Banking Matters

Major Banks Analysis full year 2018:
Headwinds blowing fiercely

November 2018

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1. Earnings and returns

Cash earnings

-5.5% yoy
-6.8% hoh

$29.5bn

Cash earnings pulled back by $1.7 billion relative to 2017, despite record low credit losses reflecting subdued growth and significant 'notable items' related to restructuring, remediation and compliance.

Return on equity

-144 bps yoy
-95 bps hoh

12.50%

Fell below 13% for first time since GFC. Since the high-water mark in 1H'15 has declined by 4.2% in face of steady rise in capital and earnings reductions.

2. Revenues

Net interest margin

2.00%

-2bps yoy
-4bps hoh

Weighed down by market and treasury activity, product switching and the full-year impact of the bank levy. Benefits from repricing and cheaper deposits faded in second half driving NIM below 2% for first time ever.

Non-interest income

-3.9% yoy
-5.6% hoh

$22.4bn

Significant fall in markets income more than offsetting improvement in banking fees and commissions and wealth management. Longer-term, non-interest income flat since GFC, fluctuating around $11 billion per half.

3. Expenses

Expense-to-income ratio

46.35%

+335bps yoy +220bps hoh

Headline increase driven by notable items raising total expenses to $39.4 billion. Excluding notable items, ratio would be 42.19% (down 119bps yoy), reflecting compound cost growth inflation since 2013.

Itemised charges

$3.5bn

total 'notable' charges

$2.8 billion recognised as expenses and $0.7 billion deducted from income, reflecting requirements for customer remediation, compliance and restructuring.

4. Asset quality

Bad debt expense

-17.7% yoy
-16.0%hoh

$3.3bn

Continues to fall as impairments fall, and reflects record low level relative to gross loans and advances (12 bps). Expense relative to gross loans and advances at the lowest level in 25 years, at less than half of the average over the same period.

Credit provisions

$13.9bn

-1.9% yoy
-2.1% hoh

Slight growth in collective provisions as arrears tick up in some areas, while specific provisions were lower as individual large items were not repeated. The proportion of Impaired assets to gross loans and advances is half the average over the last two decades.

5. Balance sheet

Credit growth

4.6%p.a.

-70bps yoy -50bps hoh

Overall growth falling to just above nominal GDP, but with accelerating business lending growth surpassing decelerating mortgage lending growth in the last quarter. Majors losing share to non-majors and to non-banks which are growing quickly off low base.

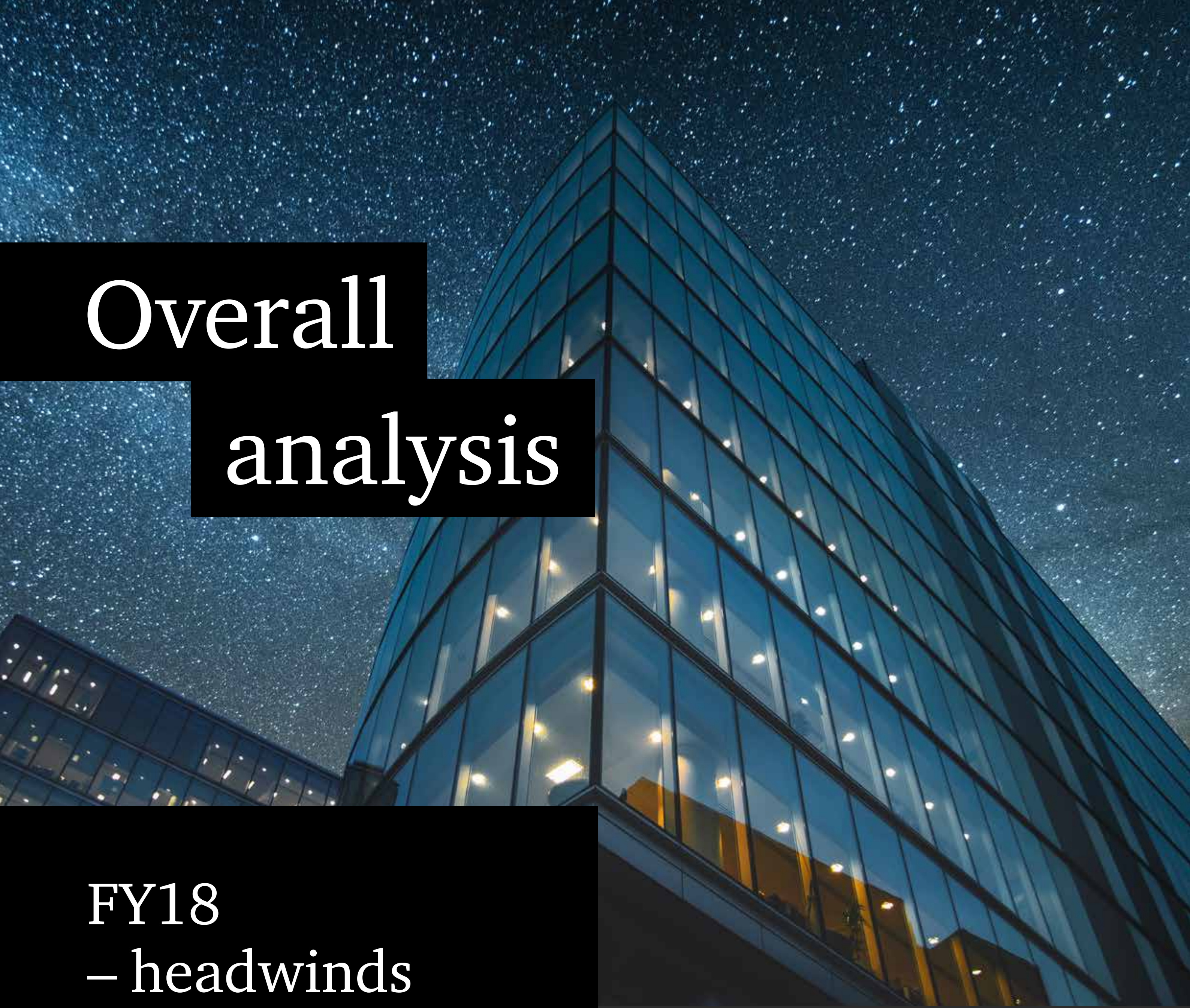
Common equity tier 1 ratio

27bps yoy
3bps hoh

10.59%

CET1 ratio has improved consistently across the majors with two banks already above 10.5% January 2020 target.

Footnote: Comparisons made in this analysis are to the 2017 financial year (yoy) or the first half of the 2018 financial year (hoh), adjusted for restatements as relevant (e.g. total cash earnings reported last year was $31.5 vs $31.2 billion restated).



Overall analysis

FY18 – headwinds blowing fiercely

With a fall of over $1.7 billion in reported cash earnings, the headwinds to bank performance that have been much debated for the past 6 months have now overcome the previous tailwinds of mortgage repricing, asset quality and balance sheet growth. The outlook for returns remains challenging with the extent of the impact of ongoing and accelerating regulatory reform a particular concern.

Earnings fell for all four major banks in 2018, to a total **$29.5 billion** after the record **$31.2 billion** delivered in 2017.[1]

The 2017 record result was received with 'subdued enthusiasm' due to its dependence on a narrow base: continued mortgage lending growth, repricing supporting margins and improvement in credit quality[2]. It rested ultimately, though unsteadily, on two basic supports:

- a cost structure for compliance, legal liability, risk management, security and control which reflected legacy compliance and models, philosophies rather than those required in today's environment, and
- benign economic conditions associated with the globally-synchronised expansion — which, even in 2017, was one of the longest in history.

Neither support was sustainable, and manifested material challenges and risks.

The first support has now come down. Over the course of the year, the major banks have collectively expended and provisioned almost $3.5 billion for remediation, compliance, restructuring and related costs (generally referred to as 'notable items' recognised in both expenses and income).

The drama of the multi-front assault on the industry's reputation from government, the Royal Commission, the Productivity Commission and other regulators[3] all suggest similar costs will remain 'notable' in bank financials for some time. The question that remains is the extent to which a permanent uplift in the cost base is required — a point much debated at present.

The good news is that, for the time being at least, the second foundation remains. It continued delivering for the banks, especially in record-low credit losses in the Income Statement and historically-low provisions on the balance sheet. Nevertheless, as we've noted before[4], evidence of economic challenge is beginning to emerge in bank financial results.

To date, this evidence remains largely second-order: the main story is that economic conditions in all major economies remain robust, notwithstanding specific points of concern in places such as Turkey, Italy or China.

The banks are understandably keen to 'look through' the result to underlying cash earnings, and we note below that in the absence of the $3.5 billion 'notable items', the result would have been another record. However, truly disentangling these from what might be called 'underlying' trends is not a trivial undertaking. This surely explains in part the secular decline in all four banks' share prices over the past 18 months, and noted divergence from the rest of the All Ordinaries.

Given these challenges, the major banks are all simplifying, streamlining and rethinking their business architecture. With one exception, they have divested, or announced intentions to divest, their insurance, asset management, wealth and other associated businesses. They have narrowed and focused their franchises, balance sheets and customer profiles to those they see as offering the potential for sustainable long-term profitability. They are investing in digitisation, automation, artificial intelligence and connectivity. Most importantly, they have begun to revisit some of the fundamentals of their business, including expectations for:

- economic returns for investors in the industry
- personal remuneration for participants in the industry
- customers and their expectations in terms of security and safety, but also speed and convenience
- the kind of people the industry needs to recruit, retain and develop in order to satisfy all of the above.

