

AUSTRALIAN MARKETS WEEKLY

CPI Preview – softer inflation in Q3



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- This week, we share our thoughts on inflation, with Q3 CPI due to be released in a little over a week on Wednesday 31 October.
- The September quarter tends to see strong headline CPI prints, with quarterly growth of 0.7% and 0.6% in 2016 and 2017, respectively. However, this year NAB expects Q3 Headline CPI grew a softer 0.5% q/q (or 1.9% y/y), while core inflation softened to 0.3% q/q / 1.8% y/y.
- Holding back Q3 inflation have been energy prices and government subsidies. This year, rate resets on 1 July have seen flat or declining energy prices for many customers. Further, government changes to childcare subsidies, and the scrapping of TAFE fees in NSW have weighed on headline CPI. Partially offsetting these impacts were increases in fuel and fresh food prices, the latter driven up by drought conditions on the east coast.
- As a result, while our economic models suggest a headline outcome in the vicinity of 0.6% q/q, the bottom up details point strongly to a forecast of 0.5% q/q for headline CPI, negatives outweighing the positive “one offs”.
- Principal components analysis (that takes in major drivers such as rent) points to an even lower core rate this quarter and we expect core inflation to be 0.3%.
- The AUD/USD opens this week still trading just above 0.71, speculative positioning still very short. The likely loss of the previously-safe seat of Wentworth to independent Kerryn Phelps hasn’t deflected the AUD at the start of the week. With little on the local economic calendar, the AUD this week look set to remain in the hands of broader USD and Emerging Market (EM) moves amid a sparse local calendar. The AUD did make some gains on the crosses last week, a part reflection of its short positioning, but not against the NZD, where positioning is even more extreme.
- Broader USD moves in turn are likely to be heavily dependent on whether EUR/USD can build on Friday’s bounce (Italy’s response to last week’s EU’s ‘please explain’ letter, due Monday (tonight), will be important here, as will the EU’s subsequent reply). It will also be interesting to see whether GBP/USD can extend Friday’s gains that came from news that UK PM May was considering an ‘indefinite’ stay in a Customs Union in order to break the impasse over the Irish border question.
- For the week ahead, geopolitics looks like dominating the international news flow this week and what that does to risk sentiment and oil prices in particular in the aftermath of international outrage over Jamal Khashoggi’s killing. Adding to geopolitics tensions was last week’s US decision to pull out of the 1987 Intermediate Nuclear Forces Treaty and a visit to Moscow by John Bolton, President Trump’s hawkish National Security Adviser.
- It’s a quiet local calendar, RBA Deputy Governor Guy Debelle appearing at three events, but offering “remarks”, presumably then with limited new economy or market content. Globally, US earnings season continues and we get US Q3 GDP on Friday (the Atlanta Fed’s latest *GDPNow* estimate stands at 3.9%. The Bank of Canada meets Wednesday and is expected to lift rates by 25bps to 1.75%. After Thursday’s ECB meeting, President Draghi’s post meeting press conference will be of interest.

To contact NAB’s market experts, please click on one of the following links:

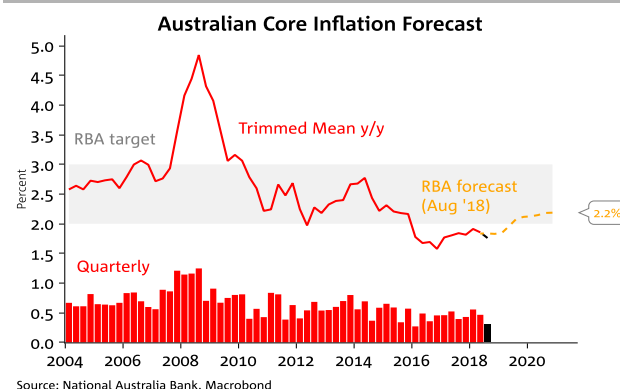
- [Ask the Economists](#)
- [Ask the FX Strategists](#)
- [Ask the Interest Rate Strategists](#)

