

more
than
money



ASSET ALLOCATION SUMMIT

Every Basis Point Counts

James McClenaghan, Head of Solutions Sales, APAC

A LOOK BACK TO MARCH 2007

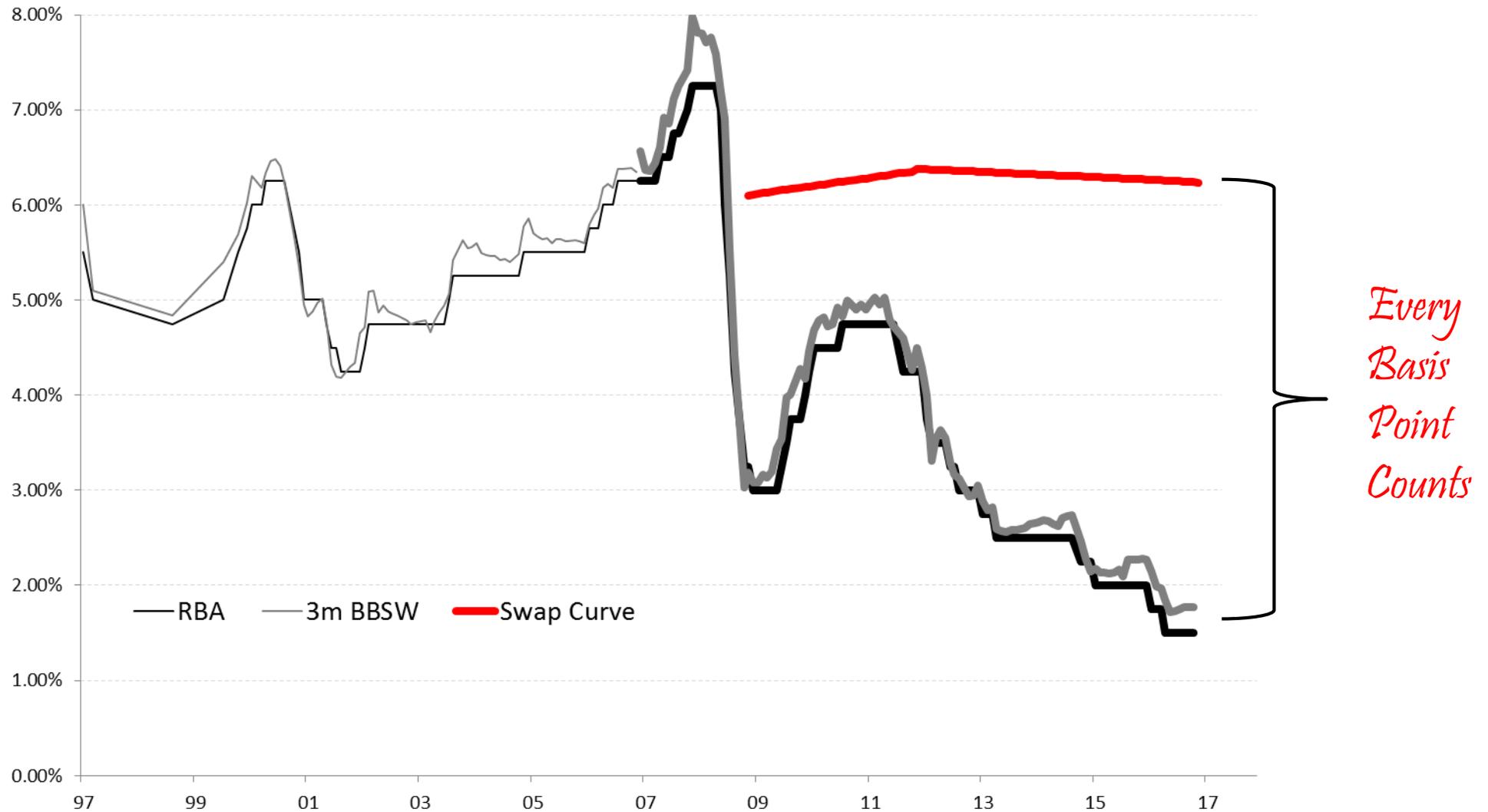
Australian Interest Rates



Source: Bloomberg

A LOOK BACK TO MARCH 2007

Australian Interest Rates



Source: Bloomberg



AGENDA *Every Basis Point Counts*

- **Macro Overview**

 - International & Australian Economy

 - Interest Rates & Foreign Exchange

- **Fixed Income, Currencies & Commodities (FICC)**

 - Our evolving operating environment

 - Key updates from across the business

- **Bank Balance Sheet Investment Opportunities**

 - Regulatory impact on bank balance sheets

 - Investment opportunities and formats



AUSTRALIA
N
ECONOMIC
AND
FINANCIAL
OUTLOOK



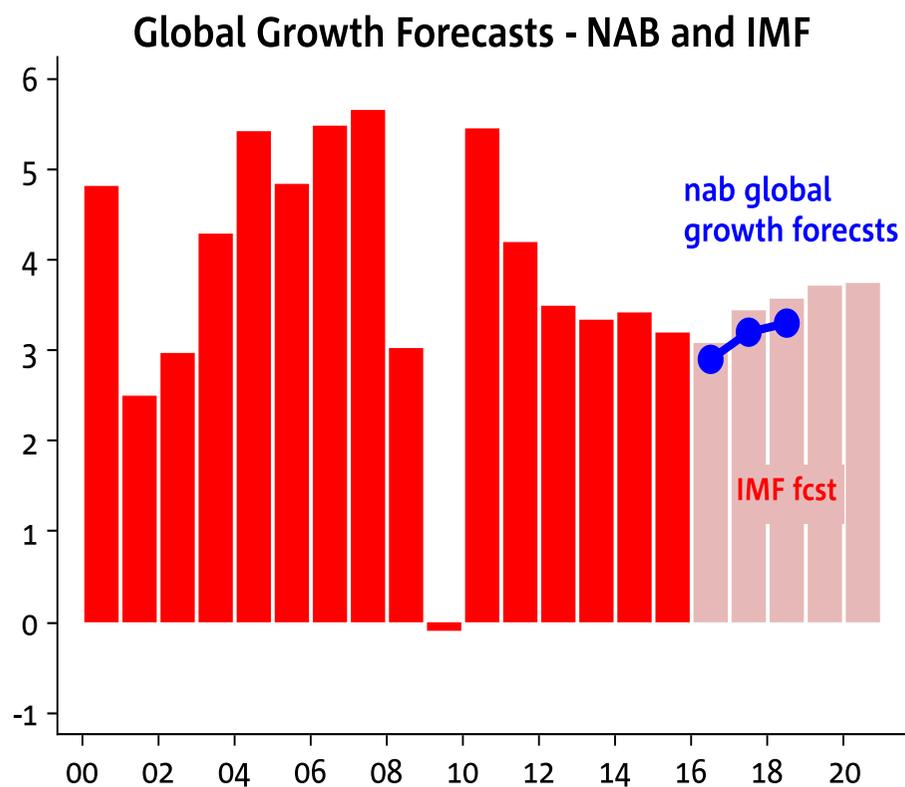
*Update From
Research*



KEY THEMES

- Global growth improving and inflation rising
- President Trump – policy uncertainty but likely to be net positive for growth and a boost to inflation over the next few years. Trade policy the main concern/potential negative.
- Australian economic outlook mixed – stronger in 2017, slower in 2018?
 - Mining/non-mining divide remains a key feature of growth across the regions
 - Higher bulk commodity prices providing a boost currently, but expected to fade in 2018
 - Housing construction cycle close to a peak – watching for any increase in apartment settlement failures in BNE, SYD, MEL
 - Inflation set to remain relatively low due to low rental growth
 - Elevated rates of immigration/population growth continuing (especially NSW and Victoria)
- Markets
 - RBA expected to be on hold for some time – may need to cut again late in 2017;
 - Bond yields slightly higher through 2017. Steeper yield curve the bias.
 - The narrower Australia US interest rate differential should keep AUD/USD biased lower – we expect US 70 cents at end of 2017.

GLOBAL GROWTH *- forecasts stronger in 2017, primarily due to the US*

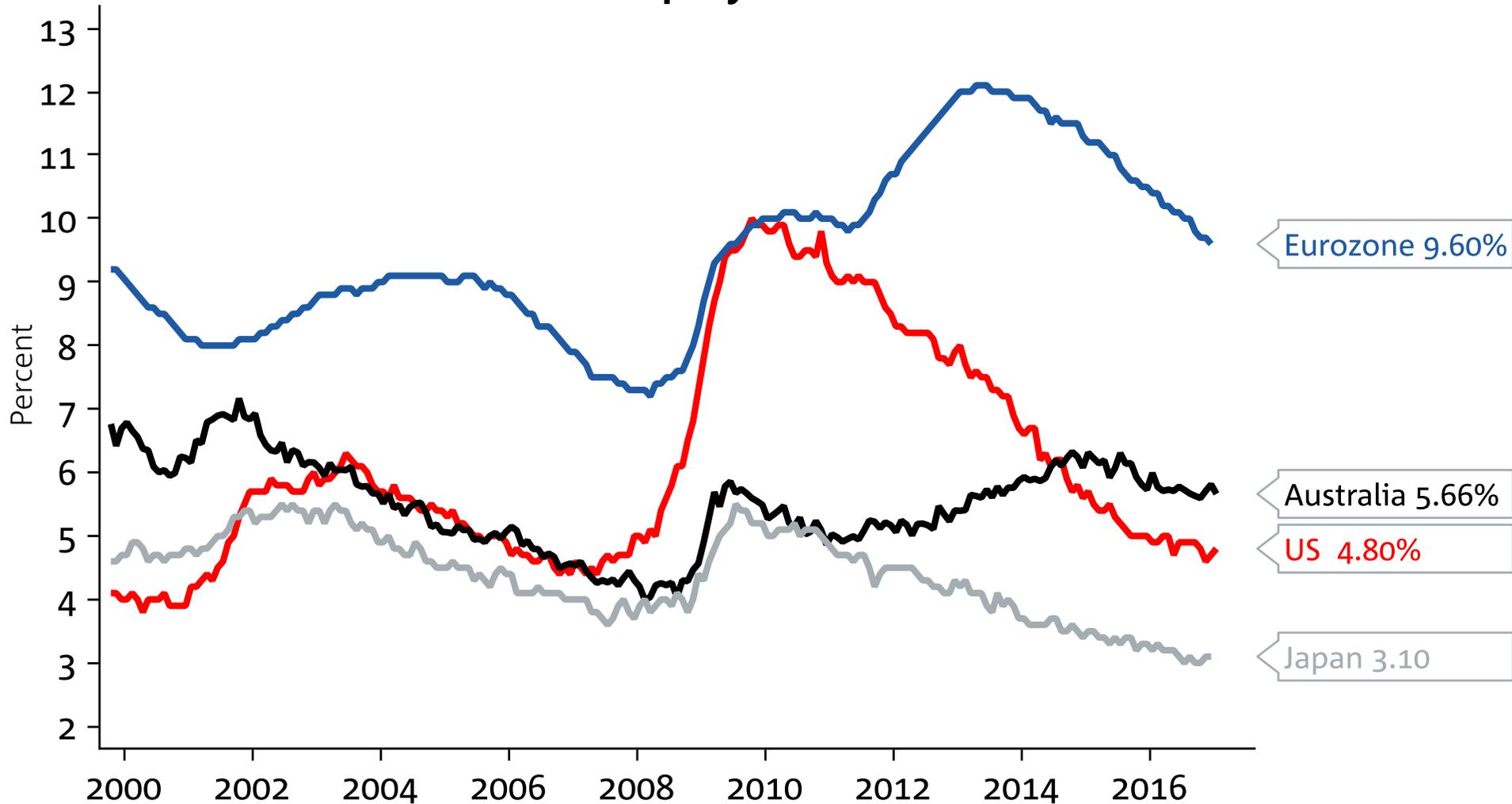


Source: IMF

NAB GDP Forecasts						20 Yr Avge
Dec year	2014	2015	2016	2017	2018	
GDP						
Australia	2.7	2.4	2.3	2.4	2.5	3.4
New Zealand	3.8	2.5	3.4	3.2	2.4	3.0
US	2.4	2.6	1.6	2.1	2.4	2.6
Eurozone	1.1	1.9	1.6	1.5	1.6	1.5
UK	3.1	2.2	2.0	1.3	1.6	2.4
Japan	-0.1	0.6	1.0	0.8	0.6	0.8
China	7.3	6.9	6.6	6.5	6.3	9.2
India	7.0	7.2	7.4	7.5	7.5	6.6
World	3.3	3.0	2.9	3.2	3.3	3.5

