

# AUSTRALIAN MARKETS WEEKLY

## Population in the spotlight



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- Population growth has become an important issue for the economy and associated politics. Major capital city congestion and housing affordability have become important issues for policy as federal and state governments grapple with the challenges and opportunities resulting from a brisk rate of population growth over recent years.
- As markets and the economy recalibrate the activity outlook for dwelling construction, governments have been setting a fast-paced agenda to lift infrastructure spend to cope with growth pressures. That agenda seems likely to remain for some time yet.
- Against that background, last week's update of population projections from the Statistician provides a new opportunity to reflect on the choices ahead and what those choices might mean for growth, housing, infrastructure, and more.
- This week, we unpack some of the major findings of the latest set of population projections, including the three growth scenarios.
- Based on the Statistician's "Series B" that assumes net immigration continuing at a rate that is close to recent levels, the population is projected to reach 30 million between 2029 and 2033. Further, Melbourne's population is expected to become the largest in 2037. (We caution that this assumes recent state migration conditions persist over time.)
- This week, the local market will have at least one eye on the local economy with the release of two upcoming GDP partials with the release of Construction Work Done (CWD) on Wednesday and New Private Capital Expenditure on Thursday. NAB is looking for 2% growth in CWD (above consensus) and a 0.4% rise in Capex, below consensus but from what we expect will be a higher Q2 base, from revisions. NAB's pre-partial model estimate for Q3 GDP is 0.6%, annual growth of 3.3%.
- Also on the local data schedule this week is RBA Credit for October, normally far from the most sensitive of data releases. However, with increased focus on the flow of housing finance, this release is certainly on the market's radar screen. NAB (and the market) is looking for a second month of 0.4% growth. We would not be surprised if there was a further tilt away from housing toward business credit.
- Offshore, there is interest whether there will be a deal of sorts struck between President Trump and President Xi when they meet at the G20 meeting, that starts in Argentina on Friday. With the market having scaled back expectations for Fed rate hikes in 2020 to just over one hike, there'll be keen interest in Fed Chair Powell's economy views when he speaks to the Economic Club in New York on Wednesday. UK PM May will be especially busy this week cajoling parliamentarians for their support for the Brexit deal agreed with the EC over the weekend ahead of a contentious UK Parliamentary vote as early as next week.

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

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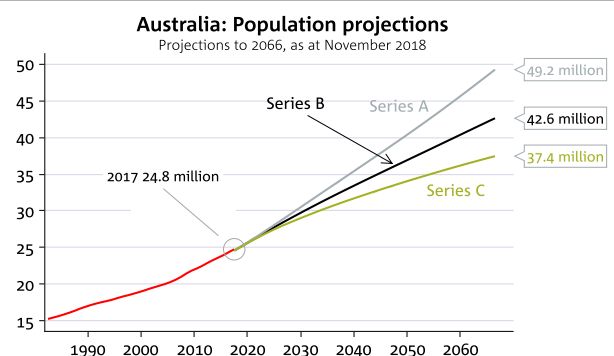
[Ask the Interest Rate Strategists](#)

### Key markets this past week

	Last	% chg week		Last	bp / % chg week
AUD	0.7246	-1.0	RBA cash	1.50	0
AUD/CNY	5.03	-1.0	3y swap	2.16	-3
AUD/JPY	82.0	-0.9	ASX 200	5,659	-0.3
AUD/EUR	0.639	-0.4	Iron ore	64	-7.9
AUD/NZD	1.067	0.1	WTI oil	50.9	-11.0

Source: Bloomberg

### Chart 1: Onwards and upwards

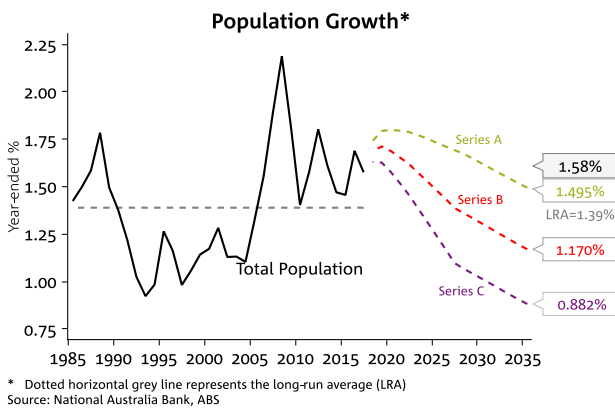


Source: National Australia Bank, Macrobond, ABS  
\* Series A/B/C: High, Mid, and Low fertility, life expectancy, and immigration assumptions

**Population growth to ease, projections say**

The latest quarterly estimates of Australia’s population reveal growth of 1.55% over the year to the March quarter of 2018 and a population of 24.9 million. Population growth has averaged 1.6% over the past five years and 1.8% in the previous five years. Under the central scenario in the latest population projections – so-called ‘Series B’ – the population is projected to rise from 25 million to 30 million around 2030. Series B is the middle growth scenario, the others being for low and high growth alternatives.