Key markets over the past week

	Last	% chg week		Last	bp / % chg week
AUD	0.7116	-0.4	RBA cash	1.50	0
AUD/CNY	4.94	0.2	3y swap	2.16	0
AUD/JPY	80.0	0.3	ASX 200	5,929	1.6
AUD/EUR	0.618	0.4	Iron ore	72.0	3.2
AUD/NZD	1.078	-1.3	WTI oil	69.2	-3.6

Source: Bloomberg

Chart 1: Core CPI expected to rise a modest 0.3% q/q



A modest print for Q3 Headline CPI, as retail electricity prices fall in Queensland

The September quarter tends to see strong headline CPI prints, with quarterly growth of 0.7% and 0.6% in 2016 and 2017, respectively. However, this year NAB expects Q3 Headline CPI grew a softer 0.5% q/q (or 1.9% y/y).

The tendency for strong September quarter outcomes usually reflects the reset of electricity and gas rates for NSW, QLD, SA and ACT from 1 July. However, this year, energy prices for many customers in NSW, QLD and SA have been flat, or even fallen. Announcements by the energy giants Origin, AGL and Energy Australia (the “big three”) reveal lower wholesale energy prices are filtering through to the retail level, with customers in QLD particularly benefitting from lower electricity rates. As such, NAB expects a 1% decline in electricity prices and no change in gas prices in the quarter. In contrast, Q3 2017 saw quarterly price rises of 9% and 5% for electricity and gas.

Table 1: Energy rate changes by “big three” retailers

	NSW	QLD	SA
Electricity rate change (%)			
Origin	0	-1.3	-1.0
AGL	-0.3	-1.6	-0.4
Energy Australia	0	-3.8	0
Gas rate change (%)			
Origin	-3.0	0	0
AGL	1.8	0	2.1
Energy Australia	0	--	0

Source: NAB, AGL, Energy Australia, Origin

Further, we factored in the impact of some key government subsidies coming into effect this quarter, including:

- Federal Child Care Subsidy 2 July 2018
- NSW scrapping TAFE fees for priority courses, from 1 July 2018.
- Victoria Utility Relief Grant cap increase to \$650 from \$500, from 1 July 2018
- Victoria Solar Homes program subsidises half the cost of solar panel system cost for 24,000 homes, installed from 19 August 2018

These subsidies created further headwinds for Q3 administered price growth, taking off around 0.08 ppt from Headline quarterly growth (and 0.05 ppt from TM quarterly growth).

The RBA is well aware of these unusual declines in energy prices, previously stating it expected a print of 1.75% y/y (0.4% q/q) for headline inflation due to the falls in utility prices and the impact of government subsidies (ie. TAFE and childcare, see below). However, we expect the recent rise in fuel price and fresh food prices has provided some offset.

Retail petrol prices rose sharply in the last few weeks of Q3, ending the quarter at 157 cents per litre. Along with oil prices still rising, petrol will have a bigger effect in Q4 (and perhaps into 2019). For Q3, NAB expects to see a 1.3% q/q rise in fuel costs.

For us, fresh food prices, particularly for fruit and vegetables, are a key source of uncertainty. East coast drought conditions have been a key factor here, and we’ve seen wholesale price hikes for lamb, pork and

grain. Further, Coles has also cited higher wholesale prices as pushing up fresh food inflation in its quarterly results. We also saw a drought farmer subsidy 10c per litre increase in milk prices at Coles and Woolworths in September, milk prices we expect rose 1% q/q. Taking all this into account, we’ve factored in that fruit prices likely rose 8.5% q/q, and wholesale market pricing pointing to little change in vegetable prices, we see them ticking down by a modest 1% q/q.

The other key factors to consider in bottom-up modelling of CPI are rents and new dwellings. After a recording no growth in Q2, rents are seen as rising, but very much at the margin, up just 0.1% q/q. In contrast, new dwelling (construction) prices are expected to have grown by 0.5% q/q, slowing from 0.8% q/q growth in Q2, allied to a slowing in activity.