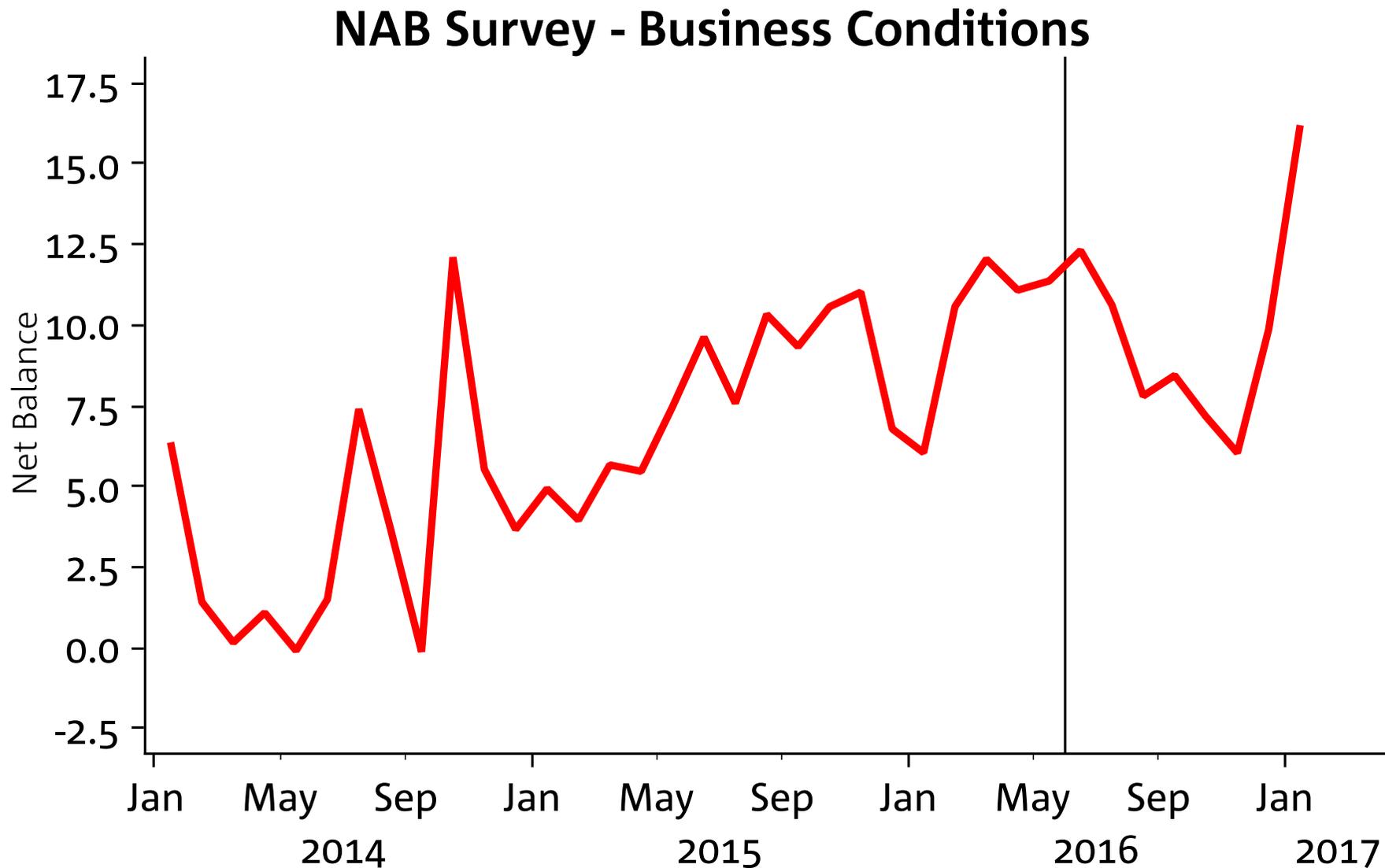
UNEMPLOYMENT - falling in most countries although still very high in Europe and may have stalled in Australia

Unemployment Rates



Source: National Australia Bank, Macrobond

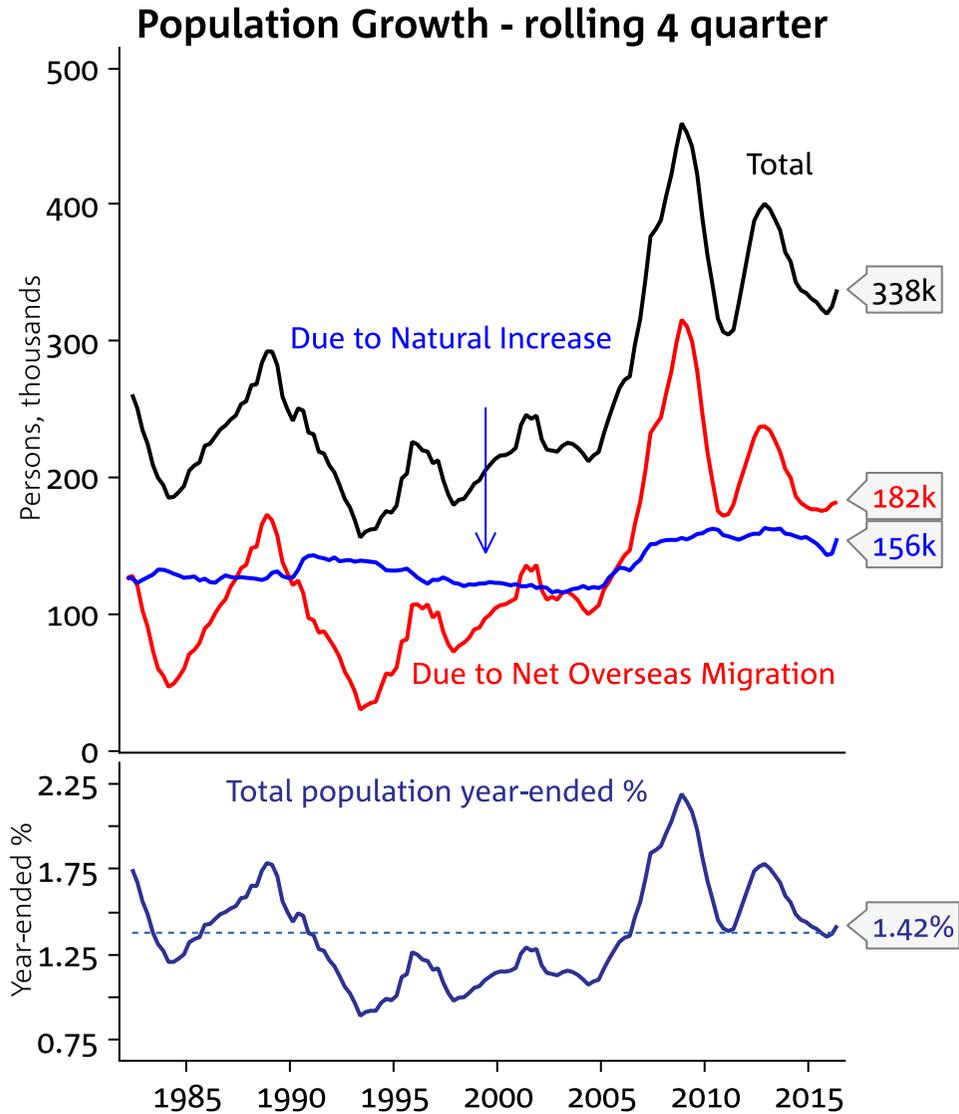
NAB BUSINESS CONDITIONS - *deteriorated July-November, but bounced strongly in December and January*



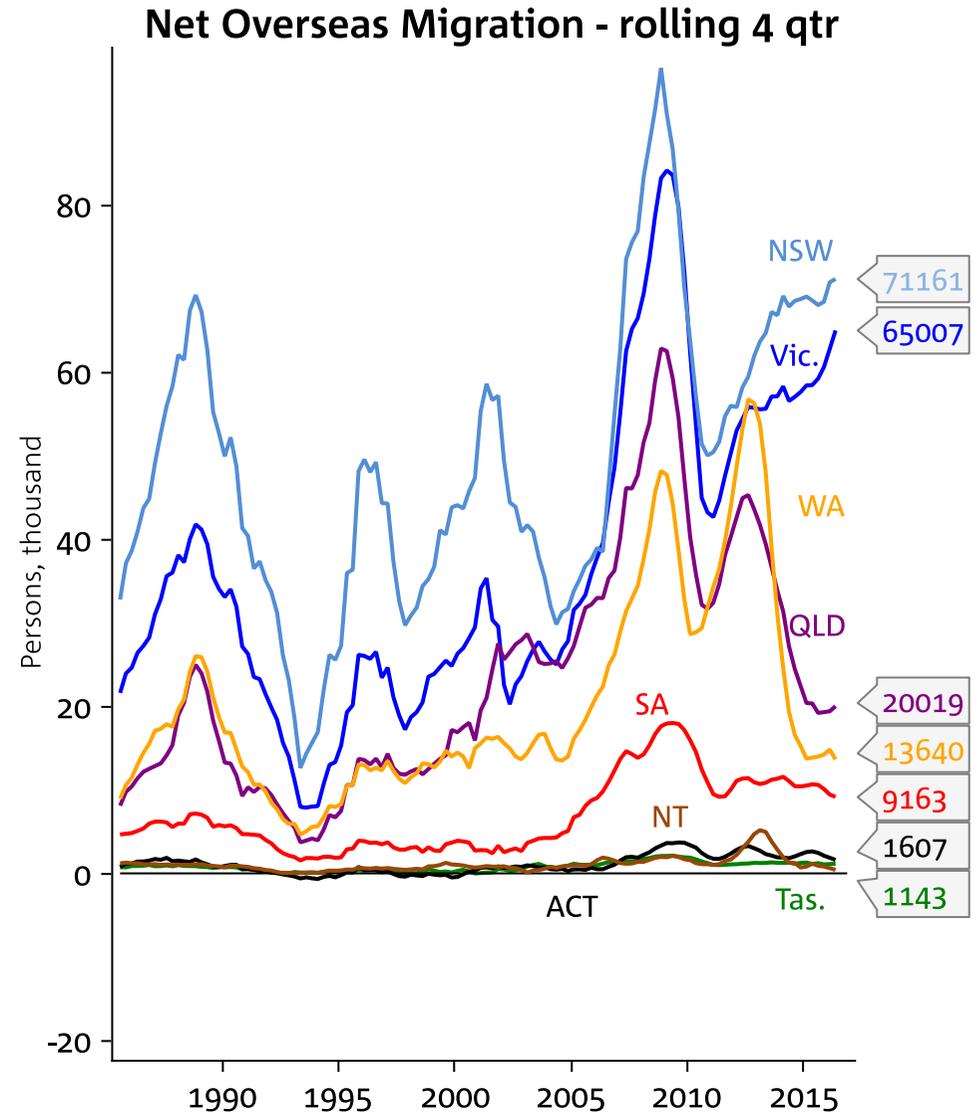
Source: National Australia Bank, Macrobond



GROWTH DRIVERS - Australia's population still growing nearly 1½% per year, underpinned by strong immigration



Source: National Australia Bank, Macrobond



Source: National Australia Bank, ABS



POLICY RATES - RBA may cut rates again in late 2017 due to 2018 growth weakness.

