

# THE FORWARD VIEW - AUSTRALIA

SEPTEMBER 2017

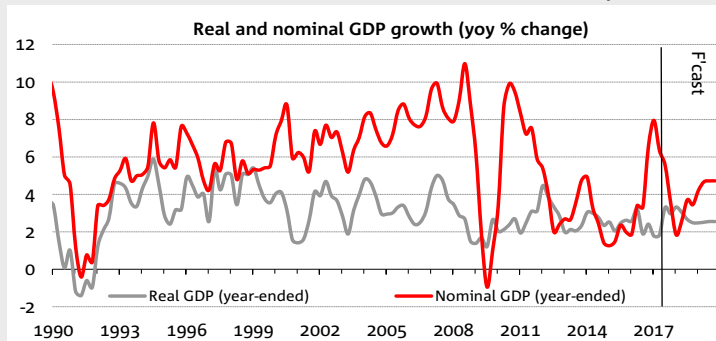


## *RBA to remove some emergency accommodation in 2018*

- **Stronger employment, GDP and investment data have seen us revise our forecasts lower for unemployment, and slightly increase our forecasts for GDP growth and inflation.** While we remain cautious about aspects of the economic outlook, we now believe the labour market will strengthen enough to allow the RBA to remove some of the emergency stimulus currently in place. **We are pencilling in rate rises of 25bps in August and November of 2018 and a further two 25bp hikes in 2019, although the precise path will be data dependent.** A cash rate of 2½% by end-19 is still well below the RBA's estimates of neutral (~3.5% nominal), suggesting monetary policy will remain supportive of the economy.
- **Real GDP figures for Q2 showed a pick up in growth to a quarterly rate of 0.8% (and 1.8% yoy).** While this partly represented a bounce-back from weather disruptions in Q1, non-mining and government investment were encouraging. The main area of weakness in the figures was in wages growth, as well as dwelling construction. This is despite particular strength in the labour market so far this year, with employment growth averaging 29K per month (with three quarters of those jobs full-time) and the unemployment rate easing to 5.6% in July from a recent high of 5.9% in March.
- **GDP growth will continue to build in late 2017, as LNG exports continue to surge and government spending remains strong. We still expect growth momentum to ease somewhat through 2018 and 2019 to around 2½% - which is in line with NAB's estimates of potential growth - although domestic demand is a bit higher in 2019.** The forecast changes are largely due to a stronger labour market which feeds into (slightly) higher wages growth. **The unemployment rate is forecast to ease to 5.4% by end-2017, 5.3% by end-18 and 5.1% by end-19.**
- **These trends should be enough to give the RBA greater confidence that inflation will return to (the lower portion of) the target band, although our growth forecasts remain weaker than the RBA's and some facets of the outlook bear close watching.** Household income growth will remain low as wages growth recovers only gradually, limiting household spending amidst high household debt levels and slower wealth gains as housing price growth cools. Housing construction will also be adding little to growth in 2018. **On the flipside, higher investment intentions are a clearer sign that non-mining investment will build, which together with strong government infrastructure spending, will help offset weakness in mining investment.**
- Risks to the view include a failure of the AUD to depreciate gradually as we anticipate. A loss of momentum in the labour market, evidence that wages growth is not responding, or evidence of household distress would also be reason for pause.

	Calendar Year				
	2015	2016	2017-F	2018-F	2019-F
Domestic Demand (a)	1.3	1.6	2.6	2.5	3.0
<b>Real GDP (a)</b>	<b>2.4</b>	<b>2.5</b>	<b>2.5</b>	<b>2.9</b>	<b>2.5</b>
Terms of Trade (a)	-11.6	0.2	8.3	-9.0	-0.8
Employment (a)	2.1	1.6	1.9	1.9	1.4
Unemployment Rate (b)	5.9	5.6	5.4	5.3	5.1
Headline CPI (b)	1.7	1.5	2.5	2.3	2.4
Core CPI (b)	2.0	1.6	2.0	2.1	2.2
RBA Cash Rate (b)	2.00	1.50	1.50	2.00	2.50
\$A/US cents (b)	0.73	0.72	0.75	0.73	0.76

(a) annual average growth, (b) end-period, (c) through the year inflation



## CONTENTS

Charts of the month	<a href="#">2</a>
Outlook Summary	<a href="#">3</a>
Consumer spending / prices	<a href="#">4</a>
Housing	<a href="#">5</a>
Business	<a href="#">6</a>
Labour and wages	<a href="#">7</a>
Trade & commodities	<a href="#">8</a>
RBA cash rate & the AUD	<a href="#">9</a>
Forecast detail	<a href="#">10</a>

## CONTACT

Alan Oster, Group Chief Economist  
+61 (0)414 444 652

Riki Polygenis, Head of Australian Economics, +61 (0)475 986 285

## AUTHORS

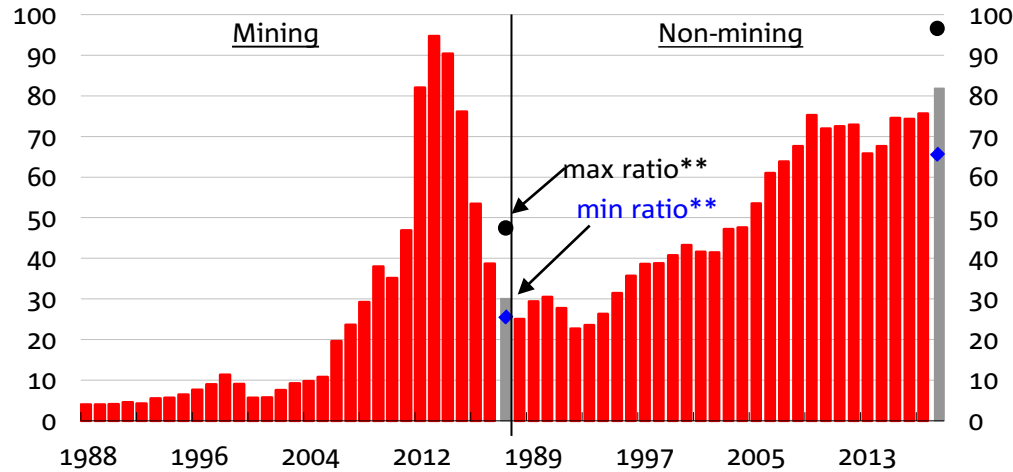
Riki Polygenis  
James Glenn, Senior Economist  
Amy Li, Economist  
Phin Ziebell, Agri Economist

# CHARTS OF THE MONTH

*Positive signs for employment and non-mining capex; wages growth low*

## NON-MINING CAPEX EXPECTATIONS FINALLY ON THE RISE

\$ billions

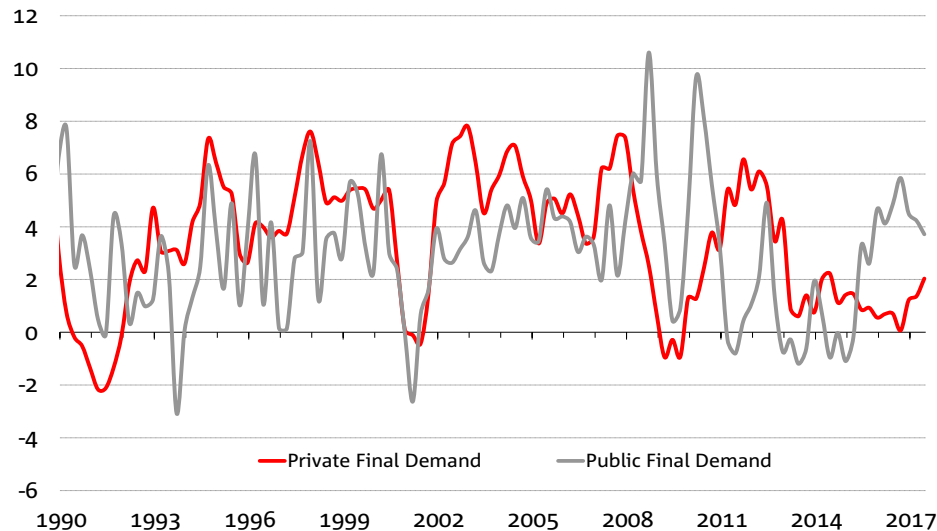


\* Grey bars are the latest expectations adjusted by the previous year's realisation ratio measure

