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Deutsche Bank
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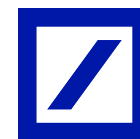

Australasia
Australia
Banking & Finance

Industry
Australian Banking Sector

Date
23 November 2018

Transfer of Coverage

Long Business; Short Retail

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1) Back to Business...
... it is cyclical, is it turning?

2) Drying Rivers of Gold in Retail…
… is the growth and return engine breaking down?

3) Mortgage Risk…
… growth is slowing, are we on the cusp of a bigger shock?

4) Hostage to Dividends has driven Short Termism…
…should executive STI's be reconfigured?

5) Conduct and Culture…
…is the Royal Commission just the end of the beginning?

6) Better Funded but Still Underfunded…
… is the RBA behind the curve?

7) Invest for the Uncertain Future…
… will investors tomorrow regret the cost out today?

8) Outlook for the Major Earnings Drivers…
… process the above, what does it look like?

9) Valuation…
… optically cheap from the historical lens?

Forecast changes: Valuation and Risks
FY19e cash NPAT cut ~4% to capture further conduct remediation costs & slower mortgage growth. FY20e cash NPAT cut ~13% to reflect normalising bad debts. We value bank equity using a blend of DCF & GGM. Upside: faster conduct resolution, rebounding mortgage market. Downside: mortgage & funding crisis.

Key Changes

Company	Target Price	Rating
ANZ.AX	-	Hold to Buy
CBA.AX	75.00 to 60.00	Hold to Sell
NAB.AX	30.00 to 29.00	-
WBC.AX	30.00 to 22.00	Buy to Sell

Source: Deutsche Bank

Top picks

Company	Rating
ANZ (ANZ.AX),AUD25.16	Buy
Commonwealth Bank (CBA.AX),AUD68.50	Sell
National Australia Bank (NAB.AX),AUD23.58	Buy
Westpac (WBC.AX),AUD25.12	Sell

Source: Deutsche Bank

** This report transfers primary coverage of ANZ.AX, CBA.AX, NAB.AX and WBC.AX from Anthony Hoo to Matthew Wilson.*
**This report changes ratings and target prices for companies under coverage; please refer to pages 4-5 for details.*

Figure 1: Investment summary

Company	Rating	TP	Share price	Up/Downside to SP	P/B (x)	P/E (x)	Div yield	ROE	ROA	2-yr EPS cagr
ANZ	Buy	$29.00	$25.30	15%	1.2	10.9	6.4%	11.6%	0.7%	3%
CBA	Sell	$60.00	$69.20	(13%)	1.8	13.2	6.2%	14.1%	1.0%	(5%)
NAB	Buy	$29.00	$23.89	21%	1.3	10.5	8.3%	12.9%	0.8%	(0%)
WBC	Sell	$22.00	$25.44	(14%)	1.3	11.7	7.4%	12.2%	0.8%	(10%)

Source: Deutsche Bank, Factset. Note: EPS CAGR is from FY18-20. FY18 normalised to exclude specific items

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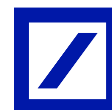

Executive Summary

The Australian major banks appear cheap on most investment metrics. However, for the first time in a long time, they confront a raft of real challenges and uncertainty. The cosy oligopoly that historically generated healthy returns and essentially uninterrupted growth predominantly from retail banking (deposits and mortgages), underwrote an enviable period of earnings progression and investment return. The Australian major banks became some of the most credit worthy and profitable in the world lauded for credit, cost and profit management.

Excess returns persisted and rich dividends flowed from lower capital intensive growth, increasing operating efficiency and ever smaller credit charges. Regulatory change (most notably – internally modeled granular risk weights) and more "*advanced*" remuneration systems linked to short-term share price performance and revenue also drove a change in the nature and complexion of bank executive human capital – out went the prudent long-term "*bank manager*" - in came the short-term sales focused consultant deploying more and more capital into the mortgage product. Compounding success saw the major banks morph from being the essential oil in the economic engine to the engine itself.

Did the sector's sustained financial success "*dull the senses*"? Too big to fail?

Anyone anchored to the recent success would have been well rewarded for buying any dips. These were clearly the golden years of Australian banking.

Is today just a dip or a genuine inflection point?

Are the golden years now under threat from a suite of incentives that targeted and handsomely rewarded short term performance? Were the banks simply hostage to paying an ever increasing dividend which also drove sizeable short term bonuses? Were these incentives ultimately grossly miscalculated with respect to their resulting long-term impact on the broader franchise?

Prima facie, the outcome today appears to be – unbalanced business mix, an over-cropped consumer and an underinvested franchise which is vulnerable to economic shock, disruption, obsolescence, litigation and regulatory/ political overreach.

In this note, we explore these issues and present the resulting impact on our earnings expectations and valuation outcomes.

The majors are far from broken, but they have sustained a severe self-inflicted flesh wound, requiring significant cultural attention. Management must now muster the courage to change the mind-set and behaviour of boards, investors and employees in order to win back the trust of the customer. And actions will be more important than apologies.

We believe the following changes would go some way to resolving the predicament:-

1. **Cut the dividend**… to a more sustainable and balanced pay-out ratio of ~60%

2. **Commit to investing well beyond a CEO's tenure**…

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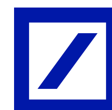

3. **Curtail the positive jaws narrative** to a longer-term pledge… why restrict the franchise to a theoretical accounting period construct?

4. **Commutate the executive STI to all LTI**… changing behaviour begins at the top

5. **Cultivate a better balanced book of credit**… credit supply drives activity; but building societies (or savings & loans) don't generate sustainable productive economic growth

6. **Collect and create a suite of growth options**… option pay-offs are valuable; don't divest them because of issues at the core

7. **Cull the shrinkage to the core mind-set**… banks are divesting because of bad execution (and bad conduct), not because of bad strategy, and

8. **Cross your fingers the mortgage market doesn't implode…** ***it is a material vulnerability***

Whilst respective major bank divisional disclosures have their challenges (consistency, comparability and reclassifications *inter alia*) they can point us in the right direction. From this, it is unequivocal that **Retail Banking has dominated major bank earnings and returns throughout the last decade** in both absolute levels (~45%) and contribution to positive delta (~75%). New Zealand and Business divisions whilst healthy contributors were well behind. Wealth and Institutional/ Corporate have been disappointing with difficult conditions, shrinkage and divestment.

We think this historical picture is unlikely to be repeated.

We expect conduct, credits' eventual reaction to gravity and disruption to fundamentally change the nature of return and growth in Retail Banking. Conversely we expect Corporate and Institutional Banking to fare much better.

The focus on conduct is here to stay as the behaviour pendulum typically over corrects. The Hayne Royal Commission is just the beginning. Recall, in the UK, it took the addition of a new regulator plus 10 years (and counting) of conduct management and consequent remediation.

Cost out won't be enough to offset the revenue headwinds; the major banks are already unquestionably efficient. Alternatively, we believe significant investment is required to make their core platforms, and everything that hangs off them, match fit in a rapidly evolving world with Fintech.

This is all made more complicated by a central bank that appears to have missed its opportunity to align itself with global peers on the direction of monetary policy. The theoretical models may have no problem being out of sync, and indeed in the event of a domestic hiccup, they won't hesitate to cut rates close to zero (with its own version of QE) but how will our offshore creditors react?

Short Mortgages - we forecast **protracted slow growth with material vulnerability**. The banking industry has over committed the Australian Household to a long future of paying down debt. Household debt to GDP is a world topping 122% (according to the BIS) and consequently Australian residential house prices have experienced a very rich credit-fuelled boom. The old banking rule of thumb

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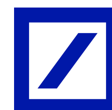

was lend someone 3x their gross income (*now embedded in UK regulation; only 15% of the mortgage book can have a loan to income (LTI) ratio greater than 4.5x*). This appears to have been forgotten in Australia with LTI's on average ~6.5x. Further, the simplicity of the LTI - income is easy to verify and thus removes the challenge (and conduct risk) of estimating and verifying expenses.

At best, mortgage growth will continue to slow as deleveraging works its way through the economy constraining house prices and discretionary spend, but it's unlikely to be beautiful. At worst, we confront the Irish-like scenario. However, we think it's unlikely to reach the Irish heights of 25% housing NPLs for a decade due to a more independent policy infrastructure. However, a zombie-like mortgage book is possible. It is not politically palatable nor logistically easy to foreclose on vast amounts of troubled mortgages. Capital therefore may not be immediately available to deploy into productive recovery credit.

We also believe longer term that retail banking is more susceptible to disruption from the nimble, innovative and more customer-aware Fintech space.

Long Business - we forecast **improving growth and better returns from higher global interest rates, liquidity withdrawal and increasing volatility**. In contrast to the mortgage book we have arguably under lent to the more productive corporate sector in Australia over the last decade. Outside of housing (and to a lessor extent property) we see bright prospects in infrastructure, mining, education, tourism, health and technology *inter alia*. Banks with franchise strength in classic business, corporate and institutional activity appear well placed. Granted it's more capital intensive; but it's better for the economy by generating more sustainable productive activity.

We summarise the near term earnings outlook as follows:-

- Slowing mortgage loan growth
- Improving business loan growth
- Some recovery in markets income with higher rates, less liquidity and more volatility but still constrained by conduct related behavioural change
- Continued tight cost management with ongoing conduct impost balanced against the need to invest for the future
- Mean reverting bad debt charges with lurking mortgage cycle risk

In this context, and based on the analysis herein, **we like major banks which are heavy on business and light on retail**.

1. ANZ... Upgrade to BUY (from Hold) – TP A$29 (no change) trading on 11x PER, 1.2x P/B, RoE 12%; with excess capital (100+bps) and a mindset to embrace the risk of change. First to cut the dividend and rebase to a more sustainable payout ratio, ANZ appears to be reading the industry trends best. ANZ is a classic commercial bank that has always struggled to expand into the historically high return, high growth retail segment. We think it could now be entering a more supportive environment that plays to ANZ's natural franchise strengths. With the Asian footprint rightsizing now nearly behind them, the Corporate and Institutional Bank is positioned to grow at better returns. Mortgages may be

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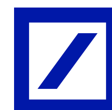

a drag, and their foray into NSW could create some pain, but they are better balanced, more focused and more humble.

Risks - residual positions in Asia are likely to provide some headaches (think AmBank) and diversion. Adverse selection in mortgages and execution slippage in change also linger.

2. NAB … Retain BUY – TP A$29 (from A$30) trading on 10x PER, 1.3x P/B, RoE 13%. The lost decade and a half appears to be closing as NAB has executed material structural change. We now have a very simple Australian and New Zealand commercial bank, on essentially one platform, nearly match fit to relish a more dynamic corporate banking setting. NAB has recently shown promising strong momentum in Business and Corporate/ Insto; we expect NAB to build on this momentum as conditions evolve. NAB has demonstrated courage to invest for the future by targeting benefits and returns for the next generation of management and customers. We hope this courage extends into the consideration of the dividend payout ratio.

Risks - hostage to the Oracle stack and its commitment for further large-scale investment brings execution and write off risk.

3. WBC … Downgrade to SELL – TP A$22 (from A$30) trading on 12x PER, 1.3x P/B, RoE 12%. In our view, WBC has the most complete franchise with strength in Insto, Corporate, Retail and Wealth. If you were to build a bank from a clean sheet of paper, you would nearly replicate WBC. However, we simply believe it just has too many mortgages for this part of the cycle. Furthermore, we suspect it has a greater exposure to the more racier elements of mortgage lending - interest only, self-managed super, foreign purchasers and investors. In addition, and this is always difficult to judge, we feel WBC may lag peers with respect to IT infrastructure by virtue of higher complexity and perhaps a greater willingness to sweat the asset base in the past. Retail banking has been wonderful and the key reason for the historical investment premium, but we believe those days have passed and hence returns converge. We applaud WBC's decision to go it alone with wealth and, in a more balanced economic setting, this tenacity could be rewarded as it would vividly distinguish WBC from its investment peers.

Risks - we could be just plain wrong on mortgages.

4. CBA … Downgrade to SELL – TP A$60 (from A$75) trading on 13x PER, 1.8x P/B, RoE 14%. Historically a very strong investment irrespective of where you apply the book ends. CBA is a powerful retail franchise that appears to have lost its way. Well documented issues with culture and conduct will linger longer, in our view, without a material injection of new thought. In addition, the reactive risk averse stance of the board to shrinking back to the core may lead to longer term disadvantage. We thought CBA had arranged a valuable basket of International and technological driven options - these are now sadly being divested. Hence, the unforeseen and possibly larger cost of poor conduct is not the fines, not the negative publicity or not even the resulting return compression - it's the lost option pay-offs that shareholders no longer possess. The conduct problems lay

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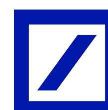

in the heart of the core retail franchise; address them don't remove the fringe of optionality.

Risks - as with WBC but also we may underestimate its ability and capacity to remediate the retail brand.

However, in a broader relative sense, we think that ANZ and NAB, trading at close to book value, are well placed to outperform should the market continue to endure a risk off de-rating.

Figure 2: Investment summary

Company	Ticker	TP ($)	Current share price ($)	Upside (downside) to TP	P/B (x)	Fwd P/E (x)	Fwd div yield	ROE	ROA	2-yr EPS CAGR
ANZ	ANZ.AX	29.00	25.30	15%	1.2	10.9	6.4%	11.6%	0.7%	3%
CBA	CBA.AX	60.00	69.20	(13%)	1.8	13.2	6.2%	14.1%	1.0%	(5%)
NAB	NAB.AX	29.00	23.89	21%	1.3	10.5	8.3%	12.9%	0.8%	(0%)
WBC	WBC.AX	22.00	25.44	(14%)	1.3	11.7	7.4%	12.2%	0.8%	(10%)

Source: Deutsche Bank, Factset. Note: EPS CAGR is from FY18-FY20. FY18 normalised to exclude specific items

Changes to forecasts

The table below summarises the changes we have made to our forecasts. Earnings changes largely capture sustained conduct remediation costs in FY19 and normalisation to risk tendency of bad debts in FY19 and FY20.

Figure 3: Changes to forecasts

	Cash NPAT			Cash EPS			DPS		
	FY19	FY20	FY21	FY19	FY20	FY21	FY19	FY20	FY21
ANZ	(4%)	(7%)	(29%)	(6%)	(10%)	(32%)	0%	(2%)	(6%)
CBA	(6%)	(11%)	(40%)	(5%)	(11%)	(39%)	(1%)	(2%)	(5%)
NAB	(3%)	(11%)	(34%)	(3%)	(10%)	(33%)	0%	0%	(3%)
WBC	(5%)	(25%)	(44%)	(5%)	(24%)	(42%)	0%	(2%)	(4%)

Source: Deutsche Bank estimates

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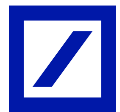
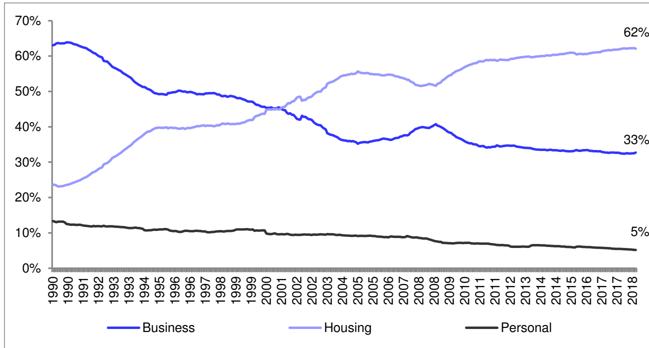
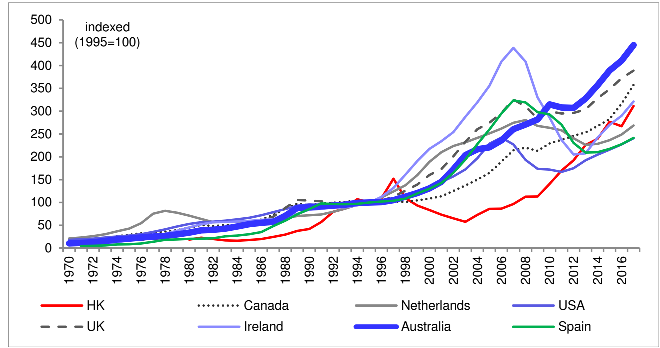


