An In-depth Look at the Banking Sector

SPECIAL REPORT | JUNE 2018

CONTENTS

Letter from the Research Director

Banks are always a divisive topic among investors. Even during the good times they're seemingly only a recession away from disaster; and during the bad times, well …

Yet while the going is good, their performance can be mesmerising. Since Commonwealth Bank listed on the ASX in 1991 at $5.40, for example, its share price has compounded at 10% a year – while simultaneously paying a fully franked yield of 4–6%. Its peers are not far behind.

It's a combination that has made the big banks truly beloved of income investors – and which has carried them to large weightings in many people's portfolios. With that kind of performance and brimming with capital gains, it's been very easy to just let them be.

But these can be risky stocks, with thin slivers of equity supporting huge loan books, and they haven't really been tested for a while.

All that could be about to change. With housing affordability at record lows and regulators keen to restrict lending, top-line growth has slowed to a crawl, while the only way is up for bad debts. Meanwhile, competition is increasing, and technological threats are appearing. On top of all that, we have interest-rate rigging, money laundering infringements, insurance mis-selling and, now, a Royal Commission.

With all that, it's been a great time for us to hire a new banking analyst, Rakesh Tummala, and for him to undertake an overview of the state of the sector. This special report contains the fruit of all that work, as well as our latest updates on the big four banks.

Above all, we reiterate our recommendation that you shouldn't have more than 20% of your portfolio in the banking sector – or closer to 10% for more conservative investors, or those that have other significant exposure to property markets.

Kind regards,
James Carlisle
Research Director

The building blocks of banking

Assessing a bank needn't be daunting. We break down how they work and the key risks they face.

FIRST PUBLISHED 3 APR 2018

Banking has been around for thousands of years. The Romans did it in temples, which they felt were a safe place to leave their money due to the piety of the people inside and the heavily armoured troops outside. That approach continued with the Knights Templar in the middle ages, but the religious connections ultimately proved a bane due to Christian and Islamic bans on charging interest.

Key Points

- **Banks are highly leveraged**
- **Risks are numerous**
- **Banks can make great investments**

Enterprising Italians eventually established various workarounds, and a host of powerful banks appeared during the Renaissance. One of them, the **Banca Monte dei Paschi di Siena** (BMPS), founded in 1472, is still around today – although it has **needed several recapitalisations** over the past few years to remain so.

As the managers of Banca Monte dei Paschi di Siena can no doubt attest, banking has become a more complex business, but a few important principles remain. In this article – the first in a series on analysing banks – we'll look at the basics of banking and introduce some ratios you can use to better understand the sector.

Leverage and liquidity

At a basic level, banks borrow money and lend it out. The plan is to get it back, plus a little interest to cover the cost of the borrowings and provide a return on the shareholders' equity.

The key element of this equation is leverage. Banks are able to borrow money themselves because they start with a pool of shareholders' equity, which acts as a buffer – rather like the equity people use to buy a home. But it's a small slice relative to the money being lent out, so an extra per cent or two of interest can see equity expand quickly if all goes well. However the failure to get it back can see equity shrink even faster.

Let's use the small ASX-listed bank, MyState, to illustrate the point. It has equity of about $311m supporting a total asset base of $4.9bn. Every extra 1% of interest on those loans would add about 11% to shareholders' equity each year, after tax. But the failure to collect just 6% of the loans would see the equity disappear entirely.

That would then threaten all those who have deposited money with the bank. Many of those will be other banks, who might themselves be threatened. This can create a **domino effect** throughout the banking industry and explains why regulators take such a keen interest, keeping close tabs on the level of shareholders' equity and the type of loans being made.

Table 1: MyState summary balance sheet

YEAR TO JUNE ($M)	2017	2016
ASSETS		
CASH AND LIQUID ASSETS	64.2	80.1
DUE FROM OTHER FINANCIAL INSTITUTIONS	35.2	17.9
FINANCIAL INSTRUMENTS	420.8	356.0
LOANS AND ADVANCES	4,282.5	3,863.1
INTEREST-EARNING ASSETS	4,802.7	4,317.1
PROPERTY, PLANT AND EQUIPMENT	8.3	9.8
INTANGIBLES	88.2	3.7
OTHER	11.3	84.8
TOTAL ASSETS	**4,910.5**	**4,415.4**
LIABILITIES		
DUE FROM OTHER FINANCIAL INSTITUTIONS	34.3	30.7
DEPOSITS	3,552.1	3,262.4
OTHER BORROWINGS	996.8	805.8
OTHER LIABILITIES	16.3	16.9
TOTAL LIABILITIES	**4,599.5**	**4,115.8**
NET ASSETS (AND SHAREHOLDERS' EQUITY)	**310.9**	**299.6**

Even if a bank's loans are repaid in full, it's not necessarily out of the woods, as deposits can largely be withdrawn any time, but loans take time to be repaid. This means banks are structurally illiquid. If everyone turned up at once asking for their money back, they wouldn't be able to provide it. The regulators therefore stipulate that a certain portion of a bank's assets must be kept in short-term 'liquid' assets – and the Reserve Bank may need to step in to provide liquidity in times of stress.

To get an idea of the underlying profitability of a bank, you need to adjust the impairments to the expected average level 'across the cycle', although estimating this inevitably entails some guesswork.

Balancing it up

We can see how it all works out by looking more closely at MyState. We've reproduced a summary of its balance sheet in Table 1.

In the top half, you can see the total assets of $4.9bn already mentioned. $4.3bn of that is comprised of 'loans and advances', the vast majority of which are residential mortgages. These are stated after deducting the cumulative impairment charges taken against them over the years. Where a loan is unlikely to be repaid in full, the likely shortfall is taken as a cost in the income statement (as we'll see shortly) and is set against the loan on the balance sheet.

On top of these 'specific' or 'individual' impairments against particular loans, a bank may take a collective impairment, which represents additional losses considered likely across the entire loan book, due to economic conditions, but which haven't yet been tied to particular loans.

Beyond the loans, there are $421m of financial instruments (mostly interest-bearing deposits and notes) and a smattering of cash and other monies 'due from other financial institutions'. Then there's the property, plant and equipment you need to run a bank as well as a few intangibles (such as goodwill).

The liabilities side is dominated by deposits of $3.6bn and other borrowings of $1.0bn. Deducting the liabilities from the assets gives us the shareholders' equity of $311m referred to earlier.

Raking it in

The income earned on the assets (at least the ones that generate interest) comes into the income statement as 'interest income', and the interest paid on borrowings appears as 'interest expense' just below it (see Table 2). Taking one from the other leaves 'net interest income' of $88.1m.

This enables us to calculate a popular figure in banking analysis: the **net interest margin** – or 'NIM' – which is the net interest income divided by the average interest-earning assets.

So, $88.1m divided by $4.56bn (average of year-end 2017 and 2016) comes to a net interest margin of 1.93%. That represents the 'extra interest' the bank makes on its loans over the cost of its borrowings.

As with anything, it's important to compare like for like. A bank engaged in riskier lending will have a higher NIM (due to higher interest rates charged), but it will likely lose out over time in the impairments it has to take (which we'll come to in a moment). A low-cost source of deposits and borrowings is, however, favourable.

Table 2: MyState summary income statement

YEAR TO JUNE ($M)	2017	2016
INTEREST INCOME	182.2	183.4
LESS: INTEREST EXPENSE	94.1	94.4
NET INTEREST INCOME	88.1	88.9
NON-INTEREST INCOME FROM BANKING	18.4	16.9
NET BANKING OPERATING INCOME	106.5	105.8
WEALTH MANAGEMENT INCOME	16.7	17.5
OTHER INCOME	1.4	0.2
TOTAL OPERATING INCOME	124.6	123.4
EXPENSES	82.2	81.1
PROFIT BEFORE TAX AND IMPAIRMENTS	42.5	42.3
IMPAIRMENT EXPENSE	0.2	1.2
PROFIT BEFORE TAX	42.2	41.1
TAX	12.2	12.8
NET PROFIT	30.1	28.3

Below the net interest income comes non-interest banking income (from fees, commissions and the like) and some other income, notably from wealth management, to give total operating income of $125m.

Paying it out

Then we start with the deductions. First of all come the operating expenses – almost half of which were staff costs – and which came to $82m in 2017.

A low-cost structure is obviously the aim, though different products can have very different associated costs. It's cheaper to process a car loan, for example, than a revolving facility to a large company.

The usual way to measure efficiency is with the **cost-to-income ratio**, which you get by dividing the operating expenses by the operating income. For MyState in 2017 this came to 65.9%, which is a far cry from the 41.8% reported by

CBA's return on equity shows that banking can be an extremely profitable business.

Commonwealth Bank of Australia (CBA) and goes some way to explaining the latter's competitive advantage.

The next major cost is the impairment charge, which comprises loans directly written off (less any recovery of those previously written off) plus the change in the provisions we mentioned earlier. For MyState in 2017 it came to an extraordinarily low $0.2m, reflecting the fact that the loans are predominantly mortgages and the housing market was strong in the 2017 financial year.

You can express the impairment charge as a percentage of the overall loan book to get an idea of its performance. Here MyState has it over CBA, with an **impairment ratio** of a minuscule 0.005% (half a basis point) in 2017, compared to CBA's 0.15% (15 basis points).

To get an idea of the underlying profitability of a bank, you need to adjust the impairments to the expected average level 'across the cycle', although estimating this inevitably entails some guesswork.

Acid test

After the impairments comes the profit before tax, the tax and the net profit. The final ratio we'll consider is the acid test for a bank, or perhaps any business – the **return on equity**. You get this by dividing the net profit by the average shareholders' equity on which it was earned over the year. In this case it comes to $30.1m divided by $305m, which is 9.9%. That compares to 16% earned by CBA in 2017.

CBA's return on equity shows that banking can be an extremely profitable business. That 16% return can be used to pay healthy dividends to shareholders each year, while also adding to shareholders' equity, to allow further lending and growth in profits.

