



AUSTRALIAN MARKETS WEEKLY

Gas supply assured but higher prices still probable

In this issue

Gas pondering	1
Gas Prices Globally – different pricing mechanisms reflecting different agendas	2
Past week: Why were retail sales so weak?	3
Week Ahead: NAB Survey and US CPI	3
Calendar of economic releases	4
Forecasts	5

- In this *Weekly* we look at the gas market following the government’s deal with major gas players to shore up domestic supply. Our conclusion is that while supply is likely assured, higher gas prices are still probable.
- Locking in gas supply on Australia's East Coast is not the same thing as locking in prices. Australia's domestic East Coast gas price is largely determined by developments in regional Asia Pacific energy markets, where a link to the crude oil price is the dominant pricing mechanism.
- This being the case, even a big increase in domestic supply may have little impact on the domestic East Coast gas price, which will be driven more by where the oil price and \$A exchange rate go. NAB's forecast for a slightly higher oil price and lower \$A suggests flat to higher domestic gas prices ahead.
- By way of contrast, US and European domestic gas pricing mechanisms are more driven by actual supply/demand factors in the gas market itself - a so called "Gas on Gas" pricing mechanism. In the US, ample shale gas and little capacity to export it, is why the US gas price (Henry Hub) is currently around 1/3rd of Australia's domestic gas price.
- Past week: The week domestically was dominated by weaker than expected retail sales. The big question for the outlook is, does this signal a new trend and does this mean the economy is weaker than other indicators suggest? NAB's view is that latent seasonality is likely behind the sharp fall given the unusual broad-based declines amongst states and we expect a solid rebound next month. Internationally, better than expected US Manufacturing and Non-manufacturing indicators helped boost the case for a December US rate hike, while market reaction to Payrolls was temporary given hurricanes significantly affected the numbers.
- Coming up: the domestic highlights are Tuesday’s NAB Business Survey and Wednesday’s Consumer Sentiment Report. The RBA also releases its six-monthly Financial Stability Review on Friday. Key offshore events are the IMF Annual Meetings and the US CPI and Retail Sales on Friday (expect a hurricane boost to the CPI). There is also a slew of Fed speakers with Yellen (Sunday), Brainard (Thursday) and Powell (Friday) the ones to watch.

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](#)

Gas pondering

Australia’s domestic gas prices have basically tripled since 2014 – see chart 1, next page. Electricity prices have also surged, particularly in the current quarter, in part because gas is a key part of the electricity grid.

Key markets over the past week

	Last	% chg week		Last	bp / % chg week
AUD	0.7776	-0.7	RBA cash	1.50	0
AUD/CNY	5.16	-1.1	3y swap	2.17	-3
AUD/JPY	87.5	-0.8	ASX 200	5,666	0.3
AUD/EUR	0.662	-0.7	Iron ore	62.2	0.3
AUD/NZD	1.100	1.1	WTI oil	49.5	-2.2

Source: Bloomberg

Chart of the week: Gas prices on the up in Australia

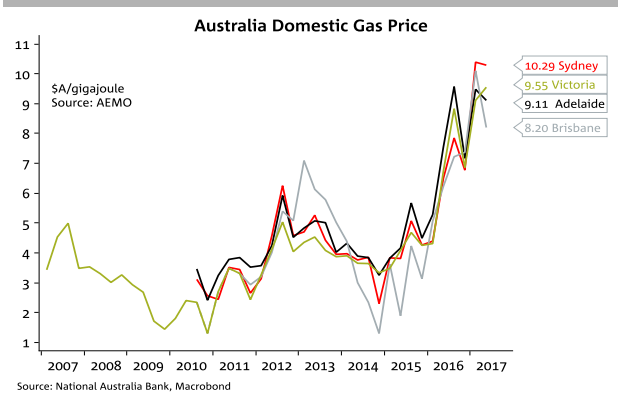
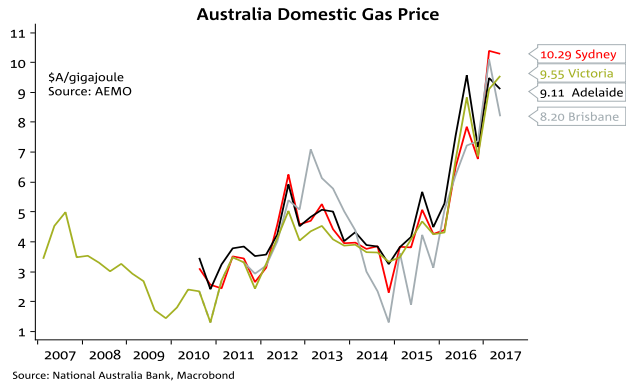


