

Forest for trees

Seeing the next era for banking in Australia?

Banking Matters Major Banks Analysis | Half Year 2019



1. Earnings

Cash earnings

+1.9% hoh -5.1% pcp \$14.5b



Notable items have been the main driver of movement between halves. Excluding these, earnings are down slightly hoh (-0.4%) and more substantially pcp (-3.2%).

Return on equity

+10 bps hoh -110 bps pcp

12.0%



Earnings rose hoh, but fell vs pcp while capital rose in both periods in line with the need to meet 'unquestionably strong capital requirements.

2. Notable items

3. Revenues

Customer remediation

\$1.75b \$1.70b 2H18 \$0.67b 1H18



The cost of remediation exceeded \$1.7b for a second half in a row, comprising \$1.22b in refunds (recorded as charges to income), plus \$0.53b in expenses.

Restructuring and divestment

 Nil

\$0.28b 2H18 \$0.49b 1H18



Materially nil given \$235m in restructuring costs were offset by a \$252m realised gain by one bank on the sale of its insurance business. More of a drag in prior periods.

Net interest margin

-4 bps hoh-11 bps pcp

1.96%



Almost entirely driven by customers switching to lower-margir home loan products. Deposit and wholesale funding costs remain stable but with potential to fall in the period ahead. Notwithstanding falling NIM, total net interest income rose to \$31.8b, up 0.6% hoh and down 0.6% pcp (ex notable items).

Non-interest income

-7.3% hoh -6.7% pcp \$10.1b



(ex notable items)

Sizeable decreases in non-interest income driven primarily by reduction in fee levels following divestments.

Operating expenses

\$18.0b

-3.0% hoh

-0.5% pcp



(ex notable items)

The banks continue to focus on cost reduction through simplifying operating models and divesting non core businesses.

Expense-to-income ratio

42.8%

-57bps hoh +79bps pcp



(ex notable items)

The efforts in cost reduction have helped reduce the ratio, although modest revenue growth is making this a challenge.

Asset quality

Balance sheet

Bad debt expense

+14.2% hoh -3.8% pcp

\$1.8b



Bad debt expense rose hoh and down pcp, marking the first time in three years that falling credit losses were not accretive to movement in earnings.

Credit provisions

+22.1% hoh +19.6% pcp \$16.6b



Provisions have substantially increased as the final three banks transition to AASB9, noting that most of the \$3.0b increase is taken below-the-line as a charge to capital.

Lending growth

1.4%

-19bps hoh

-14bps pcp



Gross loans and advances (GLAA) for the majors is lagging domestic system credit growth of 1.6% and this picture would be worse if it weren't for strength in overseas lending, particularly in New Zealand.

Common equity tier 1 ratio

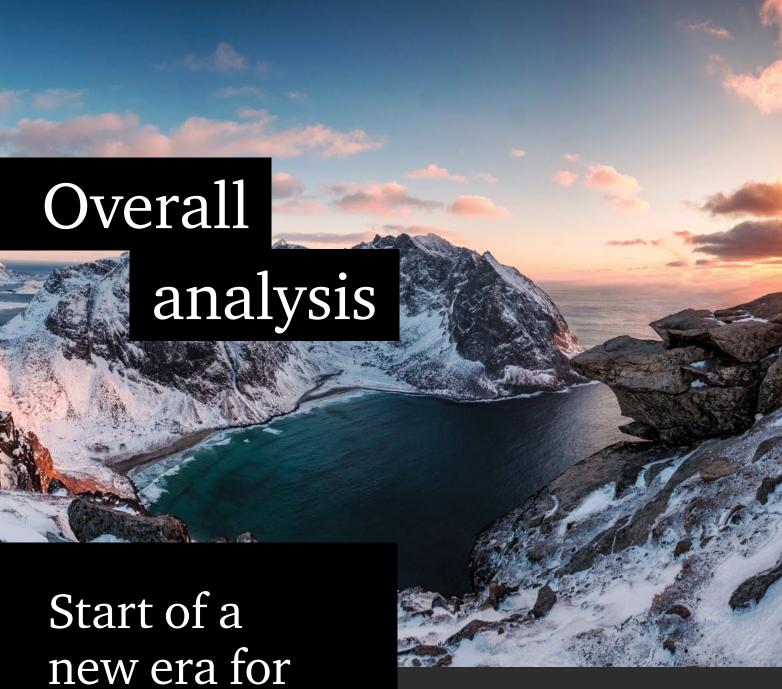
10.8%

+24bps hoh +13bps pcp



Three of the banks meet APRA's target CET1 ratio, one of them by some margin due to realised proceeds from divestment. The other has adjusted its dividend payout ratio as part of progressing towards the requirement by January 2020.

Footnote: Comparisons made in this analysis are to the second half of the 2018 financial year (hoh) or the first half of the 2018 financial year (pcp). Balances guoted for the second half 2018 stated as '2H18' and balances guoted for the first half 2018 stated as '1H18'.



banking

Australian banking has changed for the major banks over the last several years, and some of these changes are easy to miss when looking at the headline 1H'19 financial results. These headline results were solid, all things considered, supported by progress on cost and capital discipline, as well as a number of favourable developments in the environment. Delving deeper into the results, however, reveals that all the headwinds building over the past several halves continue unabated. These headwinds are eroding the key pillars that have sustained industry growth for many years. Their successors are yet to come.