Table 2: Q3 CPI forecast by component

	Sep-17	Jun-18	Expectations		Weight in CPI Basket
			NAB	NAB	
Food and non-alcoholic beverages	-0.9	-0.4	0.7	0.11	16.1
Fruit	0.8	-2.5	8.5	0.09	1.1
Vegetable	-10.9	-2.9	-1.0	-0.01	1.3
Alcohol and tobacco	2.2	1.6	1.4	0.10	7.1
Clothing and footwear	-0.9	1.3	-0.6	-0.02	3.6
Housing	1.9	0.2	0.4	0.09	22.7
Rents	0.2	0.0	0.1	0.01	7.2
New dwellings	0.8	0.8	0.5	0.04	7.8
Water and sewerage	3.2	0.0	1.3	0.01	1.0
Gas and other household fuels	5.2	-2.2	0.0	0.00	0.9
Electricity	8.9	-1.3	-1.0	-0.02	2.2
Furnishings, household equipment and services	0.4	0.3	0.3	0.03	9.4
Childcare	2.2	1.0	-0.7	-0.01	1.4
Health	-0.2	1.9	0.0	0.00	5.4
Transport	0.0	1.6	0.6	0.07	10.3
Automotive fuel	-2.3	6.9	1.3	0.04	2.8
Communication	-1.4	-1.3	-1.0	-0.03	2.7
Recreation and culture	1.3	-0.4	0.9	0.11	12.7
Education	0.0	0.1	-0.5	-0.02	4.3
Tertiary education	0.2	0.0	-1.6	-0.03	1.7
Insurance and financial services	0.6	0.4	0.6	0.03	5.8
Headline CPI	0.6	0.4	0.48	0.48	-
Trimmed Mean, sa	0.4	0.5	0.30	--	70
Weighted Median, sa	0.4	0.5	0.31	--	--

Source: National Australia Bank, ABS

Lastly, we factor in our top-down economy-driven models of headline CPI. These models suggest headline inflation was in the range of 0.5-0.65% q/q in Q3. Given the information we have about unusual price movements in the quarter, we’re happy to stay with 0.5% q/q, 1.9% y/y as our forecast. While a +0.9% q/q lift in NZ tradables might on the surface be correlated to higher AU tradables inflation, the considerable increase in NZ’s Q3 was a 5.5% q/q lift in petrol prices, well above our estimate of a local lift of 1.3% q/q, based on weekly retail fuel prices (which have been a very reliable indicator of fuel CPI).