The latter point is the subject of our coming Hot Topic: Waiting for Superheroes — thoughts on the banking workforce of the future, to be published in December.

1. Reported cash earnings of $31.5 billion have since been restated to $31.2 billion, to ensure comparability with the ongoing business.
2. See PwC Banking Matters Report: Major Banks Full Year 2017, November 2017.
3. Most immediately, the ACCC, which is expected to release its final report on mortgage pricing next week.
4. See PwC Banking Matters Report: Turbulence emerging: Major Banks Half Year 2018, June 2018.

Cash earnings

Headwinds blowing fiercely

As mentioned above, cash earnings fell to $29.5 billion, a reduction from the record $31.2 billion delivered the year before. Return on equity (ROE) continued to fall as a result, to 12.50% and down 144bps since FY17, its lowest level since the GFC.

Net interest margins fell below 2% for the first time, hitting 1.97% in the second half (though averaging 2.00% for the year overall). A broad range of factors, rather than any one item in particular, drove this decline, including higher wholesale funding costs, a fading tailwind of earlier mortgage and other repricing, the impact of the bank levy, and a higher cost of holding liquid assets.

Notwithstanding recent mortgage repricing that has yet to flow through to revenues, managing margins remains one of the critical levers at the banks' disposal to support returns going forward. The impact of heightened scrutiny stretched household financials on the banks' ability to continue repricing their loans in 2019 will be a key focus of attention.

Lending growth has also been subdued, in part because system growth has slowed, and in part because the majors have lost share to smaller bank and non-bank players. Some of these movements reflect the major banks' response to a significant increase in focus on compliance obligations, especially for mortgages. They have tightened lending standards, are asking more detailed questions about purpose and financial circumstances, and are demanding more evidence. These measures have put a drag on overall home lending in Australia, and have likely contributed to a shift away from the majors.

Non-banks in particular are seeing a notable lift in lending, growing 27 percent on an annualised basis for the third quarter of this calendar year. While it may be too early to call this a trend, if non-banks continue to grow at this rate, regulators will need to keep a close eye on the implications for the system.

Notwithstanding the challenges, there is some good news in the reported results, with strong capital generation and lower impairment charges. The outlook for capital remains favourable, especially with planned divestments in the pipeline for all banks.

Loan losses again provided a tailwind to earnings, despite our continued predictions that this had to end. At 12 basis points of loans and advances, credit losses are now lower than at any time in the last 25 years. Specific provisions and charges have materially reduced while collective provisions have only marginally increased in line with a slight tick-up in mortgage arrears. If credit losses had hit their average for the last 25 years, cash profits would have been $3.5 billion lower.

Figure 1: Four major banks combined performance report (as reported)

	FY2018	FY2017	FY18 vs FY17	2H18	1H18	2H18 vs 1H18
Net interest income	62,661	61,279	2.3%	31,005	31,656	(2.1%)
Other operating income	22,405	23,325	(3.9%)	10,879	11,526	(5.6%)
Total income	85,066	84,604	0.5%	41,884	43,182	(3.0%)
Operating expense	39,425	36,376	8.4%	19,880	19,545	1.7%
Core earnings	45,641	48,228	(5.4%)	22,004	23,637	(6.9%)
Bad debt expense	3,256	3,957	(17.7%)	1,486	1,770	(16.0%)
Tax expense	12,759	12,914	(1.2%)	6,221	6,538	(4.8%)
Outside equity interests	139	140	(0.7%)	72	67	7.5%
Cash earnings	29,487	31,217	(5.5%)	14,225	15,262	(6.8%)
Statutory results	29,766	30,237	(1.6%)	14,465	15,301	(5.5%)

Bank response

Streamlining business architecture, and rethinking basics

In response to the realisation that the gap between community expectations and industry practice was wider than previously understood — or at least acknowledged — banks have been rethinking all elements of their business architecture, right down to the basics of banking.

Although this has been going on for some time, 2018 was the first year in which the financial impact of the sum of restructuring, remediation, risk management and compliance costs finally overwhelmed other financial drivers in characterising bank results.

We don't believe it's going to be the last. Tolerance for mistakes and misconduct is substantially diminished, and that there are now altogether different expectations about remediation timeframes. This is a clear headwind on operating cost.

In the long run, it is reasonable to expect that if banks focus on becoming simpler, smaller and more deeply connected to customers, they should not only be able to price more effectively, expand relevant services and maintain market share, but do all that whilst being more efficient and less error-prone by design.

The multi-billion dollar question for investors, therefore, is how much improvement in efficiency is truly possible in this industry, how long it may take, and what might happen in the meantime.

Outlook

Clear risks apparent in favourable economic environment

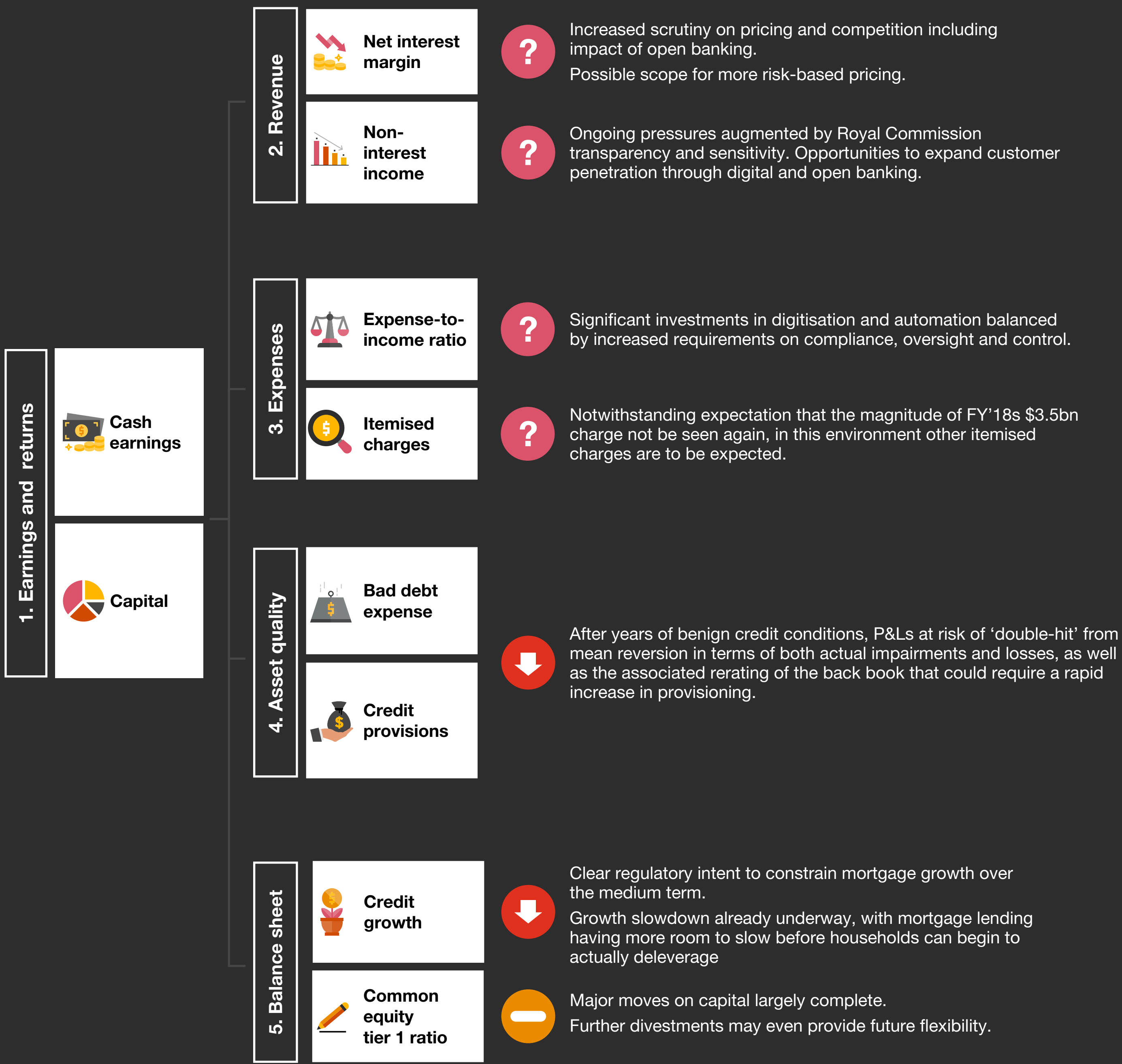
2018 represents the sixth straight year of synchronised GDP expansion across all major economies.

In Australia, unemployment is low, commodity prices, especially iron ore and coal, have rebounded, and the 10 percent fall in the Australian dollar since February has been just enough to buttress exports and corporate earnings, but not so precipitous as to threaten liquidity, consumption or confidence. In fact, asset values in general, including equities, bonds and capital-city real estate have repeated this balance, declining enough to extinguish concerns about froth in the market, but, at least for the time being, not enough to trigger broader instability.

In such an environment, it is not surprising that 'underlying' bank performance was broadly favourable as described above, especially in terms of ongoing balance sheet growth and such low credit costs.

Notwithstanding this, as well as the remarkable length of the global expansion to date, the obvious pointers of geopolitical risk suggest caution. For instance, China, Australia's key export market, must address the capital misallocation legacy of its own credit boom even as it struggles to manage an unpredictable relationship with its key trading partner. When combined with the unknown financial impact of a higher compliance burden and continued scrutiny, we retain the cautious view of the medium-term outlook for bank earnings and returns we have held for some time, noting the headwinds on most drivers as shown in Figure 2.