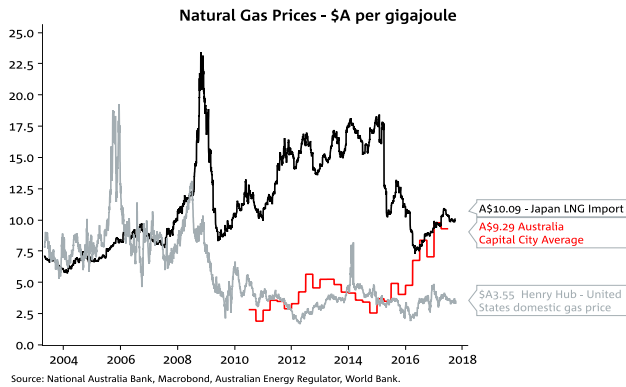
Chart 1: Gas prices have almost tripled since 2014



The key reason for the gas price rise is not so much a lack of supply, but more that the domestic gas price now has to compete with the export alternative – in Australia’s case the price of LNG delivered to Japan/Asia. In their recently published Inquiry, the ACCC confirmed this pricing mechanism as fair. They wrote “With the East Coast Gas Market now linked to the world LNG market, domestic gas prices are expected to be shaped by the prices that the east coast LNG projects are able to achieve for their exports.” Note that a reservation policy in Western Australia means this is less of a case there.

Chart 2 makes this point even clearer, where we have turned the different currencies and measurement units that are commonly quoted in the gas market into the same \$A per gigajoule. In essence, the domestic East Coast of Australia gas price mirrors the Japanese imported gas price.

Chart 2: Higher gas prices reflect international prices



So for the southern states of NSW and Victoria, (where the forecast supply shortfall is), the gas price will now reflect the export gas price adjusted for transport costs – whether sourced locally or brought down from Queensland. This is the so called “netback domestic gas price”, which is the regional/Asian LNG spot/contract price less transportation and liquification costs.

What drives the regional Asia/Japan LNG gas price? For now it is the oil price plus a spread – see chart 3. Basically, we are left with the conclusion that where the crude oil price goes so will the domestic gas price. WTI oil is now near US\$50 a barrel and seems very range-bound. In recent years it has struggled to stay below \$45 for long as too many producers become unprofitable.

NAB’s forecast sees WTI oil unchanged near US\$51 at the end of 2017 rising to US\$58 at the end of 2018. Along with NAB’s forecast for the AUD/USD exchange rate to moderate towards US 73 cents at the end of 2018, this suggests the East Coast domestic gas price will be flat to higher in the year ahead.

Chart 3: Oil drives gas prices in Asia

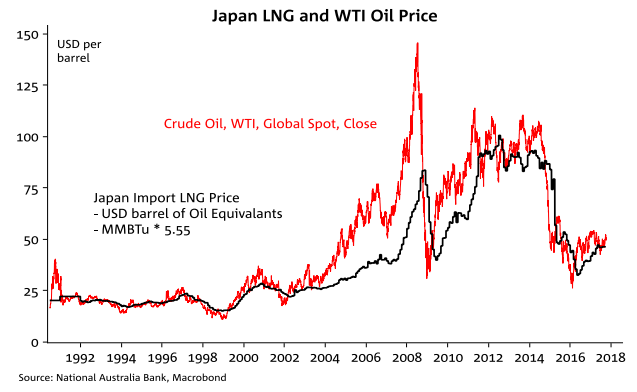
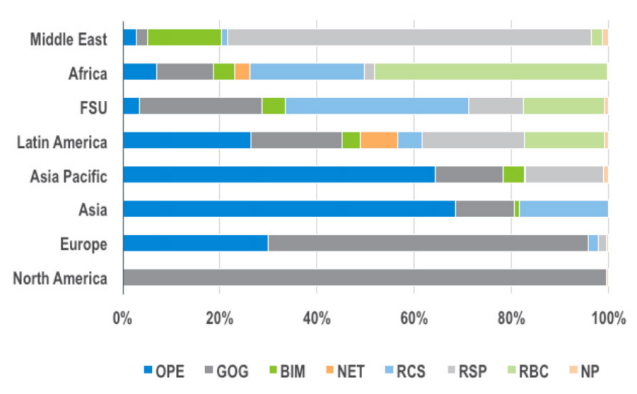