Figure 4: Composition of credit outstanding… *unbalanced*



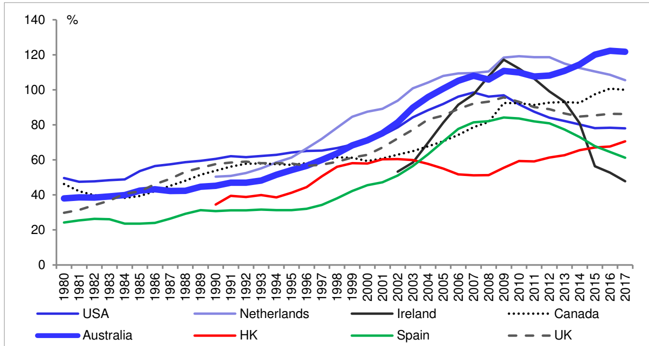
Source: Deutsche Bank, RBA

Figure 5: Nominal residential house prices… *leading and gone vertical*



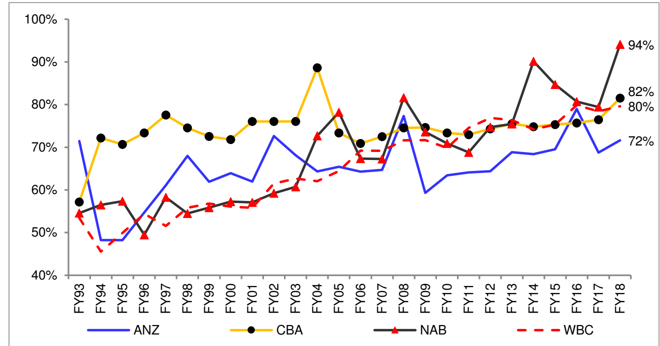
Source: Deutsche Bank, BIS

Figure 6: Household debt to GDP… *easy credit drove house prices*



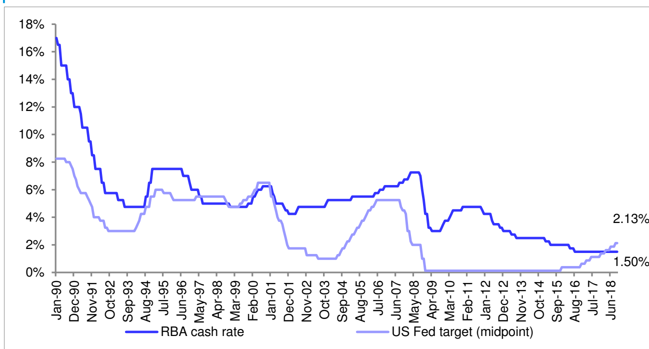
Source: Deutsche Bank, BIS

Figure 7: Dividend payout ratios… *and that's with 12bps of BDDs*



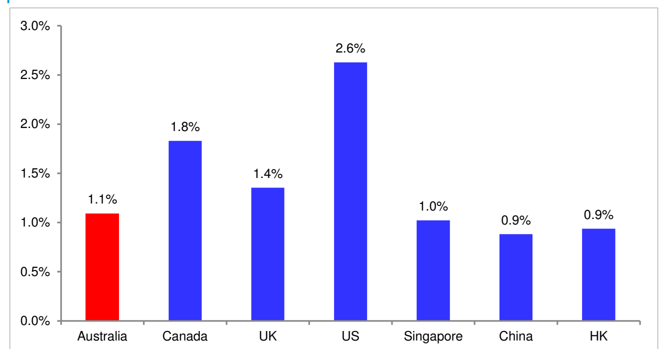
Source: Deutsche Bank, Company data

Figure 8: RBA vs USA Fed… *is the RBA behind the curve?*



Source: Deutsche Bank, RBA. Note: US Fed target is midpoint of target range

Figure 9: Cost to average assets… *Australia is unquestionably efficient*



Source: Deutsche Bank, Company data. Note: Global peers based on FY17, majors based on FY18

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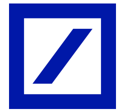


Back to Business

Business (Corporate and Institutional banking) has played a clear second fiddle to Retail Banking for over a decade; not really recovering from the pre-GFC boom. This is despite very low interest rates and a reasonably supportive macro environment and increasing investment in Infrastructure.

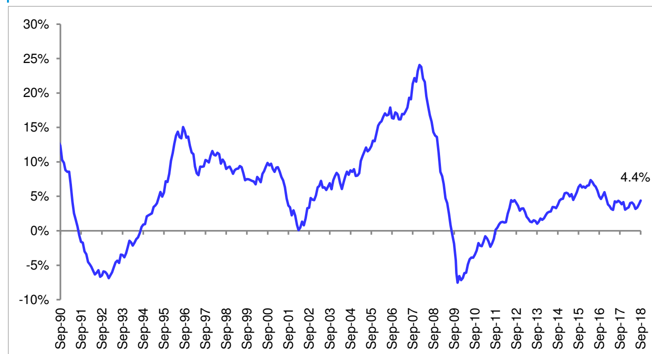
Institutional Banking has been hampered by excess liquidity, low interest rates, low volatility and consequent intense competition from offshore players. It is early days but we think there are signs this may be starting to turn… quantitative easing has become quantitative tightening, interest rates are rising and volatility has returned.

The rampant mortgage credit environment, whilst supportive to SME lending – many SME's use their house as collateral for an SME loan - looks to have crowded out productive corporate investment. This may turn as mortgage growth experiences a protracted slow down driven by tightening underwriting practices (prompted by Hayne Royal Commission advice to just - follow the law).

However, we do acknowledge that the complexion of the Australian business economy has migrated towards a more services oriented engine which in most cases requires less capital.

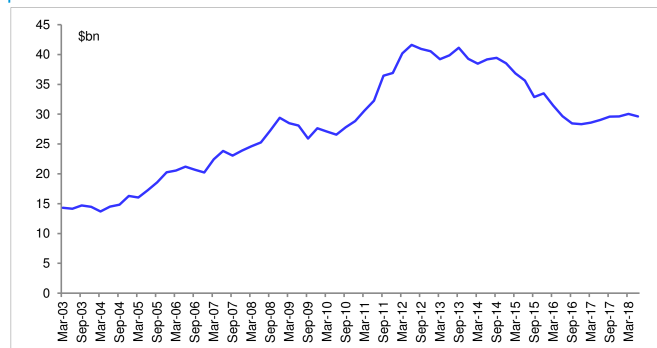
The UK has become a key source for a raft of government policies and it is no surprise that its Funding for Lending Scheme to incentive the extension of credit into the SME sector is replicated in some form in Australia.

Figure 10: Business credit growth (yoy)



Source: Deutsche Bank, RBA

Figure 11: Business capital expenditure (quarterly)



Source: Deutsche Bank, ABS

We have used each of the banks' divisional disclosures to better understand business performance. These disclosures aren't ideal given the extent of change through time (definitions and reclassifications), the unconsolidated geographies and brands. Nonetheless, it gives us a flavour for what has taken place.

We make the following observations:-

- **Institutional** has been a real pain point given excess liquidity, low interest rates and heavy capital intensity … except for NAB (but a large part of this is definitional) … ANZ rebalanced Asian Insto while CBA and WBC have been in

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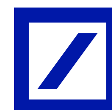

reverse gear. This could turn materially with higher rates, less liquidity and more normal volatility.

• **Business** has been more balanced with solid growth driven largely by any sector linked to property, or any piece of collateral that was a residential house. It's worth noting that 46% of NAB's corporate loan book is housing (business collateralised by the owner's residential home).

• **SME** is not split out but would reflect the broader property-related linkages alluded to in business above. We are not as constructive on this segment with disruption and regulation likely to make the space challenging.

- *Disruption* - The UK is a good example of where nimble "risk based" lending can win material market share – no need to risk the family home, it will just cost you more in borrowing costs to unlock that business idea.
- *Regulation* – The fallout from the Hayne Royal Commission could be that SME banking is in the future regulated like consumer lending and hence caught by the Responsible Lending obligations of the NCCP Act.

Figure 12: Institutional/ Business Earnings Contribution

	3yr cagr cash earnings	3 yr contn delta cash earnings	% of loan book	% of cash earnings
Business				
ANZ	0%	0%	10%	18%
CBA	9%	23%	16%	18%
NAB	6%	46%	16%	42%
WBC	3%	67%	22%	27%
Institutional				
ANZ	(4%)	(44%)	25%	24%
CBA	(4%)	(8%)	14%	10%
NAB	7%	28%	16%	22%
WBC	(7%)	(96%)	11%	13%
Combined				
ANZ	(2%)	(44%)	34%	42%
CBA	3%	15%	30%	28%
NAB	7%	74%	31%	64%
WBC	(1%)	(29%)	32%	40%

Source: Deutsche Bank, Company Data

Corporate Australia seems under-geared, perhaps in some part crowded out by the decade long rise in mortgage lending. Moreover, we think some businesses interpret low interest rates as a negative future economic sign, and hence may not invest until they start to see a move to more normal levels of global monetary policy.

Early days, but we believe the outlook for Corporate and Institutional banking could be much brighter.

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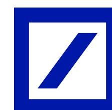


Drying Rivers of Gold in Retail

Retail Banking, in particular mortgage credit, has been the high-return growth engine of Australian banking for the last 26 years, supported by sustained high mortgage credit growth (~12% cagr) with high product returns given wide spreads, well behaved credit and low capital intensity.

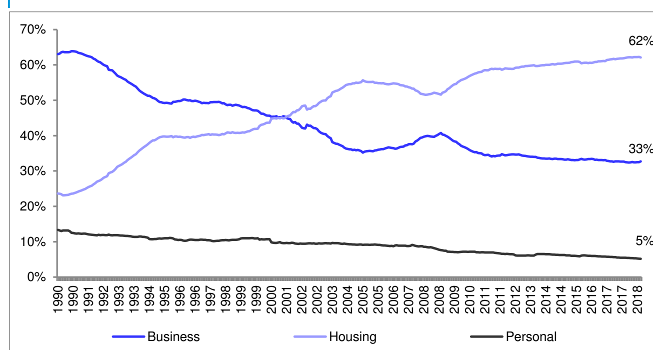
When using the cleanest divisional disclosure of CBA - retail banking has contributed to ~75% of CBA's cash earnings growth over 3, 5 and 8 years. It is higher for those banks that have changed strategy and/ or restructured the franchise footprint.

Figure 13: Retail Banking Earnings Contribution

	3yr cagr cash earnings	3 yr contn delta cash earnings	% of loan book	% of cash earnings
Retail				
ANZ	7%	95%	47%	36%
CBA	10%	72%	49%	49%
NAB	3%	11%	37%	22%
WBC	6%	195%	54%	39%

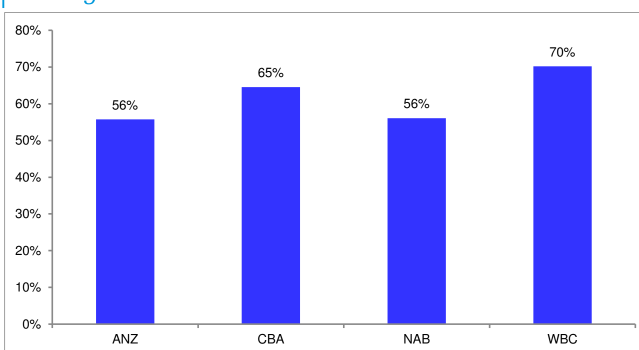
Source: Deutsche Bank, Company Data

Figure 14: Composition of total credit outstanding



Source: Deutsche Bank, RBA

Figure 15: Mortgages as % of loan book... *banks or building societies?*



Source: Deutsche Bank, Company data

This substantial change in the complexion of the major bank loan book from 23% mortgages to 62% appears completely rational - the residential mortgage loan is the least capital intensive product on offer and generates a RoE of ~30%.

Moreover, post the GFC in 2008 certain pockets of competition were weakened or removed completely. Hence, the third and last push.

We would also argue that only the front book is truly competitive. The large back book rump, which is not risk priced, drives tremendous return and free cash flow for the bank.

The cycle now looks exhausted. We see a combination of disruption and tighter/ return to normal underwriting constraining growth quite markedly.

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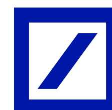

Disruption – the surge in capital allocated to Fintech around the world is likely to drive increased competition in the high return but increasingly low touch area of Retail Banking. Add to this the more tech savvy millennial who doesn't have the affinity for a bank and a big house.

Tighter Underwriting - back to more normal levels of credit extension as the Hayne RC has emphasised the existence of the '*Responsible Lending*' obligations of National Consumer Credit Protection Act 2009 (NCCP) - refer Conduct and Culture section – in short, banks historically lent 3x a person's gross income and in the last 10 years have pushed this ratio (a useful time tested banking rule of thumb) out to 8x to 10x. In addition, gravity is starting to make its presence felt - refer Mortgage Risk section - where the Australian household is at the upper limits of mortgage debt and house prices have enjoyed a global leading surge.

The fuse has been lit; retail credit growth has begun to slow and we expect this trend to persist for some time as deleveraging and disruption crimp revenue growth and compress returns.

Then what happens when the cycle turns … have we created a material vulnerability that will ultimately question whether the aggressive change in the composition of the bank balance sheet was ever warranted?

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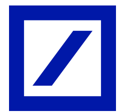


Mortgage Risk

Mortgage credit risk has been called out as a material risk in the Australian Banking sector for many years without any calamity manifesting. However, today we see a return to more normal underwriting standards (in accordance with the law), moderating house price growth and modest increases in 90 days past due.

Mortgage books equate to a sizeable 7.5x shareholder equity at CBA and WBC, 6.4x at NAB and 5.8x at ANZ. A problem in mortgages presents much risk to shareholder equity.

Why may now be different? We believe a combination of the following factors could push us closer:

a. **Global interest rates are now increasing**… QE has ended globally, liquidity is tightening and the US Fed Funds rate is now above Australia's equivalent rate, a rare occurrence, given we are a small open economy reliant on capital importation;

b. **Offshore funding costs are rising**… refer section "*Better Funded but Still Underfunded*";

c. **Royal Commission into Financial Services**… has returned mortgage credit underwriting standards back to normal. Lending ~8x a borrower's gross income is just not "*responsible*";

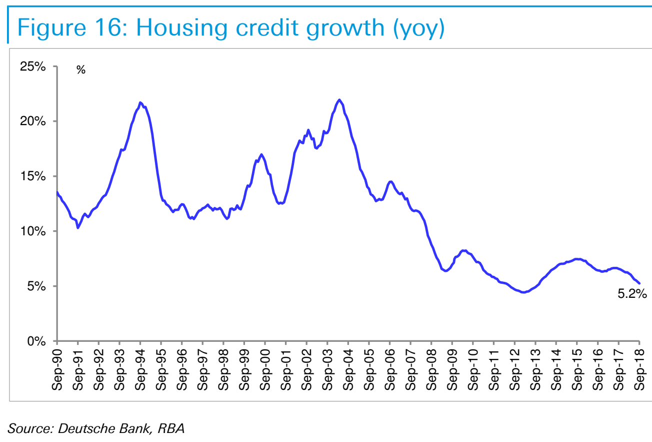
d. **Housing Affordability is stretched;**

e. **Cost of living pressures**… flat real incomes yet higher energy, health, education and debt burdens *inter alia;*

f. **Chinese capital inflows have slowed;** and

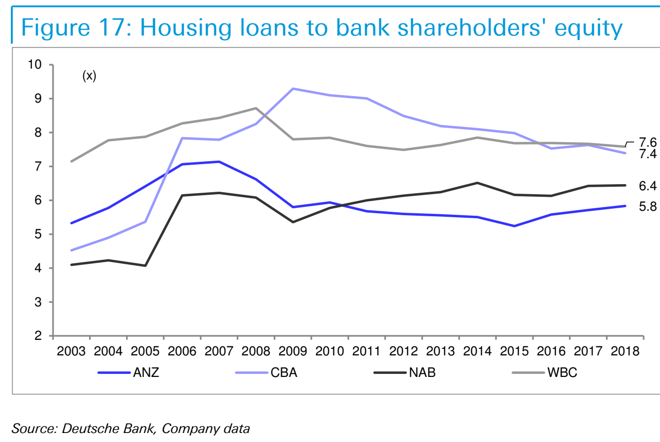
g. **"Big Australia" population policy is now politically challenging.**

Figure 16: Housing credit growth (yoy)



Source: Deutsche Bank, RBA

Figure 17: Housing loans to bank shareholders' equity



Source: Deutsche Bank, Company data

Our base case is a protracted period of slow mortgage growth (-2% to 2% p.a) which will continue to curtail house prices.