\*\* The max and min estimates based on historical max-min realisation ratios

## PUBLIC DEMAND WELL OUTPACING PRIVATE DEMAND

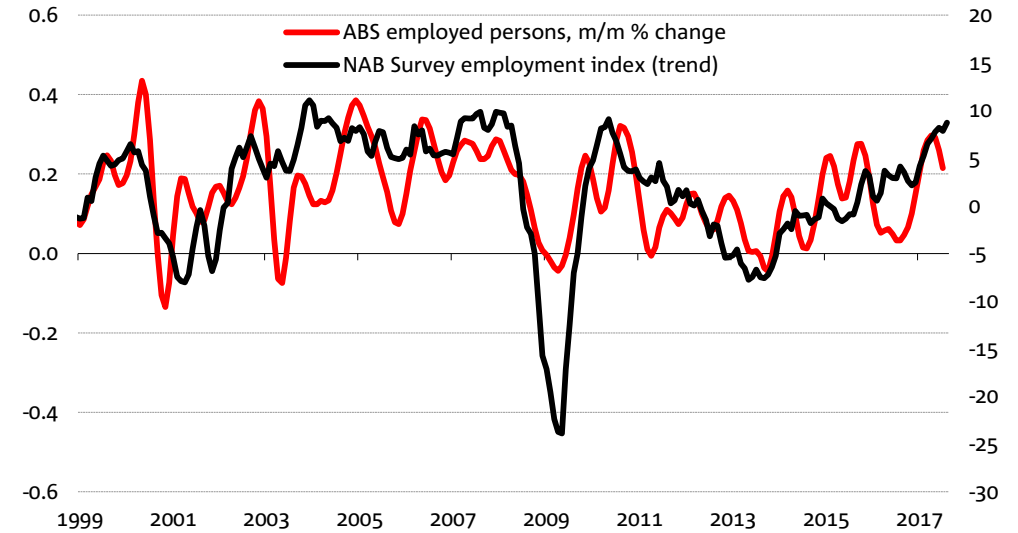
yoy % change



Sources: ABS, NAB Economics

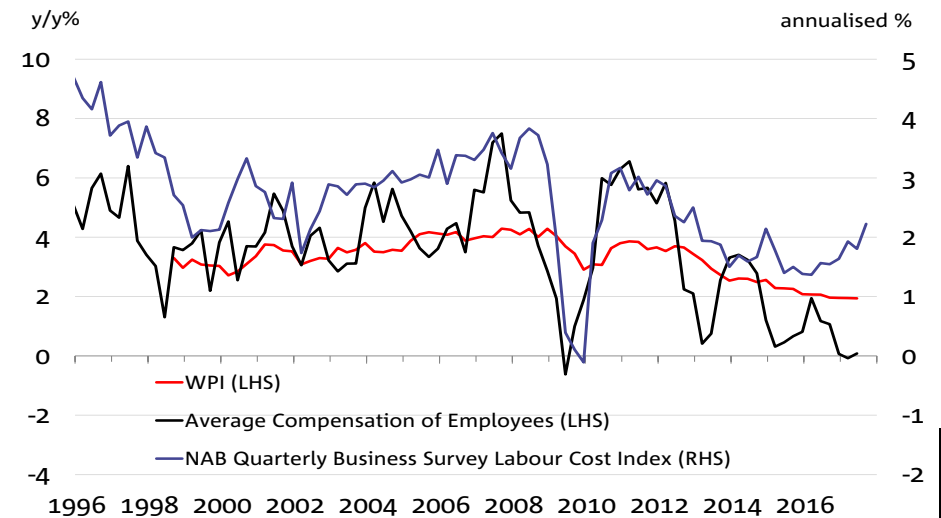
## FURTHER STRENGTH IN EMPLOYMENT LIKELY NEAR TERM

ABS employment versus NAB Survey employment index



## WAGES WEAK IN NATIONAL ACCOUNTS, GRADUALLY RISING IN SURVEY

Official versus survey measures of wages

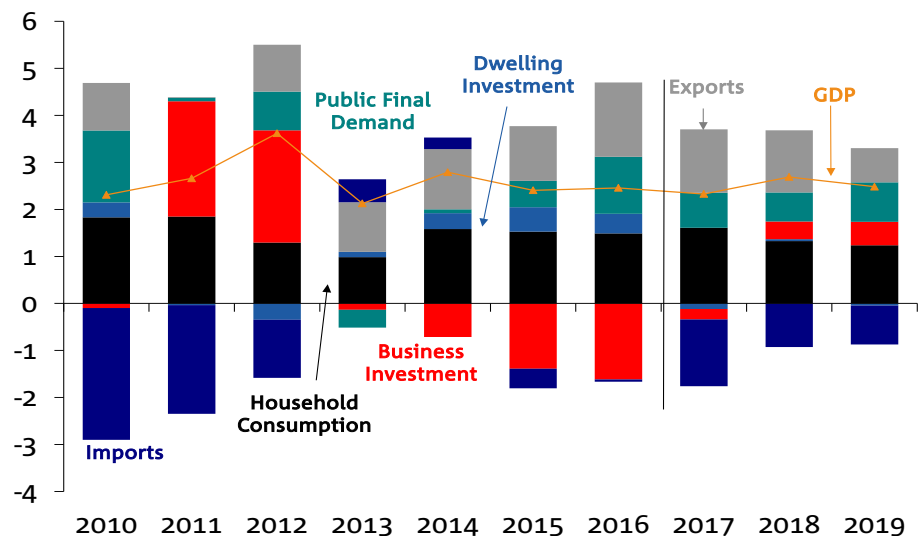


# OVERVIEW - AUSTRALIAN ECONOMIC OUTLOOK

*Slightly stronger growth outlook near-term, unemployment rate a bit lower*

## GROWTH SLIGHTLY HIGHER NEAR-TERM, THEN SETTLES AT $-2\frac{1}{2}\%$

Annual average % change



- Real GDP picked up pace a little in Q2 this year, with growth of 0.8% qoq following just 0.3% growth in Q1. This was partly due to a bounceback from weather effects in Q1, but there were some encouraging aspects to the growth picture including strength in government and business investment. The year-ended pace of growth continued to be weighed down by the contraction in growth in Q3 last year, and Q1's weak outcome, to be unchanged at 1.8% yoy%.