NAB CHANGE IN CASH RATE CALL

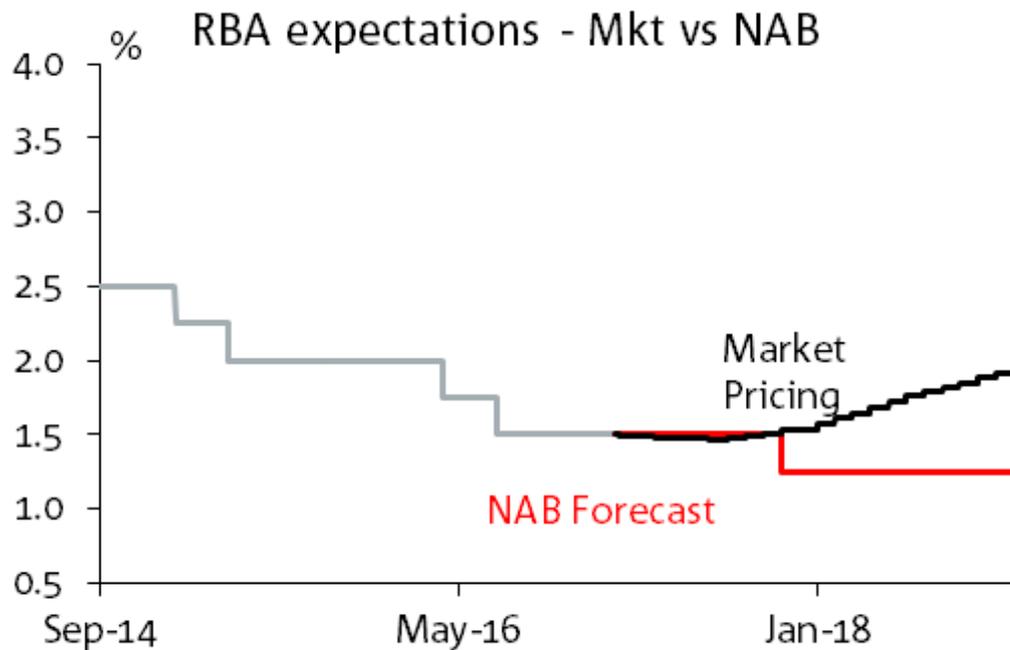
February 2017

By Group Economics

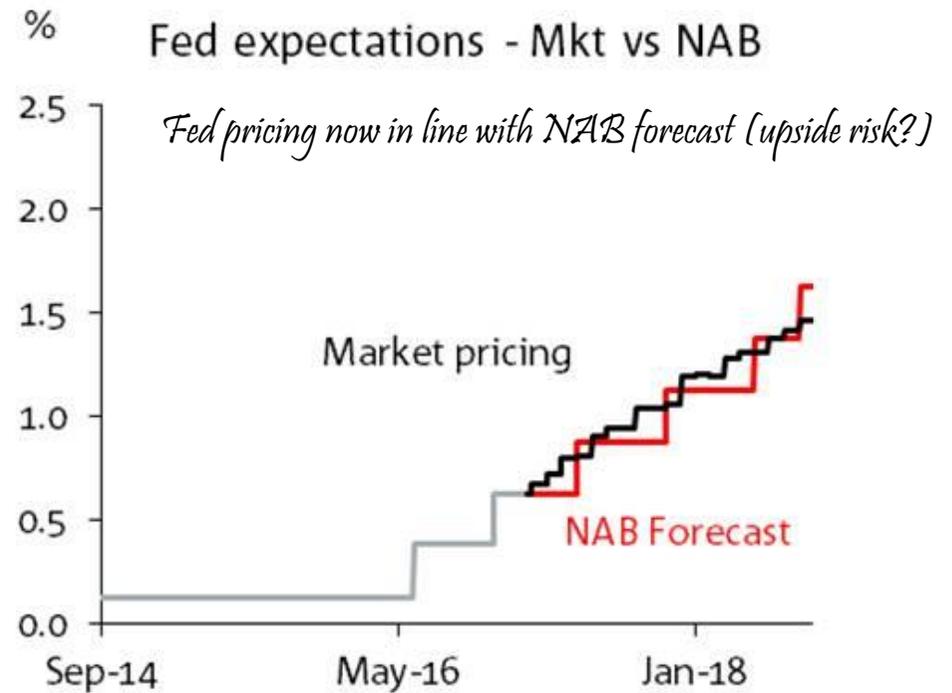
Embargoed until:
11:30am Wed 15 Feb 2017