**Chart 2: Growth eases back**



While Chart 1 on the first page leaves you with the impression of an ever-increasing population, it is clear even from that chart that growth is highly sensitive to the embedded growth assumptions behind the projections.

Series A is essentially a high(er) growth scenario under which assumes a higher fertility rate and increased life expectancy. The combination of these factors - the natural rate of increase in the population - has contributed in the past decade around 40% of population growth. The remaining larger contribution has been from net overseas migration, a more contentious element – accounting for around 60% of growth in the past decade, and even a bit larger in the year to June 2017, contributing 64%.

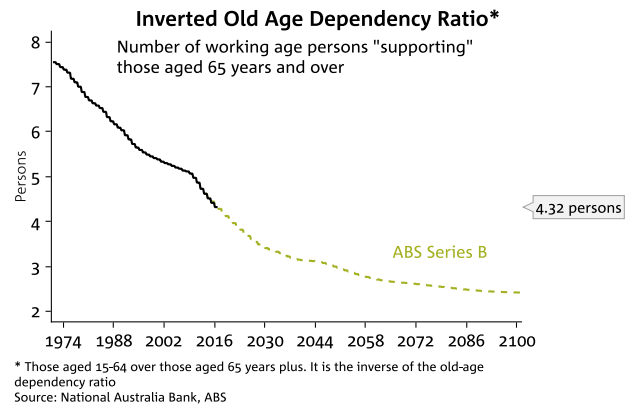
While population numbers are projected to continue increasing, growth rates are not. In the ten years to 2027, the growth rate for Series B is projected to progressively ease, from 1.6% to 1.4%, while for the following 15 years, the growth rate falls further, to 1.2%, growth rates not seen since the 1990s.

This easing back in population growth stems from the assumed *unchanged level* of annual net overseas migration, regardless of population size. For Series B, that is an assumption of an annual intake of 225,000, a little above the past five year average of 214,000, but below the 237,000 for the year to March 2018.

Clearly, if net overseas migration is assumed to remain unchanged, this will become a progressive headwind to population growth. Even under Series A, where net overseas migration is assumed at 275,000 per year, population growth will ease from its current 1.6% to 1.4% over the decade to 2027 and to 0.9% in the ensuing 15 years.

Interestingly, if net overseas migration were to cease, Australia’s population would begin to decline from 2040 with births then less than deaths.

**Chart 3: Increased age dependency**



**Population ageing**

With below-replacement levels of fertility and increased life expectancy, the population is projected to continue ageing. The median age of Australia’s population increases from 37.2 years at 30 June 2017 to between 39.5 years and 43 years in 2066 depending on the assumed scenario.

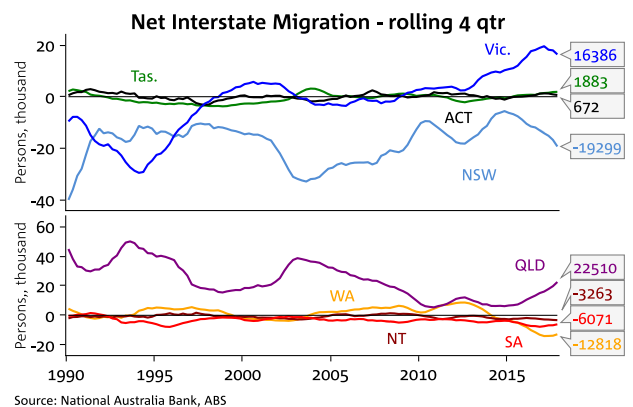
With increased focus on aged care and associated health needs, the cohort of the population that is aged 65 years and over is projected to rise from 15% to between 21% (series A and B) and 23% (series C) by 2066. The cohort of the population aged less 15 years old is projected to decrease from 19% at 30 June 2017 to between 16% and 18% by 2066.

We also note in this context that age dependency is also a function of net overseas migration, migrants typically having a lower average age than the already existing resident population.

**State growth projections– driven by linear assumptions**

The Statistician has also projected population growth for each of the States, based on the current starting point and existing trends in interstate migration. That is, more of the same.

**Chart 4: The floating population**



Melbourne is projected to be the largest city in Australia with a projected population between 8.6 and 12.2 million by 2066, surpassing Sydney in 2037 under Series B.

In this respect, while we understand the linear assumptions used in such projections and the difficulty of preparing “forecasts” based on dynamic factors, such assumptions can be limiting with outcomes that will inevitably prove to be very different.

