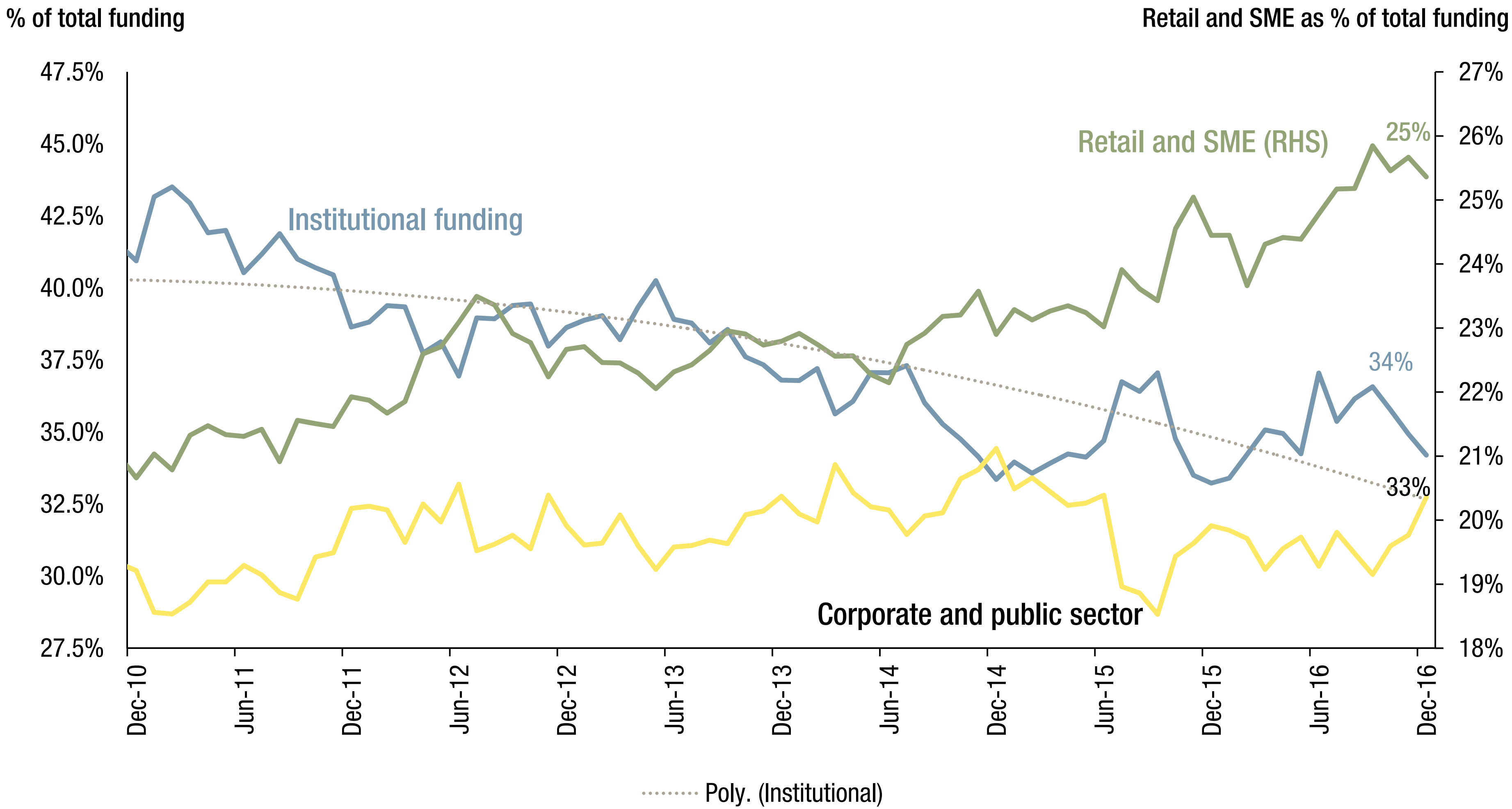


Source: Bloomberg.