Figure 2: Future Outlook



Analysis 1: Earnings and returns

Cash earnings

Earnings have fallen 5.5 percent to $29.5 billion relative to the the record FY'17 result of $31.2 billion.

This was driven by a number of factors, most prominently $3.5 billion in 'notable items'. The half-on-half decline was 6.8%.

Notwithstanding the noise around this particular result and the volume of 'notable items' associated with it, it is worth noting that since 1H'15 when half-year earnings peaked at almost $15.8 billion, earnings for the major banks have fluctuated in a band between $16 and $14 billion per half for eight straight half-year periods in a row.

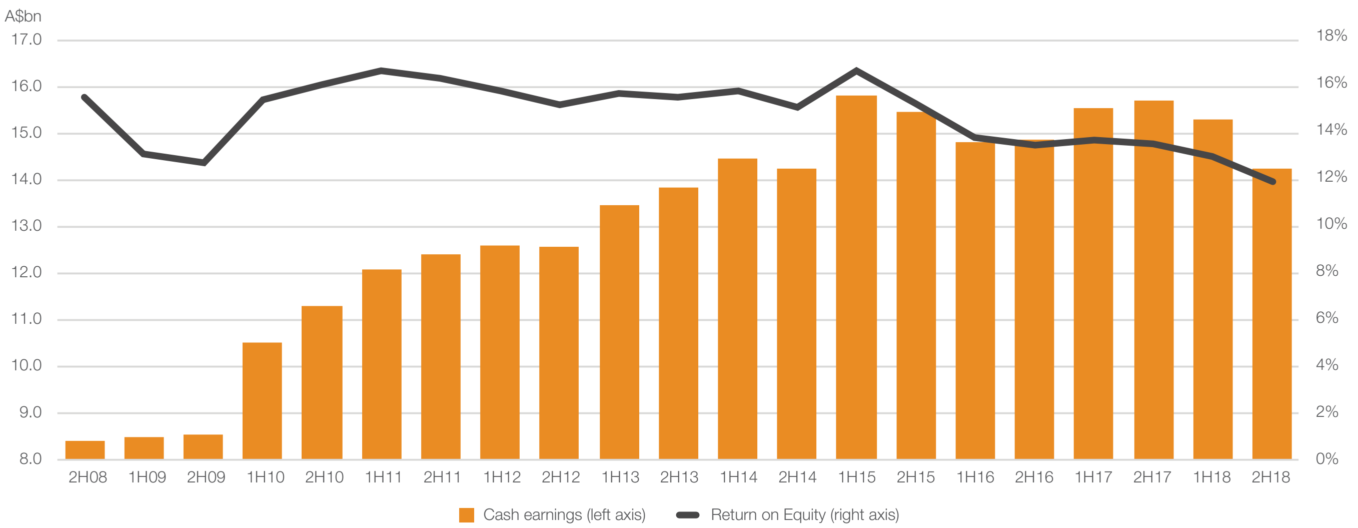
Return on Equity

Whilst earnings have spent the last four years fluctuating within that band, capital has steadily increased every year, driven by a combination of continuous balance sheet growth, Basel IV-driven increases in risk weightings, and the 10.5% 'unquestionably-strong' capital expectation recommended by the Financial System Inquiry. In that time of broadly flat (though increasingly variable) earnings, shareholder capital has risen 27%.

As a result, investors have seen a steady erosion of ROE from 16.7% to 12.5%, the first time major bank ROE has fallen below 13% since the GFC. In the second half it fell further to 12.1%.

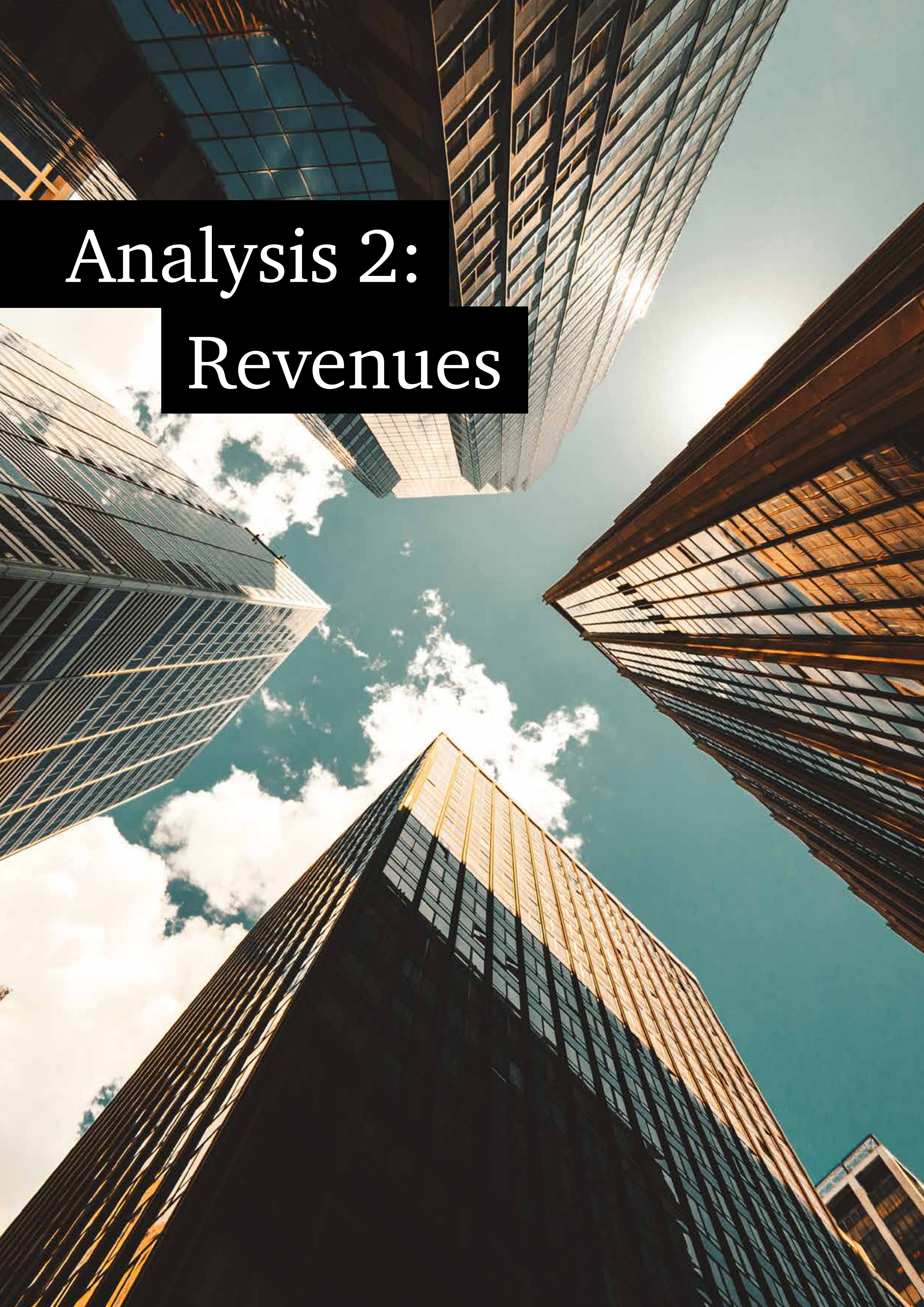
As disconcerting as this fall may feel to investors in Australia's banks, it is worth noting that aside from Canada there is not another major jurisdiction where major banks are so profitable. In almost every other market, mid-single-digit returns are the norm, with 11% or 12% associated only with the most profitable institutions, such as specialised regional lenders like US Bancorp or PNC, or the historically-profitable Wells Fargo.

Figure 3: Cash earnings and Return on Equity



Source: Bank reports, PwC Analysis

Analysis 2: Revenues



Net interest income and margin

Net interest income (NII) increased during the year to $62.6 billion, up 2.3% yoy and down 0.2% hoh.

This has been primarily driven by continued credit growth in the face of economic uncertainty and by disciplined margin management. However average interest earning assets grew only 2.8% yoy and 0.7% hoh for the major banks, significantly less than system.

The banks' combined NIM decreased to 2.00% for the year, down 2bps yoy, but in the second half it fell 4bps to 1.97%. This is the first time the major banks have experienced NIM below 2%.

On the income side, all banks benefited from the tail-end benefit of home loan repricing in early 2017. However, the second half of the year saw substantial pressure, as customers began to switch away from higher margin, interest-only home loan products. It is difficult to tell at this stage if the switch away from interest-only home loan products is the result of new origination or the roll over of maturing interest only periods.

On the expense side, funding costs remained broadly flat but competition for deposits is likely to increase in the near future as a result of slowing deposit growth. Notwithstanding this, deposit rates over the course of the year have fallen, with cheaper deposits offsetting the full year impact which the bank levy has had on NIM which is in the region of 2-3bps.

Rising wholesale funding costs have been a topic of debate in the second half of the year as a result of the widening BBSW-OIS spread and tightening international monetary policy. The extent to which this has affected the majors has differed from bank to bank. Some have managed the increase in wholesale funding through adjustment of the geographical profile and term of their wholesale funding; others, less successful in managing the impact of the cost increase, have had to pass costs to customers. Overall, the aggregate impact of increased wholesale funding costs over the year across the banks has so far been muted.

Margin contraction as a result of market and treasury activity varied considerably from bank to bank. Overall, markets and treasury related margin contraction was the greatest weight on overall net interest margin (NIM) performance across the banks.