It's a formula that has driven CBA's share price up fourfold over the past 20 years. These have been good times for Australian banks, though, which escaped the worst of the global financial crisis and have now seen over 25 years of unbroken economic expansion.

The shareholders of Banca Monte dei Paschi di Siena would tell you a different story. But for the right bank at the right price, it's a bet worth taking.

Staff members may own securities mentioned in this article.

Regulation shapes bank returns

Regulatory changes suggest banks will be less profitable than in the past.

FIRST PUBLISHED 10 APRIL 2018

Banks play a vital role in the economy. They provide loans and other financial services to people and businesses, and give them somewhere to park their cash. But with those activities comes great responsibility: if a bank fails it threatens those deposits, while lending clampdowns can cause widespread economic pain.

Key Points

- **Regulation impacts bank returns**
- **Increased competition expected**
- **Big four business models are adjusting**

Worse still, the failure of one bank can lead to a cascade of collapses – a so-called 'banking panic'. History has been **littered with them**, but you only have to go back ten years for the most recent **examples overseas**.

In a bid to protect deposits and prevent these panics – or at least reduce their frequency and severity – regulators impose a catalogue of rules and regulations. These rules can shape the competitive landscape between the banks.

It's a difficult balance between encouraging growth and mitigating risk. As a result, the regulatory landscape is in a constant state of flux, being loosened and then wound back again. This happens over a number of years and often after a major crisis – the quintessential shutting of the stable door after the horse has bolted.

Regulation basics

As with many other areas of government, the tendency is to add rules rather than take them away and the result is a vast collection of rules and regulation covering a range of risks, such as governance, liquidity and capital adequacy.

In terms of governance, for example, the Australian Prudential Regulatory Authority (APRA) will soon implement some constraints around bank executive remuneration..

Liquidity is governed by a range of detailed rules such as types of funding sources, and the amount of liquid assets required to survive stressed conditions (a period with high cash outflows).

The primary focus of regulation, though, is to ensure that banks have enough capital to act as a buffer for the risks they're taking (largely through loans; see the first part in this series, ***The building blocks of banking***, for more on the basics). This is also the area that has the greatest impact on the competitive landscape, so it will also be our focus.

CET1ng the rules

The regulators use the 'common equity tier 1 ratio' (the 'CET1 ratio' for short) to define the necessary capital levels. To work it out, we need two other numbers: the common equity tier 1 (CET1) capital and risk-weighted assets (RWA).

The first of these – common-equity tier 1 (CET1) capital – defines the money put in by shareholders. This includes the money put up in the first place, plus any further share issues over the years, plus retained earnings (the profits that haven't been paid out in dividends). Intangible items such as goodwill are removed from capital calculations as they can't be used to absorb any losses (you can't convert goodwill to cash).

There are additional forms of capital, such as hybrids, which get swept up in other portions of Tier 1 and Tier 2, but regulators are less keen on these nowadays and the focus is very much on CET1.

The second metric – risk weighted assets (RWA) – adjusts a bank's assets to account for their risk. Every asset is **assigned a risk weighting**. The risk weights attached to assets can vary between banks (as we'll explain shortly) – but the starting point is notes and coins, deposits with the Reserve Bank of Australia and Australian government bonds, all of which have a weighting of 0%.

These assets are considered to have zero risk and, as such, banks can borrow all the money they like and put it in these assets, without it adding to their RWA, and therefore without any need to back it up with any of their own capital. Of course they'd have a hard job making any money by doing this. But to the extent that they hold these items in the normal course of their business, they don't add to RWA and they don't need to be backed by capital.

At the other end of the scale are things like unlisted and listed equities, which can have risk weights of 400% and 300% effectively. Somewhere in the middle are unsecured loans that are more than 90 days past due (150%), premises, plant and equipment (100%), and a catch-all for any assets not given a specific risk weighting (also 100%).

For Australian banks, residential mortgages are of particular importance, and they have different weightings depending on their risk.

For Australian banks, residential mortgages are of particular importance, and they have **different weightings** depending on their risk. A basic mortgage with a loan-to-value ratio (LVR) of less than 80% is weighted at 35%, but 'sub-prime' loans, and/or those with higher LVRs are rated higher. In some circumstances, some (larger, more sophisticated) banks are also permitted to rate some loans lower (more on this in a moment).

After a bank's assets have been appropriately weighted, they can be pooled together to give a total figure for RWA. Regulators also require buffers in the RWA for operational and market risks. Armed with the figures for CET1 and RWA, we can work out the CET1 ratio by dividing the former by the latter. The result is that the more assets you have and the riskier they are, the more CET1 you will need to hold to maintain a particular ratio.

Table 1: Bank RWA and CET1 example

	AMOUNT ($)	RISK WEIGHT (%)	RWA ($)
HOME LOAN 1	100,000	35	35,000
HOME LOAN 2	200,000	40	80,000
SMALL BUSINESS LOAN	100,000	100	100,000
TOTAL			**215,000**
CET1	25,000		
CET1 RATIO	**11.60%**		

You can see a simple example in Table 1. Home Loan 1 has $100,000 outstanding and, with a risk weight of 35%, its RWA is $35,000 ($100,000 x 35%). We follow a similar process for the other loans leading to total RWA of $215,000.

The bank has CET1 of $25,000. Dividing that by the total RWA, yields a CET1 ratio of 11.6%. If the small business loan went beyond 90 days past due, though, and needed to be reweighted to 150%, then the RWA would jump to $265,000 and the CET1 ratio would fall to 9.4%.

Welcome to Basel

Since 1998 APRA has been charged with regulating the banking industry in Australia, producing the rules and regulations and setting the required capital levels. It does this, however, with close reference to the guidelines established by the Basel Committee on Banking Supervision, a global panel of bank regulators and central banks.

The original Basel rules (drawn up in 1988) were rudimentary by current standards. Residential mortgage loans, for example, had a blanket risk weighting of 50% despite different risk profiles. Since a greater margin could be earned on riskier mortgages, this effectively incentivised banks to take on a disproportionate amount of them. In any case, banks were becoming more sophisticated in their assessment and management of risk.

A boon for the big four

The Basel 2 Accord, implemented in Australia in 2008, set out to address this.

'Basel 2' established more precise risk weightings and also allowed for banks to be split into categories of 'advanced' and 'standardised'. Those with sufficiently sophisticated risk management systems and processes could apply to be considered 'advanced' and largely determine their own risk weightings.

The majors (as well as Macquarie Bank) spent tens of millions of dollars developing these capabilities and were duly approved by APRA, but the smaller 'standardised' banks have lacked the resources to do the same.

The 'advanced' accreditation gives the majors a significant competitive advantage, because they're able to lend more per dollar of capital. Lower cost structures, largely due to economies of scale, have compounded this benefit.

The impact has been most noticeable in the residential mortgage market. Risk weights for high-quality residental mortgages, for example, dropped to around 17% for the big four, while the 'standardised' banks have been limited to a minimum of 35%.

Rules around capital levels were complex under Basel 2, with a variety of tiers and qualifiers. Banks had to maintain overall capital above 8% of RWA, with CET1 equivalent (which was defined more loosely) comprising at least 50%.

So Basel 2 reduced mortgage risk weights for all, but the major banks benefited more. Using the 8% capital ratio, one of the big four might need to hold only $13,600 (8% of $170,000) in capital to support a typical $1m home loan with a low LVR; a smaller bank, by contrast, would have to hold $28,000 (8% of $350,000).

Australia's major banks now have some of the highest capital ratios in the global banking industry.

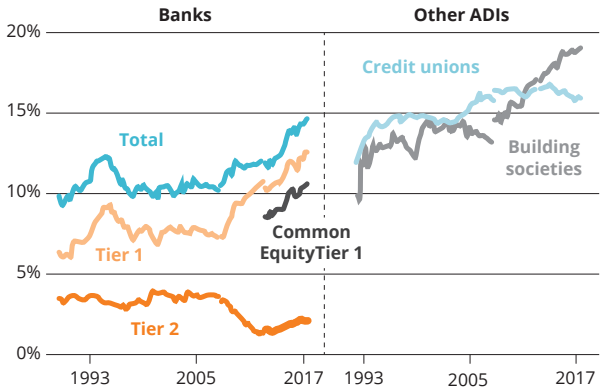
Not surprisingly, the majors gorged on residential mortgage lending and snapped up brokers to increase their reach. Their 'capital light' businesses could price mortgages more aggressively than smaller banks, and earn fatter profits doing so. Big four market share for home loans soon grew from 70% to more than 80% (supported by some acquisitions).

Stricter rules

The global financial crisis showcased Basel 2's shortcomings, even if the Australian banking system fared well relative to other regions. Among other deficiences, CET1 equivalent levels were simply too low, and the regulatory pendulum has since swung back to stricter rules.

Capital ratios*

Consolidated global operations of locally incorporated ADIs



* Per cent of risk-weighted assets; break in March 2008 due to the introduction of Basel II for most ADIs; break in March 2013 due to the introduction of Basel III for all ADIs

Source: APRA via The Australian Economy and Financial Markets

The revised rules – known as Basel 3 (no-one ever accused regulators of being too creative) – have been implemented in stages starting from 2013, with more to come. The Australian version, though, has some unique measures thanks to the 2014 Financial System Inquiry, which recommended that local banks should be 'unquestionably strong'.

All up, the big four have been hit with a double whammy. The first hit came from an increase in the risk weighting for residential mortgages from around 17% average to 25% minimum (it has stayed at a 35% minimum for the other banks). The second hit was an increase in the minimum CET1 ratio requirement to 10.5% (in force from 2020) from 8% (Smaller peers are required to hold at least 7.5% but they hold considerably more). The chart shows the steep increase in capital levels over time (of particular note is the rise in CET1 and Tier 1 capital).

So, for that hypothetical $1m home loan, the big four banks would now need to hold $26,250 (10.5% of $250,000), or around double the levels under Basel 2 and more commensurate with the smaller banks.