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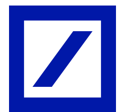
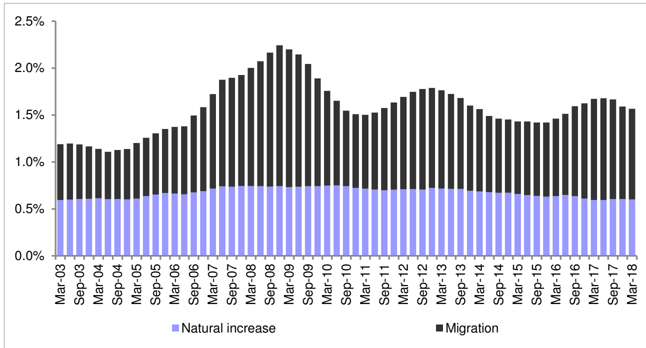
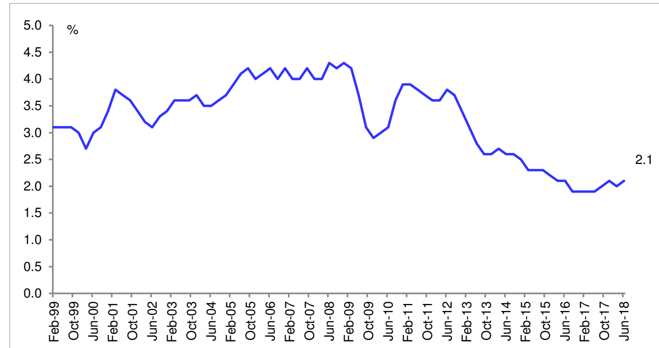


Figure 18: Australia population growth (yoy)



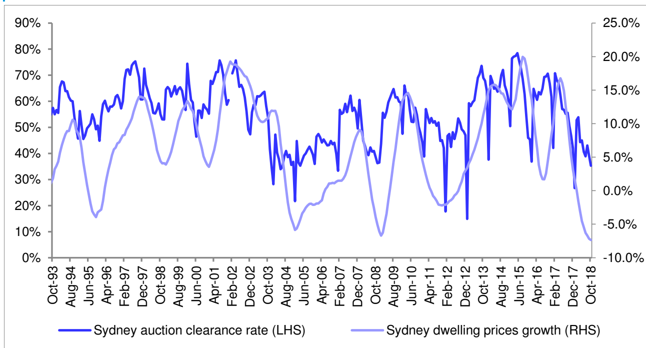
Source: Deutsche Bank, ABS

Figure 19: Wage growth (yoy)



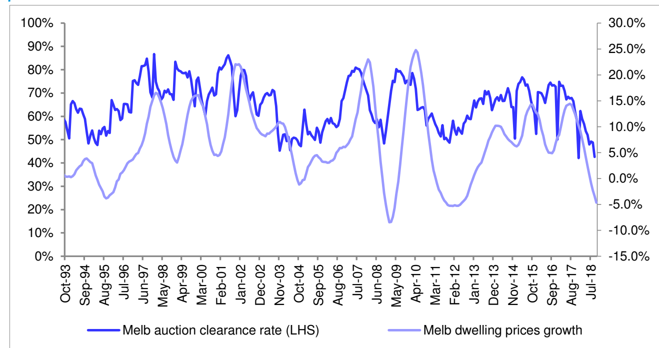
Source: Deutsche Bank, ABS

Figure 20: Auction clearance rates vs home prices - Sydney



Source: Deutsche Bank, Australian Property Monitors. Note: Price growth is yoy

Figure 21: Auction clearance rates vs home prices - Melbourne



Source: Deutsche Bank, Australian Property Monitors. Note: Price growth is yoy

Ireland is instructive. The 2008 Irish housing crisis saw 25% housing NPLs and a 60% decline in house prices. This happened despite very low mortgage interest rates (~3%) and very low levels of unemployment (~4%). Our worst case scenario is not that bad given the differences in LVR and monetary policy independence.

It is likely to be a long painful cycle as banks initially exercise forbearance rather then pursue foreclosure. As the Irish case study shows, widespread foreclosure is not politically palatable nor is it logistically exercisable.

Markets rarely correct in an orderly manner – indeed, only in the world of a spreadsheet does a smooth "*landing glide path*" exist.

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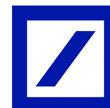
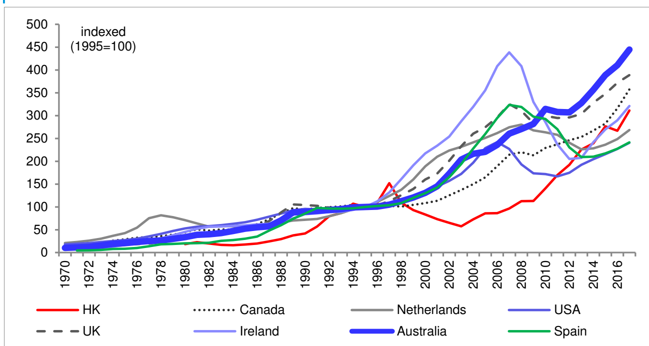
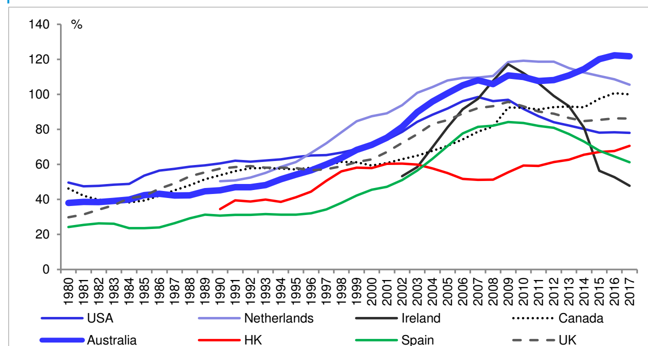


Figure 22: Nominal house prices



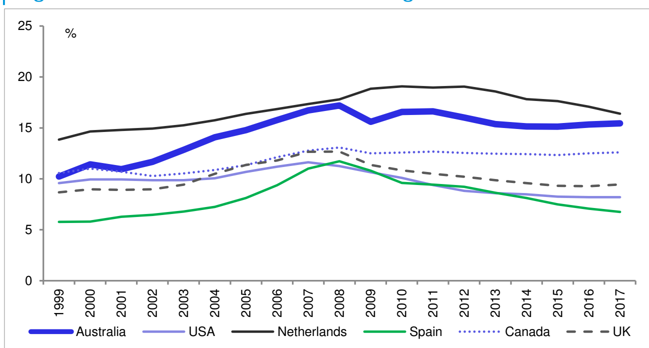
Source: Deutsche Bank, BIS

Figure 23: Household debt to GDP



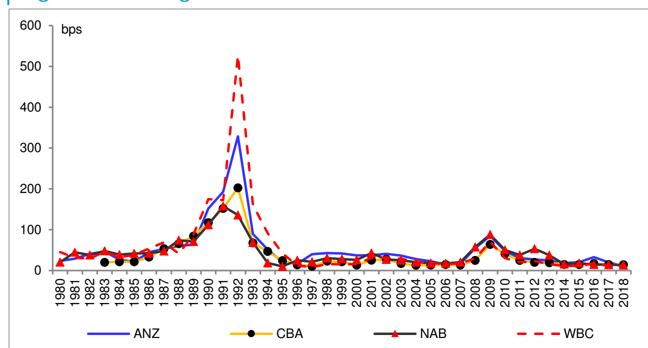
Source: Deutsche Bank, BIS

Figure 24: Household debt servicing ratios



Source: Deutsche Bank, BIS

Figure 25: Long-term BDD/GLA



Source: Deutsche Bank, Company data

Quantifying the mortgage shock outcome is complex. Moreover, models only work in excel, and never function in the reality of a crisis but that doesn't stop us from trying. Indeed, our outcomes were not materially different to those in the 2017 APRA Stress Test.

We set out below the outcome of four scenarios:

- **Just housing**… housing bad debts hit 75bps which reflects a NPL ratio of 5% and a loss given default (LGD) of 15%. Housing is most unlikely to experience trouble in isolation but the point was to demonstrate the cet par sensitivity of housing bad debts. Of note, core profitability is completed eroded with housing bad debts at 310bps for ANZ, 300bps for CBA, 300bps for NAB and 240bps for WBC.
- **Risk tendency**… the through the cycle view of expected loss (EL) weighted by business mix.
- **Normal cycle**… just the run of the mill credit cycle.
- **Bad cycle** … an extreme cycle that is likely to reflect the end of an elongated highly credit-fuelled economic cycle.

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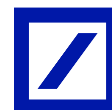

Figure 26: Mortgage risk scenarios - BDD/GLA

Risk Tendency				
	Mortgage	Personal	Corporate	Group
ANZ	0.05%	3.60%	0.55%	0.36%
CBA	0.05%	3.60%	0.55%	0.33%
NAB	0.05%	3.60%	0.55%	0.33%
WBC	0.05%	3.60%	0.55%	0.30%
PD/ LGD	*1%/5%*	*4.5%/80%*	*2.5%/22%*	
Normal				
	Mortgage	Personal	Corporate	Group
ANZ	0.75%	11.40%	2.80%	1.92%
CBA	0.75%	11.40%	2.80%	1.76%
NAB	0.75%	11.40%	2.80%	1.82%
WBC	0.75%	11.40%	2.80%	1.65%
PD/ LGD	*5%/15%*	*12%/95%*	*7%/40%*	
Bad				
	Mortgage	Personal	Corporate	Group
ANZ	3.75%	20.00%	6.00%	5.17%
CBA	3.75%	20.00%	6.00%	5.01%
NAB	3.75%	20.00%	6.00%	5.01%
WBC	3.75%	20.00%	6.00%	4.90%
PD/ LGD	*15%/25%*	*20%/100%*	*10%/60%*	

Source: Deutsche Bank, Company Data

We expect dividends would be cut even if the banks' bad debts merely migrated to risk tendency, which is further evidence that dividend payout ratios are too high. Indeed, a normal credit cycle would see dividends cut to zero at all banks.

More seriously though is whenever earnings become genuinely uncertain then investors will look to anchor valuations back to book value, and then multiples approach 1.0x or discounts thereof depending on the degree of uncertainty.

The tables below show that it is plausible, in a very bad cycle, that banks will be looking to raise equity to restore CET1 ratios from 5% to 6% back to > 10% … with at least 25% discounts to book. For example, CBA could be in the position that it needs to raise A$31bn of new equity at an assumed price of A$30 per share.

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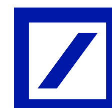

Figure 27: Breakdown of majors' mortgage books

	ANZ	CBA	NAB	WBC
- Investor	32%	32%	41%	39%
- Owner occupied	65%	65%	59%	57%
- LoC	3%	3%	7%	4%
- P&I	78%	70%	76%	65%
- Interest only	22%	30%	25%	35%
- Prop channel	48%	55%	65%	56%
- Fixed	16%	19%	21%	23%
- Variable	84%	81%	79%	77%

Source: Deutsche Bank, Company data

Figure 28: Share price potential downside anchoring back to book

	Share Price	BVPS	NTAPS	Current P/B	SP to BV delta
ANZ	$25.30	$21	$19	1.2	(18%)
CBA	$69.20	$39	$34	1.8	(44%)
NAB	$23.89	$19	$17	1.2	(19%)
WBC	$25.44	$19	$15	1.4	(26%)

Source: Deutsche Bank, Company Data

Figure 29: Impact of Housing BDDs at 75bps (PD 5%, LGD 15%)

$m	Housing BDD @ 75bps	Pro-forma core profit delta	Pro-forma div cut
ANZ	2,374	(22%)	(20%)
CBA	3,387	(22%)	(33%)
NAB	2,277	(22%)	(37%)
WBC	3,600	(28%)	(38%)

Source: Deutsche Bank, Company data

Figure 30: Outcome of the "bad" cycle - impact on BV per share

	ANZ	CBA	NAB	WBC
CET1 today	11.44%	10.15%	10.20%	10.63%
CET1 bad cycle	6.11%	5.32%	5.50%	5.37%
Required equity to 10.5% ($m)	22,200	30,740	24,854	28,417
BVPS today	$21	$39	$19	$19
Diluted BVPS	$14	$27	$13	$13
- dilution	**(31%)**	**(31%)**	**(32%)**	**(32%)**

Source: Deutsche Bank, Company data

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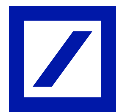
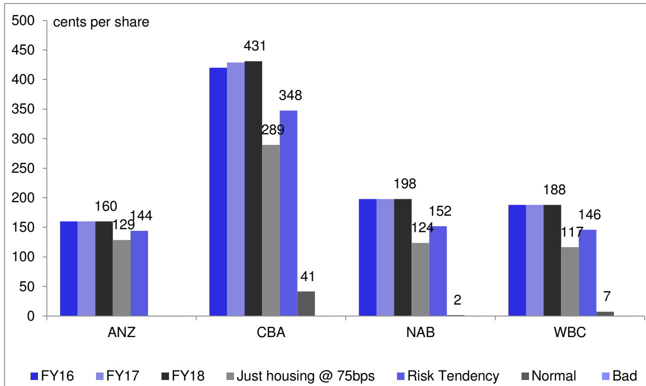
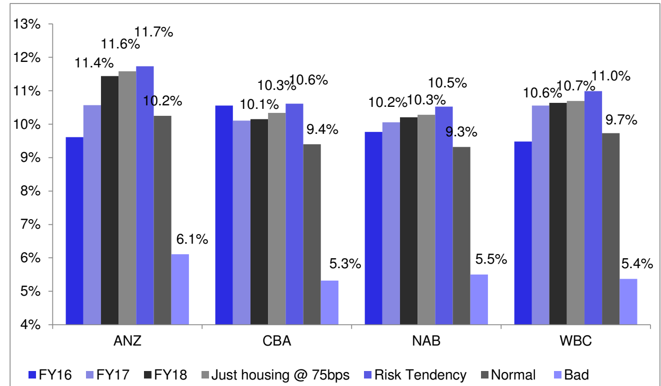


Figure 31: Dividend scenario outcomes… *DPS cuts come at risk tendency*



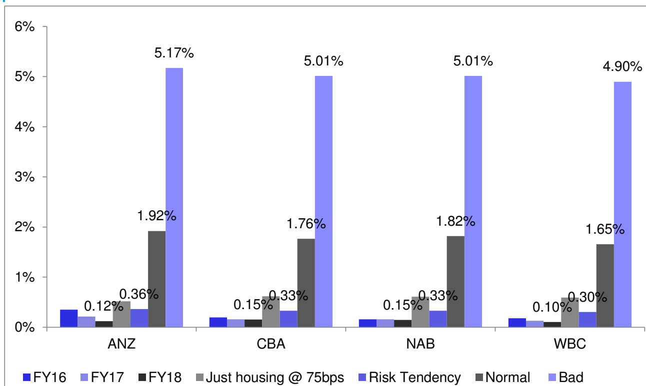
Source: Deutsche Bank, Company data

Figure 32: CET1 scenario outcomes



Source: Deutsche Bank, Company data

Figure 33: BDD/GLA scenario outcomes



Source: Deutsche Bank, Company data

It is explicit that the extent of mortgage debt in Australia poses a material risk to bank earnings and capital. The banks over extended their customers. We remain very dubious of the traditional catalysts put forward to trigger a shock - rises in unemployment and interest rates. Instead, we think they will be more likely the outcomes.

Changes in preferences and behaviour by both banks and their customers, at high altitude, are likely to trigger a shock. It may have already started.

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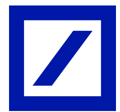


Hostage to Dividends has driven Short Termism

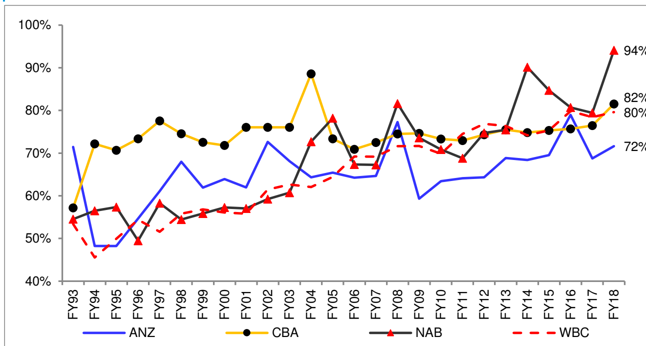
The dividend is meant to be a distribution of excess free cash flow. However, from a major bank shareholder perspective they have to come to be thought of as bond-like coupons. We suspect, given the nature of remuneration structures, the payment of the dividend has unduly influenced management and board behaviour.

Charlie Munger – "*Show me the incentive and I'll show you the outcome*"

We would prefer to see longer-term investment decisions and more stretch key performance indicators. Surely allocating capital to positive NPV projects is more valuable to the franchise than meeting dividend expectations and returning franking credits.

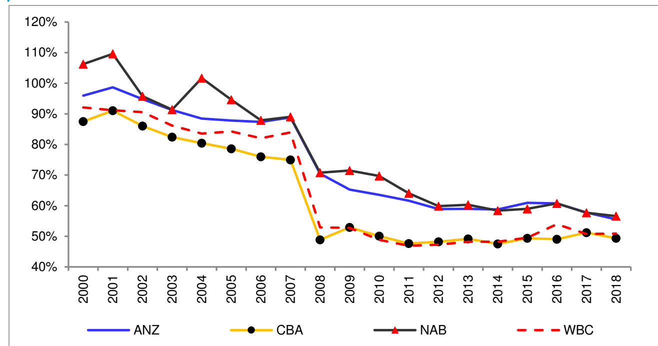
Perhaps a way of changing that behaviour is commutating the executive STI into the LTI? And cutting the dividend payout ratio to ~60% - back to where it once was, when mortgage and business growth was more balanced.

Figure 34: Dividend payout ratios… *with only 12bps of BDD*



Source: Deutsche Bank, Company data

Figure 35: Credit RWA to GLA… *vastly lower capital intensity*



Source: Deutsche Bank, Company data

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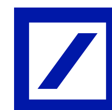

Conduct and Culture

Sustained periods of handsome growth and returns can create a sense of complacency and hide instances of poor conduct. This seems to be the case with the major banks. Add to that the pursuit of short-term profit at the expense of basic standards of honesty.