Whether banks can manage margins and NIM back above 2% remains to be seen. Downward pressure looks set to continue as more home loan customers switch products, notwithstanding the mortgage repricing in the third quarter. With deposit growth having stalled and international rates rising, especially in the U.S., pressure on deposit and wholesale funding costs is likely. Finally, the release of the ACCC report on the inquiry into pricing of residential mortgage products later this month could well have an impact on NIM moving forward.

Lending

+2 bps yoy

-2 bps hoh

The banks experienced a tail-end impact of repricing activity in investor- and interest-only portfolios in the first half of the year. This was offset by customers switching to lower margin home loan products.

Deposits

+2bps yoy

+1bps hoh

Each bank benefited from easing competition in their deposits portfolio during the year.

Wholesale funding

Flat yoy

Flat hoh

Wholesale funding costs were broadly flat.

Treasury and markets

-3bps yoy

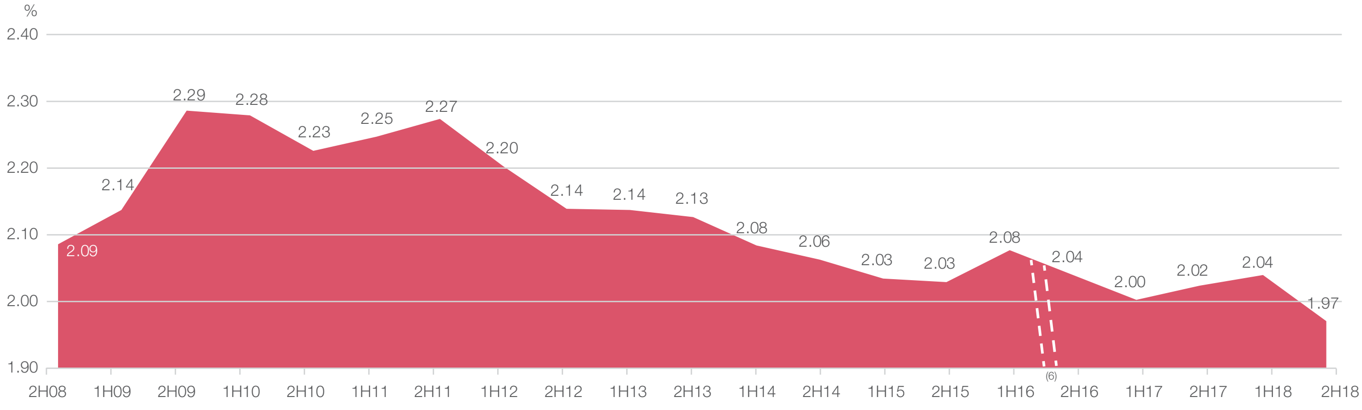
-3bps hoh

Results, as always, are varied in treasury and markets. These activities weighed heavily on NIM performance.

Bank levy

The majors collectively are estimated to have seen a negative impact on margins of 2-3bps from the full year impact of the major bank levy, which has now been in effect since 1 July 2017.

Figure 4: Combined net interest margin[5]



5. Comparative changes made to bank reported net interest margin where relevant

6. 1H16 and 2H16 restated to reflect changes to bank calculations of net interest margin

Source: Bank reports, PwC Analysis

Non-interest income

A slight decrease driven by weaker trading performance, reductions in interchange rates and removal of certain fees more than offsetting the increases in fees associated with lending volume

Non-interest income landed at $22.4bn, lower than the prior year by 3.9% and by 5.6% on the half. This was mainly driven by weaker trading performance relative to the preceding year, where the 'Trump effect' drove a very strong first half. These reductions more than offset the fees resulting from continued growth in lending volumes and assets under management.

Banking fees and commission income increased slightly to $12.4 billion, up 4.6% yoy but down 7.2% hoh. The banks experienced continued fee growth in line with loan growth in housing and business banking, while some banks have also highlighted a shift of customers to fee-based products. The full year impact of the decision by each of the major banks to discontinue ATM fees last year only slightly offset this increase. In the current environment the banks are understably talking about applying greater scrutiny and customer sensitivity to their pricing and fees, which will be watched carefully.

Wealth management income was also up at $5.0 billion on a continuing basis, up 8.8% yoy and 6.6% hoh, reflecting growth in average funds under management.

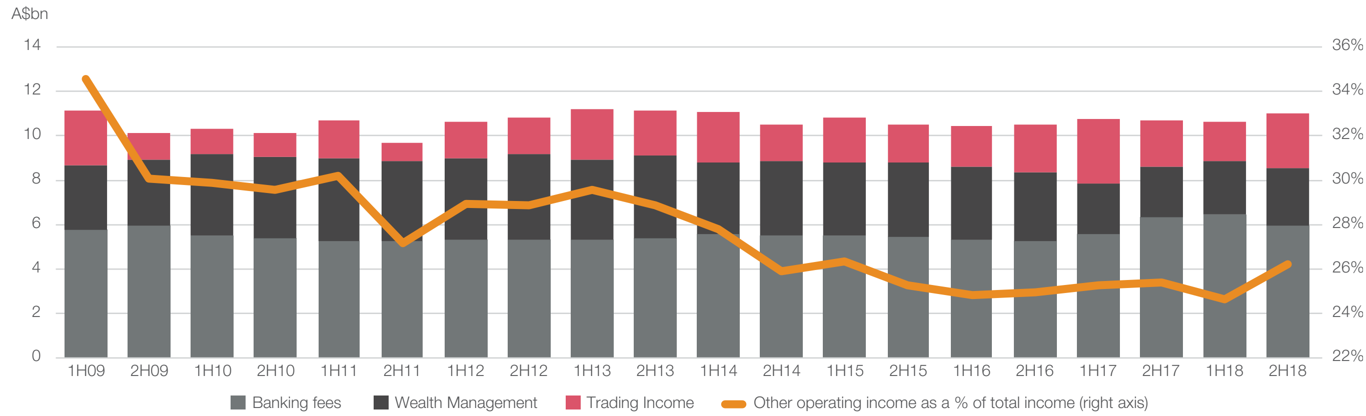
Wealth management fees represent 5.9% of total income for the major banks (down from its peak of 10.6% in FY10) and, given the strategic divestments announced in asset management and insurance, this contribution may fall further.

Notwithstanding the disclosures made by some banks of certain fees being abolished or lowered during the year, banking fees and commission and wealth management income collectively *increased* 5.8% yoy on a continuing basis. It remains to be seen whether this represents a trend, or just another minor cycle in the flatlining of non-interest income which has fluctuated within a narrow band around $11bn per half for ten years.

While representing only 5.0% of total income, trading income decreased to $4.3 billion, down 15.1% yoy (up 35.4% hoh) as the market volatility experienced in 2017 was not repeated. It is always worth remembering that any global market volatility as a result of the geopolitical risks noted earlier would provide opportunities for these businesses.

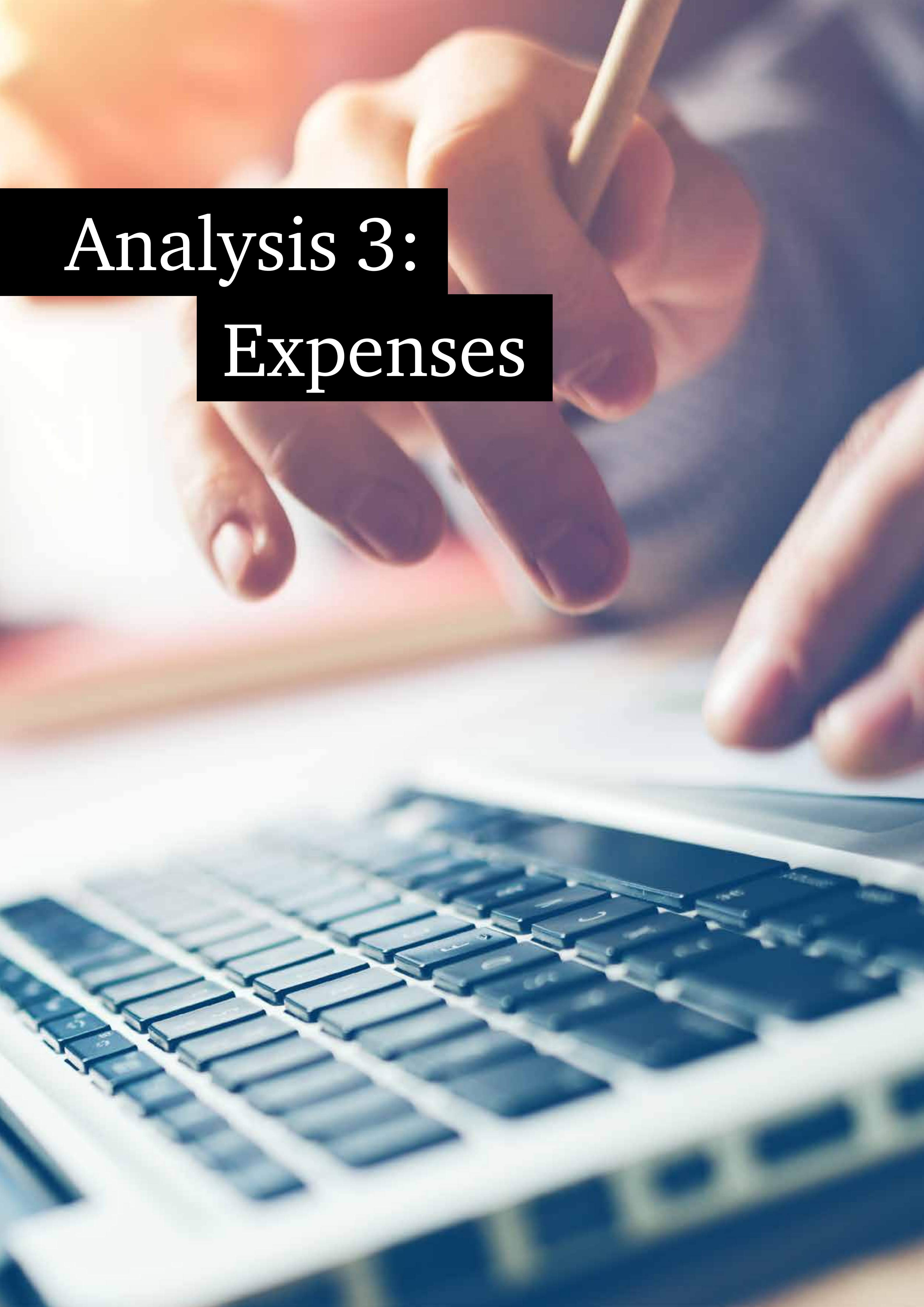
This period has also seen a number of one-off gains from a mix of business disposals, acquisitions and offsets to income of $745m for customer remediation. While these gains may continue in light of announced strategic divestments, we have excluded these items in Figure 5.