- Looking forward, year-ended growth is expected to pick up to in the second half of 2017 in quarterly terms, as LNG exports add further to growth, before easing back a little through 2018 as both LNG exports and dwelling investment peak. Year-ended growth is now forecast to peak at 3.3% in Q1 2018, before easing to our estimate of potential growth of around 2.5% by end-18 and holding at that rate in 2019. This is a slightly stronger rate of growth than previously forecast, particularly in the next few quarters, largely due to stronger employment growth and some further confidence that wages growth and inflation will pick up (albeit very gradually). The unemployment rate is now forecast to fall gradually to 5.4% by end-17, 5.3% by end-18 and 5.1% by end-19. Underemployment may not fall as quickly through the forecast period, as part-time employment continues to grow as a share of employment, but should also track down.

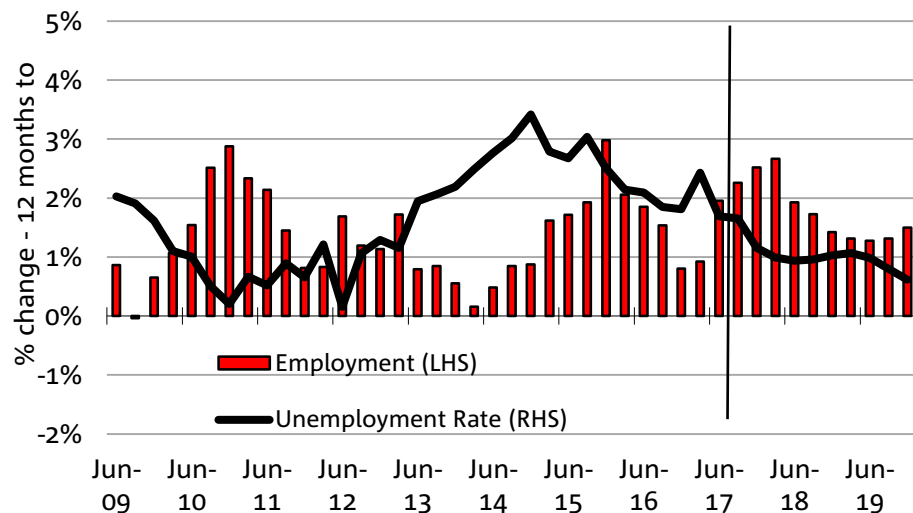
- Note that while we are slightly more optimistic about the economic outlook than last month, our forecasts remain more cautious than the RBA's, with the central bank continuing to forecast growth of 3 to 3¼% in 2018 and 2019. The main divergence in opinion surrounds the extent of the uplift in wages and consumer spending, where NAB Economics expects a more gradual improvement. Instead, our monetary policy forecast change reflects a view that a stronger labour market will give the RBA greater confidence that wages and inflation will gradually pick up, allowing some emergency stimulus to be removed. The RBA will of course proceed with extreme caution, particularly amidst high household debt levels.

- Key aspects of the forecast include:

- Modest growth in household spending in line with low (though very gradually improving) household income and wages growth.
- Further strengthening in non-mining investment.
- Government infrastructure spending to add further to growth.
- Declines in mining investment to be smaller from here, with the majority of the adjustment already complete.
- Dwelling investment peaking, but remaining at a high level – neither adding or subtracting much from growth.
- LNG exports adding to growth in 2017, before peaking. Net exports neutral to the growth outlook through most of 2018, before dragging again in 2019 as stronger domestic demand drives imports to outpace exports.

## UNEMPLOYMENT RATE SLIGHTLY LOWER THROUGH HORIZON

Employment growth and unemployment rate



Sources: ABS, NAB

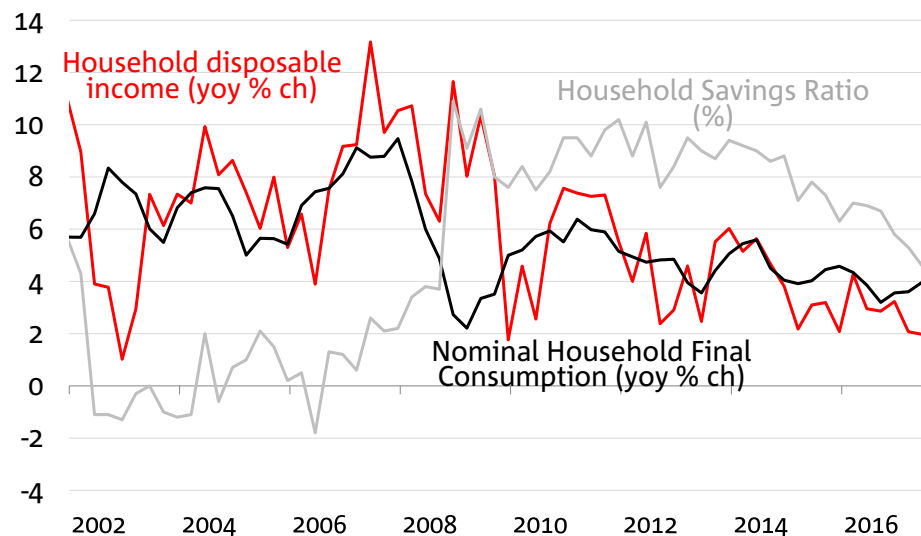


# CONSUMER DEMAND AND INFLATION

## Gradual pickup forecast for both consumer spending and inflation

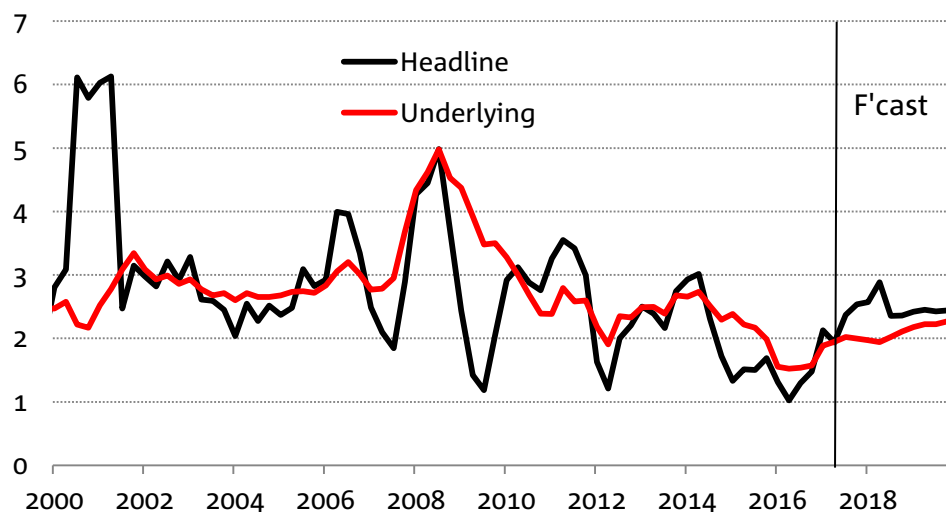
### LOWER SAVINGS RATE DRIVING CONSUMER SPENDING