Australia's major banks now have some of the highest capital ratios in the global banking industry. Regulation has impaired their 'capital light' business model.

So the big four still have a sizable advantage, but the gap has narrowed. We expect it to narrow further in coming years, with APRA introducing various new rules and other banks achieving advanced status. Only a few weeks ago APRA **granted that status to ING Bank (Australia)** and we expect others to be approved in time.

Strategy adjusting

The strategic response from the majors has been to trim their lower-returning business, most notably their institutional (large business lending) and wealth management operations.

Compared to home loans, institutional lending has higher risk weights, lower net interest margins and higher operating costs. The majors still plan to increase institutional and business lending, though it appears to be on a more selective basis. The big four banks (with the exception of Westpac) have also sold their life insurance operations, and disposals of various wealth management businesses are expected following recent divestments such as the sale of **ANZ Wealth Management to IOOF**.

Changes to the regulatory landscape have brought revisions to the major banks' business models. They are better protected against financial panics than they were a decade ago, but they're unlikely to be as profitable.

Yet all this change has left the banks more exposed to home loans – which is perhaps what regulators are most concerned about. And this will be the focus of our third article in this series about the banking industry.

Staff members may own securities mentioned in this article.

Home truths for the big banks

Mortgage stress is under control but it's still a key risk for the banking sector.

FIRST PUBLISHED 30 APR 2018

Perhaps no topic causes more debate among Australians than house prices. As US-based investor Jeremy Grantham – one of many to have called 'bubble' on Australian property – put it:

"Tell a European you think there's a housing bubble and you'll have a reasonable discussion."

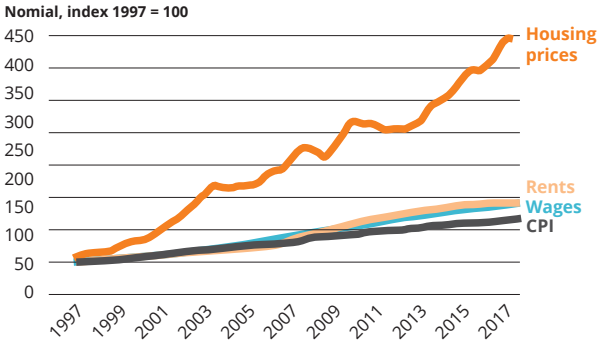
"Tell an Australian and you'll have World War III."

Key Points

- **Property loans are a key risk**
- **Mortgage loan performance is sound**
- **Banks have buffers in a property downturn**
- **Regulatory action has increased bank resilience**

That was in 2012 and house prices have moved up significantly since. Sydney and Melbourne have experienced growth averaging about 10% a year. The longer-term trend shows house prices have easily outpaced wages as well (see Chart 1).

Chart 1: House price growth has outstripped wages



Notes: Nominal house price growth from Bank of International Settlements (2017); Wage price index (excluding bonuses; private and public). Rents in the CPI are stratified according to location, type and size.

Source: Grattan Institute via Bank for International Settlements (2017) ABS (2018) and ABS (2017h).

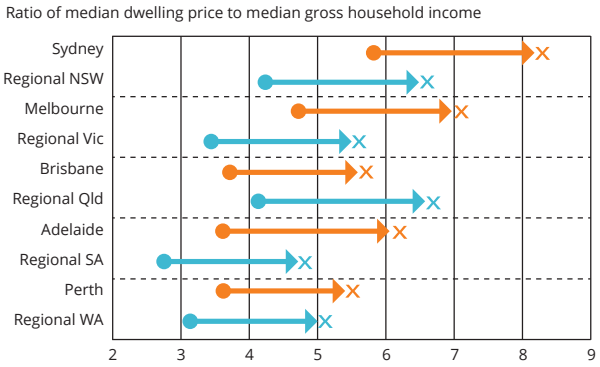
The boom

The rise of house prices is due to several factors, though unpacking individual contributions is tricky.

Low interest rates have pushed down rental yields and mean that people can afford larger mortgages. Population growth, underdevelopment (with restrictive rules), tax policies and increasing borrower debt burden have all played a part (see Chart 2). As has unbroken economic growth for over 25 years.

Banks have been major beneficiaries. Earnings from mortgage lending have been the primary source of the major banks' extraordinary profitability over the past two decades – bad debts have been low and margins have been fat (even though associated net interest margins have declined).

Chart 2: Increasing debt burden in Australian markets



Note: Median household income data modelled by ANU.
Source: Grattan Institute via CoreLogic (2016)

It's been a great time for major banks, but the future may not resemble the past. And with home loans now accounting for over 60% of their loan books, their prospects are now more than ever tied to the housing market.

Many investors would say that's a bad thing considering property prices and fears of a crash.

Major crash unlikely

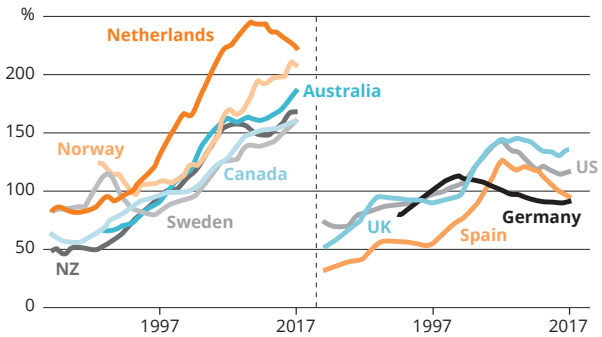
Believers in a significant property downturn have plenty of data to support their case. Property looks expensive on virtually every measure. Australian households are now among the world's most indebted (see Chart 3). That combination would suggest less upside for house prices at the very least.

However, while property prices look expensive, the typical preconditions for a steep nationwide property downturn – widespread lax lending standards and a rampant oversupply of housing – are not evident.

Higher interest rates and/or unemployment might also trigger a downturn, but neither appear imminent.

Regulation has meant that banks are taking on less risk for new loans.

Chart 3: Household debt has increased materially



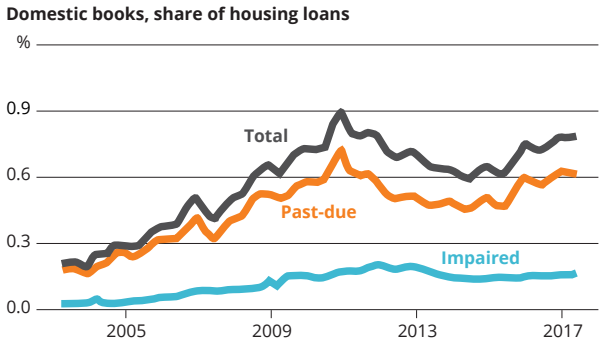
Source: Reserve Bank of Australia via National sources; OECD; RBA; Thomson Reuters

Tighter lending restrictions are another danger sign – and have in fact been been observed recently. This may explain why the housing market has seen some price declines in the last six or so months. Lending conditions are likely to tighten further but predicting the impact on house prices is difficult.

Resources weakness

The trajectory of house prices is usually determined by local conditions, and there's been weakness recently in areas with significant mining activity, and perhaps pockets within cities (there is a concern that central Brisbane is oversupplied with apartments). But major banks can withstand such gyrations due to their lending diversification across the country.

Chart 4: Non-performing home loans remains in check*



*Past-due loans are 90+ days in arrears and well secured; impaired loans are in arrears or otherwise doubtful and not well secured.

Source: Reserve Bank of Australia via APRA; RBA

At present, home loans are performing well overall. Areas exposed to resources such as Western Australia and Queensland have weaker repayment data (and are the main reasons for the recent increase in non-performing home loans shown in Chart 4) but remain under control. Home repossessions overall appear to be at 15-year lows. And repayments are ahead of schedule in the majority of cases.

The factors that led to the housing boom also remain largely in play, except for the ability of borrowers (in aggregate) to take on a greater debt burden.

Low interest rates are supporting affordability and have helped many households to pay down their mortgages ahead of schedule. Property development has been catching up with housing demand but needs to remain high to meet expected immigration. And as we detail later, loan quality is improving.

So, conditions are sound for bank profits, but things can change quickly. Unemployment and development trends can go awry, interest rates can go up and prices can fall. Recessions happen – even in Australia!

Regulators act

And that worries regulators, particularly in light of the high levels of household debt. With their mandate of protecting depositors and maintaining the stability of the financial system, they have acted.

In recent years, regulators have imposed stricter lending standards, limits on classes of property loans (such as investor and interest-only), and required banks to **hold more capital**. Further revisions to mortgage risk weights are on the way. These actions have no doubt helped to taper house price growth.

Regulation has meant that banks are taking on less risk for *new* loans (notwithstanding the levels of house prices). The proportion of home loans written with low deposit levels (say 20% and under) is declining. Investor loans – viewed as riskier than loans to owner-occupiers – are lower as a proportion of the total loan book. Bank participation in 'low-doc' lending (borrowers that are not considered as prime) is virtually non-existent.

There's little doubt, though, that banks are more resilient to a housing downturn than they have been in the recent past.

Last week, APRA announced that it would end its cap on investor loan growth. It came with a caveat: banks had to assess such loans with a high degree of scrutiny.

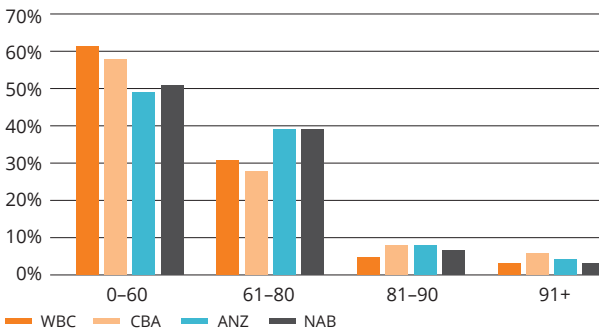
A flow-on effect of tighter regulation is that properties coming to the market (either new developments or existing homes) face a tougher time being sold. The unintended consequences are not fully clear at this stage.