Figure 5: Analysis of other operating income



Source: Bank reports, PwC Analysis

Analysis 3: Expenses



Expense-to-income ratio

The deterioration in expense-to-income ratio across the majors was driven by record high remediation and other costs specifically called out by the banks, coupled with subdued revenues.

Operating expenses were up significantly to $39.4 billion, representing a 8.4% increase yoy and 1.7% hoh. Excluding itemised provisions and expenses (refer to section 'Itemised charges' below), operating expenses slightly decreased to $36.2 billion, down 1.4% yoy but up 1.46% hoh on a continuing basis.

As a result, after adjusting for the itemised charges and gains described in the next section, the expense-to-income ratio decreased 119 bps yoy to 42.19%. Within the year, however, the second-half saw this ratio increase by 115 bps hoh to 42.77%.

Excluding notable items such as the $3.5bn charged discussed this year, or the substantial charge for conduct and remediation in the UK in 2H'14, this ratio has demonstrated a sustained secular decline for ten years years, and especially in the last five years when compound absolute cost growth was reduced below inflation (1.3% p.a. over five years). This is compared to 6.8% compound annual growth in the five years preceding.

For three of the four banks that reported, investment spend overall is up 34.7% yoy and 16.8% hoh, reflecting the significant increase in investment in customer service technologies in the first half of the year, which we expect to continue. These investments include payment platforms and servicing technology, cloud infrastructure and digital offerings, as well as tools to improve employee and credit decisioning capability.

Investment spend on risk and compliance (excluding remediation costs) was a focus of FY18, increasing 33.4% yoy and 46.6% hoh due to increased spend on system upgrades for a range of initiatives such as Comprehensive Credit Reporting, AASB 9, Financial Crimes and Stronger Super reforms.

The movement in the number of full time employees (FTE) varied across the banks, with one bank that is well into their restructuring plan contributing in particular to the overall decrease of more than 5,000 FTE. Further decreases are expected across two of the four the majors following announcements this year. For the other two banks, FTE numbers are expected to remain flat other than as a result of divestments. Despite the large reduction in FTE during the year, personnel expenses increased to $20.6bn, up 3.1% yoy due to the offsetting impact of new restructuring costs and redundancies balanced by the benefits of restructuring and FTE reductions incurred in prior periods.

Itemised charges

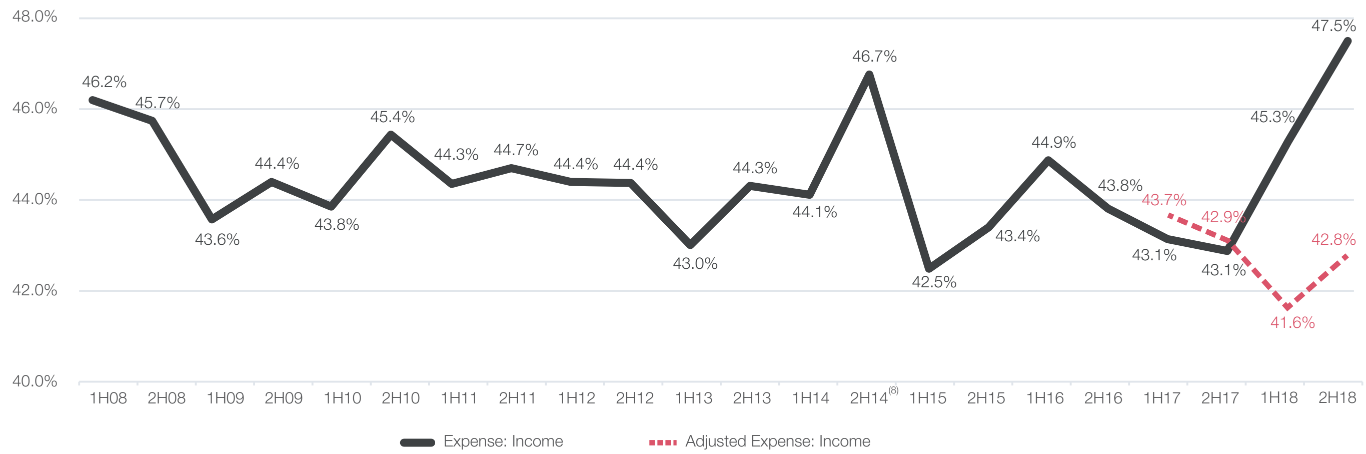
Significant regulatory, compliance and restructuring costs were called out by all majors in FY18 and are expected to affect the cost base of future periods.

Itemised charges called out by the banks (excluding those relating to acquisitions, divestments and sales of assets) in FY18 totaled $3.5 billion, with $2.8 recognised as expense and $0.7bn deducted from income.[7]

The benefits from the banks' focus on cost reduction initiatives will remain the big question mark and opportunity for the banks to negate these impacts in the short to medium term.

Including itemised costs, the full year combined expense-to-income ratio across the banks rose to its highest level to 46.35%, up 335bps yoy and 220bps hoh. These costs more than offset the one-off benefits to income announced during the year for non BAU transactions such as gains on sales of exited businesses.

Figure 6: Combined expense-to-income ratio



Source: Bank reports, PwC Analysis

Note: Adjusted expense-to-income exludes charges relating to regulatory, compliance and restructuring costs, and accelerated amortisation costs.

7. There was also another $0.4bn in itemised losses and gains on disposals and divestments not netted from cash earnings but not included in the $3.5 billion quantum referenced here. Such expenses are neither uncommon, nor are they particularly related to the challenges in risk, remediation and restructuring which are a specific focus of this report.
8. Includes reported costs for conduct risk.

Analysis 4: Asset quality

Provisions have fallen slightly, as historically low provision levels relative to lending remain in place. Leading indicators such as arrears in select mortgage portfolios, surveys of household stress and savings rates suggest potential risks ahead, but for the time being these have yet to be reflected in bank financials.

Credit provisions

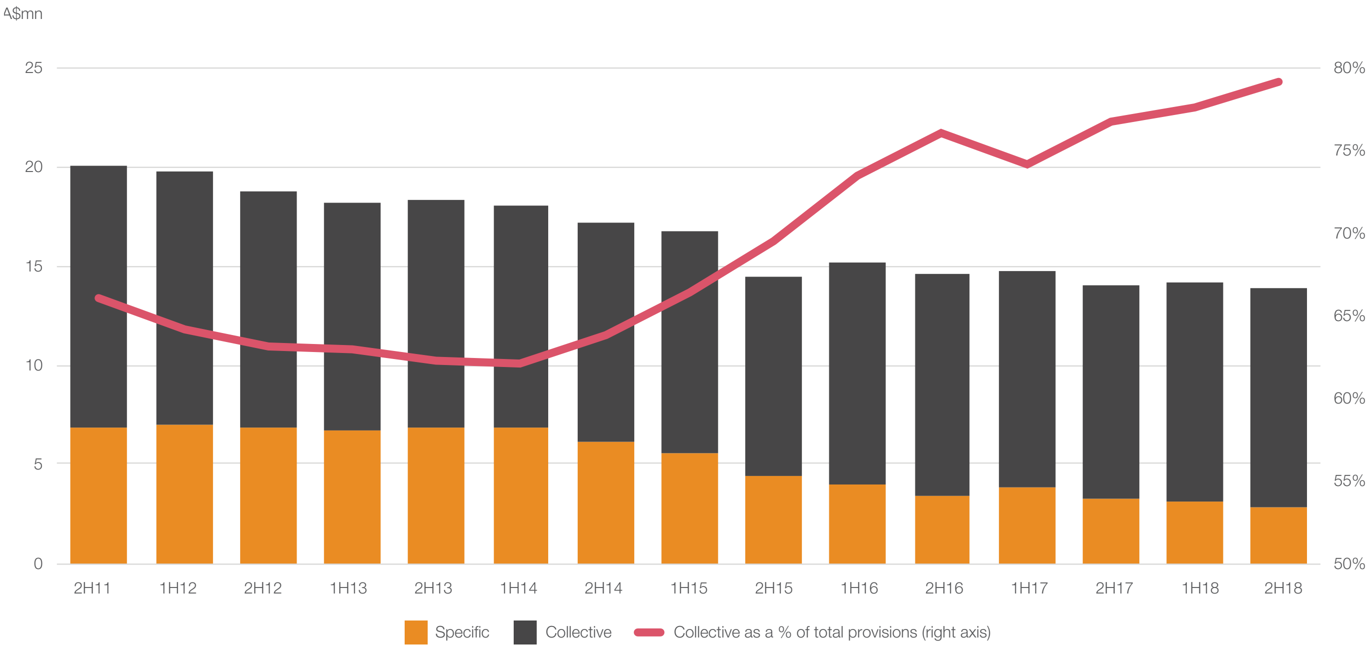
Total provisions are $13.9bn, a decrease year on year by 1.9% or $0.3bn predominantly arising from reductions in specific provisions, offset in part by marginal increases in collective provisions.