Chart 2: Headline model points to 0.65% q/q

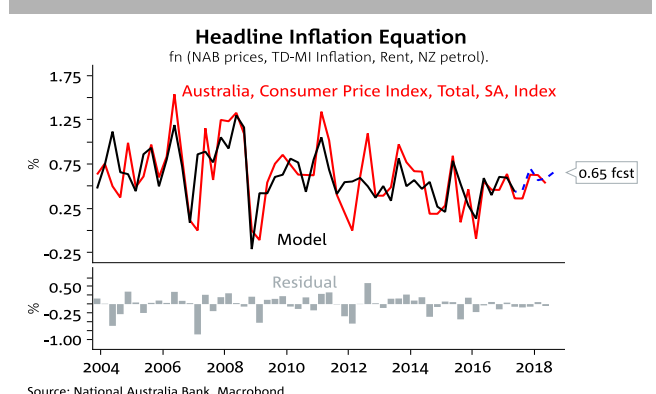


Chart 3: Headline model points to 0.5% q/q

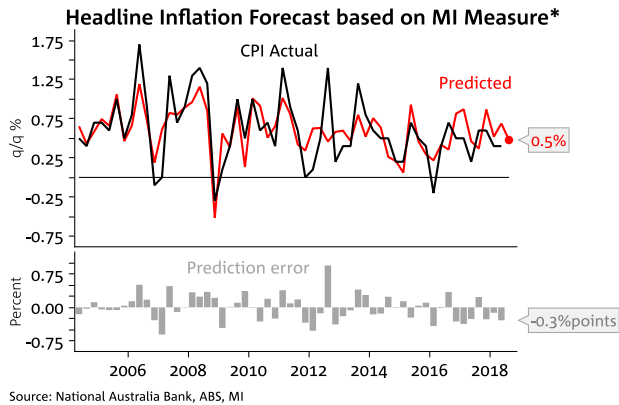


Chart 6: Model points to 0.5% q/q

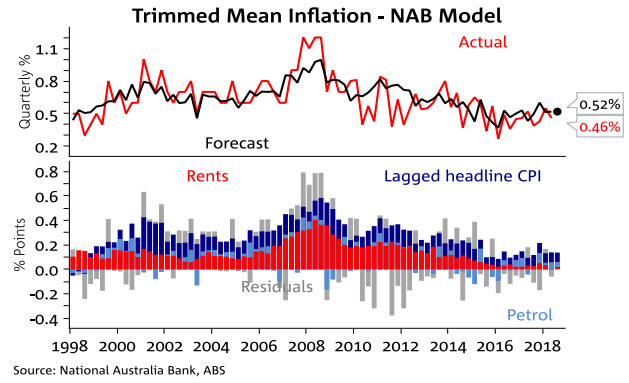


Chart 4: Fuel CPI model suggests a 1.3% q/q lift

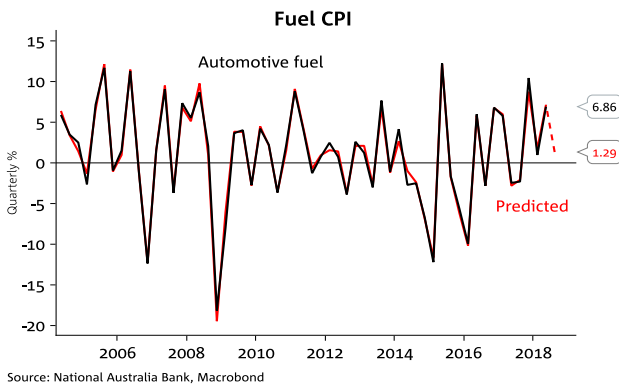
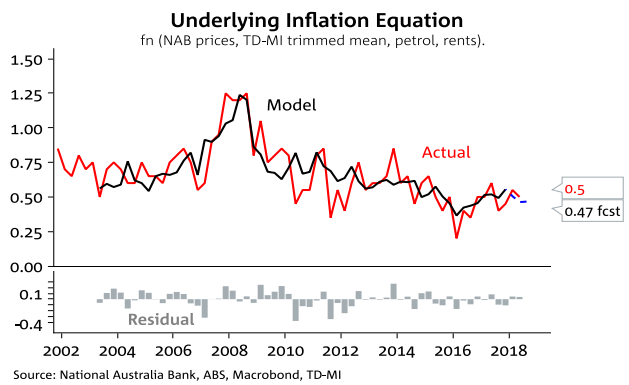


Chart 7: Model points to 0.5% q/q

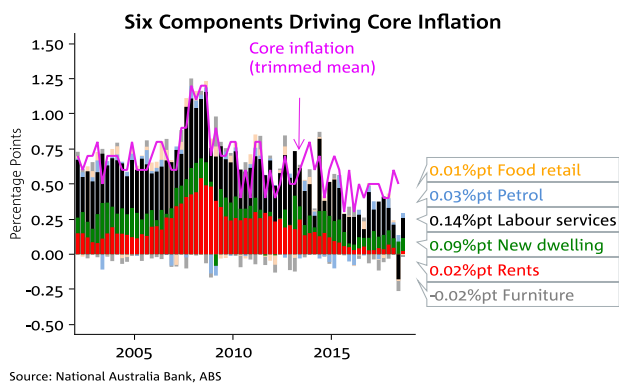


Core CPI

While Headline CPI tends to be strong in the September quarter, the Trimmed Mean (TM) measure tends to be relatively soft (despite TM components being seasonally adjusted). In each of the past four years, quarterly growth in TM CPI has been between 0.34 and 0.39%. For Q3 2018, we expect both TM and Weighted Median (WM) CPI to have grown an even softer 0.3% q/q, bringing year-ended core inflation measures slightly lower to 1.8% y/y.

While our bottom-up forecasts suggest core measures of inflation could be as low as in the high 0.2% range, (rounding to 0.3% q/q, but implying 1.7% y/y), our top-down modelling suggests that the print could be up

Chart 5: Principle Components model points to 0.3% q/q



to 0.5% q/q. Given the impact of administered price changes this quarter, we're happy to expect something in the low-to-mid 0.3% q/q range.