Chart 4: Regional Gas Price Formation – Asia oil driven



Source: Wholesale Gas Price Survey – 2017 Edition. International Gas Union.
 Asia Pacific is Japan, Australia, Korea, Taiwan, Singapore, Malaysia, Thailand, NZ, etc.
 OPE - linked to oil; GOG - “Gas on Gas” supply/demand; BIM - bilateral contract between large buyer and seller; NET - linked to price of final product gas used for; RCS - regulated based on cost recovery and reasonable rate of return; RSP - Set by Government on a political/social basis; RBC - regulated price knowingly set below cost; NP - no price - free

Gas Prices Globally – different pricing mechanisms reflecting different agendas

While gas is a fairly homogenous product made up of kilojoules, its pricing is much more disparate.

Around 20% of global consumption, and 64% of Asia Pacific consumption, is linked to oil. A much greater 45% share of global consumption – and nearly all of the gas in the United States and the bulk in Europe - is based on pure supply/demand factors in the gas market itself. In other countries, typically a Ministry or regulator imposes a regulated price based on various social/economic agendas – for example, just about all Middle East gas consumption is priced for political/social ends and likely below cost.

A summary of these difference pricing mechanisms across the world on shown in chart 4.

The point of highlighting these pricing mechanism differences is that unless: 1) the Japan/Asia LNG price is de-linked from oil; or, 2) a new pricing mechanism is introduced for domestic East Coast Australia gas (eg. a reservation policy as runs in Western Australia), then talk that increased supply will work through to lower prices seems unlikely.

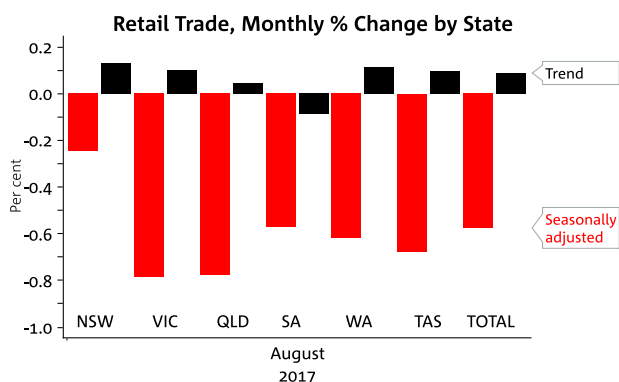
Peter.Jolly@nab.com.au

Past week: Why were retail sales so weak?

Why did retail sales as a whole fall in August and does this mean the economy is weaker than other indicators suggest?

Variations of this question have been asked to your scribe following last week’s much weaker than expected 0.6% m/m fall in retail sales. NAB’s view is that the fall is not the beginning of a new downward trend. Instead, details within the report revealed broad-based declines across states, an unusual outcome and a pointer that latent seasonality may be behind the fall. We also note prior sharp falls have tended to reverse out the following month and NAB is tipping a solid rebound in retail sales in September. Further, a fall of this magnitude is inconsistent with other indicators such as employment growth which has strengthened.

Chart 5: State declines suggests changing seasonality



Source: National Australia Bank, Macrobond

While we expect a rebound, the overall trend in retail is likely to continue the subdued pace we have been seeing over the past year until wages begin to strengthen given debt levels and a hesitant consumer, while the rise of online retail will continue to challenge bricks and mortar retailers.

Week Ahead: NAB Survey and US CPI

Locally it is a quiet week, which means Australian markets are likely to be more driven by international events. The domestic highlights are Tuesday’s September NAB Business Survey and Wednesday’s Consumer Sentiment Survey. The RBA also releases its six-monthly Financial Stability Review on Friday. There is also some second-tier data including house finance approvals for August on Thursday, while the RBA’s Guy Debelle is giving a speech on the FX Global Code of Conduct.