yoy % change and % of disposable income



### HEADLINE INFLATION TO RISE IN Q3

Consumer price inflation, y/y % change



Sources: ABS; NAB Economics

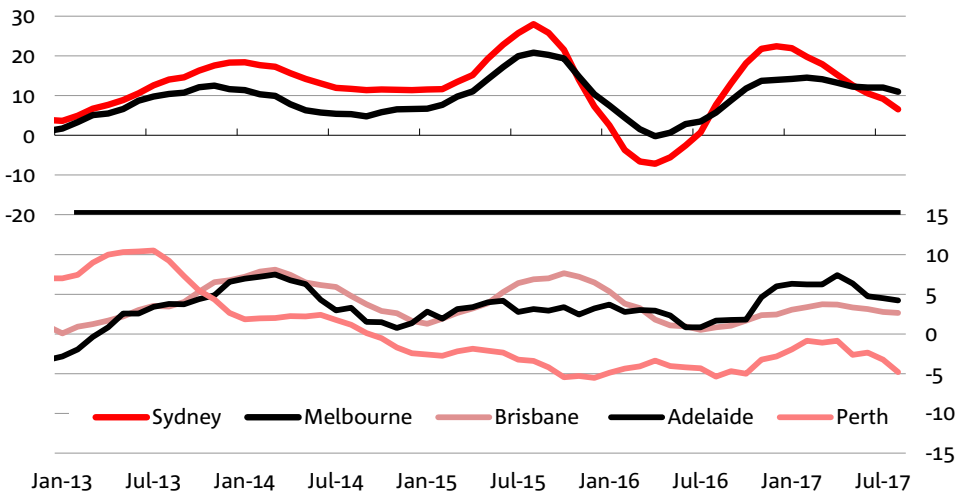
- Household spending was solid in Q2 at 0.7% qoq, although somewhat softer than expected due to a large drop in spending on electricity, gas & other fuel (although this did follow a strong increase in the previous quarter). Strength was evident in retail components such as clothing & footwear and furnishings & household equipment as well as transport services, communications and insurance & other financial products.
- The pick up in spending was consistent with strong employment growth in the first half of the year, however it is likely that higher energy prices will weigh on discretionary spending in Q3, while the increase in the minimum wage should assist lower paid workers to some extent (despite the loss of penalty rates for some). Further out, we expect moderate growth in household consumption of just over 2% in the coming year or so, before picking up to 2¾% by 2019, amidst soft household income and wages growth (despite further gains in employment), and cautiousness amidst high household debt levels.
- Nominal retail sales were flat in July after rising 0.2% in June. This suggests that the strength in April and May was somewhat temporary. NAB's [Cashless Retail Index](#), also implied a slowdown in June and July, although is rising at a stronger rate than the official measure of retail sales in yearly terms (7.3% yoy). Conditions for retailers remain very challenging, with the [NAB Monthly Business Survey](#) for August showing another negative read, reflecting weakness in trading conditions (sales) and profitability (as margins are squeezed).
- Headline inflation is expected to be higher in Q3, after a weak Q2 inflation outcome. Energy price increases in Q3 are estimated to add around 0.4-0.5 ppts to headline inflation, with the increase in tobacco excise in the month of September adding another 0.1 ppts. Underlying inflation is expected to remain around the lower bound of the RBA's target range in the near term. Wages growth remains subdued, with non-farm unit labour costs down 3.7% (real) in Q2 and up 0.5% (nominal) yoy, keeping cost-push inflation low. The elevated AUD will keep imported inflation contained in the near term, but is forecast to depreciate into 2018. Increasing retail competition is also keeping a lid on inflation. Meanwhile, low rental growth is expected to continue as housing supply increases strong. However, as the economy improves and more spare capacity gets absorbed, underlying inflation is likely to pick up very gradually towards the end of 2018 and early 2019 towards 2¾% yoy.

# THE HOUSING MARKET

*The housing market appears to be cooling, but is it happening fast enough?*

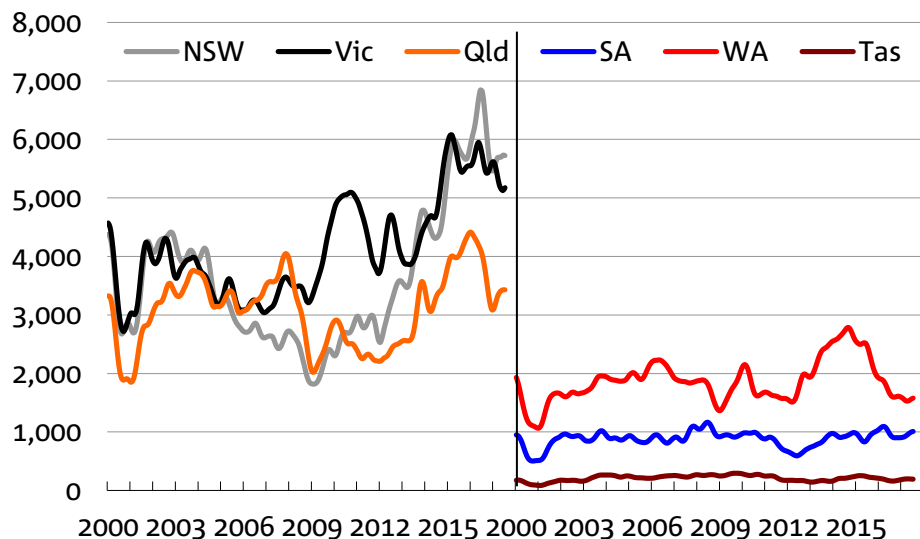
## SIGNS OF ONLY MODEST MODERATION IN MELBOURNE

Dwelling price growth (6-month annualised)



## RESIDENTIAL BUILDING APPROVALS BY STATE (TREND)

Private dwelling units approved



Sources: ABS; CoreLogic

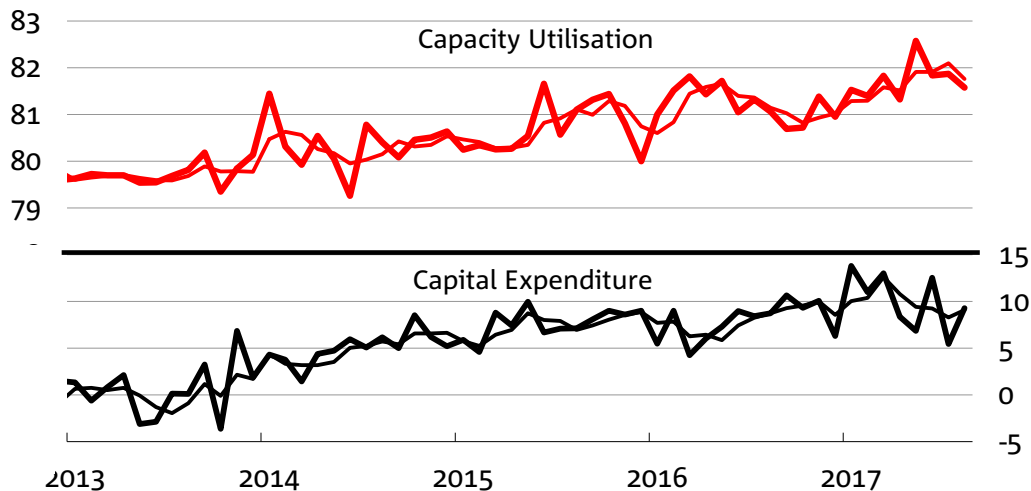
- The newly released hedonic property price index from CoreLogic suggests that momentum in the housing market has slowed from its previous peak. However, while 6-month annualised growth is clearly lower in the Sydney market, the Melbourne market appears to have been more resilient – despite concerns about an oversupply of apartments (see chart). In contrast, prices in Perth – which appeared to be stabilising after an extended period of declines – appear to be deteriorating again. We continue to see a big divergence between house and apartment prices in Brisbane, while the divergence in Melbourne has become a little less pronounced.
- Auction clearance rates also tend to point to softer conditions in the market, and again the trend is more apparent in Sydney than in Melbourne – although both are showing lower clearance rates than at the same time in recent years. Meanwhile, data from the RBA on housing credit – an alternative measure of demand – shows that credit growth has been relatively steady, although prudential measures appear to have slowed investor credit, while owner-occupier credit has strengthened somewhat.
- Market conditions vary significantly across the country, but prudential tightening, rising housing supply (in some markets), affordability constraints and modest wages growth (which looks set to continue), overwhelmingly suggest cooling housing markets going forward. While better than expected outcomes to date suggest some upside risk, our national house price forecasts for 2017 is 5%, and 4.3% in 2018. Unit prices are forecast to rise 3% in 2017, but will fall modestly in 2018 (-0.3%). For details, see our NAB Residential Property Survey.
- Dwelling investment was broadly flat in the quarter, following a sharp (3.7%) fall in Q1. This leaves dwelling investment 2.5% lower over the year, and while that partly reflects weather disruptions in recent quarters, it raises the possibility that dwelling construction has already peaked – pointing to a more elongated cycle as dwelling construction holds steady at a high level for some time. This presents some downside risk to our expectation for dwelling construction activity, although new approvals have actually held up a little better than many expected. New & used dwelling construction was down 0.8% qoq, while alterations & additions partially rebounded (up 2.2%).
- Residential building approvals were down slightly in July, but that followed a strong increase in June, while the trend has been showing positive growth in recent months. That said, although the trend in medium density approvals has flattened out (after some big declines), we still expect the downward trend to resume at some point given some of the challenges facing the market. Dwelling investment is expected to be down in 2017, before growing modestly in 2018 and turning negative in 2019 (0.9% and -1.2% respectively), with limited impact on economic growth given its small share of GDP.