NAB ECONOMICS CHANGES CASH RATE VIEW TO ONE 25BP CUT IN LATE 2017



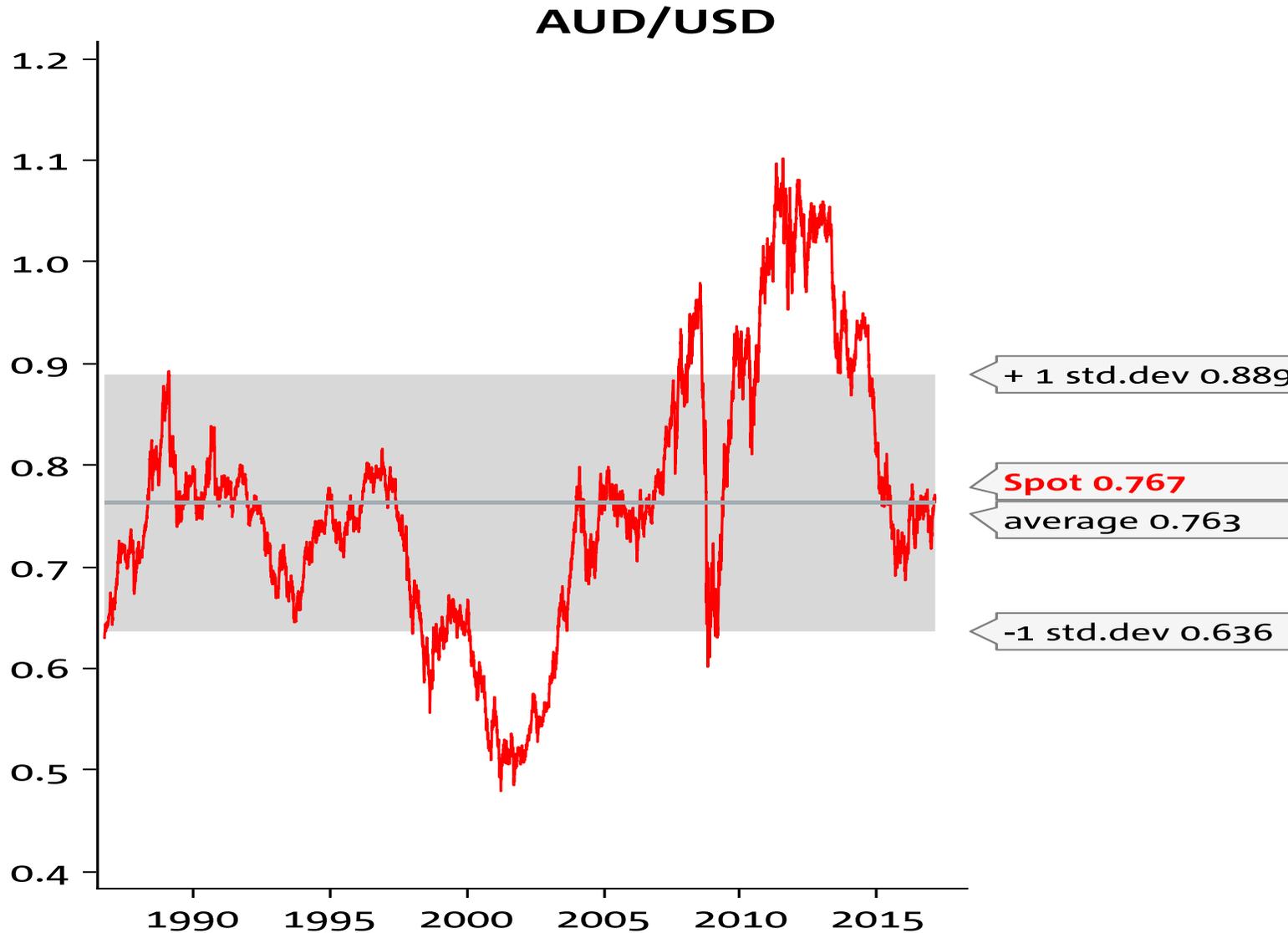
Source: NAB, Bloomberg



source: NAB, Bloomberg

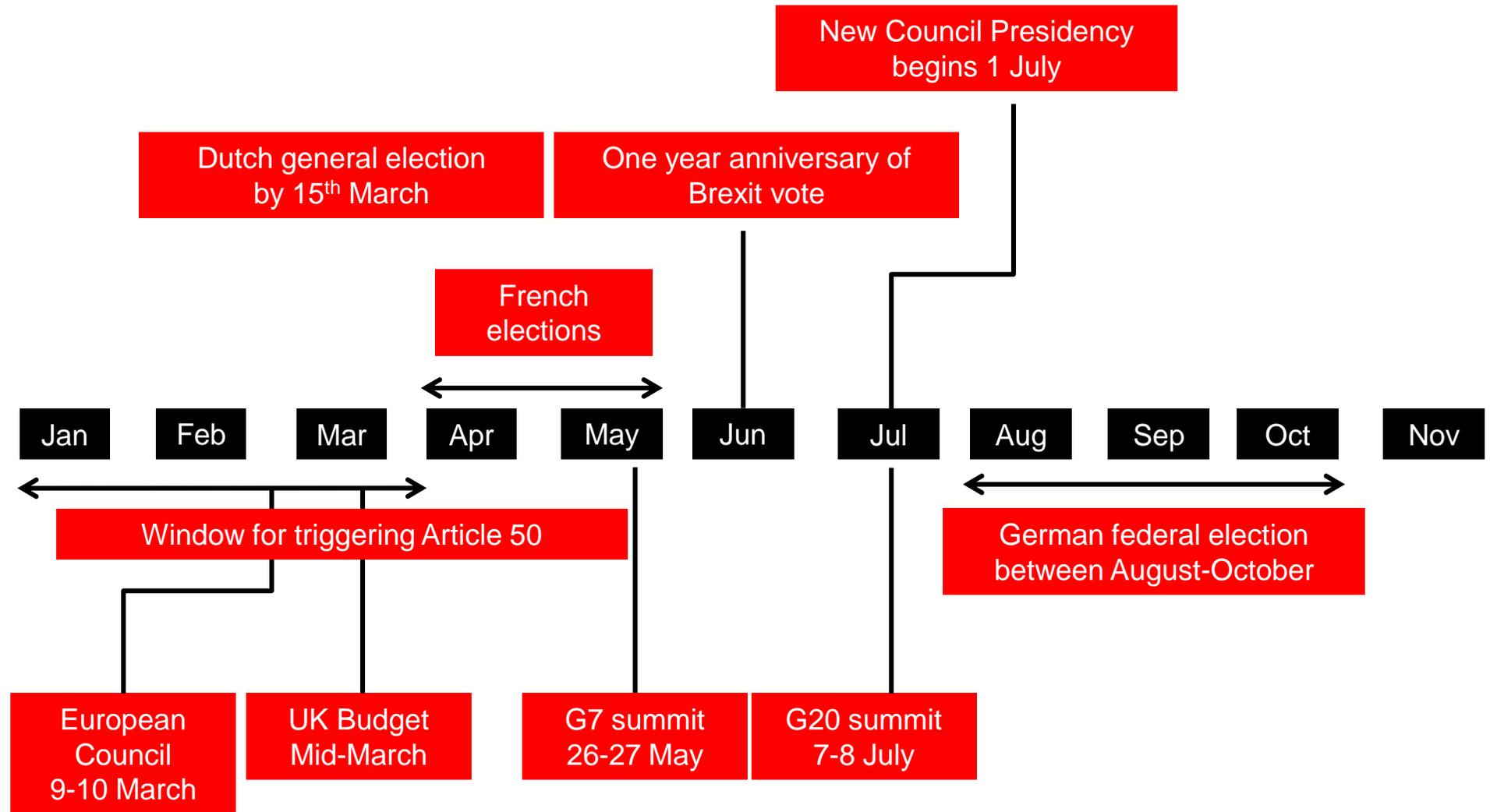


AUSTRALIAN DOLLAR *around average but expected to drift lower as Fed continues hiking and commodities/ToT ease back, USD 0.70 year end.*



Source: National Australia Bank, Macrobond

EUROPE ELECTION/POLITICAL TIMEFRAME IN YEAR AHEAD



A hand is holding a red speech bubble. The bubble contains the text "FIXED INCOME, CURRENCIES & COMMODITIES" in white, uppercase, sans-serif font.

FIXED
INCOME,
CURRENCIE
S &
COMMODITI
ES

A hand is holding a black speech bubble. The bubble contains the text "Creating bps" and "Saving bps" in white, cursive font.

Creating bps
Saving bps



FICC *A changing landscape*

Capital

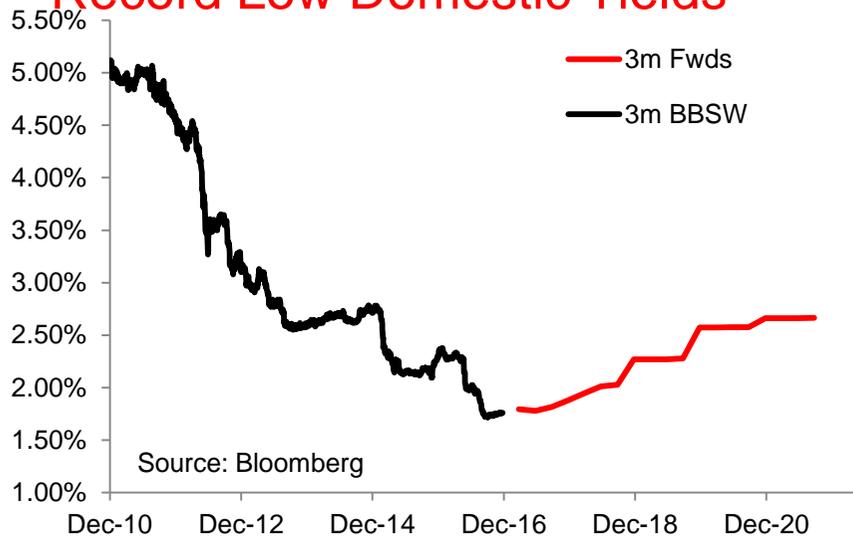
Liquidity

Collateral



UNPRECEDENTED OPERATING ENVIRONMENT

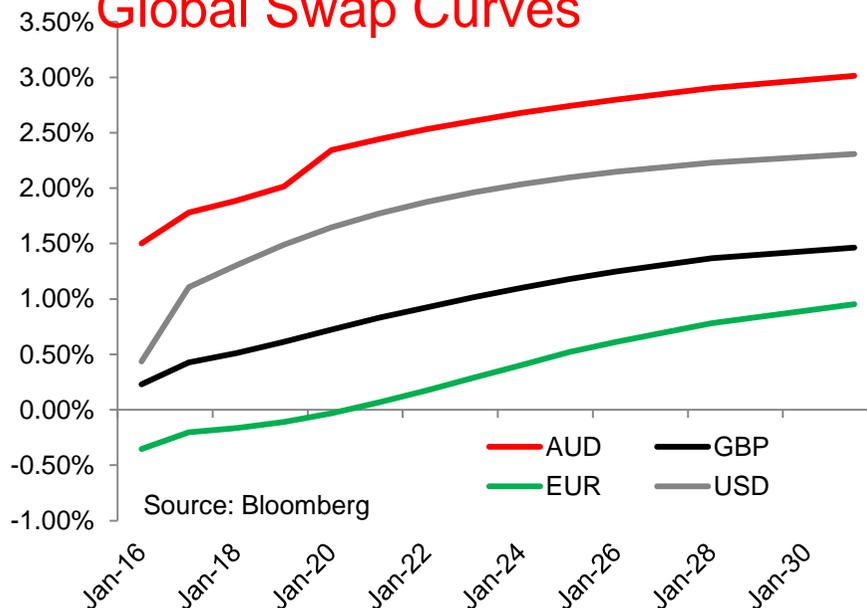
Record Low Domestic Yields



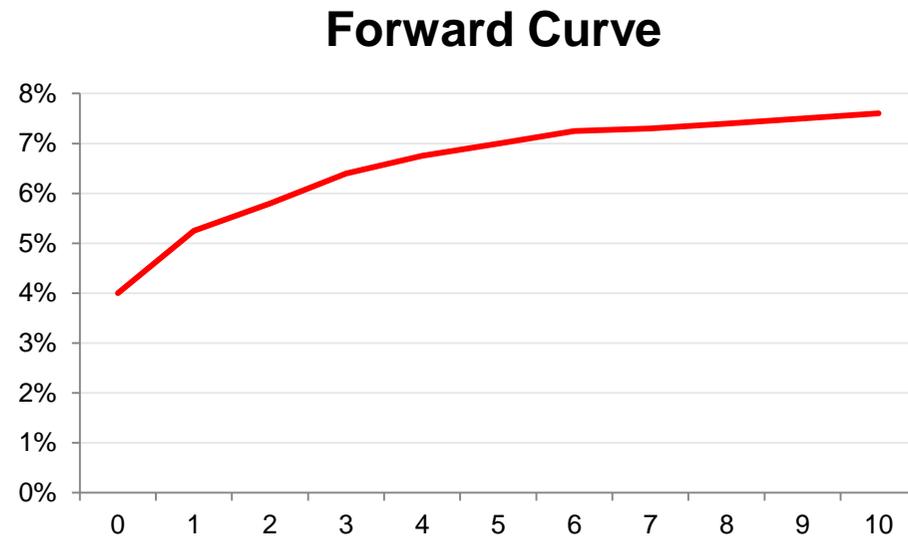
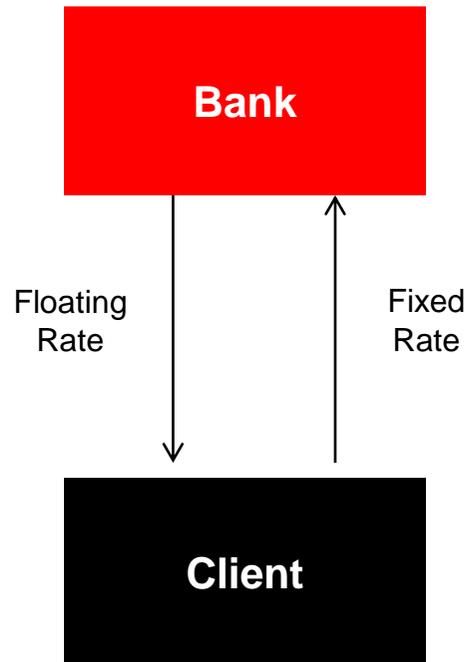
Banking Regulation

	Description
NSFR	Longer Term Stable Funding
LCR	Improved Liquidity
XVA's	CVA, FVA, KVA, MVA.....
SACCR	Credit Risk
FRTB	Market Risk Capital
Leverage Ratio	Broad Risk Measure
CPS226	VM and IM for Derivatives
TLAC	Loss Absorbing Instruments

Global Swap Curves



INTEREST RATE SWAPS *Pricing*



CASH & FIXED INCOME NSFR*

- The NSFR is based on a **one-year time horizon** and is defined as the ratio of the amount of available stable funding to the required stable funding . This ratio should exceed 100 per cent.
- The NSFR affects 15 larger, more complex ADIs in Australia. APRA have confirmed a 1 January 2018 start for NSFR.

$$\frac{\text{Available Stable Funding (ASF)}}{\text{Required Stable Funding (RSF)}} \gg 100\%$$