Solid performance all things considered

The major banks declared combined cash earnings of \$14.5b in the first half of FY19, up on the half, though down on the prior comparable period. Return on equity (ROE) remained at the 12% level set by the second half last year, down 110 bps pcp. As illustrated in Figure 1, this was driven in part by over \$1.7b in (pre-tax) itemised charges for customer remediation, restructuring and asset disposals (some of which appear as expenses and others deducted from income, and which are enumerated in greater detail in Figure 3). All analysis in this section is based on the reported results ex notable items as summarised in Figure 3.

Net interest income was broadly flat at \$31.8b (up 0.6% hoh and down 0.6% pcp), as reasonable growth was countered by NIM which fell 4bps to a record-low 1.96%. This was driven primarily by a change in portfolio mix as home loan customers switched to lower margin products. Funding costs remained stable during the half as the benefits of improved deposit margins were more or less offset by higher wholesale funding costs, though these are expected to fall in the near term due to the narrowing Bank Bill Swap Rate (BBSW-OIS) spread.

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

	1H19	2H18	1H19 vs 2H18	1H19	1H18	1H19 vs 1H18
Net interest income	31,556	31,437	0%	31,556	32,072	-2%
Other operating income	9,578	10,664	-10%	9,578	11,260	-15%
Total income	41,134	42,101	-2%	41,134	43,332	-5%
Operating expense	(18,922)	(20,097)	-6%	(18,922)	(19,693)	-4%
Core earnings	22,212	22,004	1%	22,212	23,639	-6%
Bad debt expense	(1,752)	(1,537)	14%	(1,752)	(1,821)	-4%
Tax expense and outside equity interests	(5,970)	(6,242)	-4%	(5,970)	(6,556)	-9%
Cash earnings (as reported)	14,490	14,225	2%	14,490	15,262	-5%
Notable items	1,262	1,583	-20%	1,262	1,006	25%
Cash earnings (excl. notable items)	15,752	15,808	0%	15,752	16,268	-3%
Statutory earnings	13,849	14,465	-4%	13,849	15,301	-9.5%

Source: Banks results, PwC analysis



Non-interest income excluding notable items was down 7% both hoh and pcp to \$10.1b, driven both by banking fee income, which fell as banks streamlined fees, and insurance and wealth income from the parts of these business that have been sold so far.

Expenses excluding notable items, fell by 3.0% hoh and 0.5% pcp. As a result, the expense-to-income ratio was 42.8%, down 57 bps hoh, which is noteworthy because the industry has struggled to keep this ratio consistently below 44%. Falling costs reflect the combination of FTE reduction, supplier insourcing, branch rationalisation, and closer management of costs for technology and other suppliers.

Bad debt expenses of \$1.8b, up 14% hoh but down 4% pcp, equated to 13 bps of total underlying loans and acceptances (on an annualised basis). This is only fractionally above the record-low 12 bps reported in the prior half, driven by the slow but steady rise in consumer impaired assets, as well as a handful of notable medium-sized commercial exposures.

Given the tapering of mortgage lending growth, tighter margins, and reputational damage accumulated over the past several years, this was a reasonable result. Excluding the above-mentioned notable items, combined cash earnings would have come close to the record \$15.8b realised in 1H15.

Performance supported by a number of favourable developments

As mentioned, the banks demonstrated clear progress on cost and capital discipline, especially in corporate and institutional books. They also appear to have struck a reasonable balance between arresting the decline in lending margins while managing their loss of share in new lending to non-majors and non-bank lenders.

However, bank results were also supported by a number of auspicious external factors. Most importantly, the slowdown in the housing market, which is steadily under way, has so far been orderly, with mortgage lending continuing to grow, notwithstanding concerns that more rigorous origination criteria are driving a constraint in credit supply.

Business lending, which has been subdued in Australia since the GFC, is accelerating. APRA statistics show it grew by 5.5% over the past year; this is the first time business lending has grown faster than mortgage lending since the GFC. Overseas, including in New Zealand, business lending has also been a significant source of growth for Australia's banks. The New Zealand banking system and economy continue to peform, delivering steady performance and reliable returns for a number of years.



Same headwinds as before, building momentum

Unfortunately, none of these developments alter the fact that the fundamental long-term headwinds facing this industry continue to gather pace. Of course, it can be difficult, given the complexity of the results, to see this forest for the trees. In our view, the 'trees' in his environment are the favourable developments described above, and the assuasive tailwinds they can provide for bank financials for some time.

House prices, whose consolidation to date has been orderly, are highly unlikely to return to their exuberant former trajectory. Mortgage lending, though slowing, must slow further (in the absence of a pickup in wages) if it is to arrest the rise in household leverage.

At the same time, the scrutiny focused on the industry, most especially during the Royal Commission, reveals a trust deficit that will take many years and substantial investment to fix, and this amplifies the opportunity for smaller banks and new entrants to continue taking a growing share of a shrinking profit pool.

Credit conditions, whilst still benign, show clear signs of having turned a corner. This can be seen in impairment rates for consumer lending which are approaching 1% for secured lending and 2% for unsecured lending systemwide and have been rising for some time. Arrears of over 90 days as a proportion of total lending have also increased by 11% since 30 September 2018, hinting that this trend may be transferring into mortgage portfolios.

For the time being, losses on impairments are low, and will remain low so long as asset prices (and confidence) remain reasonably buoyant. However, should the current trends in both house prices and mortgage delinquencies continue, mortgage losses could amplify quickly.

Finally, all of the above headwinds will become markedly more severe if or when our global economic expansion, already one of the longest in history, succumbs to the weight of gravity. The absolute decline in manufactured goods exports to China reported across a number of Asian countries in the twelve months to March suggest that a slowdown may already be under way.