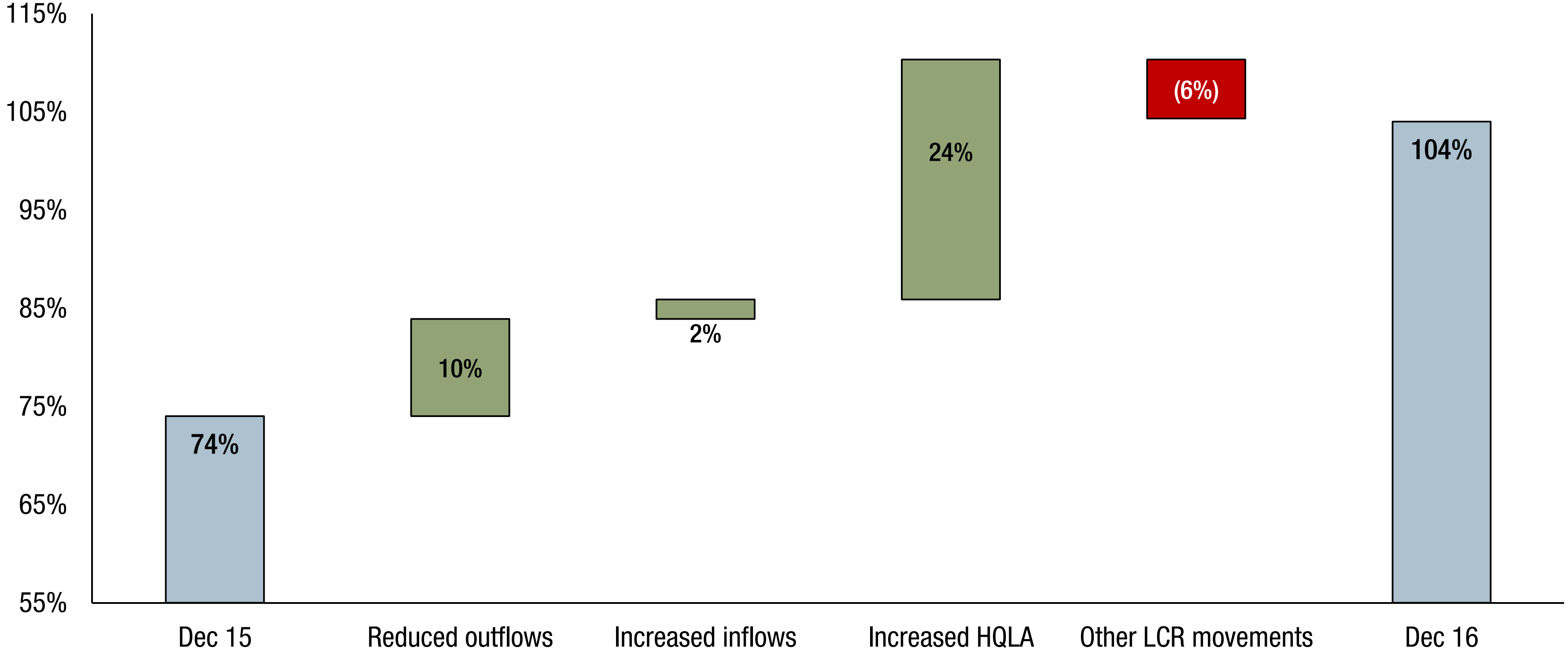
FRB funding strategy continues to be anchored in the deposit franchise



…with reduced reliance on institutional funding and improved funding mix



Group LCR has improved by reporting alignment and execution on balance sheet strategies



FirstRand group consolidated LCR as at 31 December 2016: 95%.

Funding plans

- Diversification across segments, source, currency, markets, instrument types and maturities
- Flexibility across markets, investors, products, investor risk appetite
- Given we expect to exceed the minimum NSFR, require greater optimisation
- Funding levels in the SA market are very high, *as noted by IMF in SA FSAP 2016*
  - Focus on alignment of funding strategies and further granularity in risk-adjusted pricing
    - Secured notes programme
    - Simple, transparent and comparable securitisation
    - Improved liquidity
- Need to evolve funding instruments and mix to reduce regulatory volatility, better matching of assets and liabilities