# BUSINESS ACTIVITY, INVESTMENT AND CONSTRUCTION

*More encouraging signs coming from the business sector*

## NAB MONTHLY SURVEY INVESTMENT INDICATORS\*

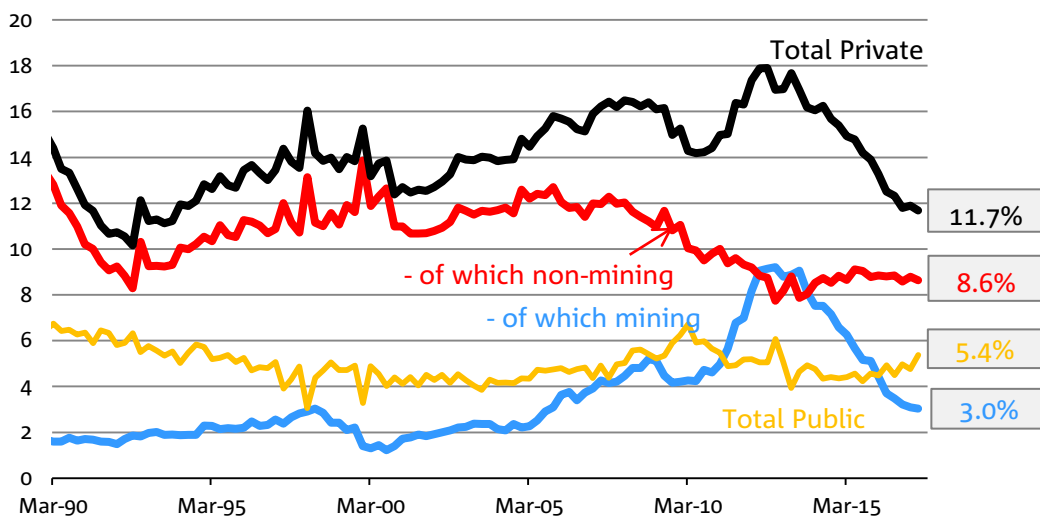
% of capacity; Net balance



\* Light lines represent the 3mma

## PUBLIC INVESTMENT ON THE RISE

% of GDP



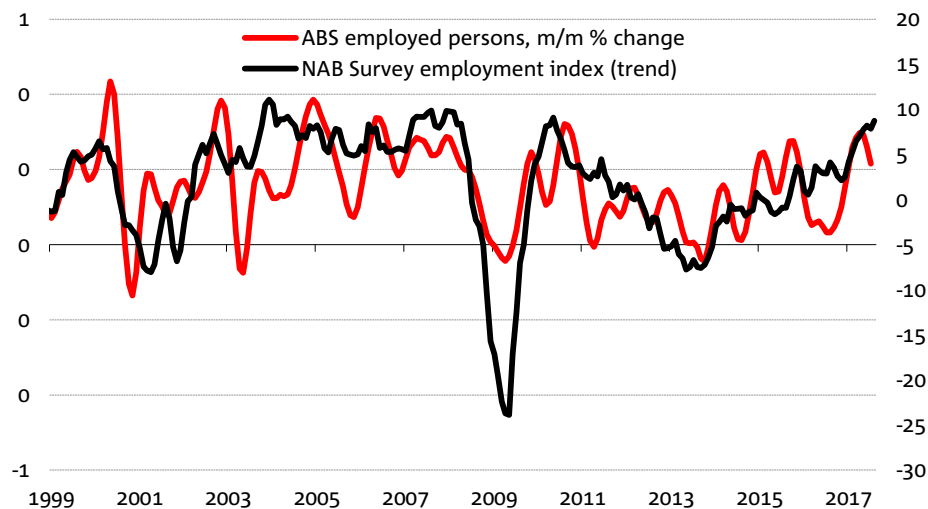
Source: ABS, National Australia Bank

- The August NAB Monthly Business Survey showed some mixed results, but is still encouraging overall for the investment outlook. **Business conditions** rose to their highest level since early 2008, but confidence appeared to hit a roadblock – dropping to just below its long-run average. **Capacity utilisation** rates were lower, but still elevated, while the Survey's indicator of **capital expenditure** partially rebounded – but is still down from its peak.
- Underlying **private business investment** rose by 1.1% in the quarter – the third consecutive quarter of growth (up 1.5% over the year; the first annual rise since March 2013). Private engineering construction fell 1.9% q/q, while non-residential building construction rose by a modest 0.3% – following two solid quarters of growth. Meanwhile, machinery and equipment investment was up by 3.2%. Separately released data from the ABS suggested that mining may have been a drag on investment in Q2, but the overall trend still indicates a lesser impact from the mining investment “cliff”. Meanwhile, NAB estimates suggest that non-mining investment held up in the quarter. Non-residential building approvals have been relatively encouraging, showing steady growth in recent quarter, including a rise of 2.4% m/m in July (seasonally adjusted); 19% higher over the year. Meanwhile, following solid growth in Q2, the value of capital goods imports eased only modestly in July (remaining 22% higher over the year) – suggesting higher levels of machinery and equipment investment. However, capital imports may see some volatility from the import of large LNG platforms.
- Leads on the longer-term outlook for business investment showed more positive signs lately, with the ABS Private Capex survey pointing to stronger non-mining investment in FY18 (chart) – more consistent with solid 12-month ahead expectations in the NAB Quarterly Business Survey.
- Government spending was much stronger in Q2, in large part driven by a surge in **public investment**, which is consistent with a ramp-up if infrastructure programs). Underlying public investment jumped 4.5% q/q, with strength especially evident in state and local general governments, although that included the acquisition of the recently completed Royal Adelaide Hospital from the private sector (which is removed from the underlying measures). A large pipeline of infrastructure projects is expected to keep public investment elevated, although growth rate may have peaked.
- Underlying business investment (around 12% of GDP) is now forecast to be modestly higher in 2017 (1.2%) thanks to the higher base, 6 accelerating to 4.3% and 6.3% respectively in 2018 and 2019.