Getting on with it

In such an environment of uncertainty and flux, it can be tempting to look to the external context for clues about what comes next, and what is to be done. Will the coming election bring new priorities? And will the new political order amplify or dampen the headwinds previously described?

Will the RBA, taking a lead from the US Federal Reserve, return to a posture of monetary easing? And if they do, will the stimulus to housing, bank funding costs and business confidence be enough to counter the tightened margins from maturity transformation? Those hoping for this might consider the state of the European banking sector, which has enjoyed a decade of very low rates and yet struggles to recover even a fraction of their cost of capital.

Some believe that this is an argument for non-traditional policy. Macroprudential tools such as the mortgage-serviceability 'interest rate floor', for example, could be loosened and thus provide a stimulus to the housing market without some of the consequences of a rate cut. Unfortunately, it remains doubtful whether further stimulus to mortgage borrowing is a long-term solution for a nation in which household leverage is already almost 200% of disposable income and climbing. (Leaving aside the very important point that the relevant prudential guidelines are there to address systemic exposure to rises in interest rates.)

In short, whilst the political and policy environment remains important, we don't believe any of the developments being anticipated in the near term will change the underlying medium-to-long-term imperatives for the industry.

What comes next? Day zero for banking

What are these imperatives? It's not all bad news. Although the conditions that drove the substantial economic profit growth of the major banks over the past decade are coming to an end, new opportunities do present themselves. Many are easy to describe, at least in the abstract:

- Cost reduction and efficiency driven by digitisation, automation and simplification, which offer enormous scope to reduce a combined annual cost base of over \$36b (excluding notable items), whilst reducing risk and improving service delivery for customers.
- New services, also leveraging technology, digitisation, data and analytics which can be more deeply integrated into customers' lives and businesses than traditional services. That offers two opportunities for banks: to generate new revenue streams from new services, and, potentially more importantly, to avoid commoditisation and protect margins in the existing franchise.
- Most importantly, trust. If there is one lesson from the past two years, it is that trust to do the right thing by customers remains perhaps the single most unmet financial need in Australia today. No institution, either large or small, appears necessarily advantaged in fulfilling it. Yet beyond the obvious regulatory, legal and commercial imperatives to stop 'getting it wrong', the commercial opportunity from truly getting it right is enormous. As we've written in the past, we believe that the institutions able to establish themselves in the minds of customers as truly differentiated on this question of trust shall be the great banking franchises of the decade to come.

Unfortunately, this is easier said than done. Bank executives and directors today struggle less with the concept, than with the practical need to execute whilst balancing a number of very challenging trade-offs. These include:

- How to deliver potential efficiencies from that \$36b annual cost base whilst also investing in the necessary controls, oversight and attention required to get things right all without frustrating customers with the frictions and delays that those controls may sometimes bring.
- How to transition a legacy information and operating platform to the state-of-the-art technology required to enable the services previously described, without breaking it – or without moving so slowly that the world will have moved on before realising meaningful change.
- How to create an operating model and 'way of working' that is sufficiently flexible and devolved to allow the organisation to discover and define new services

 without sacrificing the discipline and control around delivery that banks have promised.
- Most importantly, how to change the culture within
 the industry so that the behaviours required depend less
 on extrinsic motivators (oversight, control, consequence
 management and reward), and more on the intrinsic
 motivations of the people who work in it.

In short, this industry may deserve to reflect with collective satisfaction on a financial performance that is, all things considered, solid. However, one should not lose the forest for the trees. The drivers that made Australia's banks amongst the most valuable in the world are fading. In their place, new ones are emerging. Managing this transition is the core challenge facing executives and boards in this industry today.





Cash earnings

Reported cash earnings rose slightly hoh and were down pcp to \$14.5b, driven by movements in the substantial charges for customer remediation, restructuring and asset disposal (notable items) across all periods.

Excluding the impact of these items (see section 2: Notable items) in both prior halves and the current half, earnings were down slightly hoh (-0.4%) and more substantially pcp (-3.2%) to \$15.7b. The adjusted result shows the impact of slowing balance sheet (credit) growth, interest margin pressure continuing and non-interest income reductions. These were offset somewhat by improved core cost performance as the banks' focus on efficiency and simplicity continues.

Return on equity

ROE increased only slightly hoh and was down pcp driven by cash earnings and as the banks retained higher levels of capital faced with the 'unquestionably strong' target, uncertainty regarding future earnings and revisions to the capital requirements for New Zealand subsidiaries.

ROE was 12.0% for the half, up slightly from 11.9% hoh and down from 13.1% pcp. After adjusting for notable items, ROE was 13.1% versus 13.3% hoh and 13.9% pcp.

This represents a continuation of record low levels for the banks since the GFC. For comparison, in 1H15, combined ROE was 16.7%, with individual banks as high as 18.6%. Since the high of 2015, cash earnings have fallen 8%, or \$1.2b and capital has risen 23% (or \$53b) - a clear reminder of the significant adjustments faced by the banks over the last four years and as we look forward.

This trend may continue for some time as the banks grapple with the twin challenges of an uncertain return outlook and the need for continued caution with capital levels. The latter is due to the need to attain and maintain the levels required by APRA in 2020 and the anticipated increase in capital required by New Zealand regulators to support the Australian bank subsidiaries.