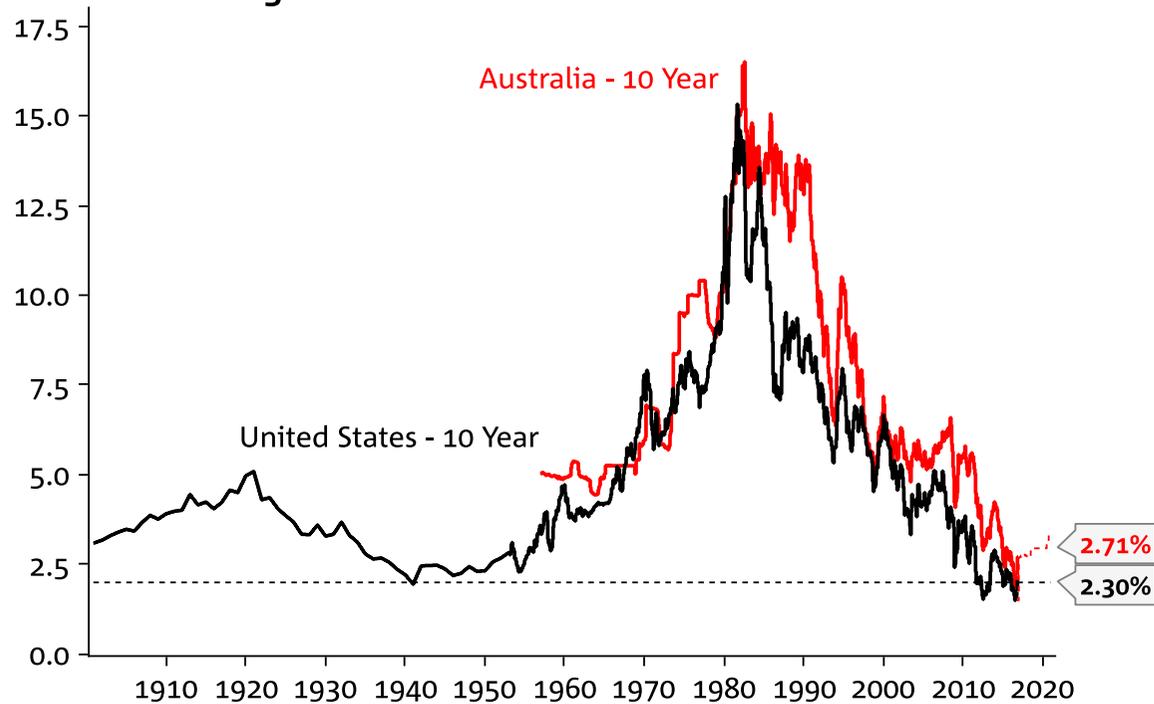
What might it mean:

- Reinforcement of the 'longer maturity' funding favoured by regulators
- A possible evolution of bond 'calls' when the maturity approaches or falls below 1-year or 6-months given the scaled reduction in the ASF factor.
- A possible reduction in the short-term wholesale market as a source of funds.
- Renewed, or at least maintained, competition for retail and corporate deposits (currently 60-70% of ADI funding).

CASH & FIXED INCOME *Low or Negative Yields*

Investment returns of those heavily invested in fixed interest have falling for many years.

A Long Look at Government Bond Yields - 10 Year



Source: National Australia Bank, Macrobond

Two alternatives:

1) Accept the lower return environment

or

2) Attempt to maintain returns by increasing risk within investment portfolios

In fixed income

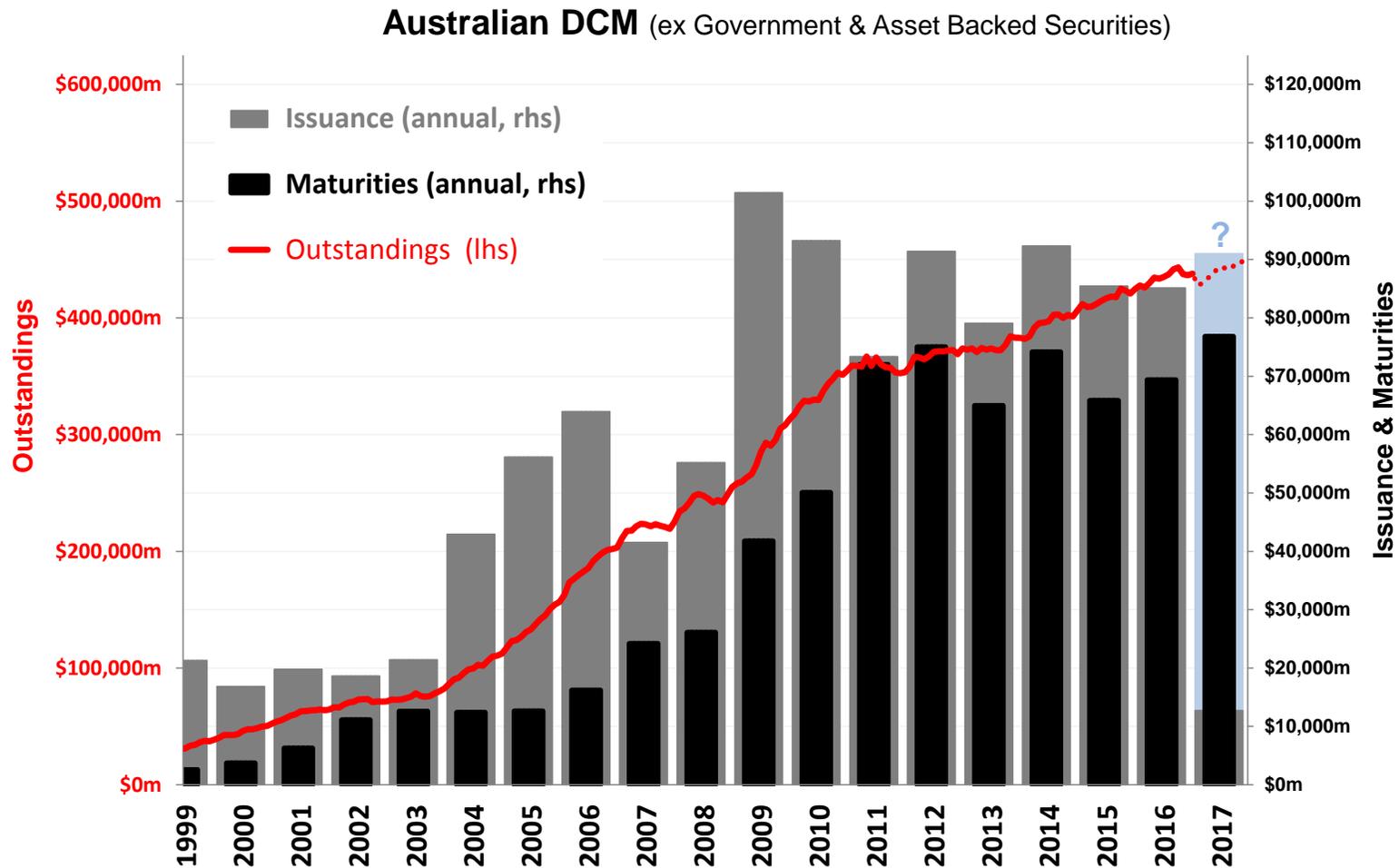
- Increase credit exposure and/or migrate down the credit spectrum
- Increase term of investments to capture additional term premium
- Increase illiquid assets
- Leverage

CASH & FIXED INCOME *Credit markets*

Higher domestic market issuance is expected in 2017 following two years of disappointing sub-\$90bn issuance.

But that increase is largely predicated by the record high maturities.

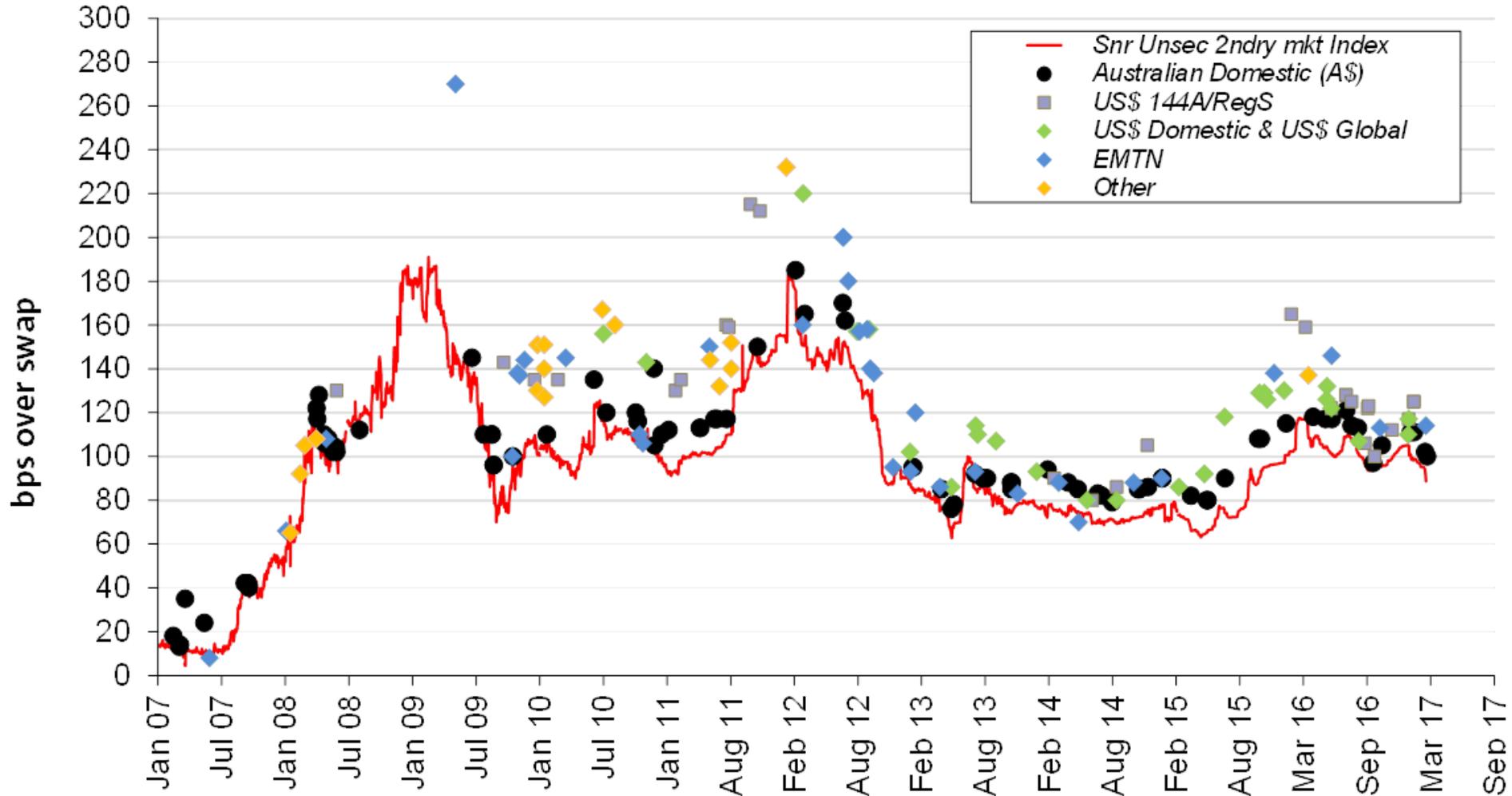
Issuance at that \$90bn+ level would see the steady growth in domestic market outstanding's continue.



Source: NAB Credit Research

CASH & FIXED INCOME *Credit markets*

5yr Aust. 'Big 4' Bank Senior unsecured issues & A\$ domestic Secondary Mkt index



Note: Senior debt only, all currencies & with equivalent levels as if swapped back to BBSW on date of issuance.