The UK has battled conduct issues for over a decade, and indeed is still navigating some issues. For example, Payments Protection Insurance (PPI - which has cost the industry GBP32.6bn, and counting) and Tailored Business Loans (TBL). The 2007/08 financial crisis was the catalyst to exposing a wave of misconduct and mis-selling in the financial services industry. The response was a new regulatory body – The Financial Conduct Authority – and a raft of litigation, fines, divestments and sanctions.

The regulatory response is typically slow, piecemeal and pendulum like. Moreover, just as one issue was concluded, a new issue would arise as resource-constrained regulators dealt with them one by one.

We see this as a risk for the majors. The Hayne Royal Commission into Misconduct in Banking, Superannuation and Financial Services may only begin a long process of investigating and resolving poor conduct.

Its interim report, released on 28 September 2018, was a dense document of 1,000 plus pages and posed 693 questions. Its main focus has been the areas of Consumer Lending, SME Lending, Financial Advice, Regulation and Governance.

The final report is due to be submitted to the Governor-General by 1 February 2019.

Of the 10,140 submissions received, 61% related to banking, 12% superannuation and 9% financial advice.

Key issues raised:-

Consumer Lending

- Intermediaries (e.g. Mortgage Brokers), and the confusion of roles – for whom do they act?

- Communication with customers; and

- Responsible Lending … “*unsuitable*” and “*verify*” … pursuant to the National Consumer Credit Protection Act 2009 (NCCP)

Small and medium enterprises

- Should any lending to SMEs come within the reach of the NCCP?

- The content of Code of Banking Practice Obligations

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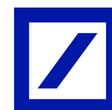

• Third-party guarantors;

• Dispute resolution approaches by the Financial Ombudsman Service and the Australian Financial Complaints Authority (AFCA)

Financial Advice

• Culture and incentives;

• Conflicts of interest and duty, and confusion of roles; and

• Regulator effectiveness

Regulation and the Regulators

• Is the law governing financial service entities and their conduct too complicated?

• Should there be annual reviews of the regulators performance against their mandates?

• Is ASIC's remit too large?

• Is the regulatory regime too complex?

• Should the Banking Code be enacted in legislation?

• Are ASIC/ APRA's enforcement practices satisfactory?

• Should APRAs prudential standards on governance be reconsidered?

Culture, Governance and Remuneration

• Should any 'customer facing employee' be paid variable remuneration?

• Should BEAR be extended in application?

• What duty, if any, should a mortgage broker owe to a prospective borrower?

• Is a value-based commission consistent with acting in the best interests of the client?

• Does conduct raise any issue about business structures?

We believe the Royal Commission to be rational and conservative and hence is unlikely to advocate radical change - just follow the law - the law already requires entities to '*do all things necessary to ensure*' that services they are licenced to provide are provided '*efficiently, honestly and fairly*'.

The interim report is instructive – new laws "*would add an extra layer of legal complexity to an already complex regulatory regime. What would that gain?*"

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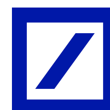

However, a recommendation to implement a new regulatory function similar to the Financial Conduct Authority (FCA) in the UK is likely.

We think there will be a sustained behaviour change at the major banks – walking on eggshells and more diligent adherence to laws will move lending standards back to where they should have been - loan growth will slow and house prices will fall. They went up because of aggressive credit.

From an earnings perspective we expect the banks to incur a similar magnitude of remediation costs in FY19; that is another A$1.0bn.

When the Royal Commission concludes on 1 February 2019, in our view, it will only mark the end of the beginning of a long period of cultural and behavioural adjustment.

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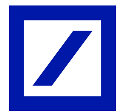


Better Funded but Still Underfunded

With a sector loan to deposit ratio (LDR) of ~130%, around 22% of loans funded from offshore wholesale markets the major banks are better funded than they were a decade ago.

Figure 36: Capital Structure of the Australian Banking System

- 58% Domestic deposits
- 21% Short term wholesale debt ... of which ~60% is offshore funded
- 14% Long term wholesale debt ... of which ~70% is offshore funded
- 7% Equity

Source: Deutsche Bank, RBA

However, with the US Fed now rarely well ahead of the RBA in terms of the key monetary policy instrument, and expected to maintain its trajectory in the near term, the RBA appears at risk of being caught behind the curve.

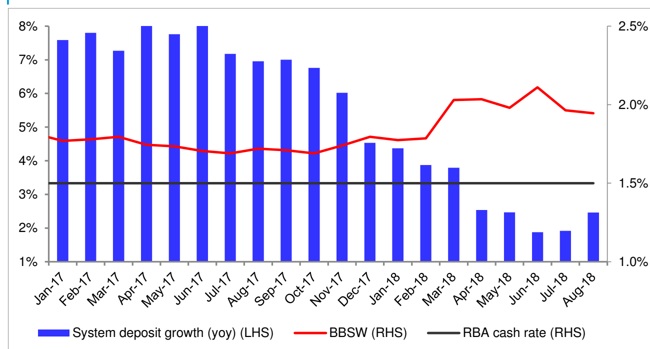
Australia, unlike the USA, remains a small open undiversified economy heavily reliant on capital inflows. And while in response to any macro shock the RBA will clearly cut rates 150bps to zero and implement its own version of quantitative easing (QE) will it be enough to offset the offshore creditor reaction - higher credit spreads and pressure on credit ratings?

Expecting economic salvation from the regulator that contributed to the 'boom' and the resulting disorder is unlikely to work out in the longer term, in our view.

And given the need for out-of-cycle mortgage rate rises in the past, the banks' Treasurers have for some time argued why the cash rate has become less and less valid.

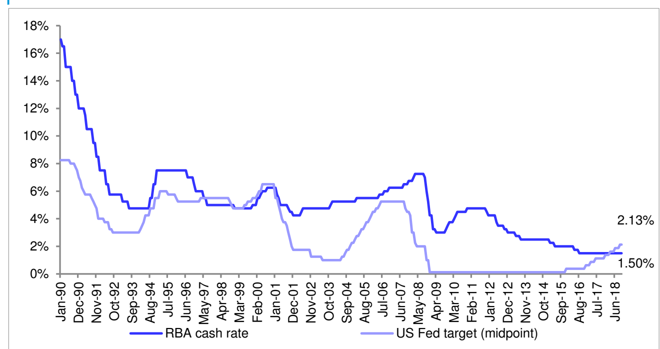
The major banks now look vulnerable to a monetary policy which has no connection to the performance of the domestic economy – ***the RBA appears behind the curve and the marginal cost of funds is driven by conditions and perceptions of our offshore creditors***.

Figure 37: System deposit growth vs BBSW and RBA cash rate



Source: Deutsche Bank, Factset, RBA

Figure 38: RBA cash rate vs US Fed funds target rate



Source: Deutsche Bank, RBA. Note: US Fed target is midpoint of target range

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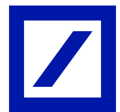


Invest for the Uncertain Future

The Australian major banks are unquestionably efficient according to most standard metrics. Cost to average assets of ~1.1% are not far behind Singapore where the branch footprint is all but a fraction of the Australian majors.

The obsession with positive jaws and the luxury of a sustainably profitable retail banking franchise has afforded the banks some capacity to invest in efficiency. And we expect the banks to target business as usual and structural efficiency aspirations but at the same time not lose sight of the longer term position.

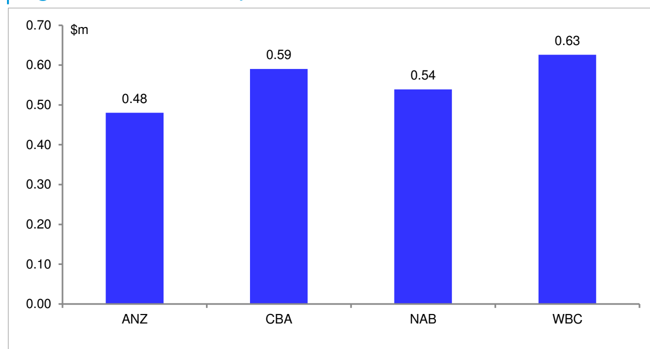
At the same time, a degree of asset sweating, particularly at the back end, has occurred to preserve earnings progression. The current investment load of ~A $1.0bn to A$1.5bn per bank is set based on what is manageable from an execution perspective, rather than what is required to get the banks match fit for a different and disruptive future. Hence, those investors hanging out for large scale cost out to offset any revenue slowdown may be disappointed, in our view.

Banks need to invest heavily in a rapidly changing world of "cloud based" technology. Whilst keeping the front end shiny and flash is important, making the back end flexible and connective to deal with such things as "open banking" and the "new payments platform" *inter alia* is particularly challenging.

We applaud NAB's courage to take the hit and invest for a much longer time frame. Execution will always be taxing, and NAB being a large enterprise, will no doubt confront some failures. But NAB, and, to a lessor extent ANZ, have progressed materially with respect to simplifying the enterprise. This should present them an advantage in time.

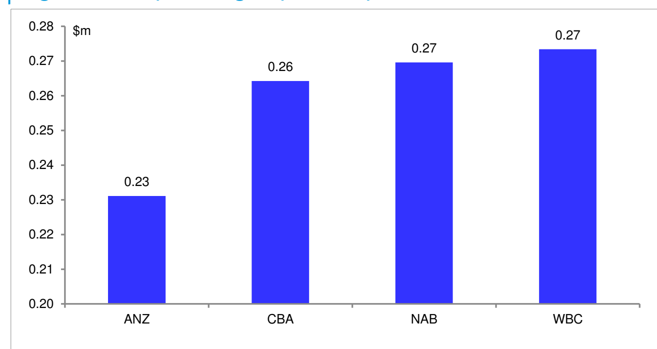
We therefore believe that any short-term cost out designed to appease short-term earnings pressure will be at the expense of getting the bank into a longer-term position to compete and defend.

Figure 39: Revenue per FTE



Source: Deutsche Bank, Company data

Figure 40: Operating expenses per FTE



Source: Deutsche Bank, Company data

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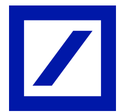
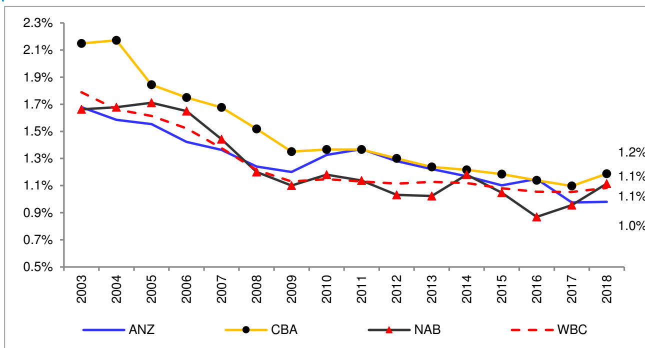
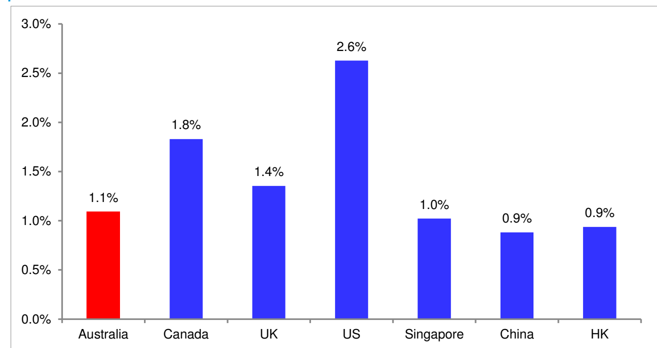


Figure 41: Cost to assets



Source: Deutsche Bank, Company data

Figure 42: Cost to assets… *unquestionably efficient*



Source: Deutsche Bank, Company data, Factset. Note: Data relates to latest FY available

We think the major banks should be building a portfolio of options, and welcome some of their investments in fintech. However, at the same time we think shrinking back to the core to the extent that CBA have, for example, is short sighted. Options in Africa and Asia have potentially rich pay-offs.

Whilst the domestic banking oligopoly has generated healthy returns, there is one often over looked cost - major bank management teams appear ill-equipped to compete as the small players in more vibrant aggressive offshore markets - appearing more accustomed playing as defenders rather than attackers; more akin to skinners rather than trappers.

In our opinion, the investment in wealth management in the early 2000's was strategically sound. It has only failed, and resulted in divestment due to bad execution and poor conduct.

The current banking buzzword is "*simplification*" and all its derivatives … but is this simply consultant talk for metathesiophobia - the fear of change? Perhaps the rivers of gold in retail banking and the franked dividends that have flowed have created a lethargic and myopic industry playing defense to preserve short-term returns?

To quote the US poet Robert Frost:

"*Two roads diverged in a wood, and I, I took the one less traveled by, and that has made all the difference*"

or more succinctly, Benjamin Franklin:

"*When you are finished changing, you are finished*"

We perceive that ANZ and NAB are closer to this perspective on change … their courage will likely be rewarded but it will require investor patience… execution is unlikely to be crisp and flawless.

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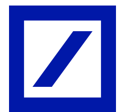
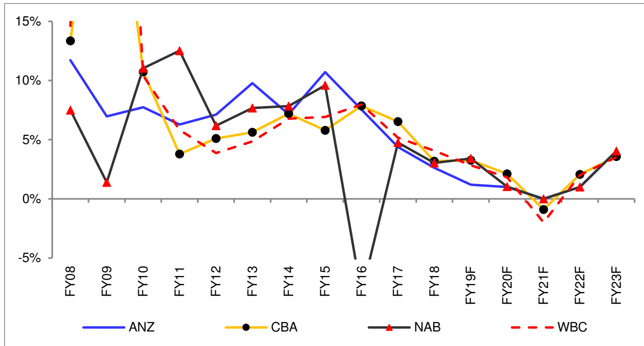


Outlook for Key Earnings Drivers

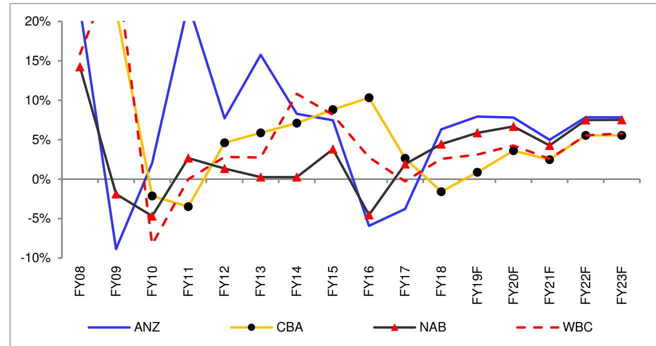
We present our five year forecasts below in graphical form