Collective provisions have increased by $0.1bn, more than offset by a reduction in specific provisions of $0.4bn. These reductions are largely attributed to the fact that a number of large specific items in Institutional and Corporate lending in 2017 were not repeated. The movement in collective impairment has been attributed primarily to mortgage portfolio growth.

Asset quality ratios have improved marginally, with impaired assets to total loans declining to 0.31% from 0.34% as loans continue to grow and provisions remain broadly stable. Figure 7 highlights the impact of this sustained period of asset quality improvement in Australia.

The Expected Credit Loss (ECL) model of impairment will be implemented by the three majors who have yet to do so, in the 2019 financial year, and is forecast to increase provisions in aggregate by $2.4bn. Under accounting standards, this increase will not impact the income statement but be recognised directly in equity. However it will increase provisions to $16.3bn and prospectively we can expect provisions to be more responsive to emerging credit conditions. The question of how volatile this might make the numbers will only be fully resolved in coming years.

Figure 7: Specific and collective provision composition



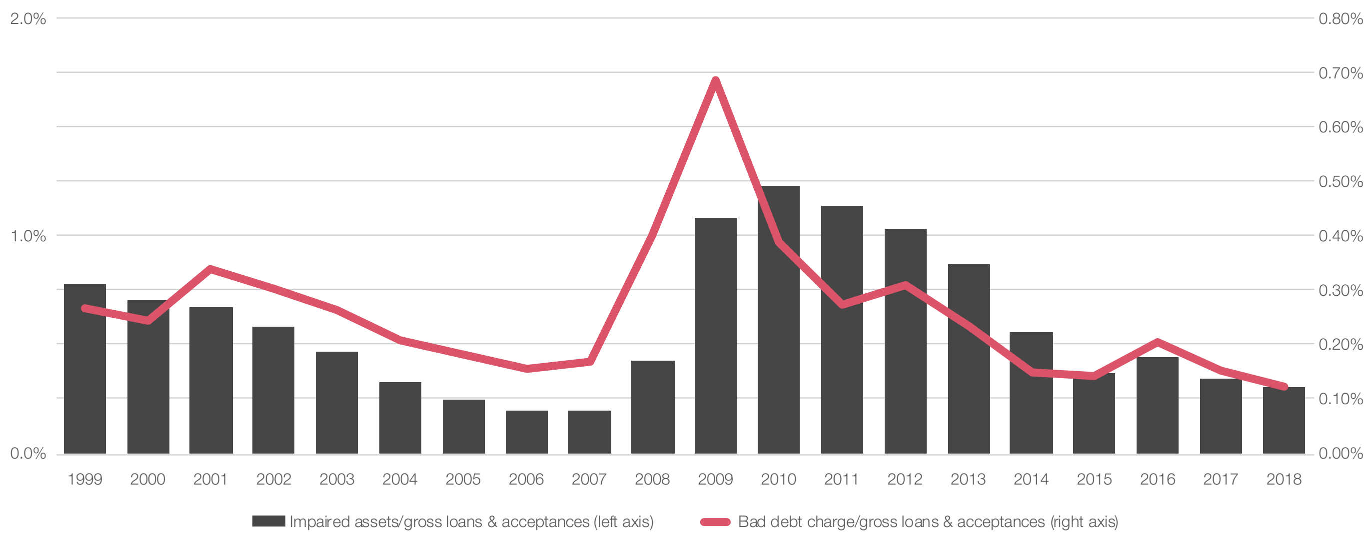
Source: Bank reports, PwC Analysis

Bad debt expenses

Bad and doubtful debt expense (BDE) across the majors fell $0.7 billion during the year to $3.3 billion (17.7% yoy), reflecting the reductions in specific charges for the year.

Bad debt expense, at 12bps of loans and acceptances, is now at record low levels and is less than half of the historical average since the last recession.

Figure 8: Impaired assets and bad debt expense



Source: Bank reports, PwC Analysis

Analysis 5: Balance sheet

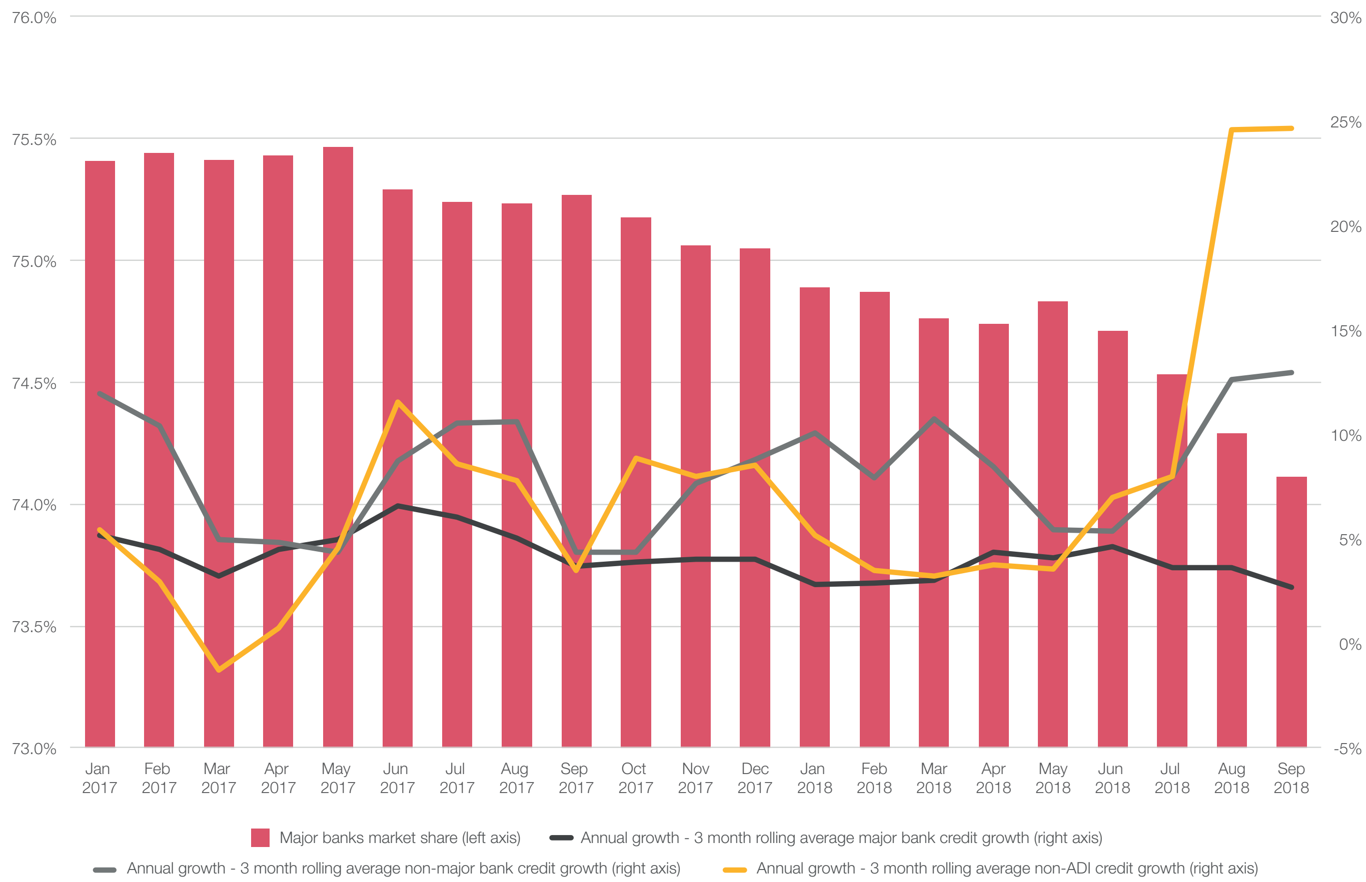
Credit and other assets

As the majors continue to simplify and return to their traditional banking core, Australia's credit environment is increasingly fundamental to their results.

Total system credit growth slowed during the year to 4.6% per annum (p.a.) down from 5.4% a year ago, and down from 5.1% in the prior half. Overall credit growth for the majors remains below system and their market share continues to be eroded collectively by non-majors and non-banks.

Whilst non-banks only had 6% market share as of the end of September 2018, their annualised growth in the September quarter was well above 20%. Their accelerating role in the system is noteworthy, and while their participation to date has been predominantly in credit for housing, there is activity being considered beyond this. It will be interesting to see if, as a group, non-banks will be subject to a greater degree of regulation in the near future given increasing presence.