# LABOUR MARKET AND WAGES

## Leading indicators continue to point to improving labour market

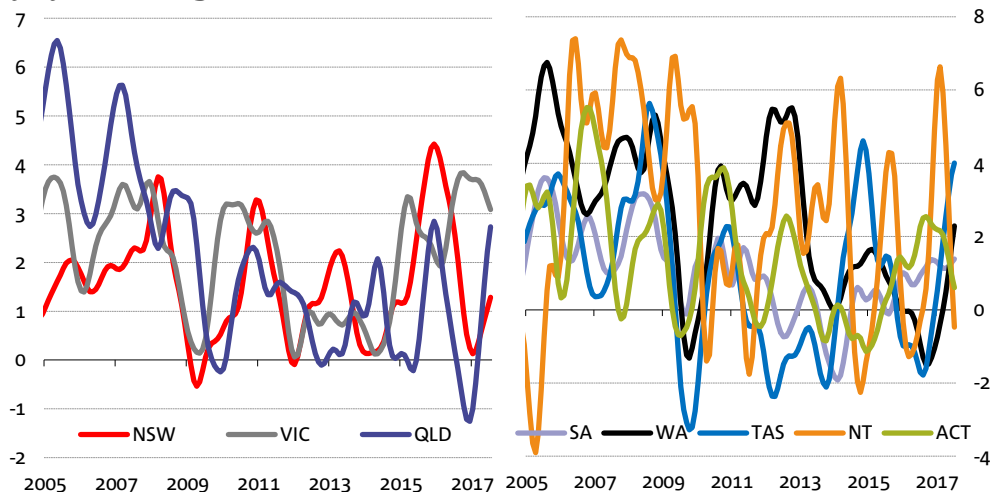
### NAB SURVEY POINTS TO IMPROVING EMPLOYMENT CONDITIONS



Source: ABS

### EMPLOYED PERSONS BY STATE

yoy % change, trend



Source: ABS, NAB Economics

- July delivered another strong official employment report. Seasonally adjusted employment rose by +28k, the tenth month of consecutive increases. Unemployment rate was down to 5.6% from 5.7% in June. This was encouraging, especially as the participation rate continued to rise higher, now at 65.1%, a level last seen in early 2016. Trend unemployment rate was steady at 5.6%, with trend employment up by +26k.
- The NAB Business Survey has been pointing to improving labour market conditions for some time. The latest August survey showed a significant increase in the employment conditions index, to +11 points from +7 points. It is now at a post GFC high and well above the long-run average. This outcome points to an annual job creation rate of around 270k (around 22k per month), sufficient to see the unemployment rate push lower. Other leading indicators including the ABS job vacancies data and SEEK job ads have also been pointing to further tightening in the labour market.
- The improvement in the labour market seems to be broad based across the states, although has been weakening in the NT recently. NSW and VIC have enjoyed positive employment growth for some time and the recent strength in QLD is encouraging, suggesting the worse of the mining job losses might be behind it. WA similarly has been reporting positive employment growth.
- While full time employment has picked up speed in recent months, underemployment is prevalent. This points to spare capacity in the labour market and firms' unwillingness to hire. It is also believed to keep a lid on wages growth, which has been subdued despite falling unemployment rate. Average compensation of employees (a broad measure of wages) declined 0.1% in the quarter, and is just 0.1% higher over the year. This is weaker than growth in the wage price index of 1.9% yoy, suggesting compositional shifts towards lower paying jobs continues, although measures of wages in the NAB monthly and quarterly surveys are picking up gradually (see p2).
- Many other factors could be contributing to the subdued wages growth, including decreased unionisation, competition from automation and offshoring and the structural shift towards part time and lower paid services sector jobs. The cut to penalty rates from 1 July will negatively affect wages, especially for people in the lower paid services industries, however this will be more than offset by the increase in minimum wage will add approximately 0.2 ppts to wages growth in Q3. Overall we forecast a gradual increase in wages growth through the horizon.

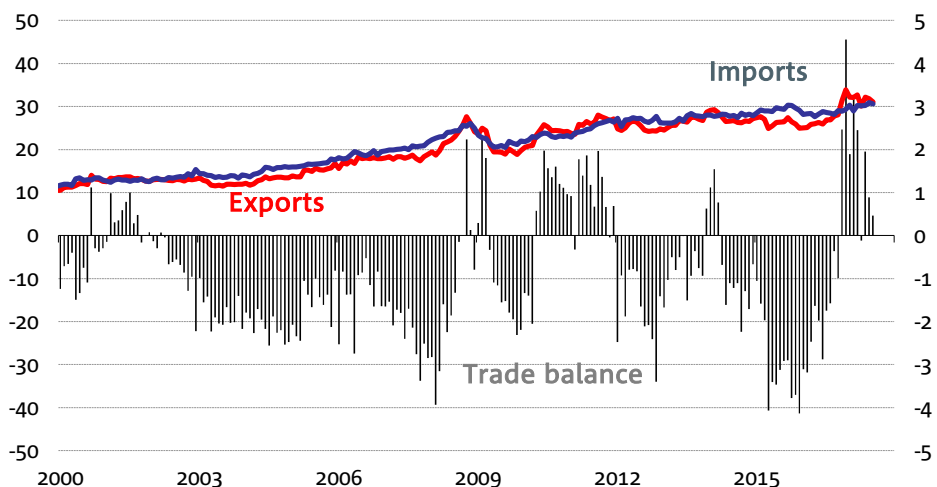


# NET EXPORTS, COMMODITIES AND THE TERMS OF TRADE

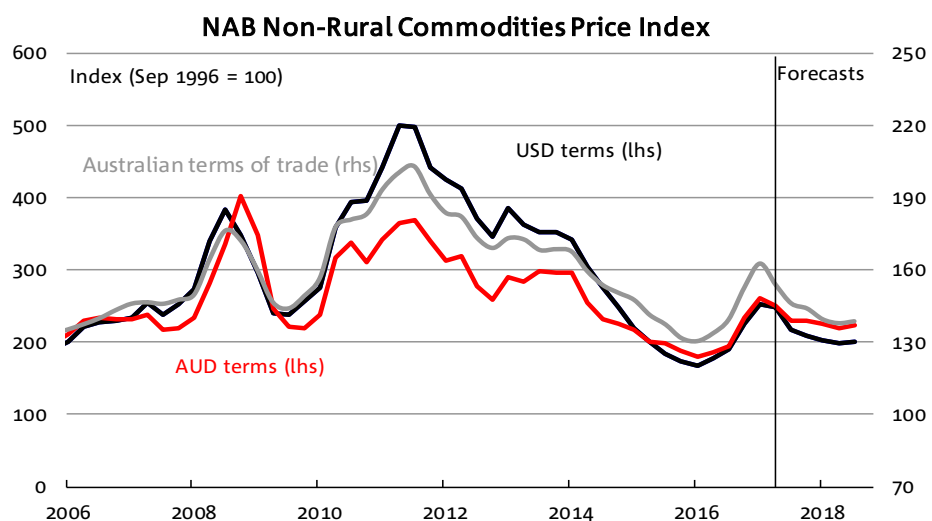
*Net exports to add to growth in Q3 on strong resources exports*