Source: NAB Wholesale Banking Credit Research

CASH & FIXED INCOME *We have seen some unprecedented issuance*

Investors led by insurers and pension funds have been fanning out in search of yield & income. Companies and governments are borrowing for unprecedented maturities.

30 year bond

Australian Government, AUD7.6b at 3.27% (October 2016)

50 year bonds

France, EUR3b at 1.92% (April 2016)

Belgium, EUR3b at 2.18% (April 2016)

Spain, EUR3b at 3.49% (April 2016)

Italy, EUR5b at 2.80% (October 4th 2016)

70 year bonds

Austria, EUR2b, maturing 2086 at 1.53% (October 24th 2016)

100 year bonds

Ireland's "century bonds", EUR100m at 2.35% (March 2016)

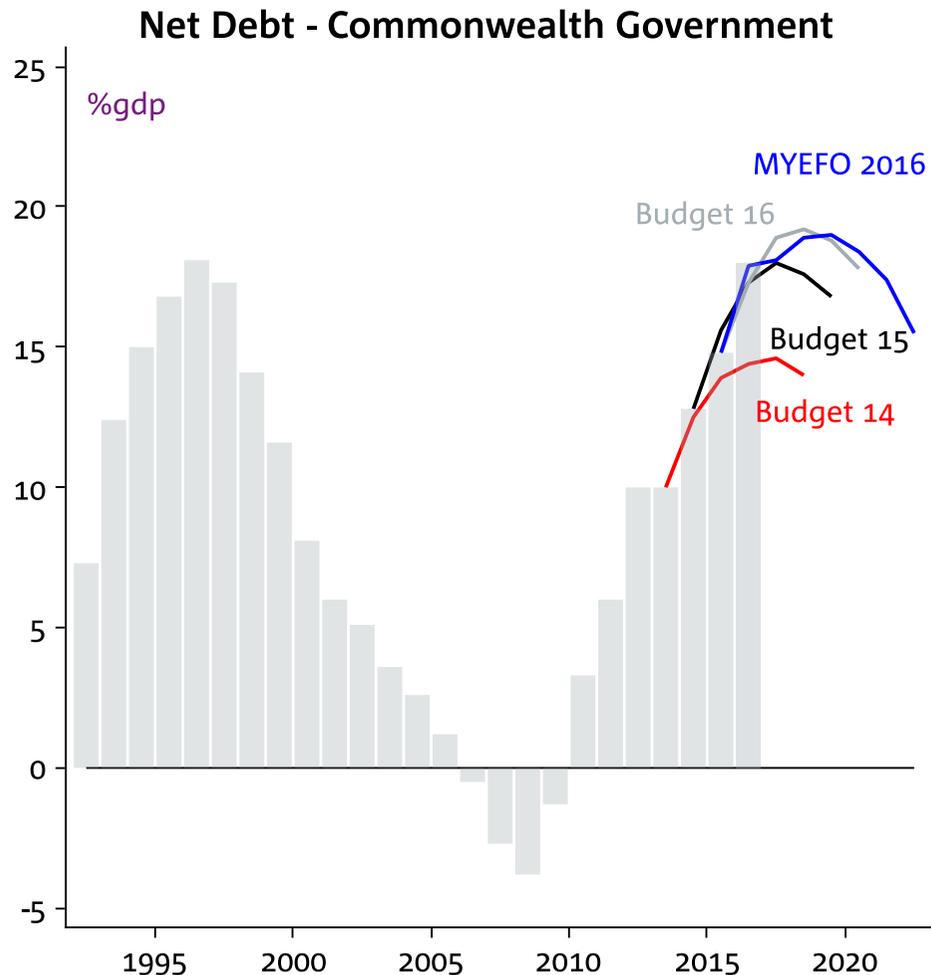
Belgium's "centennial" bonds, EUR100m at 2.30% (April 2016)

Negative yielding corporate bonds

Henkel 2 year bonds, EUR0.5b at -0.05% (September 2016)

Sanofi 3.5 year bonds, EUR1b at -0.05% (September 2016)

AAA CREDIT RATING - *must return to balance in 2020-21 to keep AAA*



Source: National Australia Bank, Macrobond, Budget Papers

- In July 2016, S&P put Australia's AAA rating on negative outlook asking the Government to demonstrate it can deliver budget improvement.
- At the December mid-year fiscal update they kept the negative outlook saying "We remain pessimistic about the government's ability to close existing budget deficits ... Over the coming months we will continue to monitor the government's willingness and ability to enact new budget savings or revenue measures..."
- The government is "willing" to push through budget repair measures but their ability to do so is hampered by a difficult Senate .
- It will be a pleasant surprise if Australia is not downgraded by mid 2017.

Implications of a downgrade

- Major bank credit ratings also likely to be downgraded one notch
- Potentially higher asset risk charge for insurers due to higher counterparty credit risk charge for assets / bonds held on balance sheet post major banks' downgrade
- NSW Tcorp, TCV and ACT would also be downgraded. Other AA-rated semis unlikely to be affected, but market would likely distinguish between stronger and less strong AAs
- **Bond yields unlikely to be significantly affected given Australia retains a very high credit rating on a global scale**

CASH & FIXED INCOME *Credit markets*

Sectors:	S&P	Moody's	Change over ½	Pressure (NAB view)	Comments	
Banks	Majors	AA-Negative	Aa2 Negative	Stable to Negative (S&P & Moody's)	→	S&P revised outlooks to negative following similar move on sovereign - & Moody's soon followed. Stand alone profile remains strong, despite credit cycle now turning. Sovereign ratings, regulatory/TLAC changes & possible housing mkt. are the primary issues. Offshore funding reliance a long-recognised weakness.
	Regionals	A&A-Stable	A2 & A3 Stable	-	→	Stable ratings. Less diversified than majors but also with less demanding funding models & with rating less exposed to some of the major's ratings pressures. Asset quality generally OK.
Mining, Oil & Gas (E&P)	xx Neg/Stable	xx Neg/Stable	Some to Stable from Neg.	→ / (↗)	Worst seems over for the miners, while oil & gas E&P still remains under some pressure. Commodity prices are off lows & lower A\$ also providing support. Moody's overshoot on the downturn & has already started to rectify (eg FMG, Anglo, Rio, Newcrest, Woodside).	
Retailing	Supermarkets	A-/Neg & BBB/Neg	A3/Stable & Baa2/Neg	WES to Neg WOW to BBB (S&P)	→ / ↘	A critical 6-12mnths ahead. Woolworths trying to stabilise mkt share; all players trying to avoid a price war, but the prospect for one in the short-medium term can't be discounted & would be rating negative.
	Discretionary	-	-	-	-	Patchy performances - from good to terrible. Most discount dept stores still struggling. Management of A\$ exposure could differentiate. Rising M&A.
Telcos	(Telstra)	A Stable	A2 Stable	-	→	Telstra facing rising margin & growth pressure. Still with a clearly dominant positioning, but won't want a repeat of this year's network outages. Mobile data seeing strong growth but overall margins to be pressured for foreseeable future. Telstra's credit profile retains headroom & flexibility.
Leisure	(Crown Resorts)	BBB Stable	Baa2 Stable	-	?	Uncertainty on strategic (& corporate) direction raised after partial sale of MCE stake, reports of partial privatisation/property sales etc. Large development pipeline.
Airlines & Transport		xx Stable/Neg	xx Stable	VAH to Neg from stable (S&P)	→ / ↘	Very rapid recovery in airline domestic yields following cessation of capacity war has partly reversed in 2016. Positively, the industry is behaving rationally again, but Virgin's profitability remains weak. Other transport -eg trucking is very patchy & includes failures (McAleese). Oil price management to differentiate.
Utilities	Unregulated	xx Stable	xx Stable	-	→	Energy retailing still very competitive; industry disrupters & low margins. Volumes under downward pressure (increased energy efficiency, solar panels etc) & wholesale gas prices upward pressure (Qld LNG). Mkt positioning & wholesale price management will be key differentiators. Potential IR issues (AGL)
	Regulated	A-<>BBB Stable	A3-<>Baa2 Stable	-	→	ST & MT regulatory risk now mostly diminished (ex potentially APA Group). Volume pressures (above). Ownership & other MA&A uncertainty.
Airports		A-<>BBB Stable	A3-<>Baa2 Stable	-	→	Stable ratings. Benefitting from tourism inflow (partic. MEL & SYD). Resource related FIFO traffic down heavily (Perth & Brisbane affected). All still managing capX & credit profiles well.
Infrastructure & Ports		xx Stable/Neg	xx Stable/Neg	-	→ / (↘)	Mining related take or pay contracts will be under pressure over LT; coal industry exposures to remain under scrutiny. Seasoned non-resource assets doing well, but growth is very expensive to acquire.
REITS		A+<>BBB+ Stable/(Pos)	A1-<>Baa2 Stable	IOF to CW+; Vicinity to Pos (S&P)	→	Office, C&I sectors on steady footing across Melb. & Syd. mkts, though with cap rates now flattening (despite recovery underway in Syd. office mkt). Residential mkt will be closely watched, particularly apartment developments. High M&A in 2015 is likely to continue through 2016 as sector struggles to drive earnings growth & faces some bank funding cost pressures. Vicinity with potential upside to S&P ratings.

CASH & FIXED INCOME *Term asset swaps – take advantage of the basis*

ASSET SWAP NEW OR EXISTING BONDS

Asset swap non-Australian bonds back to AUD and earn an enhanced coupon via the cross-currency basis pick-up. Can be in SPV note form* or delivered to as an ISDA swap + bond in individual component form.

Highlights

- Investors who already own such assets but who are hedging via overlay or rolling short-term FX forwards. We can switch these into term hedges that are either maturity matched or shorter in term than the underlying bond.
- We can help investors who don't already own such assets to:
 - (a) find suitable assets; and
 - (b) swap them to AUD.