Offshore focus will be on the US with CPI and Retail Sales on Friday. The CPI is expected to spike higher on the back of higher petrol prices and hurricane impacts — headline inflation is expected to spike to 2.3% y/y, well up on last month’s 1.9%, while core is expected to creep slightly higher to 1.8% from 1.7%. There is also the FOMC Minutes as well as a slew of Fed speakers with Yellen (Sunday), Brainard (Thursday) and Powell (Friday) the ones to watch. Powell’s comments will be closely watched given betting markets place him as the front runner to replace Yellen as Fed chair.

Other international touch points will be the IMF annual October forecasts and meetings, which also place a lot of central bankers in the same room – watch out for the ECB’s Praet and Draghi (Wednesday and Thursday respectively). China also releases international trade figures Friday.

Tapas.Strickland@nab.com.au

CALENDAR OF ECONOMIC RELEASES

Country	Economic Indicator	Period	Forecast	Consensus	Actual	Previous	GMT	AEDT
Monday, 9 October 2017								
CH	Caixin China PMI Services/Composite	Sep		/		52.7/52.4	2.45	12.45
AU	Foreign Reserves	Sep				76.3	6.30	16.30
GE	Industrial Production SA MoM	Aug		0.9		0.0	7.00	17.00
EC	Bank of Portugal Governor Costa Speaks at Conference in Lisbon						9.00	19.00
EC	Sentix Investor Confidence	Oct		28.5		28.2	9.30	19.30
CA	Bloomberg Nanos Confidence	Oct 6				58.3	15.00	1.00
Tuesday, 10 October 2017								
NZ	REINZ House Sales YoY	Sep				-20.0	10-14 Oct release	
NZ	Card Spending Retail MoM	Sep	0.4	0.7		-0.2	22.45	8.45
AU	ANZ Roy Morgan Weekly Consumer Confidence Index	Oct 8				113.4	23.30	9.30
UK	BRC Sales Like-For-Like YoY	Sep				1.3	0.10	10.10
JN	BoP Current Account Adjusted	Aug		1978.5		2032.9	0.50	10.50
AU	NAB Business Conditions/Confidence	Sep		/		15/5	1.30	11.30
AU	RBA's Debelle Gives Speech in HK Via Video Link							15.20
GE	Current Account Balance	Aug		17		19.4	7.00	17.00
CH	New Yuan Loans/Aggregate Financing CNY	Sep		1230/1572.7		1090/1480	10-18 Oct release	
UK	Industrial Production MoM	Aug		0.2		0.2	9.30	19.30
UK	Construction Output SA MoM	Aug		0		-0.9	9.30	19.30
UK	Trade Balance	Aug		-2800		-2872.0	9.30	19.30
US	NFIB Small Business Optimism	Sep		105		105.3	11.00	21.00
UK	NIESR GDP Estimate	Sep				0.4	13.00	23.00
CA	Housing Starts	Sep		211		223.2	13.15	23.15
JN	Eco Watchers Survey Current SA	Sep		49.9		49.7		
JN	Machine Tool Orders YoY	Sep P				36.2	7.00	17.00
US	Fed's Kashkari Speaks at Regional Economic Conference						15.00	1.00
CA	Bank of Canada's Wilkins speaks at IMF panel						19.00	5.00
Wednesday, 11 October 2017								
NZ	ANZ Truckometer Heavy MoM	Sep				6.2	22.00	8.00
AU	Westpac Consumer Conf SA MoM/Index	Oct		/		2.5/97.9	0.30	10.30
JN	Core Machine Orders MoM/YoY	Aug		1/0.8		8.0/-7.5	0.50	10.50
US	Fed's Kaplan Speaks at Stanford Institute						1.00	11.00