Buffers in place

There's little doubt, though, that banks are more resilient to a housing downturn than they have been in the recent past. Regulators can't totally remove risk, and prior loans under various lending criteria remain on the banks' books. But a closer look at the major banks' mortgage portfolios reveals there are some buffers in place.

The starting point for assessing home loans is that they are 'collateralised', meaning the house itself can be used by the bank to recoup its dues.

Chart 5: LVR distributions



Source: Bank result presentations, Intelligent Investor estimates

Banks lend relative to the market value of the property, referred to as a loan-to-value ratio (LVR). Generally, the higher the LVR the riskier the loan. The LVR of any home loan alters over time as a mortgage is paid down, and the house price changes. Rising home values and repayments reduce the LVR and increase the safety buffer for banks. A price decline can have the opposite effect.

On current LVRs, the majors have buffers with most of their portfolio below 60% (the average is around 50% or lower). Chart 5 shows our estimations of LVR distribution (note that comparisons are complicated by differing methods of calculation and presentation between the banks). The tail (LVR above 80%) is more important as that would be the likely source of losses.

A hypothetical 10% decline in house prices would likely put around 5% of each of the Big 4's mortgage accounts below or close to market values. A 20% price drop would account for around 8–14%.

The banks are exposed to significant potential losses in these scenarios, considering the combined mortgage loan book is over $1.4tn. But the reality is that losses don't accumulate simply because the market value of a home is below the outstanding mortgage. The majority will pay their mortgage – people still need a place to live and borrowers cannot walk away from their mortgage debts in Australia.

A small proportion will be unable to repay, and a bank may need to repossess and sell the house. That exposes the bank to losses. The more who default, and the greater the house price decline, the larger the potential losses for banks.

At that stage, banks have several options to maintain their capital and minimise overall losses. They can raise interest rates, reduce new lending, and/or cut costs and dividends.

Stress test

Our hypothetical scenarios are simplistic but highlight the mechanics of losses. Banks undertake a more rigorous approach, known as stress tests, where they run scenarios involving house price declines and unemployment spikes. The outcomes of those tests suggest the major banks would take a hit in any downturn, but not enough to threaten their viability.

Take, for example, CBA's stress test results, shown in Table 1. In a scenario where house prices drop 31% and unemployment reaches 11%, it points to losses totaling over $3bn over three years. CBA estimates that less than 2.5% of accounts would default each year, and that net losses over the three years would amount to 61.5 basis points (that is 0.615%) of the average outstanding mortgage balance.

> *Overall, stress tests reveal potential mortgage losses are manageable.*

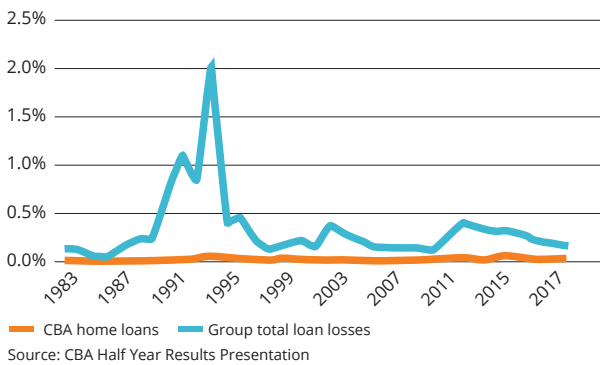
Table 1: CBA's stress test results

OUTCOMES ($M)	TOTAL	YEAR 1	YEAR 2	YEAR 3
STRESSED LOSSES	4,165	755	1,296	2,114
INSURED LOSSES	1,073	207	338	528
NET LOSSES	3,092	548	958	1,586
NET LOSSES (BPTS)	61.5	10.8	18.7	32.0
PROBABILITY OF DEFAULT (%)	N/A	1.0	1.8	2.5

For context, CBA's mortgage losses have been around 1–3 basis points of average gross loans from 1983 to 2017 (Chart 6). That's less than around 5 basis points of average home loans over that period on our estimates.

Stress tests also reveal protection from residential mortgage losses from lenders' mortgage insurance (LMI). Regulated by APRA, LMI is typically utilised by all banks for mortgages with an LVR above 80% at origination. While the costs are borne by the mortgage holders, the bank is protected from losses on insured properties – in theory at least (a major crisis might threaten the viability of the insurers, bringing this assumption into question).

Chart 6: CBA's historical home loan losses



Source: CBA Half Year Results Presentation

Overall, stress tests reveal potential mortgage losses are manageable. But it should be *viewed with caution* as reality can differ significantly from forecasts. And in all likelihood, housing stress would coincide with corporate loans turning sour and pressures on bank funding costs.

Maintaining standards

Whatever the collateral, banks will assess applicants' ability to repay their mortgages by reviewing their disposable income levels (among other considerations).

Discipline is important as poor lending standards will lead to bad loans. Assessing the prudence of lending can be difficult from the outside, particularly as lending policies can weaken and strengthen based on competitive factors and regulatory pressure.

Time usually reveals poor lending and the long-term performance of home loan portfolios for major banks suggest they have been prudent (considering the rate of home repossessions and overall losses).

The Reserve Bank of Australia estimates that annual losses faced by LMIs (which insure the riskier mortgages) averaged 3 basis points (that is 0.03%) between 1984 and 2012. And APRA and the RBA regard lending quality as largely satisfactory, although they remain cautious (as regulators tend to be).

The Royal Commission has shone a light on some weakness in lending standards, albeit based on regulatory reviews from a few years ago. This includes deficiencies in applicants' income and expense verification. However, this doesn't lead to weak lending standards overall. Loans are made on a case-by-case basis and what may appear to be lax, may involve little risk considering factors such as the amount of collateral.

One area where regulators are pushing for improvement is in the calculation of household expenses, which can be trickier to verify than incomes. Banks tend to use a benchmark – the Household Expense Measure (HEM) – which has been shown to be underestimating living expenses.

Banks don't solely rely on this measure and do adjust the HEM. Also, HEM estimations are not woefully off the mark, considering that many households can cut costs if needed. But its extensive use suggests that some borrowers have larger loans than they probably should.

It's a risk and the major banks have announced changes to their expense estimations. That's likely to lead to lower lending levels for some borrowers and may coincide with greater operating costs to process home loans.

Home loans aren't the banks' only exposure to a heated property market.

Keeping watch

Home loans aren't the banks' only exposure to a heated property market. They also fund property developments – which are much riskier than residential mortgage loans (and one contributor to the spikes in Chart 6). Such lending remains a small portion of the major banks' total loans and they have no apparent plans to increase exposure; foreign banks have been keener to lend.

Banks can also fund non-bank lenders that provide home loans. The risk with non-bank lenders is that they are not regulated and can provide the types of loans that banks don't. Regulators are acutely aware of the risk of watching the front door while leaving the back unguarded. Banks do not provide a clear breakdown of such exposure, but non-bank lenders only account for around 4% of the home loan market.

Remember the returns

The numerous ways that banks could be adversely affected by wobbles in the property market reveal the difficulties in assessing their risk. But for investors, the risks need to be weighed against potential returns.

In this respect, there are two elements to our recommendations on the banking sector: a limit on total portfolio exposure (of 20% and closer to 10% for conservative investors); and, not overpaying for their shares.

In assessing a fair price, we consider the trade-off between risk and return, including the emergence of newer risks. In recent weeks regulatory risk has been most on the minds of investors due to the Royal Commission, but technological disruption may be of greater long-term significance and that will be the focus of the next article in this series.

Staff members may own securities mentioned in this article.

The Big 4's biggest battle

Technological developments threaten the major banks.

FIRST PUBLISHED 4 JUN 2018

'Software is eating the world' said venture capitalist Marc Andreessen. New competitors using new technology are replacing incumbents across broad swathes of industry. Netflix and Youtube have hammered free to air and pay TV; online news, social media, and blogs have decimated newspapers; and 3D printers are threatening traditional manufacturing. The list goes on.

Key Points

- **Increased competition for major banks**
- **Large technology companies pose biggest threat**
- **Hard to predict industry future**
- **Big 4 investing heavily to remain competitive**

Despite many attempts, though, banking is one area where the forces of disruption have yet to upset the status quo.

building electric cars and reusable rockets, entrepreneur Elon Musk tried to develop a digital bank in the late 1990s. It didn't work, but it did lead to PayPal, the online payment processor. Such (seemingly) peripheral banking activities are where disruption has been most successful. Attempts to disrupt core banking activities such as lending and saving have been more mixed.

Would-be disruptors have faced hurdles in the form of incumbents' economies of scale and huge distribution reach. Heavy regulation is also a barrier, as is customer inertia. In any case, banks have provided satisfactory products for the most part, while using technology to improve their offerings.

But the door to disruption has been opening. Technological developments have enabled new business models, which are beginning to shake up the financial landscape.

New era

Take, for example, Ant Financial, which is 33%-owned by Chinese technology giant Alibaba. Ant provides payments technology in the form of Alipay and is deeply embedded across Alibaba's network. That's allowed for additional financial products, including a savings product, Yu'E Bao, so customers can earn interest on unused balances in their Alipay accounts. Yu'E Bao is now the largest such product in the world, at over US$200bn.

Alipay collects vast amounts of data that allows it to assess risk better than many banks. The data feeds into Sesame Credit, Ant's credit-scoring business, and has allowed it to provide billions of dollars in loans to consumers and businesses.

So, Ant Financial offers core banking services of payments, savings, and lending. Alibaba is trusted by customers and has the scale and a wide distribution reach. It also owns a separate digital bank.

This is one model for bank disruption; and a lucrative one with Ant being valued at around US$150bn despite Alipay being founded only 14 years ago.

Increasing reach

Alibaba's Chinese peers are no less ambitious or capable. The leading social media platform, WeChat, owned by Tencent Holdings, is widely used for payments and connects to WeBank (a digital bank owned by Tencent). Baidu (China's equivalent of Google) and JD.com (its answer to Amazon) also offer a range of financial services.