## TRADE BALANCE

Monthly, values, \$bn



## COMMODITIES PRICES RETREATING



source: ABARES, ABS, Bloomberg, Thomson Datastream, NAB

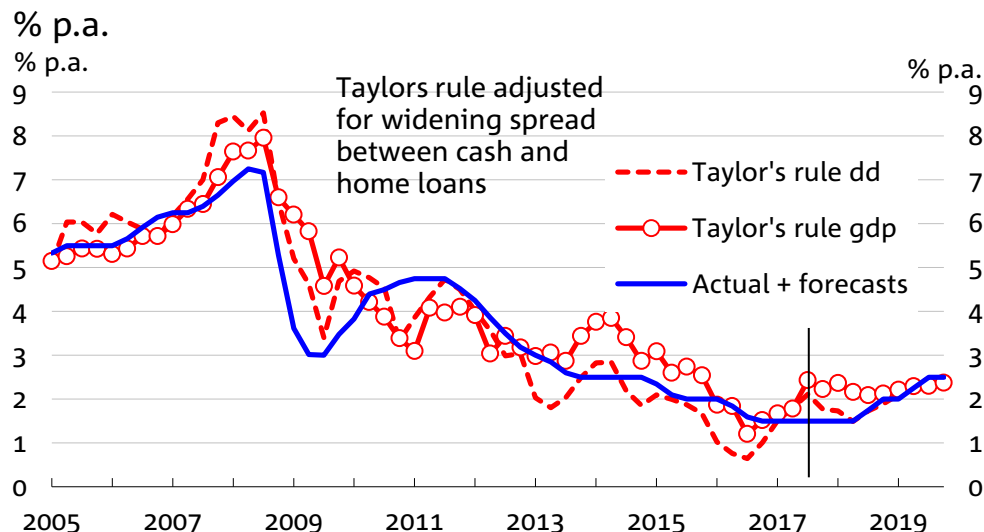
- Net exports rebounded from a weather affected Q1, also with the ramp-up in LNG exports, added 0.3 ppts to GDP growth in Q2. Exports were up a strong 2.7% q/q while imports also rose 1.2%. The ramp-up in LNG exports and the recovery in iron ore shipments after weather disruptions in the Pilbara were behind the strength in resources exports and overall goods exports, despite a small decline in rural exports. Coal exports were down another 6.8% qoq as most of the impact from Cyclone Debbie was felt in April although production and shipment recovered quickly after that.
- The trade surplus narrowed slightly in July, to be \$460 million compared to \$888m in June. Exports and imports were both lower. For the rest of the quarter, exports are expected to rise strongly again. Iron ore imports will increase again as rail maintenance at Port Hedland finishes. Port loadings data indicates coal exports bounced back in August after falling in July. LNG exports will continue to ramp up. For imports, capital imports growth will likely slow after the import of the Prelude LNG platform in Q2. Consumption and intermediate imports are expected to increase slowly as household consumption improves. **Overall we expect a positive contribution to GDP growth from net exports in Q3, before slowing down to more neutral levels as LNG exports flatten off.**
- The NAB non-rural commodity price index is expected to decline further, to be 7.3% lower in USD terms (and 1.2% lower in AUD) in Dec 2017 compared to a year ago. The expected declines in iron ore and coking coal prices are to drive the declines, while the small recovery in oil and therefore LNG prices will offset slightly. The terms of trade were 6% lower qoq in Q2 as coal and iron ore prices retreated, although remaining 14.9% higher than a year ago. They are expected to be 5.7% lower in Dec 2017 than a year ago and continue to drift lower in 2018.
- In August, the NAB Rural Commodities Index fell to a 15 month low, slipping 7.6% (the biggest monthly fall since the expanded index began in 2010) amid a stubbornly high Australian dollar, retreating grain prices and weakness in cattle. Only four of the 28 commodities that make up the index rose in the month. Seasonal conditions are mixed. While most of southern Australia (below a line stretching roughly from Western Australia's Shark Bay to Canberra) saw above average rainfall, north of the line it remains very dry indeed. This will pose problems for winter crop yields.



# MONETARY POLICY AND THE EXCHANGE RATE

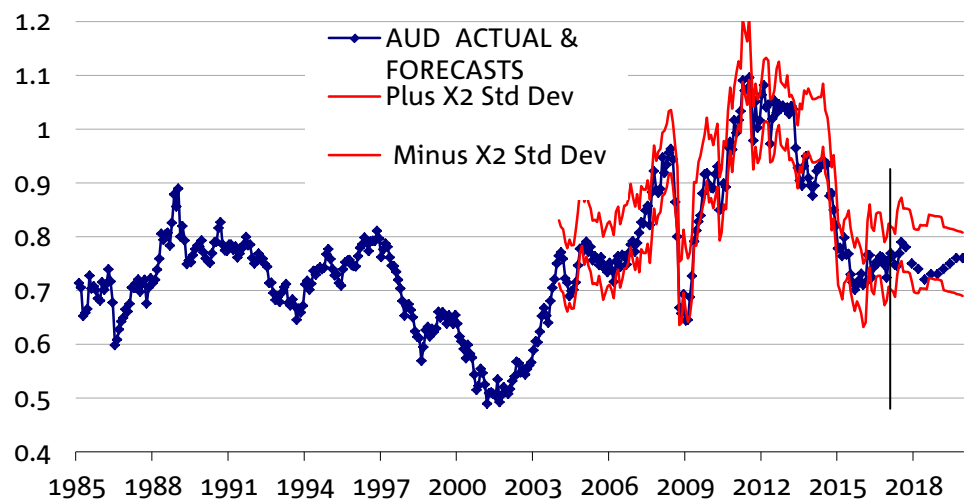
*RBA to hike gradually in 2018 and 2019; AUD path will depend on the Fed*

## AUSTRALIAN CASH RATE AND TAYLOR RULE



## UPSIDE RISKS TO CURRENT AUD FORECASTS

Fair value model, AUD/USD



Sources: ABS, NAB, Datastream

- The RBA kept the cash rate unchanged at 1.5% in early September, with commentary about the macroeconomy generally upbeat. In particular, the RBA has noted recent strengthening in the global economy and the domestic labour market and is more confident about the outlook for non-mining investment following the stronger investment intentions data in the Q2 capex report.
- We have adjusted our monetary policy forecasts this month, and now expect two hikes of 25bps in August and November 2018, and two further hikes in mid-2019. In the near term, the RBA can afford to sit back and watch for evidence that the gradual cyclical recovery through the non-mining economy continues, particularly with macro-prudential policies in place to slow the pace of house price appreciation. However we now expect that the unemployment rate will be low enough by mid-2018 to give the RBA greater confidence that wages and inflation will pick up to the bottom portion of the target band. While some spare capacity in the labour market will remain at that point, and the economics community remains divided as to the strength of any associated pick up in wages growth (we have taken a cautious view on this front), it is now likely that the RBA will be in a position by mid-2018 to remove some of the emergency stimulus in place. This is despite our GDP forecasts remaining somewhat weaker than the RBA's in 2018 and 2019 – our forecasts are for 2½% growth, with the RBA's at 3 to 3¼% (the largest difference surrounding the outlook for wages growth and consumer spending where the RBA is more optimistic).
- It is worth noting that while the cash rate will be rising, the RBA will proceed at an extremely cautious pace given its concerns about household balance sheets, with the precise path of rate rises being data dependent. If evidence emerges of a slowdown in the labour market or household distress, then the RBA may proceed more slowly. A cash rate of 2½% by end-19 also remains low by historical standards, and is well below the RBA's new estimate of "neutral" (~3.5% p.a nominal), suggesting monetary policy will still be accommodative at that point.
- The path of monetary policy will also depend to some extent on AUD. At this stage, our expectation of softening in the terms of trade and further rate hikes by the US Fed (one later this year and 3 next year in line with the Fed's dots) should see re-appreciation of the USD and some softening in the AUD. However there are currently upside risks to our AUD forecasts, with market pricing cautious on the Fed, raising the possibility of a weaker USD. We will have clarity around this following US inflation data released later in the week.