This implies year-ended inflation in the high 1.8% range, rounding to 1.8%, a touch lower than the 1.85% recorded last quarter. Note, anything less than 0.30% q/q for TM CPI will result in year-ended core inflation ticking down further to 1.7% y/y. Nevertheless, the result is unlikely to change the RBA's outlook on inflation given the myriad of special influences, the Bank's latest forecasts show that they expect core inflation to remain around 1.75% at the end of 2018 before gradually rising into the 2-3% target range.

Going forward

Our outlook for CPI over the medium term sees more price pressure than the RBA's latest forecasts. Where the Bank sees core inflation rising gradually to 2.25% y/y by the end of 2020, NAB expects core inflation to pick up over 2020, rising to 2.7% y/y.

NAB's expectation for a faster lift in inflation largely reflects our outlook on the labour market and wages. We are forecasting a tighter labour market than the RBA, and therefore implicitly expect wages to pick up more quickly than the Bank. While the RBA expects the unemployment rate to reach 5% by the end of 2020, our expectations are for a faster trend decline in the unemployment rate, reaching 5% by mid 2019 after some likely payback from the September reading.

Table 3: NAB forsees more price pressure than RBA

	Year-ended Inflation Forecasts				
	Dec-18	Jun-19	Dec-19	Jun-20	Dec-20
Reserve Bank of Australia					
Headline CPI	1¼	2	2¼	2¼	2¼
Underlying	1¼	2	2	2¼	2¼
National Australia Bank					
Headline CPI	1.9	1.9	2.1	2.5	2.9
Underlying	1.9	1.9	2.1	2.3	2.7

Source: NAB, RBA

For the next couple of quarters, it's also worth flagging a few items that we'll be carefully watching:

- **Fuel prices**
Have lifted further in the first weeks of Q4 to 159c/litre; already at levels lifting the average for Q4 another 7%;
- **Energy prices**
Wholesale prices have lifted substantially since mid 2018, and Victorian households' energy rates are normally changed in Q1;
- **Childcare and TAFE subsidies**
Potentially have residual impacts on Q1 2019 too, the main quarter when prices are set, and Victoria is scrapping TAFE fees in Q1 2019;
- **Rents and housing construction prices;** and
- Further drought impacts on **food prices**.

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CALENDAR OF ECONOMIC RELEASES