Over recent years, NSW has been losing population to the other States, with signs even that inflows to Victoria are slowing and to Queensland picking up. WA has seen an outflow of migration to the other states in recent years as the boost to recruitment from mining expansion faded.

There is a multiplicity of factors affecting interstate migration, factors that are very difficult to predict. These

include an increase or decline in job opportunities across state borders, the cost of living and housing affordability, as well as personal and lifestyle factors.

By the same token, the attractiveness of Australia as a destination will depend on many of the same factors, liveability and other factors affecting personal choice. While policy on net overseas migration can change, actual migration levels can also reflect the attractiveness of Australia as an international destination of choice, factors including economic, social and lifestyle issues that can and do change over time.

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# CALENDAR OF ECONOMIC RELEASES

Country	Economic Indicator	Period	Forecast	Consensus	Actual	Previous	GMT	AEDT
<b>Monday, 26 November 2018</b>								
GE	IFO Business Climate/Current Assessment	Nov		102.3/105.3		102.8/105.9	9.00	20.00
EC	ECB's Praet Speaks in Frankfurt						9.00	20.00
EC	ECB's Draghi Speak in European Parliament in Brussels						14.00	1.00
UK	BOE Governor Carney, former Fed Chairman Greenspan Speak						18.30	5.30
<b>Tuesday, 27 November 2018</b>								
GE	Retail Sales MoM/YoY	Oct		0.4/1.4		0.1/-2.6	27 Nov to 3 Dec	
NZ	Trade Balance NZD	Oct	-745	-850		-1560	21.45	8.45
US	Fed Vice Chairman Clarida Speaks in New York						13.30	0.30
US	FHFA House Price Index MoM	Sep		0.4		0.3	14.00	1.00
US	Conf. Board Consumer Confidence	Nov		135.8		137.9	15.00	2.00
EC	ECB's Nouy, Costa Speak in Lisbon						15.00	2.00
US	Fed's Bostic, Evan and George Speak on Panel						19.30	6.30
<b>Wednesday, 28 November 2018</b>								
UK	Nationwide House PX MoM / YoY	Nov		0.1/1.7		0/1.6	3 Nov to 3 Dec	
NZ	RBNZ Publishes Financial Stability Report						20.00	7.00
NZ	RBNZ testifies to Parliament on FSR						22.00	9.00
AU	Construction Work Done	3Q	2	0.9		1.6	0.30	11.30
UK	BOE Financial Stability Report and stress test results						7.00	18.00
EC	M3 Money Supply YoY	Oct		3.5		3.5	9.00	20.00
US	MBA Mortgage Applications	23 Nov				-0.1	12.00	23.00
US	Wholesale Inventories MoM	Oct P		0.4		0.4	13.30	0.30
US	GDP Annualized QoQ	3Q S		3.6		3.5	13.30	0.30
US	GDP Price Index	3Q S		1.7		1.7	13.30	0.30
US	Core PCE QoQ	3Q S		1.6		1.6	13.30	0.30
US	Richmond Fed Manufact. Index	Nov		16		15	15.00	2.00
US	Fed's Powell Speaks to Economic Club of New York						17.00	4.00
<b>Thursday, 29 November 2018</b>								
JN	Retail Sales MoM / YoY	Oct		0.4/2.7		-0.2/2.1	23.50	10.50
NZ	ANZ Business Confidence	Nov				-37.1	0.00	11.00
AU	Private Capital Expenditure	3Q	0.4	1		-2.5	0.30	11.30
AU	2018-19 Expected Cap.Ex	3Q	109	108.5			0.30	11.30
GE	CPI Saxony MoM / YoY	Nov		/		0.2/2.5	8.00	19.00
GE	Unemployment Change (000's) / Claims Rate	Nov		-10/5.1		-11/5.1	8.55	19.55
UK	Mortgage Approvals	Oct		64.5		65.3	9.30	20.30
EC	Economic Confidence / Consumer Confidence	Nov		109.1/-3.9		109.8/-3.9	10.00	21.00
GE	CPI MoM / YoY	Nov P		0.2/2.3		0.2/2.5	13.00	0.00
CA	Current Account Balance	3Q		-12		-15.88	13.30	0.30
US	PCE Core MoM / YoY	Oct		0.2/1.9		0.2/2	13.30	0.30
US	Initial Jobless Claims	24 Nov		220		224	13.30	0.30
US	FOMC Meeting Minutes	8 Nov					19.00	6.00
US	Fed's Evans Speaks on Panel on Inclusion at Boston Fed						19.00	6.00
<b>Friday, 30 November 2018</b>								
<b>G20 Summit in Buenos Aires. Trump and Xi will meet and discuss trade</b>							<b>30 Nov to 1 Dec</b>	
NZ	ANZ Consumer Confidence Index	Nov				115.4	21.00	8.00
NZ	Building Permits MoM	Oct				-1.5	21.45	8.45
JN	Jobless Rate	Oct		2.3		2.3	23.30	10.30
JN	Tokyo CPI YoY / Ex Fresh Food YoY	Nov		1.1/1		1.5/1	23.30	10.30
JN	Industrial Production MoM / YoY	Oct P		1.2/2.5		-0.4/-2.5	23.50	10.50
AU	Private Sector Credit MoM / YoY	Oct	0.4/4.7	0.4/4.6		0.4/4.6	0.30	11.30
CH	Manufacturing PMI	Nov		50.2		50.2	1.00	12.00
CH	Non-manufacturing PMI	Nov		53.8		53.9	1.00	12.00
JN	Housing Starts YoY	Oct		-0.05		-1.474	5.00	16.00
EC	Unemployment Rate	Oct		8		8.1	10.00	21.00
EC	CPI Estimate YoY	Nov		2		2.2	10.00	21.00
EC	CPI Core YoY	Nov A		1.1		1.1	10.00	21.00
CA	Industrial Product Price MoM	Oct		-0.5		0.1	13.30	0.30
CA	GDP MoM / YoY	Sep		0.1		0.1	13.30	0.30
CA	Quarterly GDP Annualized	3Q		1.95		2.9	13.30	0.30
US	Fed's Williams Speaks on Global Economy at G30 in New York						14.00	1.00
US	Chicago Purchasing Manager	Nov		58.5		58.4	14.45	1.45
<b>Upcoming Central Bank Interest Rate Announcements</b>								
Australia, RBA		4-Dec	1.5%	1.5%		1.5%		
Canada, BoC		5-Dec	1.75%	1.75%		1.75%		
Europe, ECB		13-Dec	-0.4%	-0.4%		-0.4%		
US, Federal Reserve		19-Dec	2.25-2.5%	2.25-2.5%		2-2.25%		
UK, BOE		20-Dec	0.75%	0.75%		0.75%		
Japan, BoJ		20-Dec	-0.1%	-0.1%		-0.1%		
New Zealand, RBNZ		13-Feb	1.75%	1.75%		1.75%		