Figure 43: Housing loan growth … *protracted slow down*



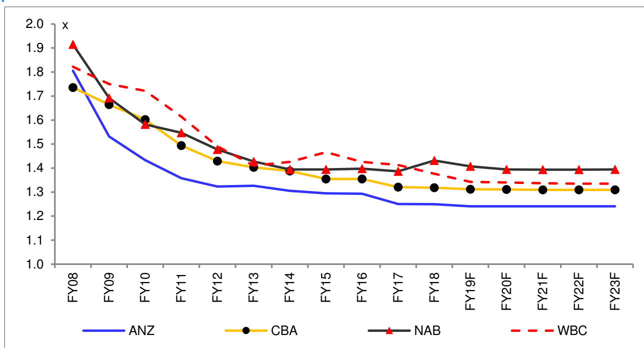
Source: Deutsche Bank, Company data

Figure 44: Non-housing loan growth … *gradual pick up*



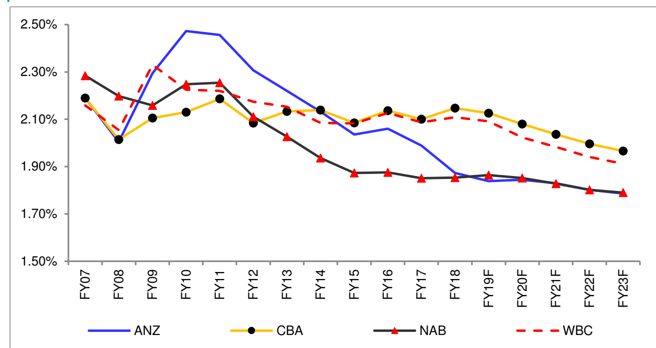
Source: Deutsche Bank, Company data

Figure 45: Loan to deposit ratio… *credit drives deposits?*



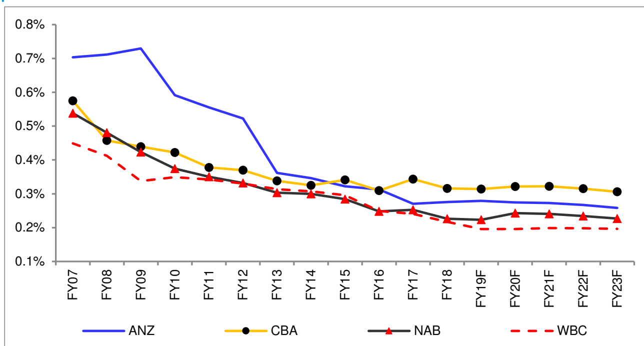
Source: Deutsche Bank, Company data

Figure 46: Net interest margin… *funding and business mix effects*



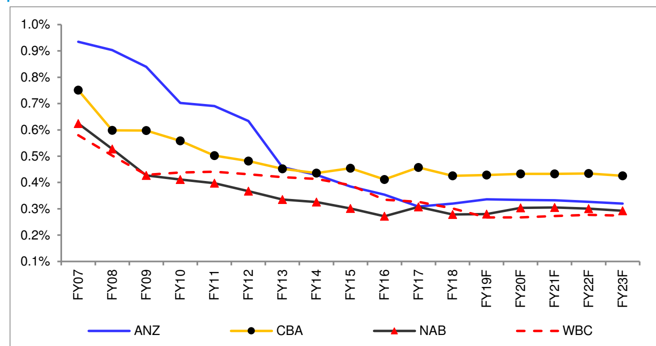
Source: Deutsche Bank, Company data

Figure 47: Fees to footings…



Source: Deutsche Bank, Company data

Figure 48: Fees to average assets…



Source: Deutsche Bank, Company data

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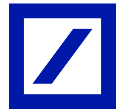
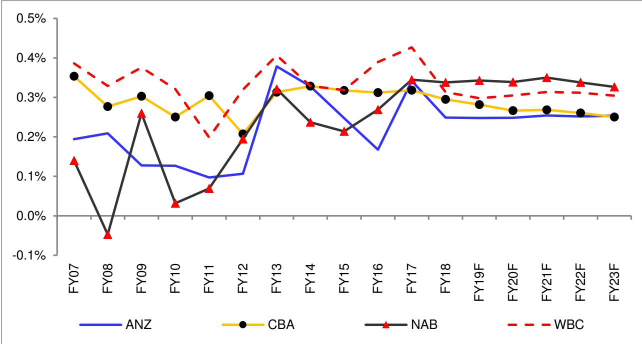
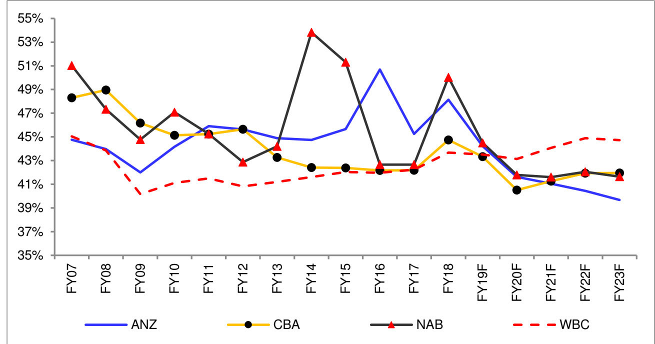


Figure 49: Markets income to NHLs & securities… *only some of it will come back*



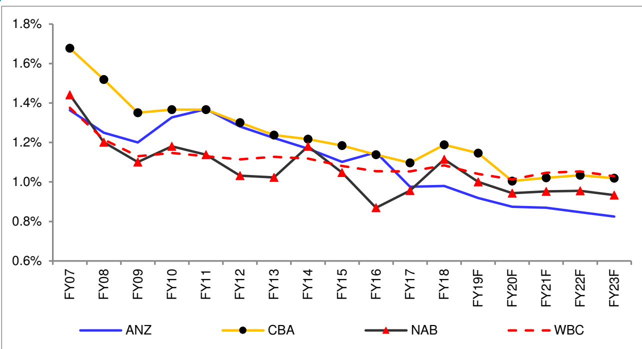
Source: Deutsche Bank, Company data. Note: Only includes trading income component as disclosed in OOI

Figure 50: Cost-to-income ratio… *differing levels of required investment*



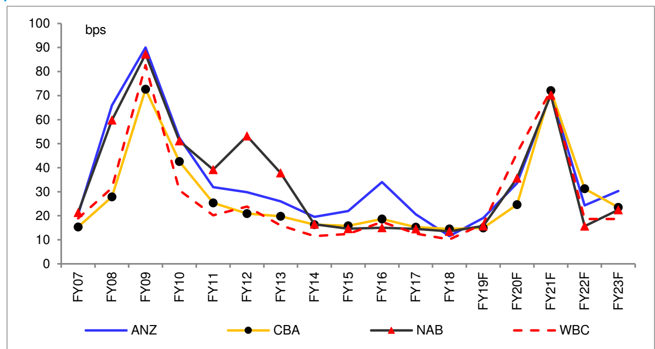
Source: Deutsche Bank, Company data

Figure 51: Cost to average assets… *unquestionably efficient*



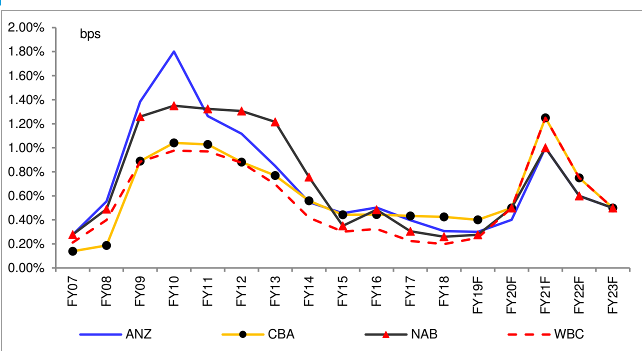
Source: Deutsche Bank, Company data

Figure 52: BDD/GLA… *a move to risk tendency in the near term*



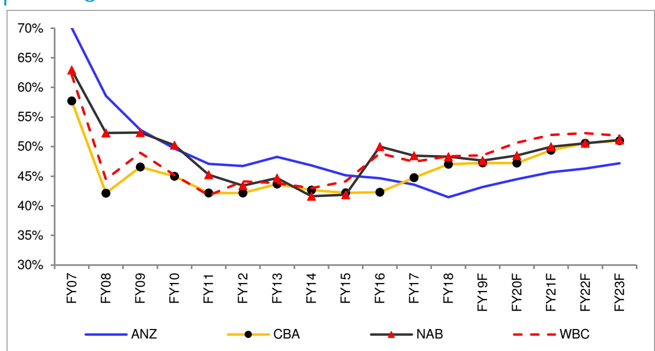
Source: Deutsche Bank, Company data

Figure 53: Non-performing loans



Source: Deutsche Bank, Company data

Figure 54: RWA to total assets… *more corporate, less housing*



Source: Deutsche Bank, Company data

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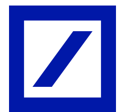
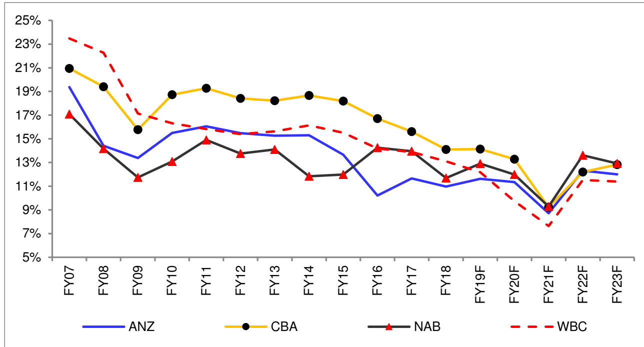
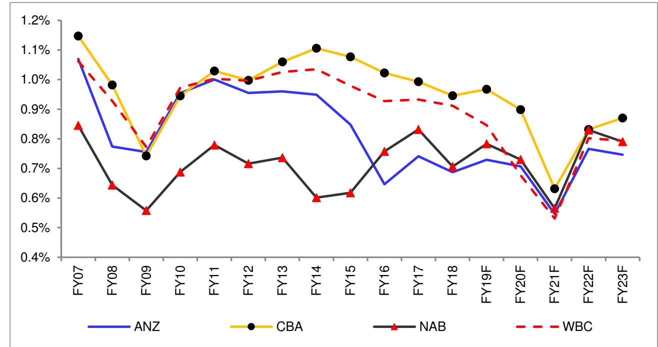


Figure 55: ROE… *exiting the forecast period with a "normal" return*



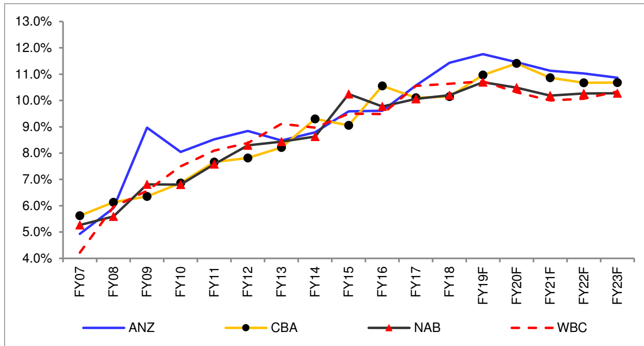
Source: Deutsche Bank, Company data

Figure 56: Return on assets..



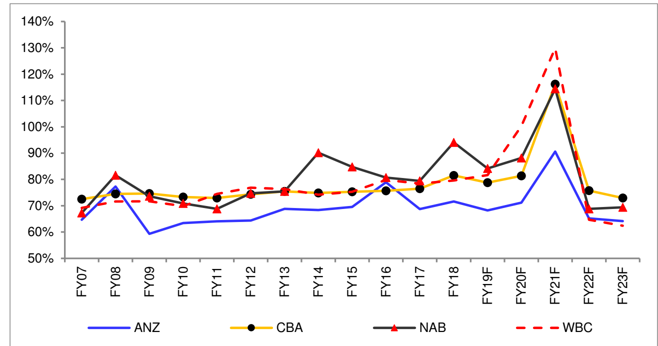
Source: Deutsche Bank, Company data

Figure 57: CET1 ratios… *no fundamental change in capital*



Source: Deutsche Bank, Company data

Figure 58: Dividend payout ratio… *more sustainable payout ratio*



Source: Deutsche Bank, Company data

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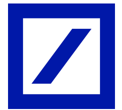

Valuation - Sector

We have changed our valuation methodology slightly with the change in the nature of the major banks' franchises. Given the extent of divestment across the sector, we have removed the sum of the parts (SOTP) methodology from the target price derivation. In its place, we employ a through-the-cycle normalised perspective on Return on Equity (RoE) to calculate the appropriate price to book multiple.

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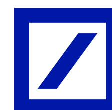

Valuation and risks - ANZ

Valuation

Our target price is $29/share, and is based on our DCF and Gordon Growth-based valuations.

DCF valuation $29/share

We use a three-stage DCF valuation which adjusts for different growth and cost of equity assumptions through time. In the early years, our risk free rate is lower at 3% to take account of the prevailing low interest rate environment. Our terminal year DCF assumptions include cost of equity of 11.0%, beta of 1.0, bond yield 5.0%, equity risk premium of 6% and terminal growth rate of 2.85%, which is based on long-term inflation forecast.

Gordon Growth-based valuation $27/share

We use a variant of the Gordon Growth model to derive the implied P/B multiple based on the group's ROE.

In our calculation we have used our view of the normalised, through-the-cycle ROE appropriate for the bank (12%), cost of equity of 11%, and a long-term growth rate of 2.85%.

Risks

The main downside risks include:

- Problems with residual Asian footprint positions;
- Missed execution in change management;
- Mortgage risk manifests in a difficult and protracted cycle.

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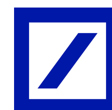

Valuation and risks - CBA

Valuation

Our revised target price is $60/share, and is based on our DCF and Gordon Growth-based valuations.

DCF valuation $60/share

We use a three-stage DCF valuation which adjusts for different growth and cost of equity assumptions through time. In the early years, our risk free rate is lower at 3% to take account of the prevailing low interest rate environment. Our terminal-year DCF assumptions include cost of equity of 10.85%, beta of 0.975, bond yield 5.0%, equity risk premium of 6% and terminal growth rate of 2.85%, which is based on long-term inflation forecast.

Gordon Growth-based valuation $58/share

We use a variant of the Gordon Growth model to derive the implied P/B multiple based on the group's ROE.

In our calculation we have used our view of the normalised, through-the-cycle ROE appropriate for the bank (13%), cost of equity of 10.85%, and a long-term growth rate of 2.85%.

Risks

The main upside risks include:

- Potential for further mortgage repricing;
- Better-than-expected management of retail banking returns;
- Better than expected progress in remediating conduct/ cultural issues.

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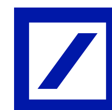

Valuation and risks - NAB

Valuation

Our revised target price is $29/share, and is based on our DCF and Gordon Growth-based valuations.

DCF valuation $31/share

We use a three-stage DCF valuation which adjusts for different growth and cost of equity assumptions through time. In the early years our risk free rate is lower at 3% to take account of the prevailing low interest rate environment. Our terminal year DCF assumptions include cost of equity of 11.0%, beta of 1.0, bond yield 5.0%, equity risk premium of 6% and terminal growth rate of 2.85%, which is based on long-term inflation forecast.

Gordon Growth-based valuation $26/share

We use a variant of the Gordon Growth model to derive the implied P/B multiple based on the group's ROE.

In our calculation we have used our view of the normalised, through-the-cycle ROE appropriate for the bank (12.5%), cost of equity of 11%, and a long-term growth rate of 2.85%.

Risks

The main downside risks include:

- Increased competition in SME lending, leading to reduced margins;
- Execution risk in reinvestment program;
- Mortgage risk manifests in a difficult and protracted cycle.

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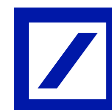

Valuation and risks - WBC

Valuation

Our revised target price is $22/share, and is based on our DCF and Gordon Growth-based valuations.

DCF valuation $24/share

We use a three-stage DCF valuation which adjusts for different growth and cost of equity assumptions through time. In the early years our risk free rate is lower at 3% to take account of the prevailing low interest rate environment. Our terminal year DCF assumptions include cost of equity of 11.0%, beta of 1.0, bond yield 5.0%, equity risk premium of 6% and terminal growth rate of 2.85%, which is based on long-term inflation forecast.

Gordon Growth-based valuation $25/share

We use a variant of the Gordon Growth model to derive the implied P/B multiple based on the group's ROE.

In our calculation we have used our view of the normalised, through-the-cycle ROE appropriate for the bank (12%), cost of equity of 11%, and a long-term growth rate of 2.85%.

We apply a short-term discount to reflect concerns in the mortgage book.

Risks

The main upside risks include:

- Better-than-expected performance of the mortgage book;
- Better-than-expected management of retail banking returns;
- Distinguished position in wealth management generates differential returns.