Country	Economic Indicator	Period	Forecast	Consensus	Actual	Previous	GMT	AEDT
Monday, 22 October 2018								
NZ Labour Day Public Holiday								
				0				
AU	Remarks by RBA's Debelle at Walkley Business Journalism Awards, Sydney						2.00	13.00
JN	All Industry Activity Index MoM	Aug		0.4		0	4.30	15.30
CA	Wholesale Trade Sales MoM	Aug		-0.2		1.5	12.30	23.30
US	Chicago Fed Nat Activity Index	Sep		0.22		0.18	12.30	23.30
Tuesday, 23 October 2018								
AU	Remarks by RBA's Debelle at 2018 ISDA Annual Australia Conference, Sydney						22.35	9.35
AU	RBA's Bullock speaks on panel at the Sibos 2018 Conference, Sydney						3.00	14.00
AU	RBA's Debelle speaks on panel at the Sibos 2018 Conference, Sydney						4.30	15.30
JN	Machine Tool Orders YoY	Sep F				2.8	6.00	17.00
UK	BOE Chief Economist Haldane Speaks in Paris						6.00	17.00
US	Fed's Kashkari Speaks at Early Childhood Development Event						14.00	1.00
US	Richmond Fed Manuf. Index	Oct		24		29	14.00	1.00
EC	Consumer Confidence	Oct A		-3.2		-2.9	14.00	1.00
UK	Carney Speaks at a Conference in Toronto						15.20	2.20
Wednesday, 24 October 2018								
JN	Nikkei Japan PMI Mfg	Oct P				52.5	23.30	10.30
GE	Markit/BME Germany Manufacturing PMI	Oct P		53.4		53.7	7.30	18.30
GE	Markit Germany Services PMI	Oct P		55.5		55.9	7.30	18.30
EC	Markit Eurozone Manufacturing PMI	Oct P		53		53.2	8.00	19.00
EC	M3 Money Supply YoY	Sep		3.5		3.5	8.00	19.00
US	MBA Mortgage Applications	19 Oct				-7.1	11.00	22.00
US	FHFA House Price Index MoM	Aug		0.3		0.2	13.00	0.00
US	Markit US Manufacturing PMI	Oct P		55.5		55.6	13.45	0.45
US	Markit US Services PMI	Oct P		54		53.5	13.45	0.45
US	New Home Sales	Sep		625		629	14.00	1.00
CA	Bank of Canada Rate Decision	24 Oct	1.75	1.75		1.5	14.00	1.00
US	Atlanta Fed's Bostic Speaks at Energy Summit in Baton Rouge						17.00	4.00
US	Fed's Mester Speaks at Forecasters Club in New York						17.10	4.10
US	U.S. Federal Reserve Releases Beige Book						18.00	5.00
Thursday, 25 October 2018								
NZ	Trade Balance NZD	Sep	-1,419	-1365		-1484	21.45	8.45
NZ	Residential lending YoY	Sep				5.8	2.00	13.00
GE	GfK Consumer Confidence	Nov		10.5		10.6	6.00	17.00
GE	Ifo Business Climate	Oct		103.1		103.7	8.00	19.00
EC	ECB Main Refinancing Rate	25 Oct		0		0	11.45	22.45
EC	ECB Marginal Lending Facility	25 Oct		0.25		0.25	11.45	22.45
EC	ECB Deposit Facility Rate	25 Oct	-0.4	-0.4		-0.4	11.45	22.45
US	Wholesale Inventories MoM	Sep P		0.5		1	12.30	23.30
US	Durable Goods Orders	Sep P		-1.5		4.4	12.30	23.30
US	Cap Goods Orders Nondef Ex Air	Sep P		0.5		-0.9	12.30	23.30
US	Initial Jobless Claims	44105		212.5		210	12.30	23.30
Friday, 26 October 2018								
JN	Tokyo CPI YoY / Ex-Fresh YoY	Oct		1.5/1		1.3/1	23.30	10.30
US	Fed's Mester Speaks to Money Marketeters in New York						1.00	12.00
US	GDP Annualized QoQ	3Q A		3.4		4.2	12.30	23.30
US	GDP Price Index	3Q A		2.1		3	12.30	23.30
US	Core PCE QoQ	3Q A		1.6		2.1	12.30	23.30
US	U. of Mich. Sentiment	Oct F		99		99	14.00	1.00
Upcoming Central Bank Interest Rate Announcements								
Canada, BoC		24-Oct	1.75%	1.75%		1.5%		
Europe, ECB		25-Oct	-0.4%	-0.4%		-0.4%		
Japan, BoJ		31-Oct	-0.1%	-0.1%		-0.1%		
UK, BOE		1-Nov	0.75%	0.75%		0.75%		
Australia, RBA		6-Nov	1.5%	1.5%		1.5%		
US, Federal Reserve		8-Nov	2-2.25%	2-2.25%		2-2.25%		
New Zealand, RBNZ		8-Nov	1.75%	1.75%		1.75%		

GMT: Greenwich Mean Time; AEST: Australian Eastern Standard Time; AEDT: Australian Eastern Daylight Time