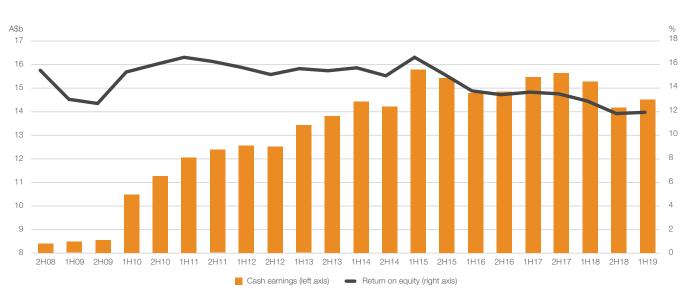


Figure 2: Cash earnings and return on equity

Source: Bank reports, PwC Analysis



Remediation, restructuring and divestments

The costs of remediation exceeded \$1,732m, comprising \$1,220m in refunds and interest to customers, which are recorded as charges against income, and \$529m in expenses.

As in the past two halves, customer remediation costs and provisions were the most significant notable items for bank financials. In the last three halves, the total impact of remediation exceeded \$4.1b. The complexity of the work required to carry out such significant fact-finding and remediation is apparent, with 45c of each remediation dollar representing the operational cost to the bank of determining it.

In the same period, banks have either completed or at least announced plans to divest or demerge numerous businesses, including life insurance, general insurance, financial advice, mortgage broking, asset administration and investment funds management.

Much of the cost of this restructuring, which was \$235m, \$400m and \$833m in 1H19, 2H18 and 1H18 respectively, was offset by gains on the sale of divested businesses. These were \$252m, \$124m and \$365m in the same halves.

The withdrawal from wealth, insurance and advice has been rapid and dramatic. Insurance businesses went first, with all but one acquired by a global player. However, strategies in these sectors have not been uniform. To date one bank has announced its intention to retain insurance, investment platforms and select investment products such as superannuation and another previously announced divestment plan appears to be on hold. In contrast, all banks currently intend to retain Private Banking (normally consolidated with Business Banking), and the one bank with a material stake in the mortgage broker aggregation sector intends to retain that.

All of these notable items, as well as the before and aftertax impact on bank income, expenses and earnings for the past three halves, are enumerated in Figure 3 below.

Figure 3: Cash profit adjusted for notable items

	Cash profit 1H19 \$m	Impact of notable items \$m	Cash profit (excl notable) 1H19 \$m	Cash profit 2H18 \$m	Impact of notable items \$m	Cash profit (excl notable) 2H18 \$m	Cash profit 1H18 \$m	Impact of notable items \$m	Cash profit (excl notable) 1H18 \$m
Net interest income	31,556	(275)	31,831	31,437	(189)	31,626	32,072	36	32,036
Non interest income	9,578	(543)	10,121	10,664	(249)	10,913	11,260	418	10,842
Net operating income	41,134	(818)	41,952	42,101	(438)	42,539	43,332	454	42,878
Operating expenses	(18,922)	(914)	(18,008)	(20,097)	(1,538)	(18,559)	(19,693)	(1,590)	(18,103)
Core earnings	22,212	(1,732)	23,944	22,004	(1,976)	23,980	23,639	(1,136)	24,775
Impairment expense	(1,752)	0	(1,752)	(1,537)	0	(1,537)	(1,821)	(26)	(1,795)
Net profit	20,460	(1,732)	22,192	20,467	(1,976)	22,443	21,818	(1,162)	22,980
Income tax and non- controlling interest	(5,970)	470	(6,440)	(6,242)	393	(6,635)	(6,556)	156	(6,712)
Cash profit from continuing operations	14,490	(1,262)	15,752	14,225	(1,583)	15,808	15,262	(1,006)	16,268

Source: Bank reports, PwC Analysis



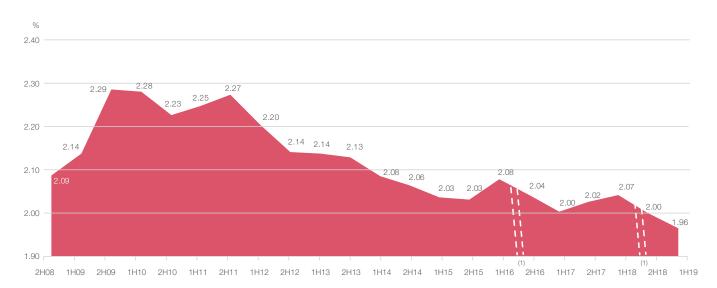
Net interest income and margin

Falling NIM was driven by the shift to lower margin products. The cost of deposit and wholesale funds was stable over the half, but fell significantly at the end of March. Notwithstanding falling NIM, total net interest income rose to \$31.6b, up 0.6% hoh and down 0.6% pcp.

The banks' combined NIM of 1.96% was down 4bps hoh and 11bps on pcp continuing to reach new record lows, driven down by customers' continued switching to lower margin home loan products (interest only to principal and interest, investor to owner-occupied). One bank also significantly increased its stock of non-lending, interest-earning assets such as commercial paper, treasuries and other securities which would have contributed to a compression in average NIM over their portfolio. The major banks also increased their business lending offshore faster than onshore, though the net impact this would have had on NIM is unclear.

Funding costs have remained relatively stable across the majors. Slightly cheaper deposits offset the effect of marginally higher wholesale funding costs, but as shown in the callouts below, the differences were negligible (less than 0.5bps hoh). Funding costs did increase pcp but this is largely due to the increase in credit spreads for banks in Australia and around the world which commenced in March 2018 on concerns about the pace of US Federal Reserve tightening. Given these expectations have largely dissipated, and both the BBSW and Bills-OIS spread have tightened since March 2019, there is some upside in the outlook.