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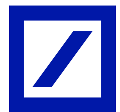
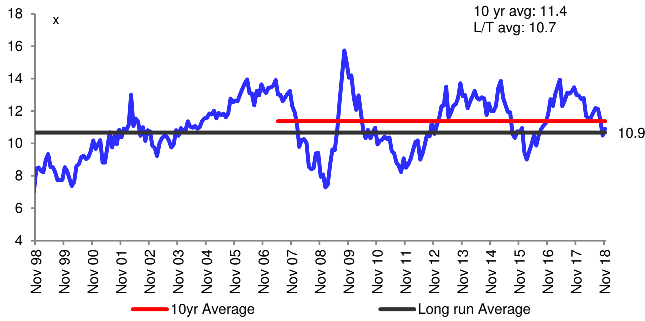


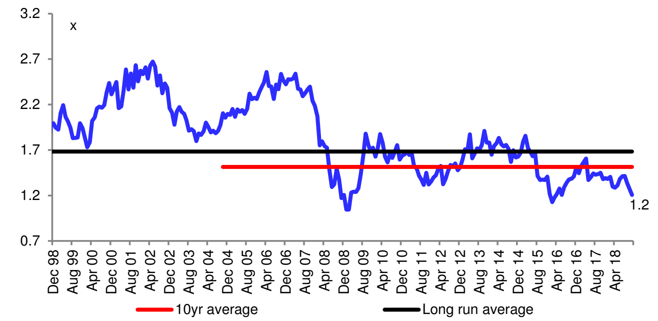
Valuation charts

Figure 59: ANZ - Forward PE



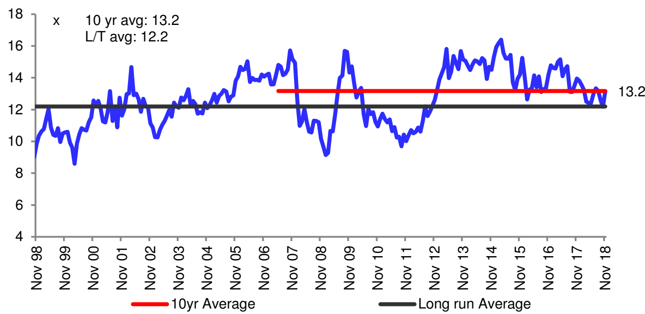
Source: Deutsche Bank, Factset

Figure 60: ANZ - P/BV



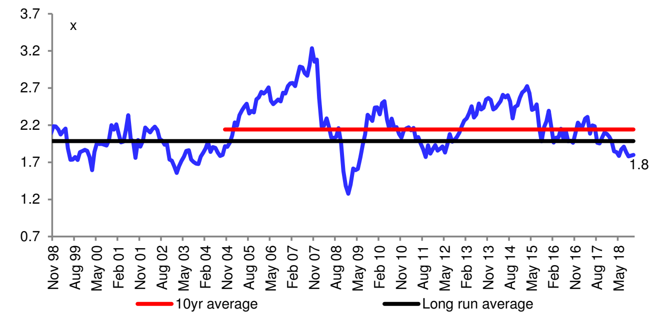
Source: Deutsche Bank, Factset

Figure 61: CBA - Forward PE



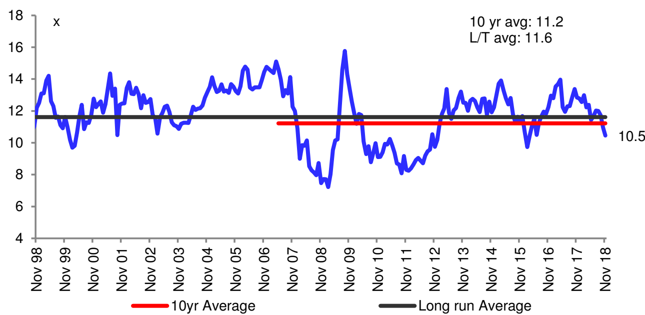
Source: Deutsche Bank, Factset

Figure 62: CBA - P/BV



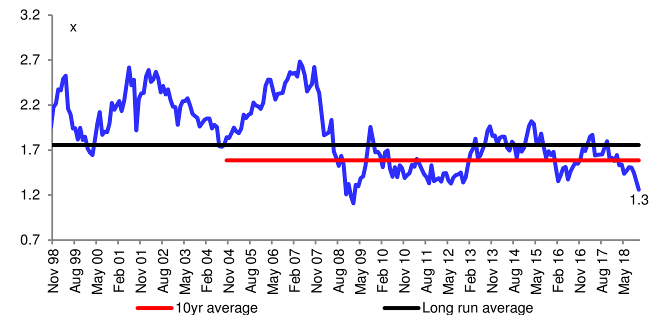
Source: Deutsche Bank, Factset

Figure 63: NAB - Forward PE



Source:

Figure 64: NAB - P/BV



Source: Deutsche Bank, Factset

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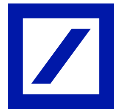
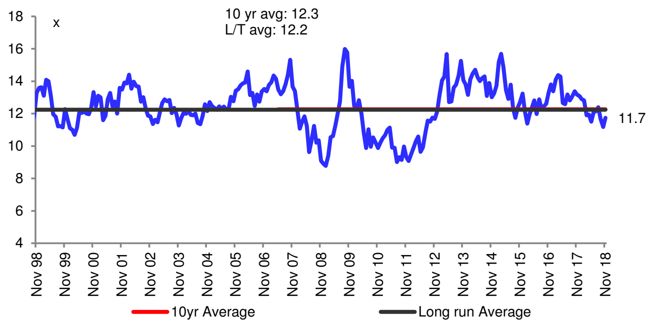
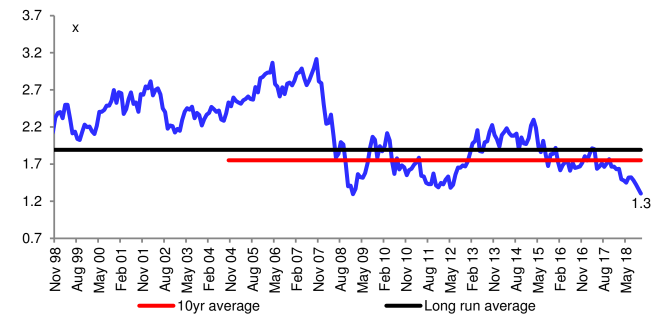


Figure 65: WBC - Forward PE



Source:Deutsche Bank, Factset

Figure 66: WBC - P/BV



Source: Deutsche Bank, Factset

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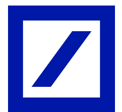

Financial Summaries

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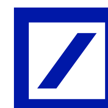

Figure 67: ANZ - Running the numbers

Model updated: 08.08.2018

Running the Numbers
Asia Pacific
Australia
Banks

ANZ

Reuters: ANZ.AX | Sedol: 6065586 | Bloomberg: ANZ AU

Buy

Price as of 20 November A$ 25.30
Target price A$ 29.00
Company website
http://www.anz.com

Research Team

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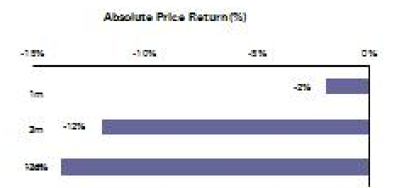
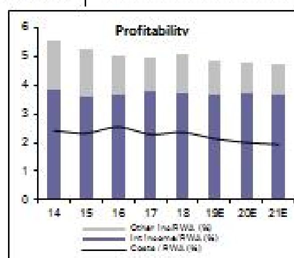
Anthony Hoo
+612 8258 2054 anthony.hoo@db.com

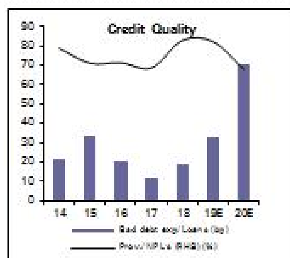
Absolute Price Return (%)

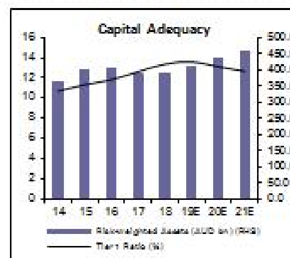


52-week High/Low: A$ 30.28 - 24.80
Market Cap (m) A$72,154
USD$54,426

Year Ending 30 September	13/14	14/15	15/16	16/17	17/18	18/19E	19/20E	20/21E
DATA PER SHARE								
EPS (stated) (A$)	2.66	2.70	1.96	2.17	2.44	2.43	2.45	1.92
EPS (DB) (A$)	2.51	2.47	1.94	2.23	2.14	2.32	2.34	1.85
Growth Rate - EPS (DB) (%)	8.7	-1.4	-21.4	14.9	-4.1	8.7	0.5	-20.6
DPS (A$)	1.78	1.81	1.60	1.60	1.60	1.66	1.74	1.74
NAV / Share (A$)	17.53	19.72	19.75	20.07	20.62	21.02	21.74	21.90
Tang. NAV p. sh. (A$)	14.65	16.86	17.13	17.70	18.90	19.29	20.01	20.17
Market Capitalisation Y/E (AUD m)	76,240	83,097	73,112	89,979	89,828	72,154	72,154	72,154
Shares in issue (m)	2,934	3,032	3,187	3,182	3,164	3,094	3,087	3,090
VALUATION RATIOS & PROFITABILITY MEASURES								
P/E (stated)	9.8	10.1	11.7	13.0	11.6	10.4	10.3	13.2
P/E (DB)	10.4	11.1	11.8	12.7	13.3	10.9	10.8	13.6
P/B (stated)	1.5	1.4	1.2	1.4	1.4	1.2	1.2	1.2
P/Tangible equity (DB)	1.8	1.6	1.3	1.6	1.5	1.3	1.3	1.3
ROE (cash) (%)	15.3	13.7	10.2	11.7	11.0	11.6	11.4	8.8
RoTE (core tangible equity) (%)	17.1	14.7	11.3	12.6	11.3	12.1	11.7	9.2
Dividend yield (%)	6.9	6.6	7.0	5.7	5.6	6.6	6.9	6.9
Dividend cover (x)	1.50	1.49	1.23	1.35	1.53	1.47	1.41	1.10
Payout Ratio (%)	68.4	69.5	79.0	68.8	71.6	68.2	71.2	90.6
PROFIT & LOSS (AUD m)								
Net interest revenue	13,810	14,616	15,095	14,875	14,514	14,998	15,824	16,310
Non-interest income	6,244	6,474	5,451	4,523	5,317	4,706	4,734	4,830
Commissions	2,515	2,631	2,545	2,453	2,254	2,226	2,271	2,282
Trading revenue	1,211	880	867	1,445	1,666	2,140	2,387	2,540
Other revenue	2,518	2,963	2,039	625	1,397	340	77	8
Total revenue	20,054	21,090	20,546	19,398	19,831	19,703	20,558	21,141
Total Operating Costs	8,760	9,378	10,439	8,967	9,248	8,711	8,557	8,680
Employee costs	5,088	5,479	5,541	4,924	4,758	4,630	4,664	4,754
Other costs	3,672	3,899	4,898	4,043	4,490	4,081	3,893	3,926
Pre-Provision profit / (loss)	11,294	11,712	10,107	10,431	10,583	10,992	12,001	12,461
Bad debt expense	986	1,179	1,929	1,198	688	1,184	2,163	4,721
Operating Profit	10,308	10,533	8,178	9,233	9,895	9,808	9,838	7,740
Pre-tax profit	10,308	10,533	8,178	9,233	9,895	9,808	9,838	7,740
Tax	3,025	3,026	2,458	2,874	2,784	2,874	2,883	2,268
Post tax associates	0	0	0	0	0	0	0	0
Other post tax items	-6	-13	-11	-15	-16	-18	-18	-18
Stated net profit	7,277	7,494	5,709	6,344	7,095	6,916	6,938	5,454
Reconciliation to DB adjusted core earnings								
Goodwill	0	0	0	0	0	0	0	0
Extraordinaries / significant items	-166	-279	180	465	-608	0	0	0
Investment reval, cap gains / losses	0	0	0	0	0	0	0	0
DB adj. core earnings	7,111	7,215	5,889	6,809	6,487	6,916	6,938	5,454
KEY BALANCE SHEET ITEMS (AUD m) & CAPITAL RATIOS								
Risk weighted assets	361,529	401,937	408,582	391,113	390,820	411,144	440,087	457,906
Interest earning assets	646,997	718,147	730,835	747,993	774,884	815,787	855,634	891,410
Total loans	521,752	562,173	575,852	574,331	603,938	628,716	654,154	669,274
Total deposits	510,079	570,794	588,195	595,611	618,150	647,413	672,344	689,055
Stated Shareholder Equity	49,284	57,353	57,927	59,075	59,383	59,896	62,000	62,503
Tangible shareholders equity	40,386	48,935	50,146	51,989	54,313	52,532	54,942	57,567
Tier 1 capital	38601	45484	48285	49324	52218	55821	57661	57874
Tier 1 ratio (%)	10.7	11.3	11.8	12.6	13.4	13.6	13.1	12.6
Core tier 1 ratio (%)	8.8	9.6	9.6	10.6	11.4	11.7	11.4	11.0
Tangible equity / total assets (%)	5.4	5.7	5.6	5.9	5.8	5.6	5.7	5.9
CREDIT QUALITY								
Gross NPLs / Total Loans (%)	0.93	0.91	1.02	0.93	0.83	0.84	0.95	1.65
Risk Provisions / NPLs (%)	81	79	71	71	69	83	82	68
Bad debt chg / Avg Loans (%)	0.19	0.21	0.33	0.21	0.11	0.19	0.33	0.71
GROWTH RATES & KEY RATIOS								
Growth in revenues (%)	8.6	5.2	-2.6	-5.6	2.2	-0.6	4.3	2.8
Growth in costs (%)	6.1	7.1	11.3	-14.1	3.1	-5.8	-1.8	1.4
Growth in bad debts (%)	-17.0	19.6	63.6	-37.9	-42.6	72.1	82.7	118.2
Growth in RWA (%)	6.6	11.2	1.7	-4.3	-0.1	5.2	7.0	4.0
Growth in loans (%)	8.0	7.7	2.4	-0.3	5.2	4.1	4.0	2.3
Growth in deposits (%)	9.2	11.9	3.0	1.3	3.8	4.7	3.9	2.5
Net int. margin (%)	2.13	2.04	2.06	1.99	1.87	1.84	1.84	1.83
Cost income ratio (%)	43.7	44.5	50.8	46.2	46.6	44.2	41.6	41.1
Trading income / Total Rev (%)	6.0	4.2	4.2	7.4	8.4	10.9	11.6	12.0
Total loans / Total deposits (%)	102	98	98	96	98	97	97	97







Source: Deutsche Bank, Company data

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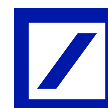

Figure 68: CBA - Running the numbers

Model updated: 08.08.2018

Running the Numbers
Asia Pacific
Australia
Banks

Commonwealth Bank

Reuters: CBA.AX | Sedol: 6215035 | Bloomberg: CBA AU

Sell

Price as of 20 November	A$ 69.20
Target price	A$ 60.00
Company website	
http://www.commbank.com.au	

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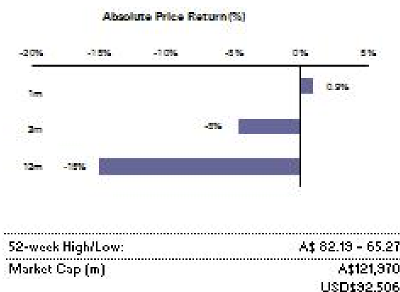
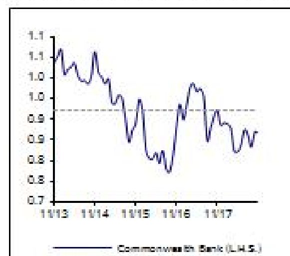
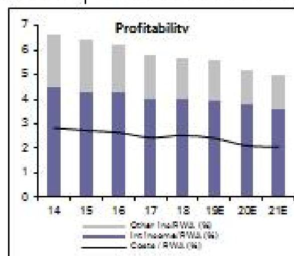
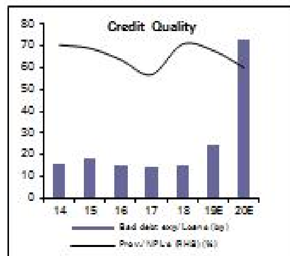


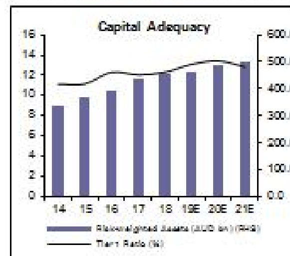
52-week High/Low:	A$ 82.19 - 65.27
Market Cap (m)	A$121,970
	USD$92,506