FORECASTS

		Annual % change				Quarterly % change															
		2017	2018	2019	2020	2017				2018				2019				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Australia Forecasts																					
Household Consumption	2.7	2.9	2.5	2.5	0.4	0.9	0.6	1.1	0.5	0.7	0.6	0.5	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.7
Underlying Business Investment	3.3	3.0	5.0	5.8	3.3	0.0	3.8	0.3	0.7	-0.7	1.3	0.1	2.1	1.5	1.8	1.4	1.2	1.7	1.1	1.3	1.3
Residential Construction	-2.2	2.7	-5.3	-1.9	-3.3	-0.2	-1.7	0.3	3.6	1.7	-2.6	-0.3	-2.2	-1.9	-0.9	-1.2	-0.3	0.0	0.3	0.6	0.6
Underlying Public Spending	4.5	4.6	4.2	4.5	0.9	1.1	1.6	1.1	1.5	0.6	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Exports	3.5	5.0	4.8	2.5	-1.6	2.3	1.0	-1.5	3.0	1.1	1.7	1.0	1.4	1.3	0.7	0.7	0.5	0.6	0.4	0.7	0.7
Imports	7.8	5.0	3.6	4.9	3.0	0.2	2.3	1.7	1.7	0.4	0.5	0.7	0.9	1.1	1.3	1.2	1.1	1.3	1.2	1.4	1.4
Net Exports (a)	-1.0	-0.1	0.1	-0.6	-1.0	0.4	-0.3	-0.7	0.2	0.1	0.2	0.0	0.1	0.0	-0.2	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
Inventories (a)	-0.1	0.1	-0.1	0.0	0.5	-0.9	0.4	0.0	0.2	-0.1	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic Demand - qtr%					0.7	0.8	1.0	0.9	1.0	0.6	0.5	0.6	0.7	0.7	0.8	0.7	0.7	0.8	0.7	0.9	0.9
Dom Demand - ann %	3.0	3.2	2.6	3.0	2.3	2.6	3.6	3.4	3.7	3.4	3.0	2.6	2.3	2.4	2.7	2.9	2.9	3.0	3.0	3.1	3.1
Real GDP - qtr %					0.4	0.7	0.7	0.7	1.1	0.9	0.6	0.6	0.7	0.7	0.7	0.6	0.5	0.7	0.6	0.7	0.7
Real GDP - ann %	2.2	3.3	2.7	2.5	1.9	1.9	2.7	2.4	3.2	3.4	3.3	3.2	2.7	2.6	2.7	2.7	2.5	2.5	2.3	2.5	2.5
CPI headline - qtr %					0.5	0.2	0.6	0.6	0.4	0.4	0.5	0.5	0.5	0.4	0.6	0.7	0.6	0.6	0.8	0.9	0.9
CPI headline - ann %	1.9	2.0	2.0	2.6	2.1	1.9	1.8	1.9	1.9	2.1	2.0	1.9	1.9	1.9	1.9	2.1	2.2	2.5	2.7	2.9	2.9
CPI underlying - qtr %					0.4	0.6	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.7
CPI underlying - ann %	1.8	1.9	2.0	2.4	1.7	1.8	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.3	2.5	2.7	2.7
Wages (Pvte WPI - qtr %)					0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Wages (Pvte WPI - ann %)	1.8	2.1	2.5	2.7	1.8	1.8	1.9	1.9	1.9	2.0	2.1	2.2	2.4	2.5	2.5	2.6	2.6	2.7	2.7	2.8	2.8
Unemployment Rate (%)	5.6	5.4	5.1	4.9	5.9	5.6	5.4	5.4	5.5	5.5	5.3	5.3	5.2	5.0	5.0	5.0	4.9	4.8	4.8	4.9	4.9
Terms of trade	12.2	-0.7	-0.7	0.0	5.2	-5.7	-0.1	-0.1	3.6	-1.3	-1.7	-3.4	-0.8	-1.2	-0.9	0.3	-0.4	0.3	-0.4	0.2	0.2
G&S trade balance, \$Abn	10.0	7.4	-12.7	-27.5	6.8	2.9	1.6	-1.4	3.3	2.8	2.3	-1.1	-1.4	-2.5	-4.2	-4.5	-5.6	-6.1	-7.5	-8.2	-8.2
% of GDP	0.6	0.4	-0.6	-1.3	1.5	0.7	0.4	-0.3	0.7	0.6	0.5	-0.2	-0.3	-0.5	-0.9	-0.9	-1.1	-1.2	-1.5	-1.6	-1.6
Current Account (% GDP)	-2.6	-3.0	-4.1	-4.8	-1.6	-2.5	-2.8	-3.6	-2.5	-2.9	-3.0	-3.7	-3.7	-4.0	-4.3	-4.3	-4.6	-4.6	-4.9	-5.0	-5.0