Figure 4: Combined net interest margin



^{1.} Comparative changes made to bank reported net interest margin where relevant

Source: Bank reports, PwC Analysis

Attributions of movements in NIM

Lending —



-2bps hoh -5bps pcp

Banks suffered from customers switching from higher to lower margin home loan products (interest only to principal and interest, investor to owner-occupied).

Deposits ———



+0bps hoh +0bps pcp

Deposits were marginally cheaper but the impacts of this on NIM were barely noticeable.

Wholesale ____



+0bps hoh -1bps pcp

Wholesale funding costs inched higher hoh but the effects on NIM were barely noticeable.

___ Treasury and ____ markets



-2bps hoh -3bps pcp

Movements here were driven primarily by one bank which grew its lower margin treasury and markets related activities

Customer remediation



+0bps hoh -2bps pcp

Some majors saw the impact of customer remediation on their NIM.





Non-interest income

Down significantly as fee income reduces across the board.

Non-interest income, excluding notable items, was \$10.1b, down 7% hoh and 7% pcp as a result of lower fee income from most sources. Wealth management income has continued to decline as businesses are sold or ceased and fee structures evolve in line with post Royal Commission expectations. Lending fees and commissions also remain stagnant. Trading income has increased since the previous half but this has not been enough to offset these reductions, and as Figure 5 shows, as a percentage of total income, non-interest income is declining at a fair pace.

Wealth management income was down for the half as a result of the impact of the regulatory environment, requiring major banks to change fee structures and even eliminate some grandfathered commissions. This is in line with ongoing expectations that wealth income will taper as a result of strategic divestments. A factor amplifying these reductions is that each of the banks have seen a reduction in insurance performance as a result of climate related claims.

Banking fees are also down for the half, driven primarily by the slow-down in lending growth, a reduction in fees on currency conversion, and lower merchant income. A sizeable reclassification of facility fees into interest income for one of the banks has also moved in this direction.

Trading income totalling \$2.3b for the half, was up 9% hoh and up 25% pcp. The increase was driven by a stronger performance for a few banks, although some of this did represent profits on economic hedges that will have been offset in interest income.



Figure 5: Analysis of other operating income

Source: Bank reports, PwC Analysis



Operating costs

The banks continue to focus on cost reduction through simplifying operating models and divesting non core businesses, making reasonable progress this half.

Operating costs excluding notable items were \$18.0b, an absolute decrease of 3.0% hoh and 0.5% pcp in light of a consistent narrative from all of the banks to become simpler and more cost effective. This is no small achievement

- particularly when inflation is taken into consideration
- however the banks are at different stages of delivery against this objective, with two banks driving the reduction in particular.

The primary activities driving costs out have been the divestment of non core businesses, streamlining of processes, the move towards more digitised platforms and a reduction in premises costs.

It is difficult to analyse the personnel cost profile specifically because this only exists on an overall basis - i.e. including those costs relating to 'notable items'. At that level, personnel costs of \$10.0b in the first half reflect a 3.3.% increase hoh and 1.2% decrease pcp. However, anecdotal commentary about the size of teams devoted to remediation can lead to a conclusion that the exclusion of personnel devoted to such activities from this analysis would show a decent reduction in personnel costs hoh. This is supported by the fact that the FTE headcount has continued to decrease to 148,909 (a decrease of 0.5% hoh and 0.7% pcp).

Premises costs have come down as a result of an ongoing programme of reduction in branch footprints. This is at different stages by bank depending on the date of lease termination but premises costs have already decreased by 2.0% hoh and 1.6% pcp.

Offsetting these efforts has been a necessary increase in investment spend on risk, compliance and regulation, increasing by 41% hoh for the three banks that report the number. This is putting a strain on spend on productivity, growth and infrastructure which has come down by 11% hoh and 6% pcp. However, this has not been a one-for-one swap investment spend as a whole has increased by 9% pcp.

Managing the balance of these competing priorities is a sizeable challenge and one we focus on in our coming hot topic.

Overall efforts in cost reduction have helped reduce the combined adjusted expense-to-income ratio, although modest revenue growth is making this a challenge.

Figure 6: Combined expense-to-income ratio

Source: Bank reports, PwC Analysis



Bad debt expenses

Though down 3.8% pcp, bad debt expense rose \$215m (14.2%) hoh to \$1,752m, marking the first time in three years that falling credit losses were not accretive to a movement in earnings.

Specific charges comprised just over half of the total expense at \$965m in 1H19, an increase of \$180m hoh. Anecdotal comment in management disclosures indicates that this has been driven by a small number of larger exposures in Institutional and Corporate lending portfolios.

The balance, \$787m, was driven by collective provisioning, which was roughly flat (up only \$35m) compared to the prior half. It is worth noting that this is after a large increase in collective provisions that has been taken through equity as a result of the adoption of AASB 9 at the start of the period.

Although bad debt expense as a proportion of gross loans and advances has ticked up slightly from 12 bps (annualised) to 13 bps, it still compares very favourably to a historic average of 27 bps over the last 25 years, providing ongoing structural support to cash earnings. As we have previously commented, a return to this historic average would approximately double the impairment charge and reduce earnings commensurately.

Loan loss rates, measuring the amount of specific impairment charge arising as a proportion of new impaired assets, are at 30.8% from 30.3% hoh and 24.7% pcp, providing an indication that higher losses are starting to be sustained on assets that are impaired. This number is a product of the value of security that can be used to in the event of default. Should asset values continue to fall, as has been seen in the orderly fall in residential property valuations, history suggests that impairments will continue to increase, resulting in a 'compound effect' accelerating loan losses.