Year Ending 30 June	13/14	14/15	15/16	16/17	17/18	18/19E	19/20E	20/21E
DATA PER SHARE								
EPS (stated) (A$)	5.33	5.53	5.42	5.77	5.36	5.47	5.30	3.71
EPS (DB) (A$)	5.24	5.32	5.41	5.45	5.11	5.30	5.14	3.64
Growth Rate - EPS (DB) (%)	11.9	1.6	1.7	0.8	-6.3	3.8	-3.1	-29.2
DPS (A$)	4.01	4.20	4.20	4.29	4.31	4.31	4.31	4.31
NAV / Share (A$)	29.53	31.64	34.99	36.48	38.25	38.77	40.44	39.67
Tang. NAV p. sh. (A$)	23.49	25.51	28.34	30.69	33.12	33.62	35.31	34.56
Market Capitalisation Y/E (AUD m)	127,611	147,418	137,221	143,051	140,514	121,970	121,970	121,970
Shares in issue (m)	1,685	1,750	1,772	1,805	1,829	1,836	1,838	1,845
VALUATION RATIOS & PROFITABILITY MEASURES								
P/E (stated)	14.2	15.2	14.3	13.7	14.3	12.5	12.9	18.5
P/E (DB)	14.5	15.8	14.3	14.5	15.0	12.9	13.3	18.8
P/B (stated)	2.6	2.7	2.2	2.2	2.0	1.8	1.7	1.7
P/Tangible equity (DB)	3.2	3.3	2.7	2.6	2.3	2.0	1.9	2.0
ROE (cash) (%)	18.7	18.2	16.7	15.6	14.1	14.1	13.3	9.2
RoTE (core tangible equity) (%)	22.3	20.9	18.7	17.8	15.4	15.8	14.6	10.5
Dividend yield (%)	5.3	5.0	5.4	5.4	5.6	6.3	6.3	6.3
Dividend cover (x)	1.33	1.32	1.29	1.34	1.24	1.27	1.23	0.86
Payout Ratio (%)	74.8	75.3	75.7	76.5	81.5	78.8	81.4	116.2
PROFIT & LOSS (AUD m)								
Net interest revenue	15,101	15,761	16,935	17,534	18,341	18,542	18,661	18,602
Non-interest income	7,387	7,907	7,643	7,860	7,791	7,679	6,920	7,012
Commissions	3,213	3,276	3,225	3,635	3,800	3,823	4,032	4,042
Trading revenue	922	1,039	1,087	1,149	1,025	973	977	981
Other revenue	3,252	3,592	3,331	3,076	2,966	2,884	1,911	1,989
Total revenue	22,488	23,668	24,578	25,394	26,132	26,221	25,581	25,614
Total Operating Costs	9,573	10,068	10,473	10,673	11,603	11,360	10,363	10,571
Employee costs	5,542	5,816	6,169	6,043	5,939	5,905	5,922	5,988
Other costs	4,031	4,252	4,304	4,630	5,664	5,455	4,441	4,583
Pre-Provision profit / (loss)	12,915	13,600	14,105	14,721	14,529	14,860	15,219	15,043
Bad debt expense	918	988	1,256	1,095	1,079	1,130	1,910	5,676
Operating Profit	11,997	12,612	12,849	13,626	13,450	13,730	13,308	9,366
Pre-tax profit	11,997	12,612	12,849	13,626	13,450	13,730	13,308	9,366
Tax	3,347	3,528	3,606	3,881	4,026	4,119	3,992	2,810
Post tax associates	0	0	0	0	0	0	0	0
Other post tax items	-64	-73	-70	183	-65	-20	-20	-20
Stated net profit	8,586	9,011	9,173	9,928	9,359	9,591	9,296	6,536
Reconciliation to DB adjusted core earnings								
Goodwill	0	0	0	0	0	0	0	0
Extraordinaries / significant items	49	74	222	-273	-126	0	0	0
Investment reval, cap gains / losses	0	0	0	0	0	0	0	0
DB adj. core earnings	8,635	9,085	9,395	9,655	9,233	9,591	9,296	6,536
KEY BALANCE SHEET ITEMS (AUD m) & CAPITAL RATIOS								
Risk weighted assets	337,715	368,721	394,667	437,063	458,612	464,803	486,862	501,612
Interest earning assets	705,498	756,010	790,650	834,839	854,286	872,321	894,749	913,472
Total loans	603,100	644,228	700,299	736,539	748,029	766,584	786,467	788,117
Total deposits	498,352	543,231	588,045	626,655	622,234	640,804	657,660	661,089
Stated Shareholder Equity	49,348	52,993	60,564	63,660	67,860	68,442	71,675	70,617
Tangible shareholders equity	38,080	41,522	49,630	53,090	58,283	59,382	62,119	65,080
Tier 1 capital	37608	41147	48553	52684	56432	60880	65433	64375
Tier 1 ratio (%)	11.1	11.2	12.3	12.1	12.3	13.1	13.4	12.8
Core tier 1 ratio (%)	9.3	9.1	10.6	10.1	10.1	11.0	11.4	10.9
Tangible equity / total assets (%)	4.8	4.8	5.3	5.4	6.0	6.0	6.0	6.4
CREDIT QUALITY								
Gross NPLs / Total Loans (%)	0.95	0.80	0.78	0.80	0.85	0.86	0.99	1.79
Risk Provisions / NPLs (%)	68	70	69	64	57	71	68	60
Bad debt chg / Avg Loans (%)	0.15	0.15	0.18	0.15	0.15	0.15	0.24	0.72
GROWTH RATES & KEY RATIOS								
Growth in revenues (%)	7.7	5.2	3.8	3.3	2.9	0.3	-2.4	0.1
Growth in costs (%)	5.4	5.2	4.0	1.9	8.7	-2.1	-8.8	2.0
Growth in bad debts (%)	-19.9	7.6	27.1	-12.8	-1.5	4.8	69.0	197.1
Growth in RWA (%)	2.6	9.2	7.0	10.7	4.9	1.3	4.7	3.0
Growth in loans (%)	7.4	6.8	8.7	5.2	1.6	2.5	2.6	0.2
Growth in deposits (%)	8.5	9.0	8.2	6.6	-0.7	3.0	2.6	0.5
Net int. margin (%)	2.14	2.09	2.14	2.10	2.15	2.13	2.08	2.04
Cost income ratio (%)	42.6	42.5	42.6	42.0	44.4	43.3	40.5	41.3
Trading income / Total Rev (%)	4.1	4.4	4.4	4.5	3.9	3.7	3.8	3.8
Total loans / Total deposits (%)	121	119	119	118	120	120	120	119









Source: Deutsche Bank, Company data

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Figure 69: NAB - Running the numbers

Model updated: 08.08.2018

Running the Numbers
Asia Pacific
Australia
Banks

National Australia Bank

Reuters: NAB.AX Sedol: 6624608 Bloomberg: NAB AU

Buy

Price as of 20 November	A$ 23.89
Target price	A$ 29.00
Company website	
http://www.national.com.au	

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Absolute Price Return (%)

1m	-8%
3m	-16%
12m	-21%

52-week High/Low:	A$ 30.41 - 23.58
Market Cap (m)	A$64,993
	USD$49,024

Year Ending 30 September	13/14	14/15	15/16	16/17	17/18	18/19E	19/20E	20/21E
DATA PER SHARE								
EPS (stated) (A$)	2.17	2.47	2.38	2.28	2.16	2.37	2.26	1.75
EPS (DB) (A$)	2.16	2.28	2.34	2.40	2.02	2.30	2.20	1.72
Growth Rate - EPS (DB) (%)	-12.8	5.4	3.0	2.3	-15.5	13.5	-4.1	-21.8
DPS (A$)	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98
NAV / Share (A$)	18.33	19.87	18.06	18.01	18.20	18.79	19.11	18.93
Tang. NAV p. sh. (A$)	15.06	17.07	16.06	15.93	16.09	16.62	16.89	16.83
Market Capitalisation Y/E (AUD m)	84,021	90,300	78,418	87,530	85,203	64,993	64,993	64,993
Shares in issue (m)	2,451	2,637	2,853	2,873	2,940	2,945	2,987	3,004
VALUATION RATIOS & PROFITABILITY MEASURES								
P/E (stated)	15.8	13.8	11.5	13.4	13.4	10.0	10.4	13.5
P/E (DB)	15.9	15.0	11.7	12.7	14.3	10.3	10.7	13.7
P/B (stated)	1.9	1.7	1.5	1.7	1.6	1.3	1.2	1.2
P/Tangible equity (DB)	2.3	2.0	1.7	1.9	1.8	1.4	1.4	1.4
ROE (cash) (%)	11.8	12.0	14.3	14.0	11.7	12.9	12.0	9.3
RoTE (core tangible equity) (%)	14.3	13.3	14.6	15.1	12.6	13.8	13.1	10.2
Dividend yield (%)	5.8	5.8	7.2	6.5	6.8	8.4	8.4	8.4
Dividend cover (x)	1.10	1.25	1.20	1.15	1.09	1.20	1.14	0.88
Payout Ratio (%)	90.1	84.7	80.7	79.4	94.1	84.2	88.2	114.4
PROFIT & LOSS (AUD m)								
Net interest revenue	13,739	13,982	12,930	13,182	13,505	14,136	14,639	14,934
Non-interest income	5,509	6,194	5,192	4,842	5,596	4,652	5,014	5,099
Commissions	2,505	2,453	2,093	2,131	2,185	2,227	2,272	2,283
Trading revenue	892	844	945	1,240	1,266	1,356	1,417	1,481
Other revenue	2,112	2,897	2,154	1,471	2,145	1,069	1,325	1,335
Total revenue	19,248	20,176	18,122	18,024	19,101	18,789	19,653	20,033
Total Operating Costs	10,438	10,252	8,331	8,539	9,910	8,340	8,194	8,316
Employee costs	4,532	4,635	4,752	4,418	4,961	4,270	4,123	4,129
Other costs	5,906	5,617	3,579	4,121	4,949	4,069	4,071	4,186
Pre-Provision profit / (loss)	8,810	9,924	9,791	9,485	9,191	10,449	11,458	11,717
Bad debt expense	855	844	813	824	791	942	2,215	4,485
Operating Profit	7,955	9,080	8,978	8,661	8,400	9,507	9,243	7,232
Pre-tax profit	7,955	9,080	8,978	8,661	8,400	9,507	9,243	7,232
Tax	2,657	2,717	2,553	2,480	2,455	2,839	2,760	2,156
Post tax associates	0	0	0	0	0	0	0	0
Other post tax items	-183	-181	-129	-101	-104	-98	-98	-98
Stated net profit	5,115	6,182	6,296	6,080	5,841	6,570	6,385	4,977
Reconciliation to DB adjusted core earnings								
Goodwill	0	0	0	0	0	0	0	0
Extraordinaries / significant items	69	-343	187	562	-139	-44	-44	-44
Investment reval, cap gains / losses	0	0	0	0	0	0	0	0
DB adj. core earnings	5,184	5,839	6,483	6,642	5,702	6,526	6,341	4,933
KEY BALANCE SHEET ITEMS (AUD m) & CAPITAL RATIOS								
Risk weighted assets	367,652	399,758	388,445	382,114	389,684	402,230	423,791	435,990
Interest earning assets	711,582	748,404	689,526	711,249	726,657	756,114	788,202	814,516
Total loans	539,690	578,401	541,705	561,243	581,427	607,227	627,072	637,147
Total deposits	476,208	489,010	459,714	500,604	503,145	522,856	543,575	554,751
Stated Shareholder Equity	47,908	55,513	51,315	51,317	52,712	55,735	57,153	57,116
Tangible shareholders equity	40,171	48,147	45,990	45,705	46,914	49,841	51,849	54,164
Tier 1 capital	39758	49743	47336	47417	48254	51510	52928	52891
Tier 1 ratio (%)	10.8	12.4	12.2	12.4	12.4	12.8	12.5	12.1
Core tier 1 ratio (%)	8.6	10.2	9.8	10.1	10.2	10.7	10.5	10.2
Tangible equity / total assets (%)	4.5	5.0	5.9	5.8	5.8	5.9	5.9	6.2
CREDIT QUALITY								
Gross NPLs / Total Loans (%)	1.20	0.72	0.85	0.71	0.72	0.80	1.10	1.71
Risk Provisions / NPLs (%)	62	99	76	88	89	82	74	63
Bad debt chg / Avg Loans (%)	0.20	0.16	0.16	0.15	0.14	0.16	0.36	0.72
GROWTH RATES & KEY RATIOS								
Growth in revenues (%)	5.7	4.8	-10.2	-0.5	6.0	-1.6	4.6	1.9
Growth in costs (%)	25.7	-1.8	-18.7	2.5	16.1	-15.8	-1.7	1.5
Growth in bad debts (%)	-52.8	-1.3	-3.7	1.4	-4.0	19.2	135.1	102.5
Growth in RWA (%)	1.5	8.7	-2.8	-1.6	2.0	3.2	5.4	2.9
Growth in loans (%)	5.4	7.2	-6.3	3.6	3.6	4.4	3.3	1.6
Growth in deposits (%)	7.0	2.7	-6.0	8.9	0.5	3.9	4.0	2.1
Net int. margin (%)	1.94	1.87	1.88	1.85	1.85	1.86	1.85	1.83
Cost income ratio (%)	54.2	50.8	46.0	47.4	51.9	44.4	41.7	41.5
Trading income / Total Rev (%)	4.6	4.2	5.2	6.9	6.6	7.2	7.2	7.4
Total loans / Total deposits (%)	113	118	118	112	116	116	115	115

Profitability

Credit Quality

Capital Adequacy

Source: Deutsche Bank, Company data

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Figure 70: WBC - Running the numbers

Model updated: 08.08.2018

Running the Numbers
Asia Pacific
Australia
Banks

Westpac

Reuters: WBC.AX Sedol: 6076146 Bloomberg: WBC AU

Sell

Price as of 20 November	A$ 25.44
Target price	A$ 22.00

Company website
http://www.westpac.com.au

Research Team

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Absolute Price Return (%)

1m	-6%
3m	-14%
12m	-21%

52-week High/Low:	A$ 31.90 - 25.12
Market Cap (m)	A$86,797
	USD$65,471

Year Ending 30 September	13/14	14/15	15/16	16/17	17/18	18/19E	19/20E	20/21E
DATA PER SHARE								
EPS (stated) (A$)	2.43	2.54	2.24	2.38	2.38	2.30	1.88	1.44
EPS (DB) (A$)	2.39	2.41	2.28	2.31	2.28	2.22	1.83	1.42
Growth Rate - EPS (DB) (%)	8.3	0.9	-5.6	1.3	-1.4	-2.2	-17.9	-22.1
DPS (A$)	1.82	1.87	1.88	1.88	1.88	1.88	1.88	1.88
NAV / Share (A$)	15.59	16.68	17.37	18.06	18.78	19.27	19.34	18.98
Tang. NAV p. sh. (A$)	11.57	13.09	13.91	14.66	15.40	15.91	16.00	15.66
Market Capitalisation Y/E (AUD m)	109,079	113,058	107,736	115,757	110,282	86,797	86,797	86,797
Shares in issue (m)	3,259	3,316	3,532	3,604	3,669	3,700	3,722	3,743
VALUATION RATIOS & PROFITABILITY MEASURES								
P/E (stated)	13.8	13.4	13.6	13.5	12.7	10.9	13.4	17.4
P/E (DB)	14.0	14.1	13.4	13.9	13.2	11.3	13.7	17.7
P/B (stated)	2.1	2.0	1.8	1.8	1.6	1.3	1.3	1.3
P/Tangible equity (DB)	2.9	2.6	2.2	2.2	2.0	1.6	1.6	1.6
ROE (cash) (%)	16.1	15.5	14.2	13.9	13.1	12.2	9.7	7.6
RoTE (core tangible equity) (%)	20.7	18.4	16.4	15.7	14.8	14.0	11.4	9.1
Dividend yield (%)	5.4	5.5	6.2	5.9	6.3	7.5	7.5	7.5
Dividend cover (x)	1.34	1.36	1.19	1.26	1.26	1.22	1.00	0.77
Payout Ratio (%)	74.2	75.3	79.8	78.4	79.6	81.7	100.2	130.4
PROFIT & LOSS (AUD m)								
Net interest revenue	13,542	14,267	15,148	15,516	16,505	16,684	16,586	16,505
Non-interest income	6,395	7,375	5,837	6,286	5,628	5,738	5,978	6,132
Commissions	2,926	2,942	2,755	2,755	2,550	2,422	2,483	2,501
Trading revenue	1,017	964	1,124	1,217	926	915	956	999
Other revenue	2,452	3,469	1,958	2,314	2,152	2,401	2,539	2,631
Total revenue	19,937	21,642	20,985	21,802	22,133	22,423	22,564	22,637
Total Operating Costs	8,547	9,473	9,217	9,434	9,675	9,755	9,734	9,960
Employee costs	4,667	4,751	4,601	4,701	4,887	5,004	5,107	5,235
Other costs	3,880	4,722	4,616	4,733	4,788	4,751	4,627	4,725
Pre-Provision profit / (loss)	11,390	12,169	11,768	12,368	12,458	12,668	12,830	12,677
Bad debt expense	650	753	1,124	853	710	1,200	3,429	5,485
Operating Profit	10,740	11,416	10,644	11,515	11,748	11,468	9,401	7,192
Pre-tax profit	10,740	11,416	10,644	11,515	11,748	11,468	9,401	7,192
Tax	3,115	3,348	3,184	3,518	3,632	3,529	2,893	2,158
Post tax associates	0	0	0	0	0	0	0	0
Other post tax items	-64	-56	-15	-7	-4	-4	-4	-4
Stated net profit	7,561	8,012	7,445	7,990	8,112	7,934	6,504	5,030
Reconciliation to DB adjusted core earnings								
Goodwill	0	0	0	-137	0	0	0	0
Extraordinaries / significant items	67	-192	377	72	-30	0	0	0
Investment reval, cap gains / losses	0	0	0	0	0	0	0	0
DB adj. core earnings	7,628	7,820	7,822	8,062	8,082	7,934	6,504	5,030
KEY BALANCE SHEET ITEMS (AUD m) & CAPITAL RATIOS								
Risk weighted assets	331,387	358,580	410,053	404,235	425,384	441,379	465,587	475,445
Interest earning assets	647,362	683,800	721,843	752,274	774,923	797,850	819,971	832,033
Total loans	583,516	626,344	665,256	687,785	712,504	733,324	752,331	752,186
Total deposits	460,822	475,328	513,071	533,591	559,285	575,628	590,548	590,433
Stated Shareholder Equity	49,337	53,915	58,181	61,342	64,573	66,688	67,335	66,473
Tangible shareholders equity	35,850	41,524	46,399	49,636	52,758	55,305	58,104	61,013
Tier 1 capital	34997	40798	45785	52277	54846	56961	57608	56746
Tier 1 ratio (%)	10.6	11.4	11.2	12.9	12.9	12.9	12.4	11.9
Core tier 1 ratio (%)	9.0	9.5	9.5	10.6	10.6	10.7	10.3	9.9
Tangible equity / total assets (%)	4.7	5.1	5.5	5.8	6.0	6.1	6.3	6.7
CREDIT QUALITY								
Gross NPLs / Total Loans (%)	0.79	0.67	0.80	0.73	0.76	0.89	1.22	2.09
Risk Provisions / NPLs (%)	76	80	67	62	56	51	62	53
Bad debt chg / Avg Loans (%)	0.11	0.12	0.17	0.12	0.10	0.16	0.46	0.74
GROWTH RATES & KEY RATIOS								
Growth in revenues (%)	7.2	8.6	-3.0	3.9	1.5	1.3	0.6	0.3
Growth in costs (%)	7.2	10.8	-2.7	2.4	2.6	0.8	-0.2	2.3
Growth in bad debts (%)	-23.3	15.8	49.3	-24.1	-16.8	69.1	185.6	60.0
Growth in RWA (%)	7.8	8.2	14.4	-1.4	5.2	3.8	5.5	2.1
Growth in loans (%)	8.2	7.3	6.2	3.4	3.6	2.9	2.6	0.0
Growth in deposits (%)	8.6	3.1	7.9	4.0	4.8	2.9	2.6	0.0
Net int. margin (%)	2.08	2.08	2.13	2.09	2.11	2.09	2.02	1.98
Cost income ratio (%)	42.9	43.8	43.9	43.3	43.7	43.5	43.1	44.0
Trading income / Total Rev (%)	5.1	4.5	5.4	5.6	4.2	4.1	4.2	4.4
Total loans / Total deposits (%)	127	132	130	129	127	127	127	127

Profitability

Credit Quality

Capital Adequacy

Source: Deutsche Bank, Company data

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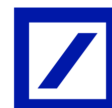

Appendix 1

Important Disclosures

*Other information available upon request

Disclosure checklist

Company	Ticker	Recent price*	Disclosure
ANZ	ANZ.AX	25.42 (AUD) 21 Nov 2018	1, 4, 7, 11, 14, 15
Commonwealth Bank	CBA.AX	70.06 (AUD) 21 Nov 2018	1, 7, 14, 15
National Australia Bank	NAB.AX	24.01 (AUD) 21 Nov 2018	1, 7, 14, 15
Westpac	WBC.AX	25.59 (AUD) 21 Nov 2018	1, 7, 14, 15

*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors . Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at https://research.db.com/Research/Disclosures/CompanySearch. Aside from within this report, important risk and conflict disclosures can also be found at https://research.db.com/Research/Topics/Equities?topicId=RB0002. Investors are strongly encouraged to review this information before investing.