Figure 9: Non-major and non-bank credit assets growing faster than majors



Source: Bank reports, PwC Analysis

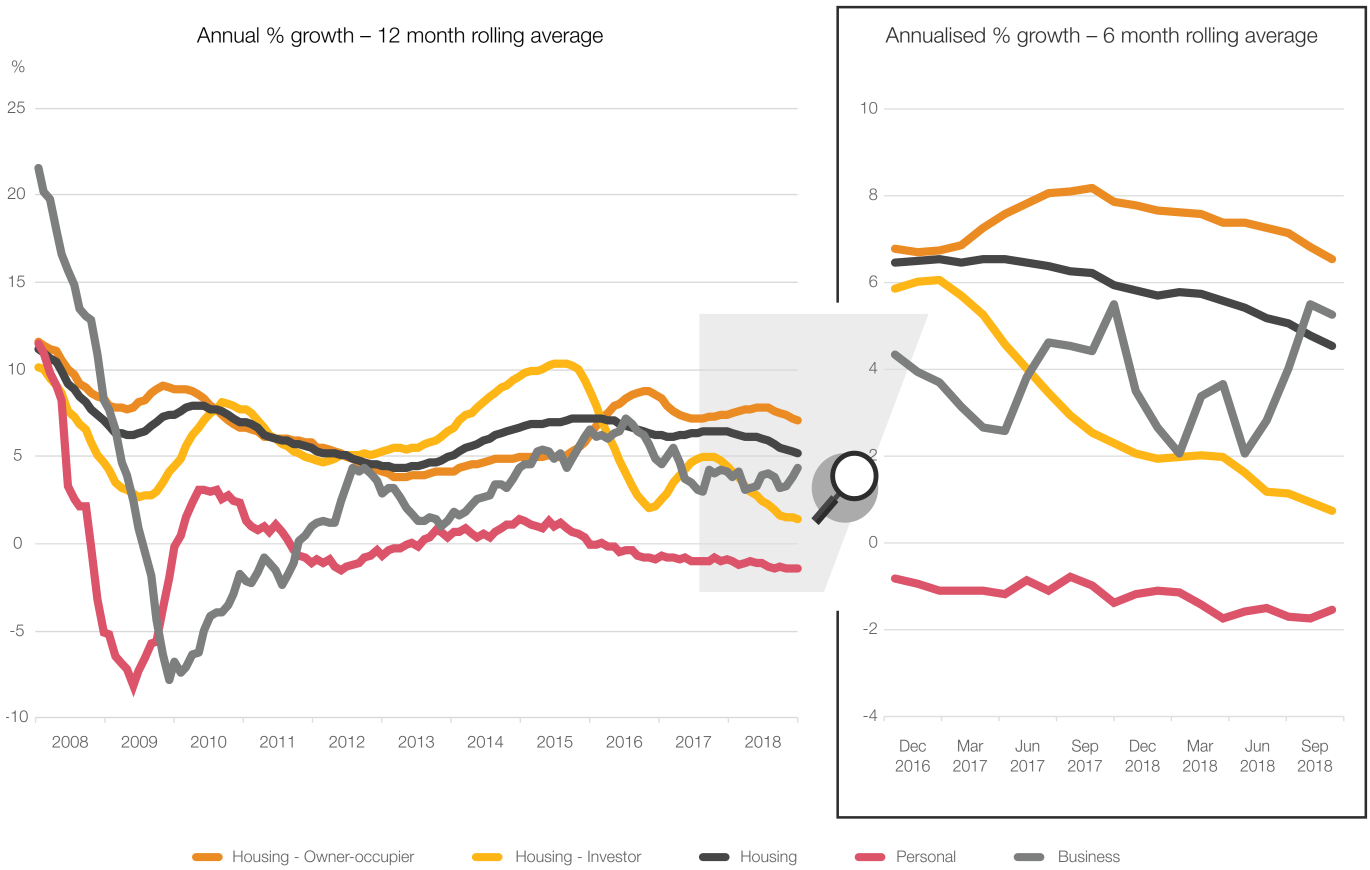
Housing credit continues to be fundamental to banks maintaining their growth trajectory, constituting 63.3% of major banks' gross loan balances. Housing credit growth has fallen sharply in the second half of the year to 4.5% p.a. down 1.2% from prior half (5.7%) also down 1.8% from a year ago (6.3%). However, it is surprising that housing credit growth rates have not been lower given the rapidly cooling housing market and increasing scrutiny of bank lending practices.

The majors have, broadly, been able to capitalise on continued credit growth but with growth of aggregate housing loans across the majors at 3.3% yoy and 1.4% hoh, it remains to be seen if housing will continue to be an engine for growth for the majors in the near future.

Business credit growth was up sharply in the second half to 5.3% p.a. on a 6 month rolling average up 1.9% from prior half (3.4%) and also up from a year ago (4.5%). Business credit growth as at June 2018 has finally caught up with nominal GDP growth. Nominal GDP growth exceeding business credit growth is a phenomenon usually observed following major downturns, but one which has unusually persisted in Australia since early 2014.

Each bank has pursued this opportunity differently. Two have grown their business lending portfolios substantially faster than system, the others appear to have taken the opportunity presented by more vigorous demand to potentially reshape their portfolios to align more closely to risk, sector, geographic and/or strategic appetite. One bank shrunk its non-housing portfolio in absolute terms.

Figure 10: Annualised % growth - 6 month rolling average



Source: Bank reports, PwC Analysis

Funding

As illustrated in Figure 11 the composition of the banks' deposits has been relatively stable over the past year.

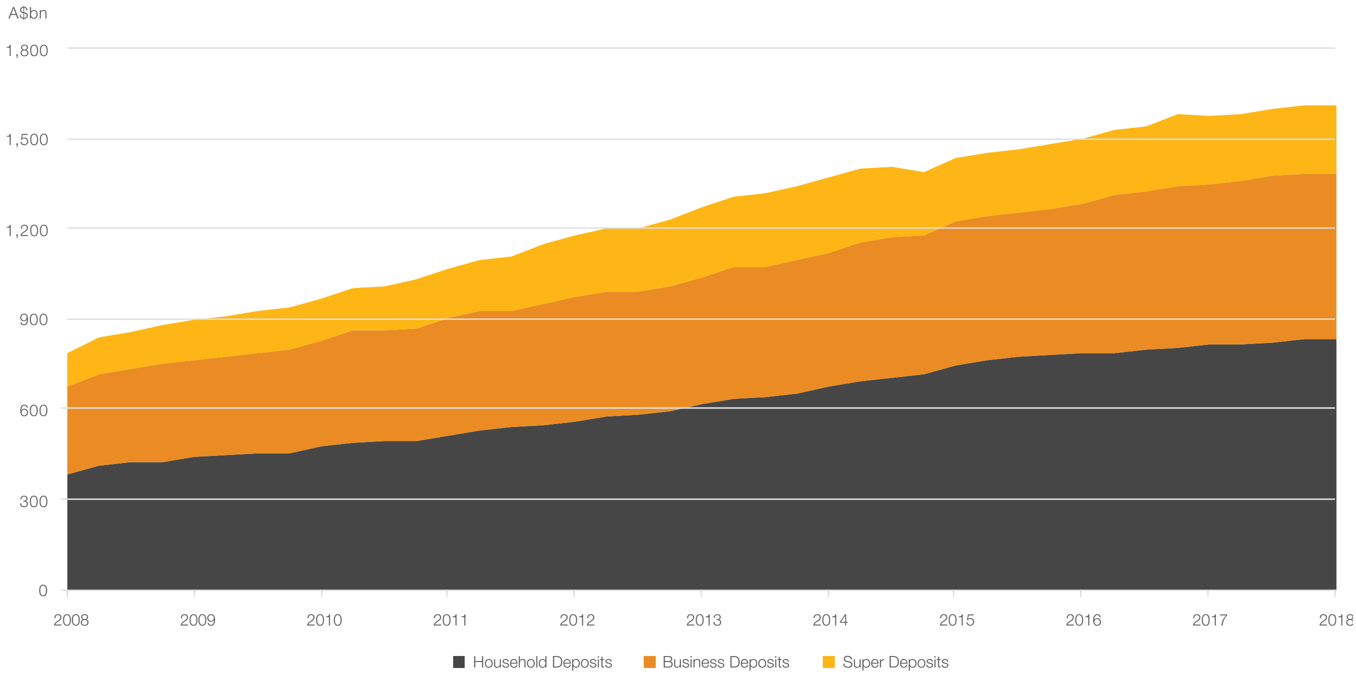
However, the growth in banks' deposits have more or less plateaued with deposits only having grown 0.4% yoy as of the end of September 2018. This appears to have been driven by a lack of household deposit growth as disposable incomes come under pressure due to all time high household debt levels, but growth in business and super deposits have also been lacklustre; perhaps due to the higher returns on offer for deposits in overseas locations.

Major banks have had success in attracting new deposits relative to system, Total deposits for the majors increased 2.5% yoy and 1.8% hoh.

Major banks wholesale sources of funding increased 3.1% yoy and increased 1.4% hoh. Interestingly, the majors have funded loan growth in different ways. Some almost exclusively through attracting new deposits, others in combination with wholesale funding. One bank funded its growth primarily through a reduction in its liquids portfolio.

In their commentary, some majors called out that they have also begun to restructure the maturity profile of wholesale funding through the issuance of long-term paper with weighted average maturities in excess of their existing portfolios. This have been done in an attempt to reduce associated refinancing risk from potentially unfavourable future funding conditions.