Source: NAB Group Economics; (a) Contributions to GDP growth

Exchange Rate Forecasts						
	22-Oct	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
Majors						
AUD/USD	0.7116	0.71	0.72	0.73	0.75	0.75
NZD/USD	0.6602	0.65	0.65	0.66	0.68	0.69
USD/JPY	112.47	112	110	110	108	106
EUR/USD	1.1512	0.71	0.72	0.73	0.75	0.75
GBP/USD	1.3068	1.26	1.28	1.30	1.34	1.40
USD/CHF	0.9964	0.96	0.94	0.95	0.94	0.91
USD/CAD	1.3106	1.27	1.26	1.25	1.25	1.24
USD/CNY	6.9290	6.90	7.10	7.20	7.20	7.15

Australian Cross Rates						
	22-Oct	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
AUD/NZD	1.0779	1.10	1.11	1.11	1.11	1.09
AUD/JPY	80.0	79	79	80	81	80
AUD/EUR	0.6181	1.00	1.00	1.00	1.00	1.00
AUD/GBP	0.5445	0.56	0.56	0.56	0.56	0.54
AUD/CNY	4.9307	4.90	5.11	5.26	5.43	5.36
AUD/CAD	0.9326	0.90	0.91	0.91	0.94	0.93
AUD/CHF	0.7090	0.68	0.68	0.69	0.71	0.68

Interest Rate Forecasts						
	22-Oct	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
Australia Rates						
RBA Cash rate	1.50	1.50	1.50	1.75	1.75	2.00
3 month bill rate	1.93	1.95	1.95	2.15	2.15	2.40
3 Year Swap Rate	2.16	2.20	2.30	2.70	2.90	3.10
10 Year Swap Rate	2.88	3.05	3.10	3.50	3.60	3.70
Offshore Policy Rates						
US Fed funds	2.25	2.50	2.75	3.00	3.25	3.25
ECB deposit rate	-0.40	-0.40	-0.40	-0.40	-0.20	0.00
BoE repo rate	0.75	0.75	0.75	1.00	1.00	1.25
BoJ excess reserves rate	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
RBNZ OCR	1.75	1.75	1.75	1.75	2.00	2.25
China 1yr lending rate	4.35	4.35	4.35	4.35	4.35	4.35
China Reserve Ratio	14.5	16.0	16.0	16.0	16.0	16.0
10-year Benchmark Bond Yields						
Australia	2.68	3.00	3.05	3.30	3.40	3.50
United States	3.19	3.25	3.25	3.50	3.50	3.50
New Zealand	2.66	3.10	3.20	3.45	3.60	3.70

Sources: NAB Global Markets Research; Bloomberg; ABS

Global GDP							
Dec year	2015	2016	2017	2018	2019	2020	20 Yr Ave
Australia	2.5	2.6	2.2	3.3	2.7	2.5	3.4
US	2.9	1.5	2.3	2.8	2.3	1.7	2.6
Eurozone	2.1	1.8	2.6	2.1	2.0	1.8	1.5
UK	2.3	1.9	1.8	1.5	1.7	1.6	2.4
Japan	1.4	0.9	1.7	0.9	1.0	0.7	0.8
China	6.9	6.7	6.9	6.5	6.3	6.0	9.2
India	8.2	7.1	6.7	6.8	7.2	6.9	6.6
New Zealand	3.5	4.0	2.8	2.9	2.9	2.7	3.0
World	3.5	3.2	3.8	3.8	3.7	3.5	3.5
MTP Top 5	4.1	3.8	4.2	4.0	3.8	3.4	5.0

Commodity prices (\$US)						
	22-Oct	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
Brent oil	79.8	85	80	77	78	80
Gold	1225	1270	1300	1300	1320	1340
Iron ore	72.0	63	60	61	62	63
Hard coking coal	216	180	175	160	165	160
Thermal coal	110	105	103	101	100	103
Copper	6229	6350	6500	6600	6700	6750
Aust LNG (*)	14.4	14.3	14.6	13.4	13.0	12.9

(*) Implied Australian LNG export prices.

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