And it's not just happening in China. Amazon offers many of the same services as Ant Financial, including loan originations above US$1bn, and has an increasingly global presence. Facebook, through its Whatsapp messaging platform, is in the early stages of allowing payments. Apple and Google have a history of entering a range of industries and already enable mobile payments in Australia through Apple Pay and Google Pay respectively.

None of these tech giants started in financial services, but their ability to use technology to increase customer engagement has enabled them to expand their activities. Convenient payments appear to be a precursor to offering broader financial services.

Technology companies could build successful financial services businesses without even underwriting a financial product. They could be the organisers and distributors, for example, while a bank provides the actual product. Known as white-labeling, it is common practice in financial services and it can help a product provider build scale – often at the expense of lower margins.

This general approach has been successful for technology companies over the past 10 or so years. Uber is among the

> *While not often recognised as technology companies, the banking industry is among the biggest spenders on IT.*

largest transportation companies but owns no vehicles. Airbnb is a dominant property renter but owns no houses. Technology and consumer capitvity is allowing this model to prosper.

Platforms step up

These companies are often described as 'platform businesses'. Characterised by low incremental costs to grow and distribute products, platforms benefit from a weak form of network effect. That is, their popularity among customers attracts product providers, which in turn draws in more users (a pure network would link all users as peers).

> ***Shoptalk***
>
> **Open banking gives consumers greater control of their data, that is typically held by their bank. Alternate providers, with a customer's permission, will be able to access that tied-up data to offer competitive products.**

Consumer engagement is critical to the success of platform companies entering Australian banking. Where the Big 4 banks have had a patchy record with reputation, engagement and cross-selling products and services, technology companies could be more successful.

This could enable them to overcome the big banks' distribution and scale advantages, paving the way for lower margins as bank products become commoditised. And with the ability to shift deposits easily, major banks' funding and liquidity would face increased volatility.

All this could improve convenience for consumers. Bank A might provide the cheapest mortgage; Bank B the highest deposit rates; and Bank C the best credit card, but they could all be managed under the one umbrella with a large technology company – particularly with the advent of **open banking**.

The economics of the banking industry can be changed from a few taps and swipes of a mobile phone.

Not so fast

Most likely, though, this kind of thing will take some years to develop; industry transitions tend to start slow then accelerate, but considering potential outcomes is crucial for investors. It's also likely to look different to what we imagine today.

So far, we've discussed the potential for widescale disruption, but the reality is likely to be more mixed.

The adoption of new technology can vary significantly between different markets. Australia's experience will likely differ from that of China, and perhaps the US and Europe. Australia's major banks have a large customer base, providing for a range of customer segments with differing needs. New providers may not have a similar capability.

It's also unlikely all bank activities will be impacted equally. Major banks offer a wide range of products that have different requirements; retail deposits are very different to corporate loans.

To date, fintechs and large technology players have focused on payments, loans and (to a lesser extent) deposits for retail customers and small businesses. There's been less traction with large business lending and associated products and also with home loans – which provide such a large part of the major banks' earnings.

So there's likely to be more segmentation: with players gaining market share in some areas and losing it in others. That's already been occurring with the major banks, other than Westpac, largely exiting wealth management operations. More change could be ahead.

Up for the fight

The big banks, though, have not been asleep at the wheel. As former Commonwealth Bank chief executive Ian Narev has put it, banks must 'adapt or die', and the major banks have been investing heavily in technology. While not often recognised as technology companies, the banking industry is among the biggest spenders on IT.

Assessing the technological capabilities of the different banks can, however, be difficult. As consumers, we're exposed to the 'client-facing' technology such as mobile banking apps. But the true competitive positioning of a bank may depend more on what goes on behind the scenes in their 'core banking systems'.

The major banks have systems that reach back decades. Keeping them up to date is a complex and expensive process and a distraction from new innovation – making it hard to compete with new players unencumbered by legacy systems.

> *Competition and consumer adoption of technology are also forcing major banks to change their culture and operations.*

CBA has a lead over its peers having begun the process of comprehensively updating its core banking system over a decade ago at a cost of over $1bn and 1500 full-time staff. The bank's technology prowess is one reason for its premium valuation.

Partner up

There have also been some interesting developments in the banks' approach to investment. Major banks have always innovated, but they're increasingly willing to enter partnerships and buy capabilities. In all likelihood, competitive threats have forced their hand.

NAB, for example, partners with Xero, an accounting software provider that has access to much client data that can be used for loan purposes. Westpac has set up a venture capital subsidiary, ReInventure, and provided it with $100m to take stakes in nascent technology businesses.

Partnerships and investments can provide cost efficiencies, while speeding the adoption of new ideas, giving better access to data and allowing greater customer engagement. This approach is still in its infancy and it'll be a while before we can fully judge how well it's working.

Partnerships do have limits. While ANZ has adopted Apple Pay, its peers have been reluctant to adhere to Apple's terms. Instead, CBA developed a (clunky) **card** that attaches to a customer's phone as a work-around. Many CBA customers are **not amused**, further highlighting the market power that technology companies have.

Internal change

Competition and consumer adoption of technology are also forcing major banks to change their culture and operations. The banks have to meet increased customer expectations for ease of use, capability, and convenience. ANZ and NAB are perhaps the most vocal in this area, though all banks are undergoing material change.

ANZ, for example, has promoted its 'agile' working methods, where employees join 'squads and tribes' to improve productivity. It's easy to dismiss it as a gimmick, but ANZ has provided evidence that it's led to quicker product development.

More importantly, it shows that ANZ recognises the need to adapt; it needs to get from idea to implementation more quickly, as typically happens in technology companies. Employees will look the part as well, with the bank encouraging them to channel Apple and Google with **more casual attire**.

NAB is also undergoing some significant staffing changes with around 6,000 staff being made redundant. A fraction of those jobs will be replaced with staff with technology expertise. NAB's chief executive, Andrew Thorburn, talks of the need to 'disrupt ourselves from within' and 'become simpler, faster and easier to deal with.'

Shoptalk

Agile working methodology is used by the technology industry. It's based on quick delivery, high collaboration, continuous improvement, and ability to change tasks and needs quickly. Technology development often involves complex problems and the need to meet customer needs quickly; agile working grew to meet these challenges.

The major banks are also working to reduce costs, which is another requirement to remain competitive. While the Big 4's cost structure appears lean relative to foreign banks, greater adoption of technology will allow for greater efficiencies. In time, that will also include fewer branches and reduced staffing levels. New technologies allowing greater productivity are available to all players, so the Big 4's cost advantages involving scale are potentially less durable.

All these internal changes involve execution risk and, for better or worse, will no doubt affect staff morale.

Murky predictions

How all this is likely to end up, the banks themselves don't know. Maile Carnegie, ANZ's digital banking head and former Google Australia boss, says 'it's going to look like whatever customers want it to be'.

Australia's major banks are in a good position. They're aware of the challenges and have the capital and profitability to invest in the necessary areas. They're protected by regulation, to at least some degree, and they have established customer relationships, scale, and cost advantages.

> ***Australia's major banks are in a good position. They're aware of the challenges and have the capital and profitability to invest in the necessary areas.***

Overcoming these advantages will be no easy task for challengers. The regional banks have struggled to match the majors, and to date, fintechs have not been able to take material market share. There's no guarantee that large technology companies will have greater success.

One thing is certain, though: competition is increasing and at least some elements of the banks' business models are being threatened. And all this is coinciding with weak growth prospects, which will be the focus of the final article in this series.

Staff members may own securities mentioned in this article.

Twilight of a banking era

Growth prospects appear dim for major banks with implications for dividends.

FIRST PUBLISHED 7 JUN 2018

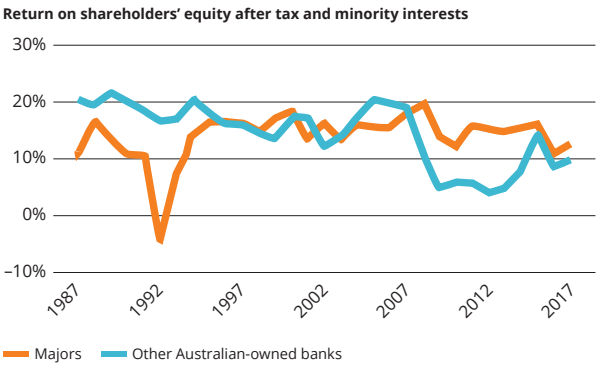
Since the recession of the early 1990s, the major banks have produced a stellar record. Commonwealth Bank's lending volumes have grown around 10% annually for the past 25 years. Its peers have had a similar experience. That growth was combined with exceptional profitability, paving the way for strong earnings growth and rising dividends. It's been a golden age for Australia's major banks, and they've been the envy of international peers. However, such conditions rarely last indefinitely. And so it is with the Big 4 who are set for a tougher future (see chart 1).

Key Points

- **Growth prospects fading**
- **Dividend growth seems unlikely**
- **Maintain portfolio limits**

That's due to a number of factors. So far in this series, we've touched on threats from regulation, not least from higher capital requirements, and increased competition, from regional and overseas banks as well as 'fintechs'. All this has pushed the major banks' return on equity down to its lowest level in 25 years.

Chart 1: Australian bank profitability



* Fiscal years from 2003 onwards; prior data are as reported in banks financial statements

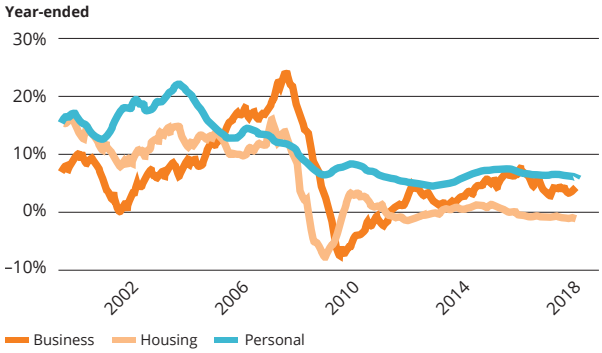
Source: APRA; Banks' annual reports; RBA via RBA chart pack Jun 2018

Growth is also fading across all the main areas of operation: retail banking; business banking and wealth management. In this final article of the series, we'll look at the prospects for these areas (hint: it's not very inspiring).