US	Fed's Evans Speaks on Economy and Monetary Policy						12.15	22.15
JN	Machine Tool Orders YoY	Sep P				36.2	7.00	17.00
US	JOLTS Job Openings	Aug		6160		6170.0	15.00	1.00
US	FOMC Meeting Minutes						19.00	5.00
US	Fed's Williams Gives Community Leaders Speech						19.40	5.40
EC	ECB's Praet Speaks in New York						19.50	5.50
Thursday, 12 October 2017								
NZ	Food Prices MoM	Sep	-0.4			0.6	22.45	8.45
UK	RICS House Price Balance	Sep		4		6.0	0.10	10.10
JN	PPI YoY	Sep		3		2.9	0.50	10.50
NZ	ANZ Consumer Confidence Index	Oct				129.9	1.00	11.00
AU	Consumer Inflation Expectation	Oct				3.8	1.00	11.00
AU	Home Loans/Investment Lending MoM	Aug	0.0	0.5/		2.9/-3.9	1.30	11.30
JN	Tertiary Industry Index MoM	Aug		0.1		0.1	5.30	15.30
UK	Bank of England Credit Conditions & Bank Liabilities Surveys						9.30	19.30
EC	Industrial Production SA MoM	Aug		0.6		0.1	10.00	20.00
CA	New Housing Price Index MoM	Aug		0.3		0.4	13.30	23.30
CA	Teranet/National Bank HPI MoM	Sep				0.6	13.30	23.30
US	PPI Final Demand MoM	Sep		0.4		0.2	13.30	23.30
US	Initial Jobless Claims	Oct 7		252		260.0	13.30	23.30
US	Bloomberg Consumer Comfort	Oct 8				49.9	14.45	0.45
EC/US	ECB's Draghi, Fed's Brainard Speak on Monetary Policy Panel						15.15	1.15
US	Fed's Powell Speaks at IIF Conference in Washington						15.30	1.30
CA	BOC's Wilkins speaks at IIF Panel						20.15	6.15
Friday, 13 October 2017								
NZ	BusinessNZ Manufacturing PMI	Sep				57.9	22.30	8.30
AU	RBA Financial Stability Review						1.30	11.30
CH	Trade Balance CNY	Sep		266		286.5	3.00	13.00
CH	Exports/Imports YoY CNY	Sep		11.5/16.7		6.9/14.4	3.00	13.00
CH	Trade Balance	Sep		38.05		42.0	3.10	13.10
CH	Exports/Imports YoY	Sep		9.8/15.2		5.5/13.3	3.10	13.10
GE	CPI EU Harmonized MoM/YoY	Sep F		0/1.8		0.0/1.8	7.00	17.00
US	CPI MoM/YoY	Sep		0.6/2.3		0.4/1.9	13.30	23.30
US	CPI Ex Food and Energy MoM/YoY	Sep		0.2/1.8		0.2/1.7	13.30	23.30
US	Retail Sales Advance MoM	Sep		1.6		-0.2	13.30	23.30
US	Retail Sales Ex Auto and Gas/Control Group	Sep		0.4/0.4		-0.1/-0.2	13.30	23.30
US	Monthly Budget Statement	Sep		0		-107.7	14.00	
US	U. of Mich. Sentiment/5-10Y Inflation expectations	Oct P		95/		95.1/2.5	15.00	1.00
US	Business Inventories	Aug		0.6		0.2	15.00	1.00
US	Fed's Evans Speaks on Economy and Monetary Policy						15.25	1.25
US	Fed's Kaplan Speaks in Boston						16.30	2.30
US	Baker Hughes U.S. Rig Count/Oil Rigs	Oct 13		/		936.0/748.0	18.00	4.00
US	Fed's Powell Speaks at Boston Fed Economic Conference						18.00	4.00
Sunday, 15 October 2017								
US	Fed's Yellen Speaks on Economy and Monetary Policy						14.00	0.00
Upcoming Central Bank Interest Rate Announcements								
Europe ECB		26-Oct	-0.4%	-0.4%		-0.4%		
Canada, BoC		26-Oct				1.00%		
Japan, BoJ		31-Oct	-0.1%	-0.1%		-0.1%		
US Federal Reserve		2-Nov	1.00-1.25%	1.00-1.25%		1.00-1.25%		
UK BOE		2-Nov				0.25%		
Australia, RBA		7-Nov	1.50%	1.50%		1.50%		
New Zealand, RBNZ		9-Nov				1.75%		