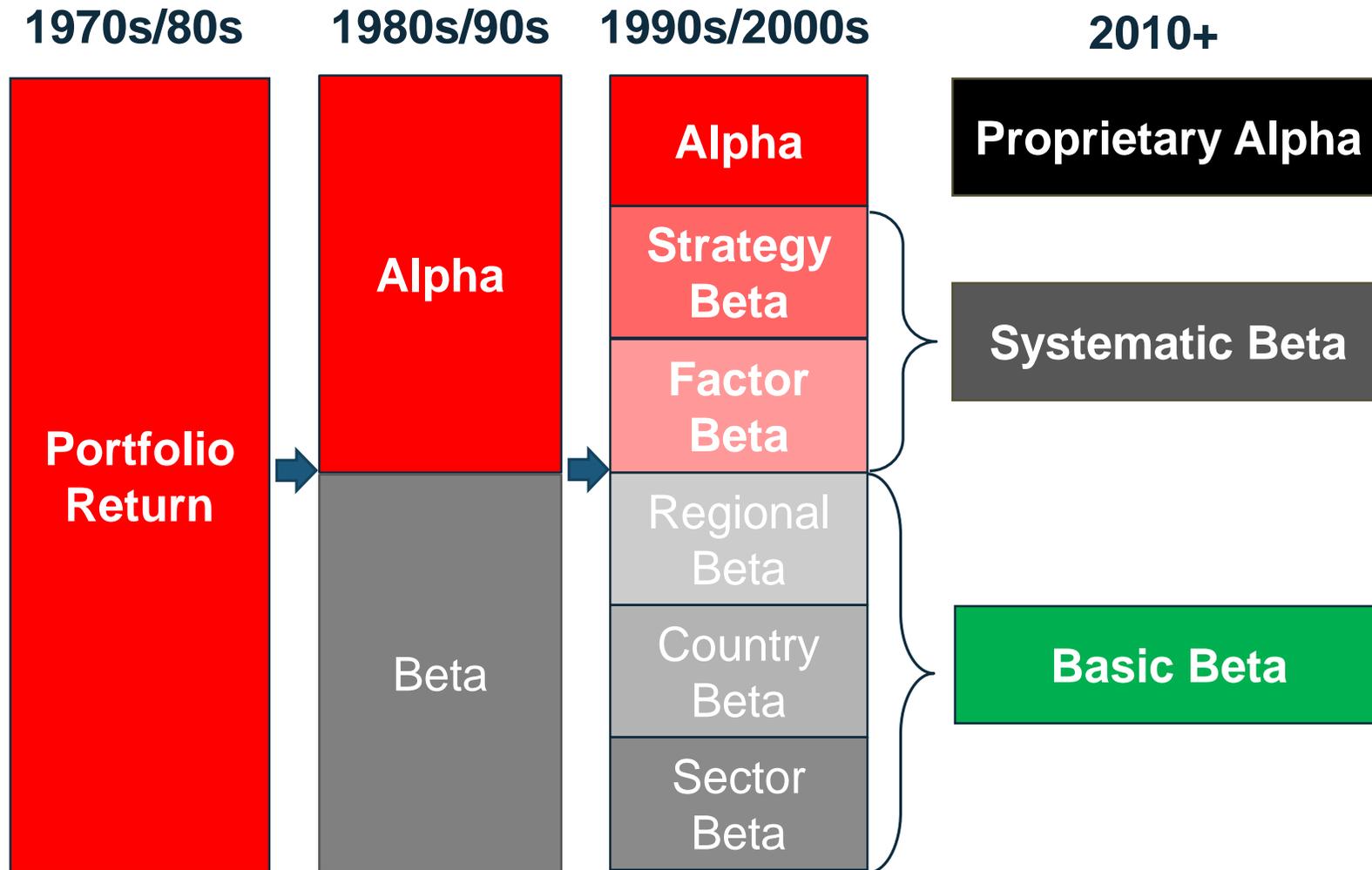
Risk Considerations

- Investors would take MTM risk on the swap in the event they don't wish to hold to maturity.
- There may be collateral considerations on the derivative component.

THE TABLE BELOW SHOWS INDICATIVE CROSS CURRENCY BASIS LEVELS *These can provide a guide for the possible pick-up for each currency pair:*

Maturity	AUD/JPY	AUD/EUR	AUD/GBP
1	80	58	32
2	91	61	34
3	101	63	35
4	109	66	36
5	115	69	37
7	124	73	39
10	131	77	41
12	131	77	43
15	126	71	42
20	114	71	35
25	102	40	23
30	88	26	8

CASH & FIXED INCOME *Re-thinking portfolio returns*

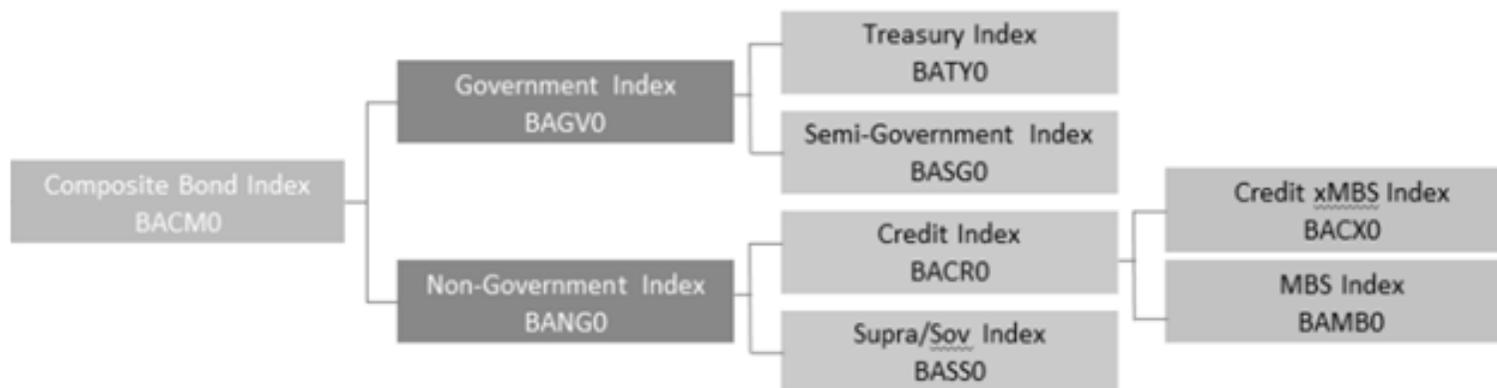
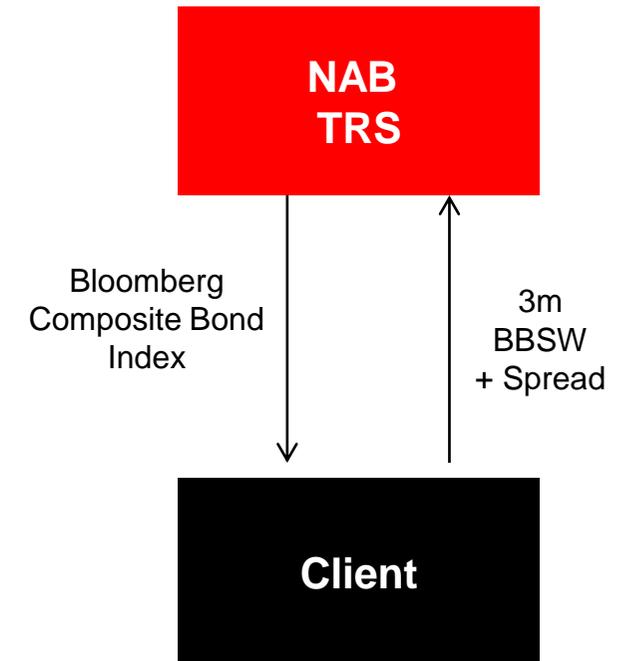


CASH FIXED INCOME *Total Return Swaps*

Liquidity in the Fixed Income markets continues to be challenged as a result of regulation. TRS can help investors to efficiently gain market exposure – or manage existing positions.

Key Benefits Include:

- Gain market exposure without requiring the outlay of capital.
- Efficiently express tactical views without administrative burden (removing the need to invest or dispose of all the physical securities in the Index).
- Eliminate tracking error. There is no performance risk from the underlying investment portfolio. Remove security selection risk, duration risk, yield curve risk or credit risk relative to the Index.
- As an Australian bank and 'market maker' in Australian fixed interest securities, NAB is committed to providing derivative exposure against AUD denominated securities.

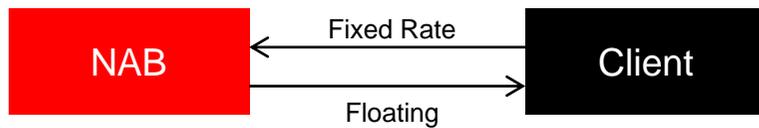


LONG TERM OPPORTUNITY *Derivative repacks*

UNCOLLATERALISED DERIVATIVES – AN INVESTMENT

NAB holds a number of long dated derivative positions which are uncollateralised and significantly In-The-Money to NAB. An opportunity exists to restructure some of these positions as investments.

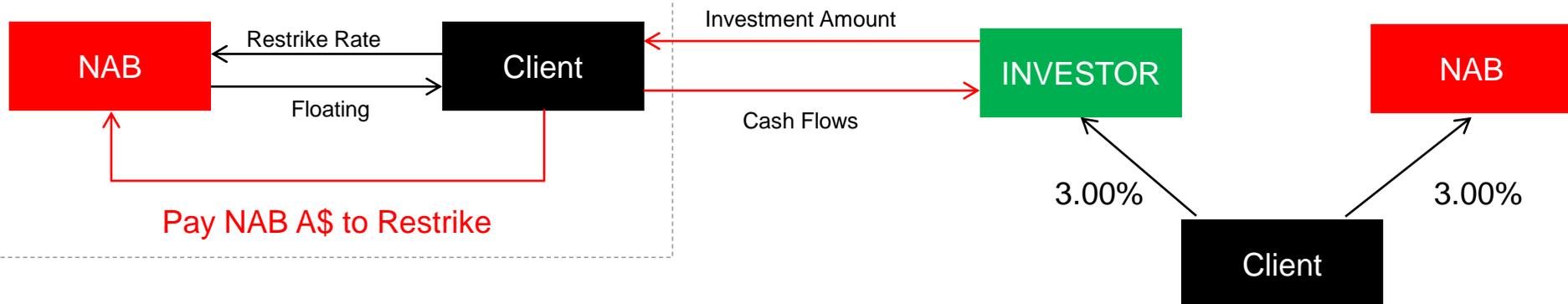
Example Transaction



- Fixed Rate = 6.00%
- Current Market Rate = 3.00%

- NAB has a derivative that is In-The-Money with an uncollateralised client.
- NAB will re-strike this swap to a new (lower) market rate with the client.
- In many cases the client won't have the resources or willingness to restrike the swap.
- We Introduce an Investor – who pay an upfront amount in return for receiving a stream of future cashflows. This is the mark-to-market of the derivative.
- The client pays the upfront amount received to NAB – this pays for the re-striking of the fixed rate.

Solution



FOREIGN EXCHANGE *Some of the current themes*

- **Transaction Cost Analysis**

- The growth of independent third party analysis to increase transparency.

- **ATO Foreign Currency Hedge Transactions**

- New ATO Practical Compliance Guidelines for ATO Taxation Ruling TR 2014/7 - Determining the Source of Hedging Gains.
- The Guidelines attempt to provide some practical guidance for Australian taxpayers in determining how the source of their gains from hedging transactions should be determined for the purposes of calculating their entitlement to foreign income tax offsets (FITO). That is, whether a taxpayer's gain is Australian or foreign sourced.

- **“Flash Crashes”**

- The GBP “Flash Crash” at the end of last year is an example of a phenomenon that is becoming more frequent in FX markets in recent years.
- The range between the lowest and highest traded price in the primary market was huge, with a swing of close to 10%. The Brexit event saw a major repricing of GBP, with a 12% traded range across a few hours.

COLLATERAL *An increasingly important area*

Lehman default

- No loss to counterparties on cleared portfolios, unlike collateralised counterparties.
- Collateral could be re-hypothecated & was not segregated from other assets
- Over-collateralised counterparties became general unsecured creditors and were not able to recover their assets in full

Regulatory requirements have increased usage of CCP's

- Central clearing can only extend to certain products: standard, liquid and vanilla.