Housing blues

As we explained in Home truths for the big banks, home loans have been the major driver of the big four banks' sensational run of profit growth over the past couple of decades. As a result, they've become the largest and most profitable portion of their lending portfolios, and any slowdown in this area will have an outsized impact.

Chart 2: Credit growth by sector



Source: ABS; APRA; RBA via RBA chart pack Jun 2018

Regulators have sought to limit some aspects of mortgage lending due to concerns about the hot property market and the possible consequences of a collapse. More recently, regulatory scrutiny has turned to banks' assessment of loan applicants' income and expenses. Lending conditions now seem to be tightening, and with that, loan volumes are likely to decline.

House prices have moderated as a result – particularly in the largest markets of Sydney, Melbourne, and Brisbane, which have experienced declines in recent months. The combination of high consumer debt and expensive property markets suggest we're unlikely to see much growth in home lending anytime soon.

Revenue from this area has had some support from margins which, somewhat counterintuitively, have increased since regulators started imposing restrictions, particularly in the most affected segments of investor and interest-only mortgages.

Margin adjustments, however, are a one-off impact. And in any case, the longer-term trajectory is likely lower, as banks compete for share in a slowing, and increasingly competitive,

A more promising growth area is small business lending, based on recent interim results and management comments.

mortgage market. The increased capital requirements for home loans adds further pressure.

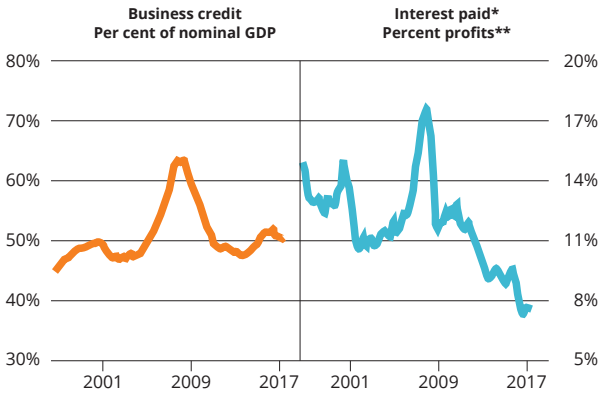
Mixed business

The outlook for business lending is perhaps a little better – or at least more mixed. The major banks lend to businesses large and small and demand between the various segments can differ considerably.

At the big end of town, the big four have largely been working to increase the profitability of their institutional lending books, which has typically lagged that of the wider groups in recent years, while also involving greater risks. That's generally led to a reduced appetite for corporate loans, in favour of fees from providing a range of services to these clients.

And that's hardly coming off a high base. Business lending growth has been volatile in recent years, and below that of housing loans, despite record low interest rates (see chart 3). Where major banks have shown reduced willingness, foreign banks and non-bank lenders have been taking market share.

Chart 3: Business finances



* Interest on intermediated debt from Australian-domiciled financial institutions
** Profits are private non-financial gross operating surplus (adjusted for privatisations) and gross mixed income

Source: ABS; APRA; RBA via RBA chart pack Jun 2018

A more promising growth area is small business lending, based on recent interim results and management comments. Many of these loans are backed by residential property, so the risk profile can be related to housing, and it's also a relatively small contributor of profits compared to home loans.

Shrinking wealth

Wealth management operations won't bridge the gap, as disposals in this area continue. These divisions incorporate a range of businesses from financial planning to insurance, and growth and profitability have been mixed – hence the disposals.

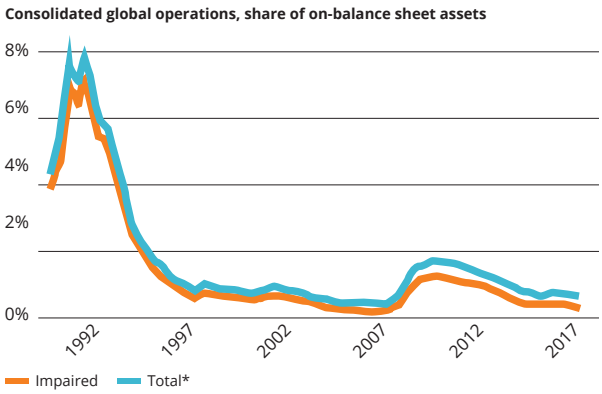
As an alternative, the major banks are now looking for partnerships, where they can earn a margin and retain customers by selling wealth products provided by third parties. Reduced exposure to the producs themselves will reduce earnings in the short term, but should free up capital and management time to focus on more profitable areas. Overall, we view it as a positive development.

Westpac is bucking the trend. The bank gets about 10% of its earnings from wealth management – more than its peers – and obviously feels it's too much to give away. Its operations in this area also make similar returns to the rest of the group, so it makes some sense to keep them.

Counting costs

One final potential source of growth is by reducing costs. Perhaps the most obvious potential source is lower impairments – but unfortunately these have already fallen to historic lows across all categories (see chart 4). They can't go below zero (at least not sustainably) so any falls are likely to be small, while increases could be more significant. Overall, we'd conservatively expect average impairments 'across the cycle' to be materially higher, perhaps around three times their current level.

Business finances



* Includes assets 90+ days past due that are well secured
Source: APRA via RBA chart pack Jun 2018

> *As a result of this weak outlook, we expect little, if any, growth in dividends in the next few years.*

Prospects are better for reducing operating costs. Technology can help with this, although continued investment will be necessary to achieve any improvements and, as with impairments, there are limits – you can only cut any individual cost once. While cost savings are always welcome, holding onto them is hard in a competitive market place, and ultimately you need top-line growth to drive long-term earnings growth.

Dividend watch

As a result of this weak outlook, we expect little, if any, growth in dividends in the next few years. Indeed they could even be cut, particularly if margins decline or bad debts rise.

We see NAB's dividend as the most precarious, as it persists with a large investment program whilst having the highest payout ratio (at 81%). ANZ's is probably the safest, having already been cut and with the lowest payout ratio among the major banks (at around 67%).

Despite this uncertainty over the sustainability of their dividends, we could see capital being returned in other ways over the next few years. The Big 4 are on track to meet the regulator's requirements of a CET1 level of 10.5% by 2020. Capital above this level could be handed back to shareholders by way of special dividends or buy-backs. The disposal of wealth operations (and potentially other assets) would increase that prospect.

Stick to limits

The major banks remain strong businesses and worthy of a place in many investors' portfolios – but their future will look quite different to the past, and investor caution is warranted. As a result, we expect a considerable margin of safety before recommending them and, despite recent falls, we're not quite there yet.

Above all, we recommend that you keep your exposure to the sector below 20%, and closer to 10% for more conservative investors or those with other significant property exposure.

Staff members may own securities mentioned in this article.

Commonwealth Bank

In spite of provisions relating to its money-laundering infringements, outgoing CEO Ian Narev has delivered a strong result before stepping down.

FIRST PUBLISHED 8 FEB 2018

Ian Narev was quick to acknowledge recent missteps in CBA's interim result – his last as chief executive – but delivered a steadfast defence of the bank's performance. The evidence supports him: during his tenure CBA has maintained its position as the strongest banking franchise in Australia and delivered consistent profit growth.

Key Points

- **Strong underlying performance**
- **Strategy expected to remain**
- **Profitability faces some headwinds**

At an underlying level, the latest half was no different, with low levels of credit losses, supportive margins, some revenue growth and good cost control. It's a healthy combination, and one not easily achieved.

Of course there were also $375m of provisions for penalties related to alleged money-laundering infringements, and a further $200 million associated with further regulatory and compliance costs (such as the royal commission).

There's no hiding from the damage inflicted by this mess, but it also shouldn't distract from CBA's longer-term business strength.

After stripping out the $375m penalty and the recent sale of the life insurance operations, pro forma cash earnings rose 6% to $5.11bn, giving a 5% rise to $2.94 on a per share basis. The interim dividend was increased by 1 cent to $2.00. Return on equity was flat at just under 16% (on the adjusted basis) and the balance sheet is healthy.

Retail standout

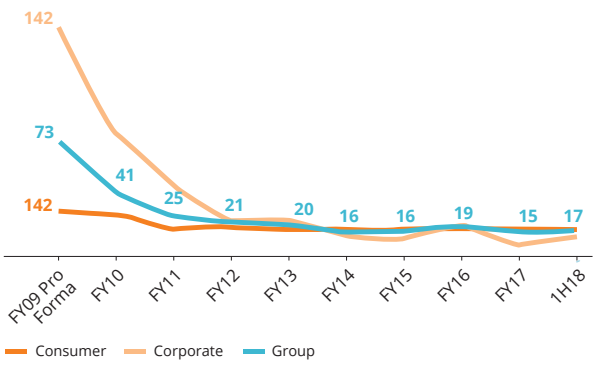
Retail banking services, which accounts for just over half the bank's profit, remains a standout performer with net interest margins above 3% and a cost-to-income ratio near 30% (both better than the wider group). Cash earnings from the business rose almost 8%.

The only division that reported a decline in profits was the institutional banking and markets unit, where profits fell 13%. CBA is slowly shifting capital away from this division, in favour of the greater returns offered elsewhere, and its loan book fell by another 2% in the half.

Asset quality across the group remains strong, and impairments of only 0.16% of the loan portfolio were taken in the half (see chart 1). However, the size of CBA's residential mortgage portfolio, combined with the historically high house prices and household debt warrants caution. Across the cycle we expect a higher level of impairments, but predicting when these might appear is a mug's game.