The potential emergence of credit stress (refer discussion of arrears rates below) is occurring in the context of ongoing debate on monetary policy settings. In addition to this, the approach to the use of regulatory policy to respond to the perceived impact of the Royal Commission on the availability of credit and associated fall in housing prices is something that must be monitored closely.

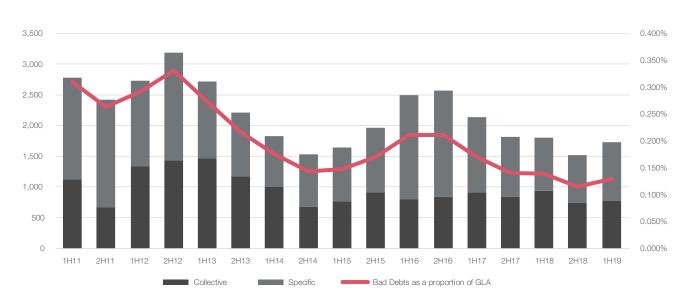


Figure 7: Impairment charges and bad debt expenses as a proportion of gross loans and advances

Source: Bank reports, PwC Analysis

Credit provisions

Provisions have substantially increased following the completion of the transition to AASB9. However, while arrears rates are up across the board, this isn't a significant factor - yet.

Provisions have increased to \$16.6b up 22.1% hoh and 19.6% pcp as the final three of the majors transitioned to an expected credit loss model to meet new accounting requirements. Adjusting for the effect of the transition, provisions have only increased marginally on an underlying basis by \$0.2b or 1.4% hoh. Collective provisions account for \$13.7b up 27.4% hoh, or 1.2% hoh if the impact of the transition to ECL is excluded. Specific provisions account for \$2.9b, an increase of 2.2% hoh.

The transition to a forward looking expected credit loss model is anticipated to result in provisions that are more responsive to changing economic conditions and while this has been borne out to some degree in the period, provisions from here may become more volatile.

Gross impaired assets are \$8.9b, up 9.4% hoh and 4.1% pcp, remaining broadly flat as a proportion of gross loans and advances at 33 bps. However, there are signs that the credit quality of the underlying portfolios has deteriorated.

Arrears rates, in particular loans that are 90+ days past due, have increased at each of the majors (and more notably for those that have reported for the half year ended March 2019). Loans 90+ days past due but not impaired are \$14.3b, up 11.3% hoh and 20.6% against the prior corresponding period. These increases have been directly attributed to conditions of the Australian residential mortgage portfolio at each of the banks, indicating an emerging trend of deterioration in this portfolio.

This has translated to small increases in the collective expected credit loss provisions at this stage - with some of the majors making note of an impact on their provisioning to adjust for the Australian economic outlook on Australian retail portfolios. This is small primarily because losses are low - as we would expect at the point a credit cycle turns. If the cycle continues to turn and drive ongoing asset price reductions, these collective provisioning effects can amplify quickly especially under AASB9. Given a value of Australian housing lending across the four majors of \$1.4tn dollars, this is an area all are watching closely.



Figure 8: Specific and collective provision composition

Source: Bank reports, PwC Analysis



Credit

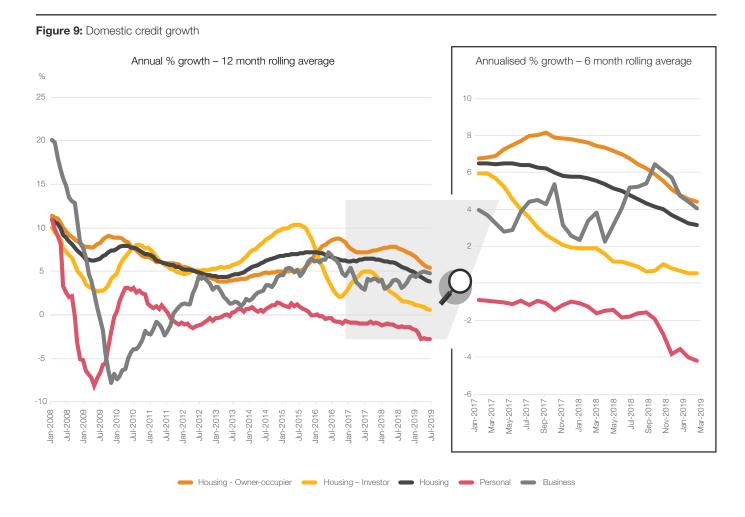
Gross loans and advances (GLAA) for the majors lagged domestic system growth of 1.6%, and the picture would be worse if it weren't for the strength in overseas lending, particularly New Zealand.

Major bank lending growth is at 1.4% at a headline level, lagging system growth which itself has slowed to 1.6% hoh from 2.6% in the prior period. However, this picture is yet more challenging when we adjust for the effects of fluctuations in the value of the New Zealand dollar relative to the Australian dollar - reducing this further to 0.8%.

This challenge is especially true for mortgage lending, in which major-bank growth was 0.7% hoh and 1.5% pcp, one half and one third below the 1.6% and 2.3% system growth rates in the same period. This is likely driven by a combination of tighter origination settings, more rigorous expense verification requirements, increased focus on loan purpose and financial circumstances as well as uncertainty about the ongoing role for brokers.