GMT: Greenwich Mean Time; AEDT: Australian Eastern Daylight Savings Time

FORECASTS

Economic Forecasts					Quarterly % change															
Annual % change					Quarterly % change															
	2016	2017	2018	2019	2016			2017			2018			2019						
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Australia Forecasts																				
Household Consumption	2.7	2.4	2.1	2.5	0.9	0.4	0.3	1.1	0.5	0.7	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.6	0.6	0.6
Underlying Business Investment	-11.7	1.3	4.3	6.3	-3.4	-2.5	-4.6	1.3	2.2	0.8	0.6	0.7	0.9	1.4	1.8	1.4	1.8	1.1	1.8	1.3
Residential Construction	7.6	-1.8	0.9	-1.2	4.0	1.1	-0.9	1.9	-3.7	0.2	0.8	0.4	0.3	0.0	-0.2	-0.2	-0.2	-0.4	-0.4	-0.9
Underlying Public Spending	4.8	3.8	3.2	4.0	0.8	2.3	0.3	1.1	0.5	1.8	0.3	0.8	0.8	0.8	0.8	0.9	1.1	1.1	1.1	1.1
Exports	7.3	5.1	6.7	3.1	3.0	1.5	1.0	2.8	-2.2	2.7	3.5	1.8	1.5	0.9	0.9	0.8	0.8	0.7	0.6	0.8
Imports	0.0	6.5	4.7	5.1	-0.8	2.3	1.4	1.6	2.2	1.2	1.0	1.2	1.1	1.3	1.2	1.1	1.4	1.2	1.4	1.1
Net Exports (a)	1.5	-0.3	0.4	-0.4	1.1	-0.2	-0.1	0.3	-0.9	0.3	0.5	0.1	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1
Inventories (a)	0.0	0.0	0.0	0.0	-0.1	0.3	0.1	-0.3	0.5	-0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic Demand - qtr%					0.1	0.6	-0.3	1.2	0.6	1.0	0.4	0.6	0.6	0.6	0.7	0.7	0.8	0.7	0.8	0.7
Dom Demand - ann %	1.6	2.6	2.5	3.0	1.4	1.6	1.3	1.9	2.0	2.4	3.2	2.6	2.6	2.3	2.5	2.6	2.8	2.9	3.0	3.1
Real GDP - qtr %	1.0	0.8	-0.4	1.1	0.3	0.8	1.0	0.8	1.0	0.8	0.7	0.5	0.6	0.6	0.6	0.7	0.7	0.6	0.7	0.6
Real GDP - ann %	2.5	2.5	2.9	2.5	2.6	3.2	1.9	2.4	1.8	1.8	3.3	3.0	3.3	3.0	2.7	2.5	2.5	2.5	2.6	2.5
CPI headline - qtr %					-0.2	0.4	0.7	0.5	0.5	0.2	1.2	0.7	0.5	0.5	0.6	0.7	0.5	0.5	0.6	0.7
CPI headline - ann %	1.3	2.2	2.5	2.4	1.3	1.0	1.3	1.5	2.1	1.9	2.4	2.5	2.6	2.9	2.3	2.3	2.4	2.4	2.4	2.4
CPI underlying - qtr %					0.2	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.5	0.5	0.6
CPI underlying - ann %	1.5	2.0	2.0	2.2	1.6	1.5	1.5	1.6	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.1	2.1	2.2	2.2	2.2
Wages (Pvte WPI - qtr %)					0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4	0.8	0.7	0.6	0.6	0.6	0.6
Wages (Pvte WPI - ann %)	1.9	1.9	2.0	2.4	2.0	1.9	1.9	1.8	2.0	1.9	1.9	1.8	1.8	1.8	2.1	2.4	2.5	2.6	2.4	2.2
Unemployment Rate (%)	5.7	5.6	5.3	5.2	5.8	5.8	5.6	5.6	5.9	5.6	5.6	5.4	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.1
Terms of trade	0.6	9.1	-1.4	-0.1	-1.9	2.5	4.7	10.5	5.6	-6.0	-6.4	0.6	-3.2	-2.1	0.1	-0.3	0.2	-0.3	0.1	-0.5
G&S trade balance, \$Abn	-12.5	10.4	-17.1	-28.3	-8.1	-6.9	-3.7	6.2	7.4	3.1	-0.6	0.5	-2.2	-4.6	-4.9	-5.5	-5.9	-6.7	-7.4	-8.3
% of GDP	-0.7	0.6	-0.9	-1.5	-2.0	-1.6	-0.9	1.4	1.7	0.7	-0.1	0.1	-0.5	-1.0	-1.0	-1.2	-1.2	-1.4	-1.5	-1.7
Current Account (% GDP)	-2.6	-2.2	-3.9	-4.4	-3.6	-3.7	-2.6	-0.8	-1.1	-2.1	-3.0	-2.7	-3.5	-4.0	-4.0	-4.1	-4.2	-4.4	-4.5	-4.6