CBA's strategy is unlikely to change following the promotion of Matt Comyn to chief executive. The bank remains focused on Australia and New Zealand, particularly retail banking with residential mortgages accounting for over 70% of its loan book. This has served CBA very well.

Chart 1: CBA's loan impairment expense



Source: CBA Results Presentation (HY 31 Dec 2017; slide 25)

Residential mortgages have been a key driver of profit growth. Many years of very low credit losses, healthy growth in housing demand, low interest rates, and supportive regulatory conditions have provided the backdrop. As a result, the sector has been shifting from business loans to residential mortgages.

At the same time, CBA is also slimming down. The group's life insurance operations were recently sold, while the asset management business is under review and could follow it out the door. With the bank's strong balance sheet, sale proceeds may fund additional dividends or buybacks.

> *CBA maintains a dominant retail franchise and is deserving of the higher valuation placed on it by the market.*

Pressure on profits

It's not all chips and gravy, though (or even pakora and mango chutney). As we've previously highlighted, CBA (and its peers) face profitability pressures from greater regulatory costs, weaker credit growth and potentially higher impairments (closer to historic levels).

Table 1: CBA Interim result 2018

SIX MTHS TO 31 DEC ($M) *	2017	2016	+/(–)(%)
NET INTEREST INCOME	9,253	8,710	6
NON-INTEREST INCOME	3,882	4,125	(6)
TOTAL INCOME	13,135	12,835	2
OPERATING EXPENSES	(5,764)	(5,474)	5
PROFIT BEFORE IMPAIRMENTS	7,371	7,361	0
IMPAIRMENTS	(596)	(599)	(1)
PROFIT BEFORE TAX	6,775	6,762	0
CASH EARNINGS	4,735	4,828	(2)
CASH EPS ($)	2.82	2.82	0
ADJUSTED CASH EARNINGS**	5,110		
ADJUSTED EPS ($)**	2.94		
INTERIM DIVIDEND ($))	2.00	1.99	1

*** Continuing operations**
**** Removes impact of $375m penalty from continuing operations**

We've been experiencing the first of these for the past few years, and the most significant regulatory changes have largely been implemented (such as enhanced capital requirements). The latter two remain a risk.

During the results presentation, in response to a question of growth, Ian Narev was quick to point out that banks need to be prepared for less favourable conditions. Slide 18 of the presentation pack hints at CBA's caution, highlighting it's selective lending approach. We shouldn't infer too much at this stage, but it's pleasing that margins aren't sacrificed for growth.

CBA maintains a dominant retail franchise and is deserving of the higher valuation placed on it by the market.

The stock currently trades on a price-earnings ratio of around 13.7. This rises to around 16.0 if we substitute a higher, 'though-the-cycle', impairment charge. We don't expect much growth in the annual dividend in the next 12 months, but it provides a healthy fully franked yield of 5.6%.

We'll be providing a more comprehensive review of CBA and the major banks after reporting season, but we continue to assess CBA as a **HOLD**.

*Please note our recommended maximum portfolio weightings of 10% for CBA individually and 20% for the banking sector as a whole. More conservative investors and those with other exposure to the property market should use lower limits.

Note: The Intelligent Investor Equity Income Portfolio *owns shares in CBA. You can find out about investing directly in Intelligent Investor and InvestSMART portfolios by* clicking here.

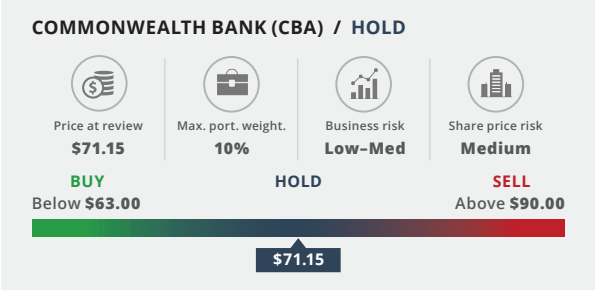
Staff members may own securities mentioned in this article.

Trimming CBA's price guide

CBA is our preferred bank, but it can't escape industry changes.

RAKESH TUMMALA • FIRST PUBLISHED 15 MAY 2018

The Australian banking industry is in transition and faces some challenges. **Stricter regulation, higher capital requirements**, **increased competition** and technological threats put the major banks' profitability under pressure. At the same time, they're facing lower loan growth.



These are themes we've previously highlighted. And, indeed, Commonwealth Bank's **weak Q3 update** last week pointed that way. Though judging the pace and impact of industry change is never precise (or easy), in such an environment, it's best to incorporate a wider margin of safety.

High quality, lower val ue

As such, we're lowering CBA's price guide. Our amended buy price declines to $63 from $70, and our recommended sell price falls to $90.

CBA is the premier retail bank in Australia and deserves a premium valuation to its peers. The revised buy price represents a forward price-earnings ratio of 11.5, on consensus estimates. While that looks low, the multiple increases to the mid-teens when we factor in higher rates for loan provisions (which are currently at historic lows). The buy price also stands at about 1.7 times tangible book value.

Decent returns

A lower price guide doesn't mean members shouldn't include CBA in their portfolios or even buy it in the right circumstances. It's a high-quality business and our preferred bank, but it's unlikely to trade on the cheap. At the current price we're also still closer to buying than selling and those with very low weightings in the banking sector (well below the 10% we recommend as a maximum for conservative investors) might consider taking small bites before we reach $63. For those with higher weightings in the sector – closer to our 20% absolute maximum or our 10% limit for conservative investors – we'd recommend waiting for a wider margin of safety before buying more.

That's the approach we'll be taking in the **Intelligent Investor Equity Income Portfolio**, which currently has a weighting of 8.3% in the banking sector (comprising 4.8% in CBA and 3.5% in Westpac), compared to over 20% for the ASX 200.

It remains our view, though, that there's no particular need to have exposure to the banking sector, which in many ways just reflects exposure to the overall economy. We're comfortable having no banking exposure in the **Intelligent Investor Equity Growth Portfolio**.We'll provide more detail on the factors affecting banks as we continue our series on the sector. **HOLD**.

Please note our maximum recommended weighting of 20% for the banking sector as a whole, or closer to 10% for more conservative investors or those with other large property exposures.

*Note: The Intelligent Investor **Equity Income Portfolio** owns shares in CBA. You can find out about investing directly in Intelligent Investor and InvestSMART portfolios by **clicking here**.*

Staff members may own securities mentioned in this article.

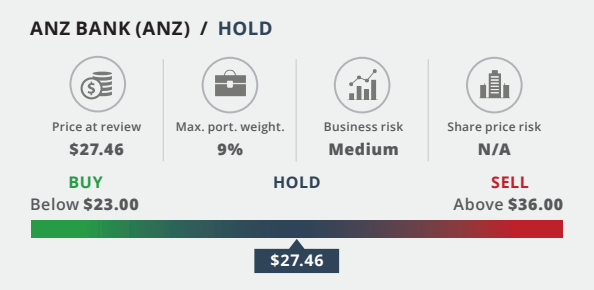
ANZ

A solid result before tougher times.

RAKESH TUMMALA • 2 MAY 2018

ANZ is expecting significant change and is embracing it. As CEO Shayne Elliott explained alongside the half-year result:

'I think our sector has had a golden run for 20 plus years and we don't think that's going to continue; it is going to be harder. And so, in a tough world with headwinds … only the fit will really survive and prosper and that's what we have been about getting fit for it.'



The bank has been transforming itself in the last few years with a shift towards retail and small business banking. That's meant a reduction in size for its institutional business, a culling of its wealth management operations, and an end to its Asian retail ambitions.

We support these changes. They reduce complexity and risk and should help management focus on the areas of greatest profitability and opportunity.

Solid result

ANZ's interim result shows progress on all these fronts, though reported numbers were a bit messy due to restructuring and disposals.

Based on continuing operations, performance was solid for the half underpinned by lower bad debt provisions and reduced overall expenses. Revenue was broadly flat, while the net interest margin was down slightly to 1.93% from 1.98% in the prior half.

All up, cash earnings from continuing operations was up around 1% (to $3.49bn) over the prior half, with earnings per share ($1.19) up a similar amount. Profitability continues to improve with a return on equity of 11.9%.

At 11%, ANZ's **CET1 ratio** is the highest among the major banks, and it's expected to rise to around 11.8% as announced divestments finalise later in 2018. That's well above APRA's requirement of 10.5% (by 2020) and management said the bank would continue to return capital through its share buyback program. For the moment, the interim dividend will remain at 80 cents per share, fully franked.

Adjusting to change

Bad debts will eventually rise from their current historically low levels, and management deserves credit for reshaping ANZ's business away from riskier forms of lending and activities while conditions remain sound. For the half, total provisions were just 14 basis points (of average loans), compared to 24 basis points in the prior corresponding period.

Table 1: ANZ Interim result 2018

SIX MONTHS TO 31 MAR ($M) *	2018	2017	+/(–) (%)
NET INTEREST INCOME	7,350	7,419	(1)
NON-INTEREST INCOME	2,458	2,557	(4)
TOTAL INCOME	9,808	9,976	(2)
OPERATING EXPENSES	(4,411)	(4,487)	(2)
PROFIT BEFORE IMPAIRMENTS	5,397	5,489	(2)
IMPAIRMENTS	(408)	(720)	(43)
PROFIT BEFORE TAX	4,989	4,769	5
CASH EARNINGS	3,493	3,355	4
CASH EPS ($)	1.19	1.15	4
INTERIM DIVIDEND ($)	0.8		

*** Continuing operations**

The focus on costs is increasing as industry growth declines. ANZ's cost structure is affected by the changing business mix, with retail and business banking having relatively lower costs than the institutional division. Beyond this, technology is allowing for replacement of manual processes and uncovering more efficient ways of banking.

Even so, it was impressive to see ANZ's costs fall in absolute terms in the face of restructurings, royal commission costs and increased investments.