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Disclosures marked with an asterisk may also be required by at least one jurisdiction in addition to the United States.See Important Disclosures Required by Non-US Regulators and Explanatory Notes.

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1. Within the past year, Deutsche Bank and/or its affiliate(s) has managed or co-managed a public or private offering for this company, for which it received fees.
4. The research analyst(s) or an individual who assisted in the preparation of this report (or a member of his/her household) has a financial interest in the securities, or derivatives thereof, issued by this company or sovereign. Please contact us if you are interested in further information.
7. Deutsche Bank and/or its affiliate(s) has received compensation from this company for the provision of investment banking or financial advisory services within the past year.

Special Disclosures

11. A family member of the Coverage Analyst is also an employee of ANZ Bank.

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Analyst Certification

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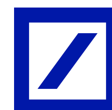
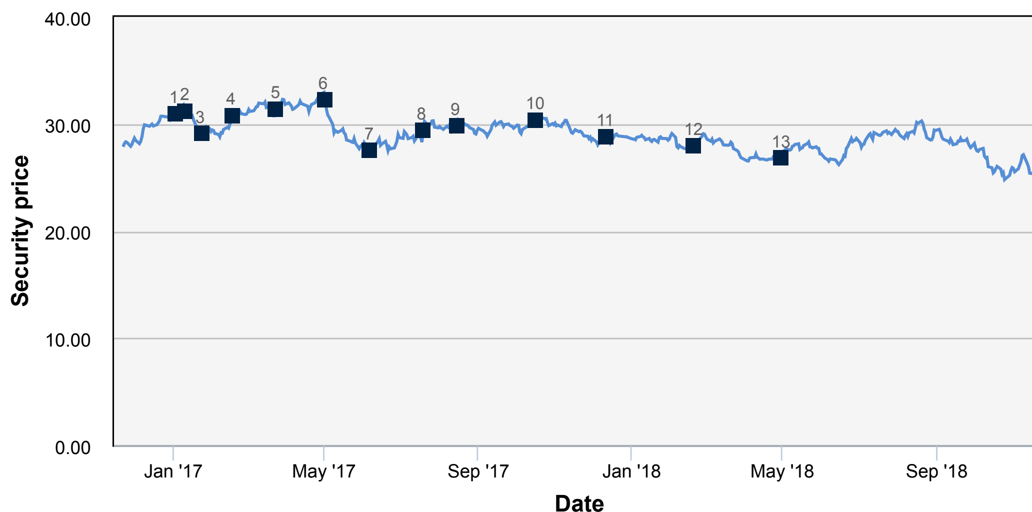


Analyst Certification

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst about the subject issuers and the securities of those issuers. In addition, the undersigned lead analyst has not and will not receive any compensation for providing a specific recommendation or view in this report. Matthew Wilson

Historical recommendations and target price. ANZ (ANZ.AX)

(as of 11/19/2018)



Current Recommendations

Buy
Hold
Sell
Not Rated
Suspended Rating

** Analyst is no longer at Deutsche Bank

1.	01/03/2017	Hold, Target Price Change AUD 30.70 Andrew Triggs**
2.	01/11/2017	Hold, Target Price Change AUD 30.90 Andrew Triggs**
3.	01/24/2017	Hold, Target Price Change AUD 29.60 Andrew Triggs**
4.	02/17/2017	Hold, Target Price Change AUD 31.30 Andrew Triggs**
5.	03/24/2017	Hold, Target Price Change AUD 32.60 Andrew Triggs**
6.	05/02/2017	Hold, Target Price Change AUD 32.70 Andrew Triggs**
7.	06/07/2017	Hold, Target Price Change AUD 30.00 Andrew Triggs**
8.	07/19/2017	Hold, Target Price Change AUD 30.60 Andrew Triggs**
9.	08/15/2017	Hold, Target Price Change AUD 30.90 Anthony Hoo
10.	10/17/2017	Hold, Target Price Change AUD 30.50 Anthony Hoo
11.	12/12/2017	Hold, Target Price Change AUD 30.00 Anthony Hoo
12.	02/20/2018	Hold, Target Price Change AUD 29.50 Anthony Hoo
13.	05/01/2018	Hold, Target Price Change AUD 29.00 Anthony Hoo

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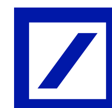
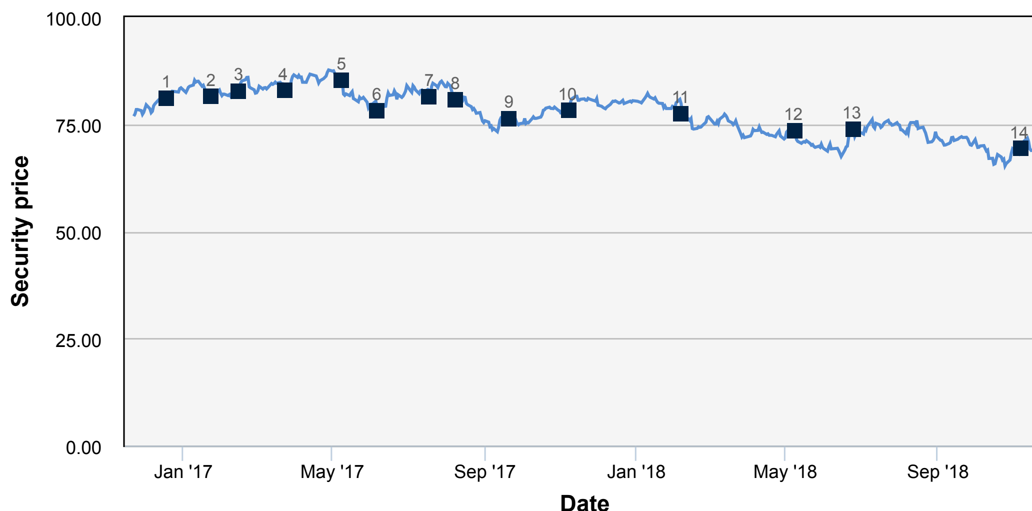


Historical recommendations and target price. Commonwealth Bank (CBA.AX)

(as of 11/19/2018)



Current Recommendations

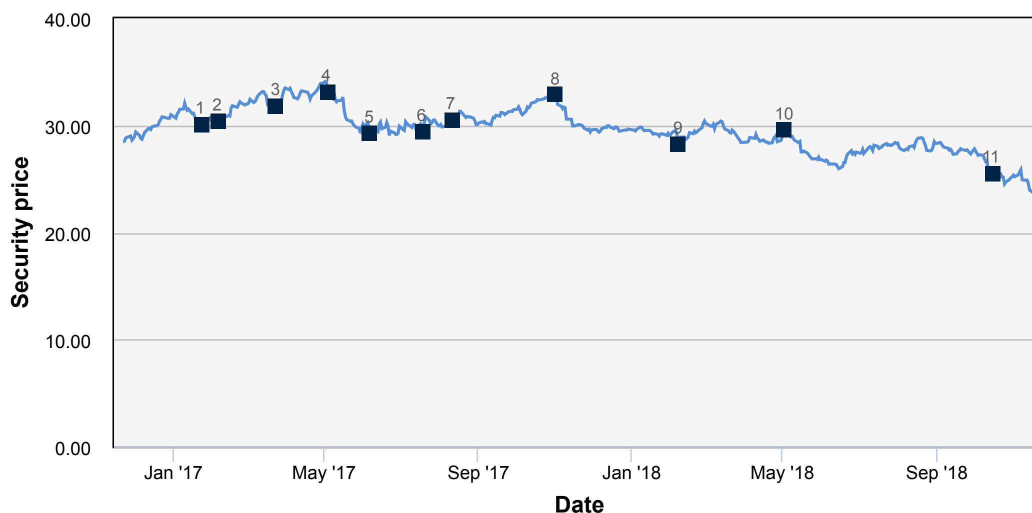
Buy
Hold
Sell
Not Rated
Suspended Rating

** Analyst is no longer at Deutsche Bank

	Date	Recommendation
1.	12/19/2016	Hold, Target Price Change AUD 83.50 Andrew Triggs**
2.	01/24/2017	Hold, Target Price Change AUD 83.70 Andrew Triggs**
3.	02/15/2017	Hold, Target Price Change AUD 86.70 Andrew Triggs**
4.	03/24/2017	Hold, Target Price Change AUD 86.60 Andrew Triggs**
5.	05/09/2017	Hold, Target Price Change AUD 83.80 Andrew Triggs**
6.	06/07/2017	Hold, Target Price Change AUD 80.80 Andrew Triggs**
7.	07/19/2017	Hold, Target Price Change AUD 83.40 Andrew Triggs**
8.	08/09/2017	Hold, Target Price Change AUD 84.30 Anthony Hoo
9.	09/21/2017	Hold, Target Price Change AUD 80.00 Anthony Hoo
10.	11/08/2017	Hold, Target Price Change AUD 83.00 Anthony Hoo
11.	02/07/2018	Hold, Target Price Change AUD 80.50 Anthony Hoo
12.	05/09/2018	Hold, Target Price Change AUD 77.00 Anthony Hoo
13.	06/25/2018	Hold, Target Price Change AUD 76.00 Anthony Hoo
14.	11/07/2018	Hold, Target Price Change AUD 75.00 Anthony Hoo

Historical recommendations and target price. National Australia Bank (NAB.AX)

(as of 11/19/2018)



Current Recommendations

Buy
Hold
Sell
Not Rated
Suspended Rating

** Analyst is no longer at Deutsche Bank

	Date	Recommendation
1.	01/24/2017	Buy, Target Price Change AUD 32.00 Andrew Triggs**
2.	02/06/2017	Buy, Target Price Change AUD 32.30 Andrew Triggs**
3.	03/24/2017	Buy, Target Price Change AUD 33.40 Andrew Triggs**
4.	05/04/2017	Buy, Target Price Change AUD 34.30 Andrew Triggs**
5.	06/07/2017	Buy, Target Price Change AUD 32.40 Andrew Triggs**
6.	07/19/2017	Buy, Target Price Change AUD 33.20 Andrew Triggs**
7.	08/11/2017	Buy, Target Price Change AUD 32.50 Anthony Hoo
8.	11/02/2017	Buy, Target Price Change AUD 33.50 Anthony Hoo
9.	02/08/2018	Buy, Target Price Change AUD 33.00 Anthony Hoo
10.	05/03/2018	Buy, Target Price Change AUD 32.00 Anthony Hoo
11.	10/16/2018	Buy, Target Price Change AUD 30.00 Anthony Hoo

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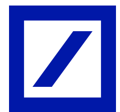
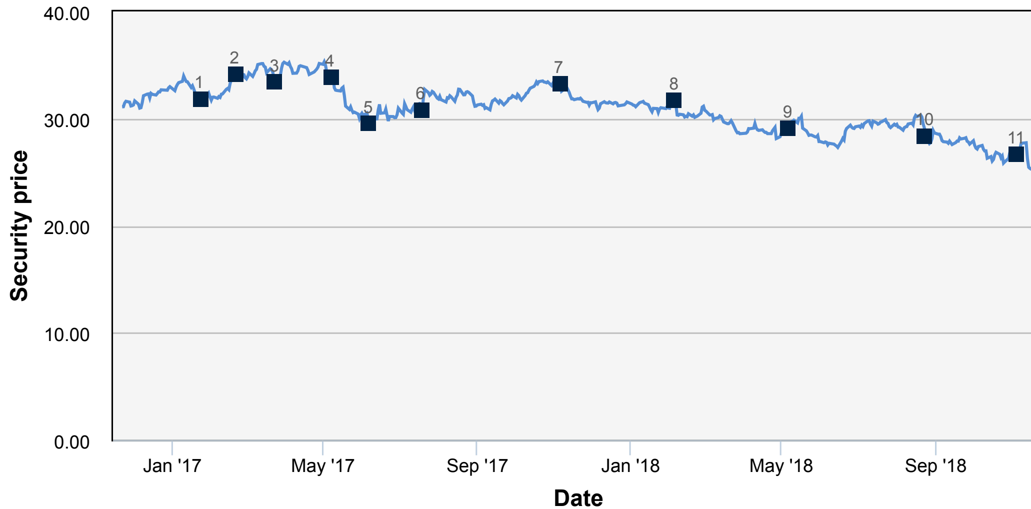


Historical recommendations and target price. Westpac (WBC.AX)

(as of 11/19/2018)



Current Recommendations
- Buy
- Hold
- Sell
- Not Rated
- Suspended Rating

** Analyst is no longer at Deutsche Bank

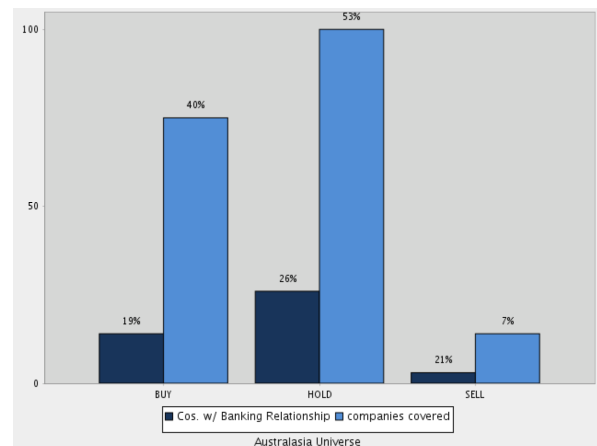
	Date	Recommendation
1.	01/24/2017	Buy, Target Price Change AUD 34.60 Andrew Triggs**
2.	02/21/2017	Buy, Target Price Change AUD 35.90 Andrew Triggs**
3.	03/24/2017	Buy, Target Price Change AUD 36.40 Andrew Triggs**
4.	05/08/2017	Buy, Target Price Change AUD 35.60 Andrew Triggs**
5.	06/07/2017	Buy, Target Price Change AUD 33.50 Andrew Triggs**
6.	07/19/2017	Buy, Target Price Change AUD 34.50 Andrew Triggs**
7.	11/06/2017	Buy, Target Price Change AUD 35.00 Anthony Hoo
8.	02/05/2018	Buy, Target Price Change AUD 34.50 Anthony Hoo
9.	05/07/2018	Buy, Target Price Change AUD 33.20 Anthony Hoo
10.	08/24/2018	Buy, Target Price Change AUD 31.00 Anthony Hoo
11.	11/05/2018	Buy, Target Price Change AUD 30.00 Anthony Hoo

Equity Rating Key

Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus pro-jected dividend yield) , we recommend that investors buy the stock.
Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock.
Hold: We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

Newly issued research recommendations and target prices supersede previously published research.

Equity rating dispersion and banking relationships



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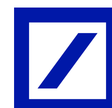

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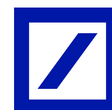

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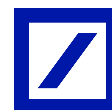

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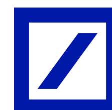

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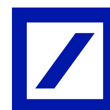

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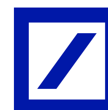

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