Figure 11: Composition of bank deposits



Source: ABS

Common equity tier 1

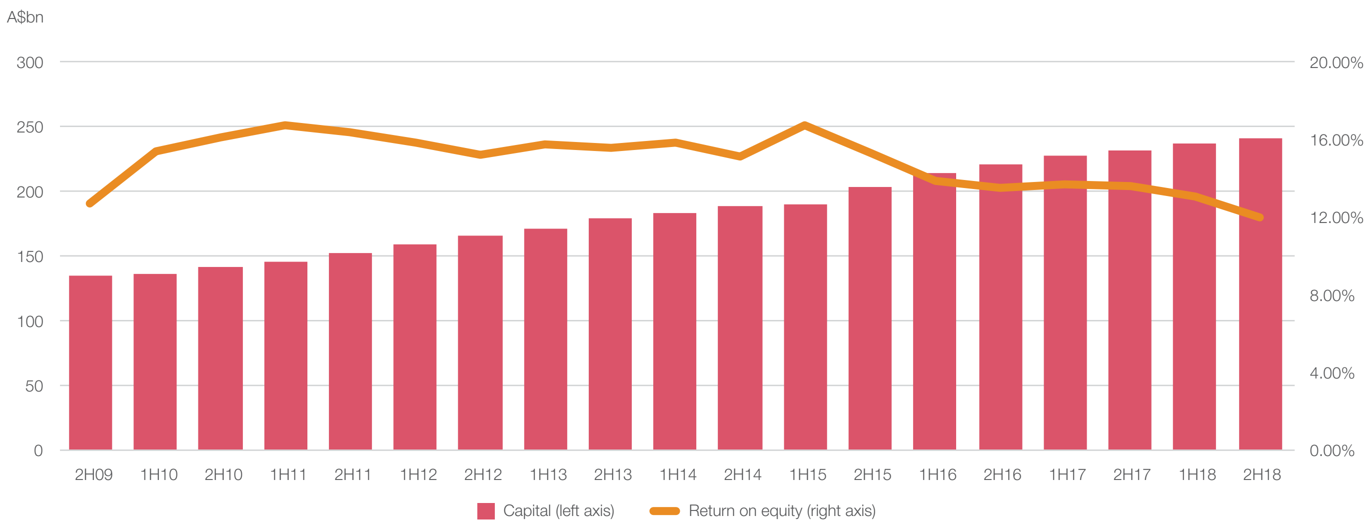
The weighted average CET1 Ratio for the Majors is 10.59% as at balance date for FY18, up from 10.32% for the previous year.

This is above APRA's 10.5% CET1 target, with two of the banks individually above the threshold, and increases year on year at each of the majors. All four banks maintain confidence in their ability to meet the target before the 2020 deadline.

CET1 capital (the numerator) has increased by $9.6 billion or 5.8%, attributable to cash earnings offset by dividends. There were no CET1 capital raisings outside of Dividend Reinvestment Plans - indeed one bank has executed an on-market share buy back, perhaps heralding a new phase of capital management decisions for the Majors around the deployment of surplus capital generated through business disposals and rationalisation.

Risk Weighted Assets (RWA) increased by $49 billion or 3.1% yoy. Movements in RWA varied across the majors reflecting efforts to balance dual objectives of optimising portfolios through strategic asset allocation and responding to differing strategic imperatives. As the deadline to achieve the CET1 target approaches, some ongoing optimisation of asset allocation may be needed, particularly if earnings turbulence continues or accelerates.

Figure 12: Capital and Return on Equity



Source: Bank reports, PwC Analysis

Key banking statistics - Full Year 2018

	ANZ			CBA			NAB (ii)			WBC		
	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016
Balance sheet												
Total assets	942,624	897,326	914,869	975,165	976,318	933,001	806,510	788,325	776,710	879,592	851,875	839,202
Risk weighted assets	390,820	391,113	408,582	458,612	437,063	394,667	389,684	382,114	388,445	425,384	404,235	410,053
Gross loans and acceptances	608,380	584,091	579,515	748,408	737,002	701,730	585,590	565,146	545,760	712,504	687,785	665,256
Asset quality & provisioning												
Gross impaired assets	2,013	2,384	3,173	3,179	3,187	3,116	1,521	1,724	2,642	1,416	1,542	2,159
Net impaired assets	1,093	1,248	1,866	2,111	2,038	1,989	846	1,033	1,930	763	828	1,092
Gross impaired assets as a % of gross loans and acceptances	0.33%	0.41%	0.55%	0.42%	0.43%	0.44%	0.26%	0.31%	0.48%	0.20%	0.22%	0.32%
Individually assessed provisions	920	1,136	1,307	870	980	944	675	691	706	422	480	869
Individually assessed provisions as a % of impaired assets	45.70%	47.7%	41.19%	27.37%	30.7%	30.30%	44.38%	40.1%	26.72%	29.80%	31.1%	40.25%
Collective provisions	2,523	2,662	2,876	2,763	2,747	2,774	3,054	2,798	2,408	2,631	2,639	2,733
Collective provisions as a % of non housing loans & acceptances	0.96%	1.08%	1.12%	1.12%	1.09%	1.13%	1.24%	1.19%	1.04%	1.18%	1.21%	1.25%
Total provisions	3,443	3,798	4,183	3,633	3,727	3,718	3,729	3,489	3,114	3,053	3,119	3,602
Total provision as a % of gross loans & acceptances	0.57%	0.65%	0.72%	0.49%	0.51%	0.53%	0.64%	0.62%	0.57%	0.43%	0.45%	0.54%
Profit & loss analysis												
Net interest income	14,514	14,875	15,095	18,341	17,543	16,935	13,467	13,166	12,930	16,339	15,704	15,348
Other operating income	4,700	4,941	5,499	7,583	7,737	7,812	4,510	4,729	4,503	5,612	5,852	5,888
Total operating expenses	(9,248)	(8,967)	(10,439)	(11,599)	(10,622)	(10,434)	(8,992)	(7,635)	(7,438)	(9,586)	(9,105)	(8,931)
Core earnings	9,966	10,849	10,155	14,325	14,658	14,313	8,985	10,260	9,995	12,365	12,451	12,305
Bad debt expense	(688)	(1,199)	(1,956)	(1,079)	(1,095)	(1,256)	(779)	(810)	(800)	(710)	(853)	(1,124)
Profit before tax	9,278	9,650	8,199	13,246	13,563	13,057	8,206	9,450	9,195	11,655	11,598	11,181
Income tax expense	(2,775)	(2,826)	(2,299)	(3,994)	(3,847)	(3,592)	(2,404)	(2,710)	(2,588)	(3,586)	(3,529)	(3,344)
Minority interest	(16)	(15)	(11)	(19)	(20)	(20)	(100)	(98)	(124)	(4)	(7)	(15)
Cash earnings (i)	6,487	6,809	5,889	9,233	9,696	9,445	5,702	6,642	6,483	8,065	8,062	7,822
Statutory results (i)	6,400	6,406	5,709	9,329	9,977	9,223	5,942	6,178	6,420	8,095	7,990	7,445
Key data												
Other operating income as a % of total income	24.46%	24.93%	26.70%	29.25%	30.61%	31.57%	25.09%	26.43%	25.83%	25.57%	27.15%	27.73%
Interest spread	1.63%	1.80%	1.86%	1.91%	1.90%	1.98%	1.66%	1.66%	1.71%	1.94%	1.91%	1.94%
Interest margin	1.87%	1.99%	2.07%	2.15%	2.10%	2.14%	1.86%	1.85%	1.88%	2.11%	2.09%	2.13%
Expense/income ratio (as reported ratio)	48.10%	45.30%	50.80%	44.80%	42.70%	42.40%	50.00%	42.70%	42.70%	43.67%	42.24%	41.97%
Total number of full time equivalent staff	37,860	43,011	46,554	43,771	43,620	45,129	33,283	33,422	34,263	35,029	35,096	35,280
Operating costs per employee (dollars) - annualised	218,175	194,647	214,648	265,451	240,431	229,125	267,476	228,156	215,176	271,082	258,547	254,466
Return on average equity (as reported)	11.00%	11.70%	10.30%	14.10%	16.00%	16.50%	11.70%	14.00%	14.30%	13.00%	13.77%	13.99%
Return on average assets (underlying cash)	0.64%	0.74%	0.65%	0.95%	1.02%	1.03%	0.70%	0.83%	0.74%	0.91%	0.93%	0.93%
Capital ratios												
Common equity	11.40%	10.60%	9.60%	10.10%	10.10%	10.60%	10.20%	10.06%	9.77%	10.63%	10.56%	9.48%
Tier 1	13.40%	12.60%	11.80%	12.30%	12.10%	12.30%	12.38%	12.41%	12.19%	12.78%	12.66%	11.17%
Tier 2 (net of deductions)	1.90%	2.20%	2.50%	2.70%	2.10%	2.00%	1.73%	2.18%	1.96%	1.96%	2.16%	1.95%
Total	15.20%	14.80%	14.30%	15.00%	14.20%	14.30%	14.12%	14.58%	14.14%	14.74%	14.82%	13.11%
Lending and Funding Ratios												
Gross Loans & Acceptances/ Total Assets	64.54%	65.09%	63.34%	76.75%	75.49%	75.21%	72.61%	71.69%	70.27%	81.00%	80.74%	79.27%
Housing Loans/Gross Loans & Acceptances	56.90%	57.75%	55.76%	67.03%	65.92%	64.99%	57.98%	58.31%	57.64%	68.70%	68.39%	67.23%
Deposits (exclude CDs)/gross loans	86.85%	89.27%	87.21%	75.84%	75.72%	73.83%	69.84%	72.12%	71.55%	72.67%	70.76%	70.14%
Deposits (exclude CDs)/total liabilities	59.82%	62.20%	58.98%	62.56%	61.14%	59.38%	54.25%	55.30%	53.83%	63.53%	61.56%	59.74%

All figures in AUD million unless otherwise indicated

i. Results on a continuing basis as reported by the banks, unadjusted

ii. NAB's underlying cash earnings after tax are shown before distributions to holders to National Securities – 2018 ($100 million), 2017 ($98 million) and 2016 ($124 million). NAB only reports an expense to income ratio for its banking operations.

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