> ***Things don't look like letting up, with the prospect of regulatory change, slower growth and increased competition due to technological disruption.***

Things don't look like letting up, with the prospect of regulatory change, slower growth and increased competition due to technological disruption. We'll provide a more comprehensive review of ANZ as part of our series on the banking industry. **HOLD**.

**Please note our recommended maximum portfolio weightings of 9% for ANZ individually and 20% for the banking sector as a whole. More conservative investors and those with other exposure to the property market should use lower limits.*

Staff members may own securities mentioned in this article.

NAB

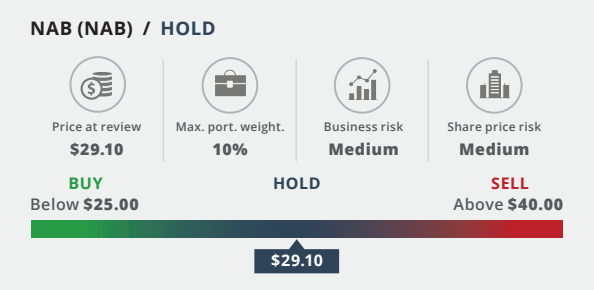
Higher costs belie a solid result, as NAB cuts MLC.

RAKESH TUMMALA • 4 MAY 2018

Australian banks are taking action to cope with tighter regulation, increased competition, lower growth prospects and the threat of technological disruption – but NAB is perhaps the most vocal about it.

Key Points

- **MLC to be sold**
- **Cash earnings flat**
- **Business continues to be reshaped**



The bank's interim results presentation is filled with changes to processes, products and business lines. The most notable is its plan to sell or demerge its wealth management operations. The move comes as little surprise as peers have also been disposing of their wealth businesses, which are less profitable and much smaller than their lending divisions.

Incorporating advice, funds management and superannuation under the MLC brand, NAB's wealth business will be split from the group in 2019 and is likely to be worth around $3bn–4bn (according to broker estimates). NAB will retain some wealth operations, namely its share trading business and private banking (financial planning for rich people).

Big cost implications

Of course big changes at a big bank have big cost implications, and restricting charges for the half amounted to $755m.

Excluding those charges, interim cash earnings were flat at $3.3bn, with low (and declining) bad debts offsetting higher costs (more on this later). That translated into earnings per share of $1.17, down 3%, and a return on equity of 13.6%. The group's net interest margin increased from 1.82% to 1.87%.

The overall flat result, though, conceals a range of underlying performances among the different divisions.

The largest, Business and Private Banking, achieved growth in revenue and cash earnings of 6.4% and 8.3% respectively, helped by improved net interest margins and increased volumes for business loans.

Consumer Banking and Wealth also achieved good revenue and cash earnings growth, of 3.4% and 5.2% respectively. These results, though, were outshone by NAB's New Zealand operations, which increased revenue and cash earnings by more than 8% in local currency.

These positive performances, though, were held back by Corporate and Institutional Banking, which posted small declines (under 2%) for revenue and cash earnings. The bank's treasury operations (which manage its capital, cash assets, and funding) also recorded a 26% drop in revenue, though this form of income can be volatile.

Table 1: NAB Interim result 2018

SIX MONTHS TO 31 MAR ($M)	2018*	2017	+/(–) (%)
NET INTEREST INCOME	6,750	6,393	6
NON-INTEREST INCOME	2,343	2,476	(5)
TOTAL INCOME	9,093	8,869	(3)
OPERATING EXPENSES	(3,989)	(3,785)	0
PROFIT BEFORE IMPAIRMENTS	5,104	5,084	(2)
IMPAIRMENTS	(373)	(394)	(5)
PROFIT BEFORE TAX	4,731	4,690	1
CASH EARNINGS	3,289	3,294	(0)
CASH EPS ($)	1.17	1.20	(3)
INTERIM DIVIDEND** ($)	0.99	0.99	0

*** Excludes restructuring costs of $755m**
**** Fully franked, ex date 15 May**

Increased expenses (over and above the restructuring costs) were the main reason for the flat result. Cost-to-income ticked up to 43.9% from 42.7%, with investment spending up around 24%. Much of those costs are allocated to Corporate Functions (which includes the group's technology, treasury and support operations), so it doesn't affect earnings from the main divisions.

Overall, this was a decent result from NAB.

High investment

Restructuring costs and expenses may stray above budget, but so long as the investment is sensible and progress is being made, NAB will become a more competitive bank.

Investment is unlikely to be constrained by capital needs, with NAB's CET1 ratio rising 10 basis points to 10.2%. Following the sale of the wealth business, NAB's CET1 ratio will edge closer still to APRA's requirement of 10.5% by 2020. The interim dividend remains at 99 cents per share (fully franked), and the use of dividend reinvestment plans will remain a supportive factor to NAB's CET1.

Overall, this was a decent result from NAB. Like the industry, it faces challenges and is at the early stages of its material investment and reshaping program. **HOLD**.

**Please note our recommended maximum portfolio weightings of 10% for NAB individually and 20% for the banking sector as a whole. More conservative investors and those with other exposure to the property market should use lower limits.*

Staff members may own securities mentioned in this article.

Westpac

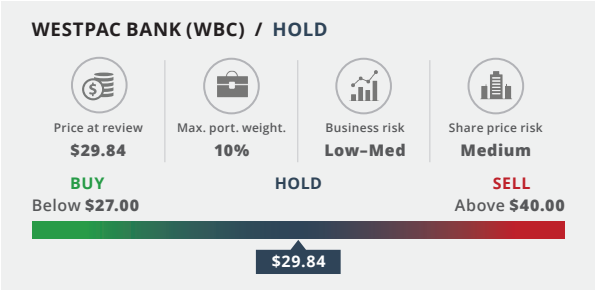
WBC delivers a strong result and will keep wealth operations.

RAKESH TUMMALA • 9 MAY 2018

Westpac interim result surprised no one. Of greater long-term significance was Westpac's commitment to its business model.

Key Points

- **Strong interim result**
- **Will maintain wealth businesses**
- **Profitability and growth pressures ahead**



The banking group intends to keep a diverse wealth division that spans insurance to finance advice. That's in contrast to its peers which have been trimming asset management, life insurance and elements of financial planning businesses. However, Westpac has been reducing its holding in Pendal (formerly BT Investment Management) and we expect the remaining 10% stake to be sold.

Tightening regulation, complexity, and lack of profitability have been contributing factors in the major banks' decision to partially pull out of wealth management. Westpac has had some success with wealth businesses and, coupled with a substantial ongoing investment, there is good reason to retain the division.

Strong result

Back to the result, Westpac's profit was underpinned by healthy revenue growth, good cost management and lower bad debt provisions. Compared to the prior corresponding period, revenue was up 4% supported by an improved net interest margin (NIM) of 2.17% (from 2.07%), while cost growth was 3%. Impairment expenses reduced to 11 basis points of average loans, which is around historic lows. All up, cash earnings increased 6% which equates to earnings per share of $1.25, up 4%.

The overall result reflected healthy growth across all divisions except institutional banking.

Consumer banking is the largest division and benefitted from higher margins and higher volume to deliver a 12% increase in cash earnings to $1.7bn. This increase was possible because of the structure of Westpac's loan book.

Westpac has higher exposure to interest-only loans than its peers and regulatory changes have allowed it to hike rates to generate higher margins. As a result, the division's NIM increased 10 basis points to 2.37%. That might not sound like much but, over hundreds of billions of dollars, it adds up.

BT Financial Group, the wealth management division, generated cash earnings growth of 7% (and 13% over the prior half). Although this is a complex part of the business, it accounts for almost 10% of Westpac's earnings and generates return on equity of 14%, similar to the rest of the bank.

Table 1: WBC interim result

SIX MONTHS TO MARCH	2018	2017	+/(–) (%)
NET INT. INCOME ($M)	8,301	7,693	8
NON INT. INCOME ($M)	2,850	3,068	(7)
NET OP. INCOME ($M)	11,151	10,761	4
OP. EXPENSES ($M)	4,654	4,501	3
PBT BEFORE IMPAIRMENTS ($M)	6,497	6,260	4
IMPAIRMENTS ($M)	393	493	(20)
CASH EARNINGS ($M)	4,253	4,022	6
CASH EPS ($)	125.0	119.9	4
DIVIDEND ($)	0.94*	0.94	–

*** Fully franked, ex date 18 May, no discount to DRP**

The best performer was Business Bank which recorded cash earnings increase of 13%. With mortgage growth expected to slow, lending to small businesses should continue to be a rare source of growth.

Westpac's New Zealand operations achieved growth in cash earnings of 4%, and it remains the most profitable division with a return on equity of around 17%.

> *Like the industry, revenue growth will be hard to find.*

Westpac Institutional Bank was the laggard, reporting a decline in cash earnings of 12%. However, the prior corresponding result benefited from specific fee income from large client transactions (which can be lumpy). The institutional division's profitability is lower than the rest of the group (at around 12.1% ROE over the past year) but is in line with major bank peers.

Capital on track

Westpac's **CET1** is at the regulator's required ratio of 10.5% (by 2020). Unlike some peers that are divesting assets, Westpac may not have capital matrerially above that regulatory minimum to provide an additional return to shareholders (such as special dividends) in the next year or so. For now, the interim dividend remains at 94 cents per share (fully franked).

Westpac rounds out the interim results for the major banks. Like the industry, revenue growth will be hard to find. We'll provide a more comprehensive review of Westpac as part of our series on the banking industry. **HOLD**.

**Please note our recommended maximum portfolio weightings of 10% for Westpac individually and 20% for the banking sector as a whole. More conservative investors and those with other exposure to the property market should use lower limits.*

*Note: The Intelligent Investor **Equity Income Portfolio** owns shares in Westpac. You can find out about investing directly in Intelligent Investor and InvestSMART portfolios by **clicking here**.*

Staff members may own securities mentioned in this article.

Intelligent Investor

P.O. Box Q744

Queen Victoria Building NSW 1230

1800 620 414 • info@intelligentinvestor.com.au

www.intelligentinvestor.com.au