In business lending, the story is more varied. Some majors grew their portfolios aggressively in the context of system growth which has been running more strongly than mortgage lending for the first time since before the GFC. Others appear instead to have taken the opportunity to reshape their portfolios.

Collectively, domestic business GLAA for the majors decreased slightly by 0.1% hoh (3.2% in the previous period), which compares to healthy system business credit growth of 2.2% and 2.6% over the same periods, respectively, as illustrated in Figure 9.



Source: PwC Analysis, RBA

Overall, the majors lost share to both non-majors and non-banks across all lending categories. This has been a consistent theme for some time as these competitors recover share lost during the dislocation following the GFC, as illustrated in Figure 10.

Figure 10: Non-major banks and non-ADI credit assets growing faster than majors

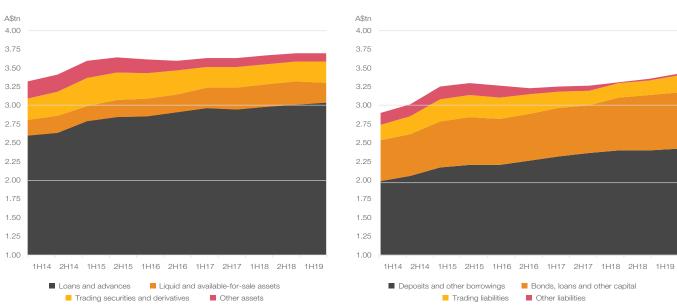


Source: PwC analysis, RBA, APRA

Finally, perhaps the one silver lining for major bank lending has been their New Zealand (+2.5% hoh adjusted for FX) and other overseas portfolios (+4.4% hoh). This was true for all major banks. Although overall these markets represent less than 20% of overall major-bank GLAA, some banks are much more heavily exposed than others.

Finally, we note that the \$2.7tn in major bank lending assets discussed above represents 73% of the banks' total \$3.7tn balance sheet, which likewise grew 2.1%, faster than lending assets reflecting, as mentioned above, growth in the stock of non-lending interest earning assets especially at one bank. This is illustrated in Figure 11.

Figure 11: The evolution of major bank balance sheets

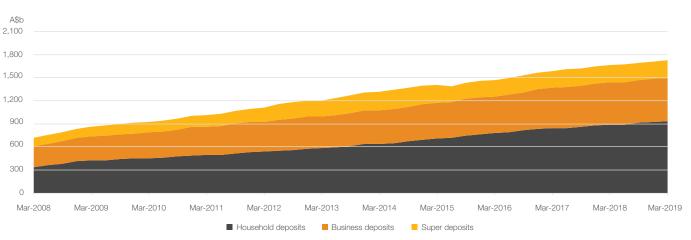


Source: Bank reports, PwC analysis

Customer deposits continue to be the key source of funding for the banks at \$2,052b, illustrated in Figure 12. The deposit portfolio has grown 1.4% pcp and 3.2% hoh. This is below system deposit growth of 2.2% in the last 6 months, in part reflecting the lower growth in lending, as well as price competition from non-majors.

Collectively, the banks raised \$65.4b of wholesale funding across multiple currencies in the half, contributing to 4.4% growth in wholesale funds. Net stable funding ratios remain strong, with all banks remaining above 110%.

Figure 12: Composition of bank deposits



Source: ABS

Capital

Three of the banks meet APRA's target CET1 ratio, one of them by some margin due to realised proceeds from divestment. The other has adjusted dividend payout ratio as part of progressing towards the requirement by January 2020.

The weighted average CET 1 ratio for the Majors is 10.8%, an increase of 24bps which meets APRA's 'unquestionably strong' 10.5% requirement. All of the major banks are undertaking significant corporate development activity to respond to the requirements of the new environment.

This has triggered divestments which have released material sums of capital, though that has been partly offset by the adoption of the new standards such as AASB 9 and 15, some new risk models, as well as one share buyback.

Overall, common equity T1 capital grew \$4.0b hoh, an increase of 2.3%, as illustrated in Figure 13. Over the half, risk weighted assets (RWAs) growth is flat compared to total asset growth of 2.1% which was the result of portfolio mix effects and ongoing capital optimisation.

Figure 13: Capital and return on equity



Source: Bank reports, PwC Analysis

With uncertainty surrounding the future of NZ capital requirements, as well as possible updates to the domestic TLAC (Total Loss Absorbing Capital) requirements, it is likely that banks may seek to preserve a buffer in excess of 10.5% for some time.