APPENDIX

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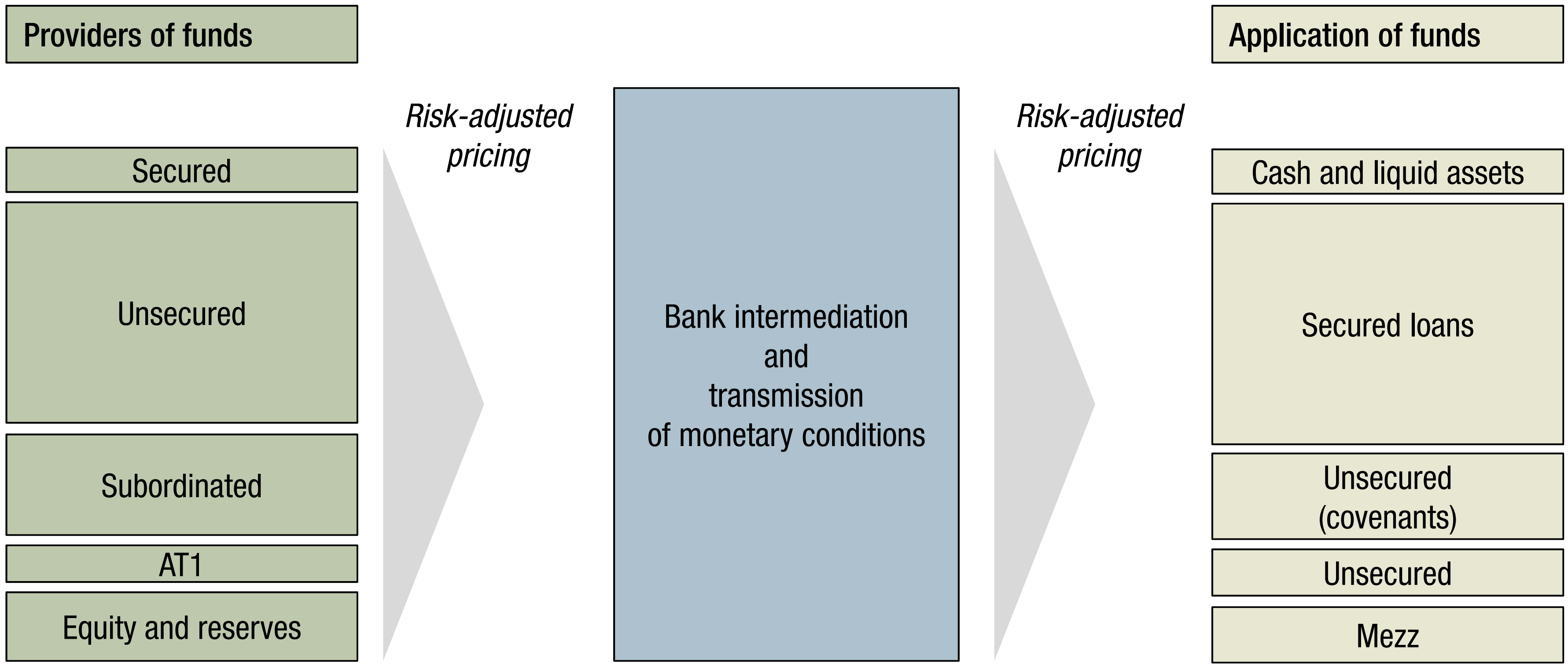
Appendix: SAM

Credit quality step	Probability of default	Rating (S&P LC, IS)
1	0.01%	AA+
2	0.02%	AA
3	0.03%	AA-
4	0.06%	A+
5	0.09%	A
6	0.11%	A-
7	0.16%	BBB+
8	0.22%	BBB
9	0.39%	BBB-
10	0.54%	BB+
11	0.81%	BB
12	1.39%	BB-
13	2.50%	B+
14	5.37%	B
15	8.72%	B-
16	20.00%	CCC+
17	25.00%	CCC
18	30.00%	CCC-

Source: FSB, SAM, discussion document 111.V2.4.

Collateral	LGD
Fully cash covered with regular MTM of the collateral	5.0%
Significantly over-collateralised	18.0%
Fully-collateralised	35.0%
Partially-collateralised	42.5%
Unsecured	45.0%
Less than 50% of assets pledged as collateral to other creditors	72.0%
More than 50% of assets pledged as collateral to other creditors	86.0%
Equity exposure, junior or mezzanine debt, structurally subordinated	100.0%

Stylised view: risk/return transformation and pricing differentiation



To improve ALM outcomes for the system better matching and risk-adjusted pricing to investor needs is required

Adapted from: Future of Finance, Chapter 1, LSE, Adair Turner, 2010.

South Africa national scale mapping tables – local currency global scale ratings to national scale ratings

Moody's		
Global scale long term	National scale long term	National scale short term
Baa1 and above	Aaa.za	P-1.za
Baa2	Aaa.za/Aa1	P-1.za
Baa3	Aa2.za/Aa3.za	P-1.za
Ba1	A1.za/A2.za	P-2.za
Ba2	A3.za/Baa1.za	P-3.za

S&P		
Global scale long term	National scale long term	National scale short term
BBB and above	zaAAA	zaA-1
BBB-	zaAA+/zaAA/zaAA-	zaA-1
BB+	zaA+/zaA	zaA-1/zaA-2
BB	zaA-/zaBBB+/zaBBB	zaA-2

At a global scale rating of BB+, very difficult for any South African corporate to achieve a NSR higher than zaA+/A1.za (if NSR mapping tables are not recalibrated)

Source: S&P, Moody's and RMB Global Markets.

Glossary of terms

Term	Definition
ASF	Available stable funding
EL	Expected loss
FI	Financial institution
LCR	Liquidity coverage ratio
NCOF	Net cash outflows
NSFR	Net stable funding ratio
RSF	Required stable funding
TB	Treasury bills
FMLG	Financial Markets Liaison Group
CLF	Committed liquidity facility
BCBS	Basel Committee on Banking Supervision
IOSCO	International Organisation of Securities Commissions

Notes

Notes

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