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

Exchange Rate Forecasts	9-Oct	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18
Majors						
AUD/USD	0.7767	0.75	0.74	0.73	0.73	0.73
NZD/USD	0.7071	0.70	0.69	0.69	0.70	0.70
USD/JPY	112.65	116	118	118	118	120
EUR/USD	1.1736	1.17	1.18	1.20	1.22	1.20
GBP/USD	1.3098	1.33	1.30	1.31	1.28	1.26
USD/CNY	6.6363	6.67	6.64	6.64	6.62	6.65
USD/CAD	1.2537	1.26	1.27	1.30	1.31	1.33
USD/CHF	0.9782	0.98	0.98	0.97	0.96	0.98

Australian Cross Rates	9-Oct	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18
AUD/NZD	1.0984	1.07	1.07	1.06	1.05	1.04
AUD/JPY	87.5	87	87	86	86	88
AUD/EUR	0.6618	0.64	0.63	0.61	0.60	0.61
AUD/GBP	0.5930	0.56	0.57	0.56	0.57	0.58
AUD/CNY	5.1544	5.00	4.91	4.85	4.83	4.85
AUD/CAD	0.9737	0.95	0.94	0.95	0.96	0.97
AUD/CHF	0.7598	0.73	0.72	0.71	0.70	0.72

Interest Rate Forecasts	9-Oct	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18
Australia Rates						
RBA Cash rate	1.50	1.50	1.50	1.50	1.75	2.00
3 month bill rate	1.70	1.75	1.75	1.75	2.00	2.25
3 Year Swap Rate	2.17	2.4	2.5	2.7	3.0	3.2
10 Year Swap Rate	2.98	3.2	3.3	3.4	3.6	3.7
Offshore Policy Rates						
US Fed funds	1.25	1.50	1.75	2.00	2.00	2.25
ECB deposit rate	-0.40	-0.40	-0.40	-0.40	-0.30	0.00
BoE repo rate	0.25	0.25	0.50	0.50	0.50	0.50
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	17.0	16.5	16.0	16.0	16.0	16.0
10-year Benchmark Bond Yields						
Australia	2.82	3.00	3.05	3.05	3.30	3.40
United States	2.36	2.60	2.75	2.75	3.00	3.00
New Zealand	2.99	3.10	3.35	3.40	3.50	3.60

Sources: NAB Global Markets Research; Bloomberg; ABS

Global GDP	2014	2015	2016	2017	2018	2019	20 Yr Avg
Dec year							
Australia	2.8	2.4	2.5	2.5	2.9	2.5	3.4
US	2.6	2.9	1.5	2.1	2.3	2.0	2.6
Eurozone	1.4	1.9	1.8	2.2	2.0	1.6	1.5
UK	3.1	2.2	1.8	1.5	1.4	1.6	2.4
Japan	0.2	1.1	1.0	1.5	1.0	0.7	0.8
China	7.3	6.9	6.7	6.7	6.5	6.3	9.2
India	7.0	7.5	7.9	6.8	7.4	7.6	6.6
New Zealand	3.4	2.5	3.1	2.5	3.0	2.6	3.0
World	3.5	3.3	3.2	3.4	3.6	3.4	3.5
MTP Top 5	4.1	3.9	3.9	4.0	3.9	3.7	--

Commodity prices (\$US)	9-Oct	Dec-17	Mar-18	Jun-18	Dec-18	Dec-19
WTI oil	49.41	51	52	54	58	60
Gold	1281	1270	1270	1280	1290	1300
Iron ore	62.2	62	60	62	60	60
Hard coking coal	180	160	140	120	100	101
Thermal coal	97	85	85	80	80	80
Copper	6626	6400	6340	6280	6280	6280
Aust LNG (*)	6.59	7.8	7.9	8.0	8.5	8.8

(*) Implied Australian LNG export prices.

CONTACT DETAILS

Market Economics

Ivan Colhoun
Chief Economist, Markets
+61 2 9237 1836
ivan.colhoun@nab.com.au

David de Garis
Director, Economics
+61 3 8641 3045
david.degaris@nab.com.au

Tapas Strickland
Economist
+61 2 9237 1980
tapas.strickland@nab.com.au

Markets Research

Peter Jolly
Global Head of Research
+61 2 9237 1406
peter.jolly@nab.com.au

Group Economics

Alan Oster
Chief Economist
+61 3 8634 2927
alan_oster@national.com.au

Riki Polygenis
Head of Australian Economics
+61 3 8697 9534
riki.polygenis@nab.com.au

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.