# DETAILED ECONOMIC FORECASTS

## Australian economic and financial forecasts (a)

	Fiscal Year				Calendar Year				
	2015-16 F	2016-17 F	2017-18 F	2018-19 F	2015	2016	2017-F	2018-F	2019-F
Private Consumption	2.9	2.4	2.2	2.3	2.7	2.7	2.4	2.1	2.5
Dwelling Investment	10.5	1.6	0.0	-0.4	10.1	7.6	-1.8	0.9	-1.2
Underlying Business Investment	-12.2	-6.6	4.0	5.8	-9.9	-11.7	1.2	4.3	6.3
Underlying Public Final Demand	4.1	4.6	3.4	3.4	2.6	4.8	3.8	3.2	4.0
<b>Domestic Demand</b>	<b>1.4</b>	<b>1.9</b>	<b>2.7</b>	<b>2.7</b>	<b>1.3</b>	<b>1.6</b>	<b>2.6</b>	<b>2.5</b>	<b>3.0</b>
Stocks (b)	-0.1	0.2	-0.1	0.0	0.0	0.1	0.0	0.0	0.0
<b>GNE</b>	<b>1.4</b>	<b>2.1</b>	<b>2.6</b>	<b>2.7</b>	<b>1.3</b>	<b>1.7</b>	<b>2.6</b>	<b>2.5</b>	<b>2.9</b>
Exports	6.7	5.4	7.6	4.0	6.0	7.3	5.1	6.7	3.1
Imports	-0.3	4.5	5.2	4.9	2.0	0.0	6.5	4.7	5.1
<b>GDP</b>	<b>2.7</b>	<b>2.0</b>	<b>3.2</b>	<b>2.5</b>	<b>2.4</b>	<b>2.5</b>	<b>2.5</b>	<b>2.9</b>	<b>2.5</b>
Nominal GDP	2.4	6.0	3.4	4.0	1.8	3.8	5.8	2.9	4.6
Federal Budget Deficit: (\$b)	-37	-34	-23	-22	NA	NA	NA	NA	NA
Current Account Deficit (\$b)	74	29	60	79	77	45	40	72	85
(-%) of GDP	4.5	1.6	3.3	4.2	4.7	2.6	2.2	3.9	4.4
Employment	2.2	1.3	2.3	1.4	2.1	1.6	1.9	1.9	1.4
Terms of Trade	-10.1	14.7	-7.6	-3.1	-11.6	0.2	8.3	-9.0	-0.8
Average Earnings (Nat. Accts. Basis)	1.1	0.3	1.5	2.1	0.6	1.1	0.5	2.1	2.3
<b>End of Period</b>									
Total CPI	1.0	1.9	2.9	2.4	1.7	1.5	2.5	2.3	2.4
Core CPI	1.5	1.9	1.9	2.2	2.0	1.6	2.0	2.1	2.2
Unemployment Rate	5.8	5.6	5.3	5.3	5.9	5.6	5.4	5.3	5.1
RBA Cash Rate	1.75	1.50	1.50	2.25	2.00	1.50	1.50	2.00	2.50
10 Year Govt. Bonds	1.98	2.60	3.20	3.40	2.88	2.77	2.95	3.40	3.50
\$A/US cents :	0.74	0.77	0.73	0.75	0.73	0.72	0.75	0.73	0.76
\$A - Trade Weighted Index	62.5	65.5	62.3	64.0	62.7	63.9	64.2	62.4	64.2

(a) Percentage changes represent average annual growth, except for cash and unemployment rates. The latter are end June. Percentage changes for CPI represent through the year inflation.

(b) Contribution to GDP growth

# COMMODITY PRICE FORECASTS

	Unit	Spot	Actual	Forecasts						
		11/09/2017	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19
WTI oil	US\$/bbl	48	49	50	51	52	54	56	58	60
Brent oil	US\$/bbl	54	52	52	53	54	56	58	60	62
Tapis oil	US\$/bbl	57	52	53	54	55	57	59	61	63
Gold	US\$/ounce	1335	1260	1290	1270	1270	1280	1290	1290	1300
Iron ore (spot)	US\$/tonne	n.a.	64	62	60	58	60	62	60	60
Hard coking coal*	US\$/tonne	n.a.	195	160	140	120	110	105	100	101
Semi-soft coal*	US\$/tonne	n.a.	142	114	101	87	79	76	72	73
Thermal coal*	US\$/tonne	97	85	85	85	85	65	65	65	65
Aluminium	US\$/tonne	2091	1910	1980	1990	1970	1950	1950	1950	1950
Copper	US\$/tonne	6729	5670	6290	6320	6260	6200	6200	6200	6200
Lead	US\$/tonne	2245	2160	2310	2330	2330	2330	2330	2330	2330
Nickel	US\$/tonne	11693	9240	10530	10580	10370	10160	10160	10160	10160
Zinc	US\$/tonne	3081	2590	2920	2930	2950	2960	2980	2990	2990
Aus LNG**	AU\$/GJ	n.a.	7.66	7.29	7.77	7.90	8.03	8.28	8.54	8.80

\* Data reflect NAB estimates of US\$/ tonne FOB quarterly contract prices (thermal coal is JFY contract). Actual data represent most recent final quarterly contract price.

\*\* Implied Australian LNG export prices

### Group Economics

Alan Oster  
Group Chief Economist  
+61 3 8634 2927

Jacqui Brand  
Personal Assistant  
+61 3 8634 2181

### Australian Economics and Commodities

Riki Polygenis  
Head of Australian Economics  
+(61 3) 8697 9534

James Glenn  
Senior Economist – Australia  
+(61 4)55 052 519

Amy Li  
Economist – Australia  
+(61 3) 8634 1563

Phin Ziebell  
Economist – Agribusiness  
+(61 4) 75 940 662

### Behavioural & Industry Economics

Dean Pearson  
Head of Behavioural & Industry Economics  
+(61 3) 8634 2331

Robert De Iure  
Senior Economist – Behavioural & Industry Economics  
+(61 3) 8634 4611

Brien McDonald  
Senior Economist – Behavioural & Industry Economics  
+(61 3) 8634 3837

Steven Wu  
Economist – Behavioural & Industry Economics  
+(613) 9208 2929

### International Economics

Tom Taylor  
Head of Economics, International  
+61 3 8634 1883

Tony Kelly  
Senior Economist – International  
+(61 3) 9208 5049

Gerard Burg  
Senior Economist – Asia  
+(61 3) 8634 2788

John Sharma  
Economist – Sovereign Risk  
+(61 3) 8634 4514

### Global Markets Research

Peter Jolly  
Global Head of Research  
+61 2 9237 1406

Ivan Colhoun  
Chief Economist, Markets  
+61 2 9237 1836

### Important Notice

This document has been prepared by National Australia Bank Limited ABN 12 004 044 937 AFSL 230686 ("NAB"). Any advice contained in this document has been prepared without taking into account your objectives, financial situation or needs. Before acting on any advice in this document, NAB recommends that you consider whether the advice is appropriate for your circumstances. NAB recommends that you obtain and consider the relevant Product Disclosure Statement or other disclosure document, before making any decision about a product including whether to acquire or to continue to hold it. Please click [here](#) to view our disclaimer and terms of use.