The BCBS/IOSCO Working Group on Margin Requirements (WGMR) published their reform framework in 2013 with wide-ranging changes:

- Universal exchange of variation margin (VM)
- Two-way initial margin (IM)
- Restriction of eligible forms of collateral to highly liquid assets
- Segregation for initial margin and documentation requirements to govern collateral relationships

CPS226

- APRA's implementation of the BCBS-IOSCO framework for margining of non-centrally cleared derivatives (NCCDs).

COLLATERAL *Generating efficiencies and additional returns*

- **Hedge optimisation**

- Clearing (to reduce notional or net collateral), compressing, restructuring, alternative instruments e.g. futures

- **Repo/ collateral upgrades**

- Borrow cash for collateral against securities when required
- Lend securities required by banks for IM or LCR against cash or other securities

- **Collateral offset**

- Currency-linked collateral offset
- Opposite position to NAB's (Group Funding) collateral flows

- **Collateral facility**

- Borrow cash for collateral against securities pledged/ custody assets
- Lend cash collateral received SmartCash or Bank Bill Index TRS/ Fund

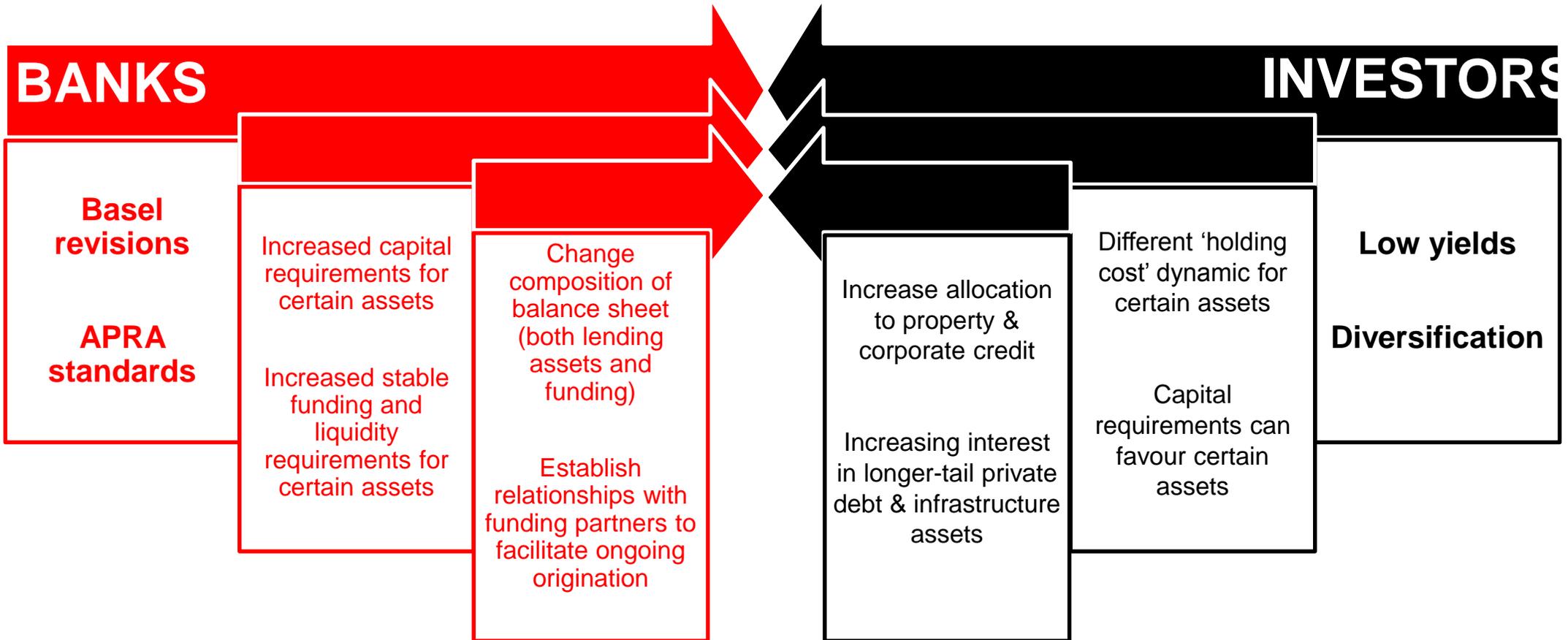


BANK
BALANCE
SHEETS



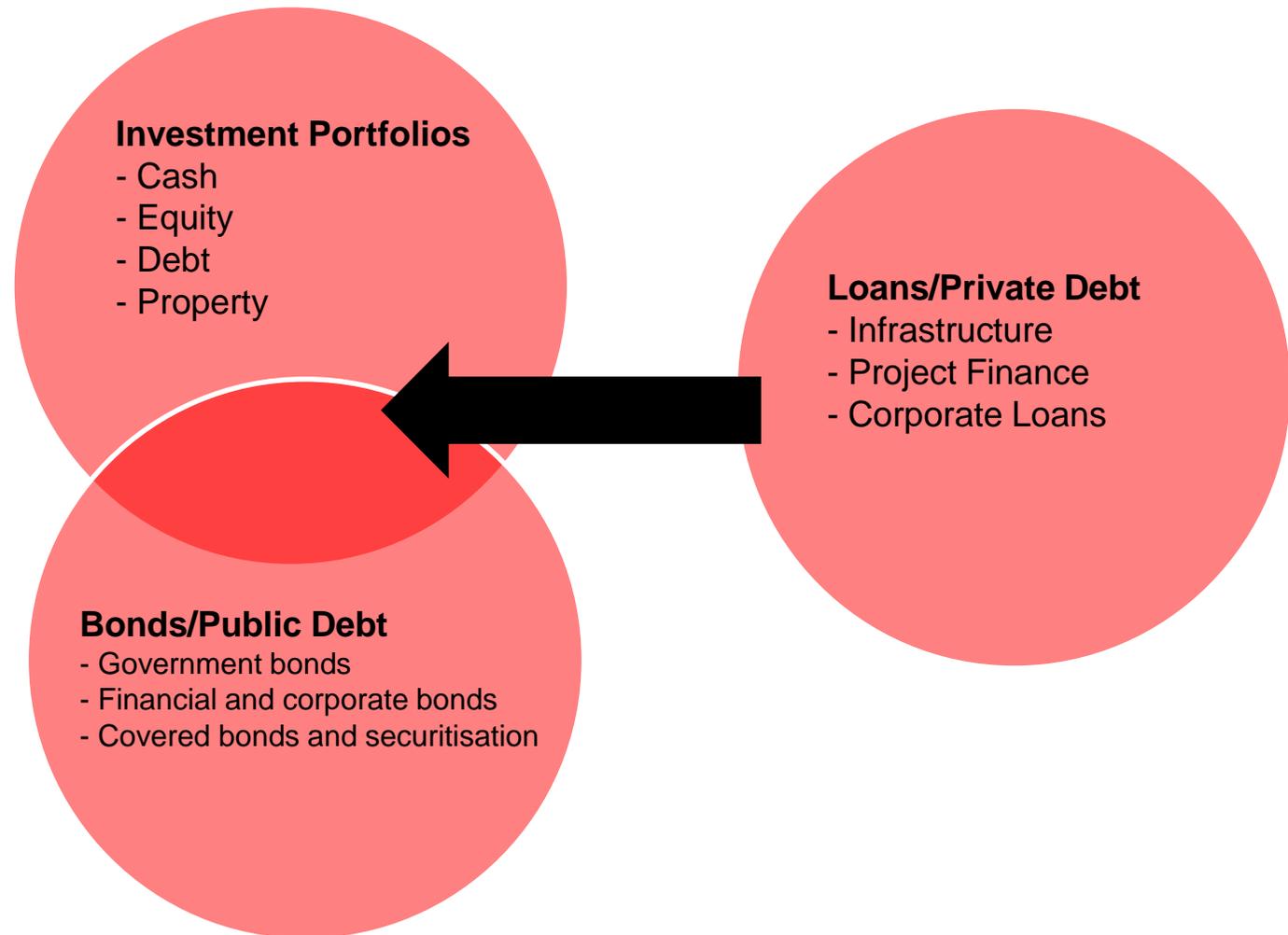
*Investment
Opportunities*

OPPORTUNITY *Regulatory & Economic Environment Drive* *Reallocation of Capital*



PORTFOLIO COMPOSITION *Increasing Portion of Loans and Private Debt*

- Banks incentivised to syndicate corporate exposures, particularly applicable to stronger credits which are not externally rated
- More bank capital relief transactions via synthetic or physical risk transfer structures
- Banks more likely to syndicate specialised finance lending and look for commercial property financing solutions



BALANCE SHEET *Focus on Institutional and Specialised Debt*

NAB
(A\$545bn in GLAs)

New Zealand
(A\$71bn in GLAs)

Consumer & Wealth
(A\$291bn in GLAs)

Business & Private
(A\$61bn in GLAs)

Corporate & Institutional
(A\$122bn in GLAs)

Customer Products & Services

Home Lending	Credit Cards	Personal Lending	Small A\$1-5m in Turnover	Medium A\$5-50m in Turnover	Corporate A\$50-200m in Turnover (A\$56bn in GLAS)	Global and Institutional Banking A\$200m+ in turnover (A\$32bn in GLAs)	Capital Financing <i>Specialised Finance, Asset Finance & Leasing, Securitisation</i> (A\$34bn in GLAs)
					<ul style="list-style-type: none"> • Property • Agriculture • Healthcare 	<ul style="list-style-type: none"> • Property • Industrials • Resources • E&U • Consumer • Healthcare • Agriculture • TM&I • Banks • Financials • Funds • Insurers 	<ul style="list-style-type: none"> • Infrastructure • Renewables • E&U • Resources • Aviation • Shipping • Rail • Mining • RMBS • - Mortgages • - ABS • - Autos & Equip. • - Cards • - Consumer • Trade Rec.

Current focus



INVESTMENT FORMAT *What Structures Can Be Used?*

	Single Asset Investment Options		Portfolio Investment Options			
	Physical	Synthetic	Debt Fund / Unit Trust	Asset-Backed		Synthetic
				Senior Notes	Junior Notes	
Format	<ul style="list-style-type: none"> • Sub-participation • Loan sale • Loan repack 	<ul style="list-style-type: none"> • Credit-linked note • Credit insurance 	A fund or a unit trust established under a master fund programme	Publicly offered or privately-placed asset-backed securities.		Privately-placed credit linked-notes referencing balance sheet exposures.

BENEFITS *Collaboration Will Add Value to Both Sides*

Value for Investor

- Access to credit investments that are not available in other format
- Access to a tailored portfolio, designed to meet investor's requirements and risk appetite
- Access to NAB origination, underwriting and servicing experience
- Access to full loan economics at low ongoing management cost
- Align interest with NAB having ongoing exposure to loans

Value for NAB

- Bank capital is scarce resource with increasing regulatory requirements
- NAB focused on risk transfer to free up capital to improve returns
- Improve balance sheet velocity by recycling capital and making efficient use of credit limits
- Continue to support borrower clients by providing larger funding commitments
- Continue to build and widen distribution channels
- Create product to satisfy investment demand
- Continue to build partnerships with investors

more
than
money



ASSET ALLOCATION SUMMIT

Every Basis Point Counts

James McClenaghan, Head of Solutions Sales, APAC

IMPORTANT *information*

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