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

# FORECASTS

## Economic 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
<b>Australia Forecasts</b>																				
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	0.7
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
% 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
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

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

## Exchange Rate Forecasts

	26-Nov	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
<b>Majors</b>						
AUD/USD	0.7246	0.71	0.72	0.73	0.75	0.75
NZD/USD	0.6789	0.65	0.65	0.66	0.68	0.69
USD/JPY	113.24	112	110	110	108	106
EUR/USD	1.1339	1.18	1.20	1.22	1.25	1.30
GBP/USD	1.2814	1.26	1.28	1.30	1.34	1.40
USD/CHF	0.9976	0.96	0.94	0.95	0.94	0.91
USD/CAD	1.3214	1.27	1.26	1.25	1.25	1.24
USD/CNY	6.9440	6.90	7.10	7.20	7.20	7.15

## Australian Cross Rates

	26-Nov	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
AUD/NZD	1.0673	1.10	1.11	1.11	1.11	1.09
AUD/JPY	82.1	79	79	80	81	80
AUD/EUR	0.6390	0.60	0.60	0.60	0.60	0.58
AUD/GBP	0.5655	0.56	0.56	0.56	0.56	0.54
AUD/CNY	5.0316	4.90	5.11	5.26	5.43	5.36
AUD/CAD	0.9575	0.90	0.91	0.91	0.94	0.93
AUD/CHF	0.7229	0.68	0.68	0.69	0.71	0.68

## Interest Rate Forecasts

	26-Nov	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
<b>Australia Rates</b>						
RBA Cash rate	1.50	1.50	1.50	1.75	1.75	2.00
3 month bill rate	1.94	1.95	1.95	2.15	2.15	2.40
3 Year Swap Rate	2.15	2.20	2.30	2.70	2.90	3.10
10 Year Swap Rate	2.82	3.05	3.10	3.50	3.60	3.70
<b>Offshore Policy Rates</b>						
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
<b>10-year Benchmark Bond Yields</b>						
Australia	2.63	3.00	3.05	3.30	3.40	3.50
United States	3.05	3.25	3.25	3.50	3.50	3.50
New Zealand	2.65	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 Avg
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)

	26-Nov	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
Brent oil	59.7	82	85	80	77	78
Gold	1225	1247	1276	1297	1305	1318
Iron ore	64.2	68	63	60	61	62
Hard coking coal	221	195	180	175	160	165
Thermal coal	102	110	105	103	101	100
Copper	6227	6250	6350	6500	6600	6700
Aust LNG (*)	15.2	13.5	14.3	14.6	13.4	13.0

(\*) Implied Australian LNG export prices.

## CONTACT DETAILS

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