Key banking statistics - Full Year 2018

		ANZ			СВА			NAB			WBC	
	Mar-19	Sep-18	Mar-18	Dec-18	Jun-18	Dec-17	Mar-19	Sep-18	Mar-18	Mar-19	Sep-18	Mar-18
Balance sheet												
Total assets	980,244	942,624	935,116	980,430	975,165	961,930	826,943	806,510	796,068	891,062	879,592	871,855
Risk weighted assets	396,291	390,820	395,777	445,144	458,612	440,836	403,205	389,684	387,415	419,819	425,384	415,744
Gross loans and acceptances	613,770	608,380	594,939	759,410	748,408	741,318	601,313	585,590	571,240	717,934	712,504	704,306
Asset quality & provisioning												
Gross impaired assets	2,022	2,013	2,034	3,560	3,179	3,367	1,564	1,521	1,609	1,749	1,416	1,535
Net impaired assets	1,131	1,093	1,018	2,373	2,111	2,207	847	846	899	949	763	836
Gross impaired assets as a % of gross loans and acceptances	0.33%	0.33%	0.34%	0.47%	0.42%	0.45%	0.26%	0.26%	0.28%	0.24%	0.20%	0.22%
Individually assessed provisions	891	920	1,016	920	870	974	716	675	710	433	422	471
Individually assessed provisions as a $\%$ of impaired assets	44.07%	45.7%	49.95%	25.84%	27.37%	28.93%	45.78%	44.38%	44.13%	24.76%	29.80%	30.68%
Collective provisions	3,378	2,523	2,579	3,711	2,763	2,749	3,015	3,054	2,938	3,552	2,631	2,694
Collective provisions as a % of non housing loans & acceptances	1.28%	0.96%	1.03%	1.50%	1.12%	1.11%	1.18%	1.24%	1.24%	1.59%	1.18%	1.21%
Total provisions	4,269	3,443	3,595	4,631	3,633	3,723	3,731	3,729	3,648	3,985	3,053	3,165
Total provision as a % of gross loans &	0.70%	0.57%	0.60%	0.61%	0.49%	0.50%	0.62%	0.64%	0.64%	0.56%	0.43%	0.45%
acceptances Profit & loss analysis												
Net interest income	7,299	7,164	7,350	9,134	9,086	9,255	6,734	6,717	6,750	8,389	8,038	8,301
Other operating income	2,447	2,242	2,458	3,277	3,708	3,875	2,140	2,167	2,343	1,714	2,762	2,850
Total operating expenses	(4,365)	(4,837)	(4,411)	(5,289)	(5,863)	(5,736)	(4,175)	(4,248)	(4,744)	(5,041)	(4,932)	(4,654)
Core earnings	5,381	4,569	5,397	7,122	6,931	7,394	4,699	4,636	4,349	5,062	5,868	6,497
Bad debt expense	(393)	(280)	(408)	(577)	(483)	(596)	(449)	(406)	(373)	(333)	(317)	(393)
Profit before tax	4,988	4,289	4,989	6,545	6,448	6,798	4,250	4,230	3,976	4,729	5,551	6,104
		•••••			•••••	•••••	•	•••••	(1,168)	·····	•••••	
Income tax expense	(1,415)	(1,286)	(1,489)	(1,863)	(1,964)	(2,030)	(1,244)	(1,236)	(1,100)	(1,430)	(1,735)	(1,851)
Minority interest	(9)	(9)	(7)	(6)	(10)	(9)	0	(100)		(3)	(2)	(2)
Cash earnings after tax before significant items (underlying profit)	3,564	2,994	3,493	4,676	4,474	4,759	2,954	2,943	2,759	3,296	3,814	4,251
Statutory results (i) Key data	3,173	3,077	3,323	4,596	4,423	4,906	2,905	3,068	2,874	3,173	3,897	4,198
Other operating income as a % of total												
income	25.11%	23.84%	25.06%	26.40%	28.98%	29.51%	24.12%	24.39%	25.77%	16.97%	25.57%	25.56%
Interest spread	1.50%	1.57%	1.70%	1.84%	1.90%	1.92%	1.57%	1.64%	1.69%	1.89%	1.87%	2.00%
Interest margin	1.80%	1.82%	1.93%	2.10%	2.14%	2.16%	1.79%	1.85%	1.87%	2.09%	2.05%	2.17%
Expense/income ratio (as reported ratio)	44.80%	51.40%	45.00%	42.60%	44.80%	43.70%	47.00%	47.80%	52.20%	51.02%	45.67%	41.74%
Total number of full time equivalent staff	37,364	37,860	39,655	42,519	43,771	42,563	33,790	33,283	33,944	34,241	35,029	35,720
Operating costs per employee (dollars) - annualised	220,616	237,341	200,368	248,783	265,451	269,530	248,364	252,722	279,849	293,559	139,472	262,597
Return on average equity (as reported)	12.00%	10.10%	11.90%	14.10%	13.50%	14.60%	11.70%	12.00%	11.40%	10.05%	12.08%	13.96%
Return on average assets (underlying cash)	0.65%	0.64%	0.79%	0.98%	0.90%	1.00%	0.71%	0.73%	0.68%	0.74%	0.86%	0.91%
Capital ratios												
Common equity	11.50%	11.40%	11.00%	10.80%	10.10%	10.40%	10.40%	10.20%	10.21%	10.64%	10.63%	10.50%
Tier 1	13.40%	13.40%	12.90%	12.90%	12.30%	12.40%	12.45%	12.38%	12.40%	12.84%	12.78%	12.81%
Tier 2 (net of deductions)	1.90%	1.90%	2.00%	2.90%	2.70%	2.40%	1.55%	1.73%	2.03%	1.78%	1.96%	2.02%
Total	15.30%	15.20%	14.90%	15.80%	15.00%	14.80%	14.00%	14.12%	14.43%	14.62%	14.74%	14.83%
Lending and Funding Ratios												
Gross Loans & Acceptances / Total Assets	62.61%	64.54%	63.62%	77.46%	76.75%	77.07%	72.72%	72.61%	71.76%	80.57%	81.00%	80.78%
Housing Loans / Gross Loans & Acceptances	56.90%	56.95%	58.01%	67.49%	67.03%	66.46%	57.59%	57.98%	58.43%		68.70%	
Deposits (exclude CDs)/gross loans		86.85%			75.84%	76.32%		69.84%		71.27%	72.67%	71.28%
Deposits (exclude CDs) / total liabilities	l	59.82%		I		63.16%		54.25%		I	63.53%	

All figures in AUD million unless otherwise indicated:

i. Statutory result as reported by the banks, unadjusted.

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