# **AUSTRALIAN MARKETS WEEKLY**



## Australia exports capital as non-mining business investment languishes

#### In this issue

Australia exports capital as non-mining business investment languishes

2

6

Calendar of economic releases

**Forecasts** 

#### Analysis – Australia exports capital as non-mining business investment languishes

- Across advanced economies, business investment has underwhelmed since the global financial crisis, contributing to weak productivity and lower potential growth. Disappointing investment has reflected relatively weak demand and increased uncertainty about the outlook, which has increased the desire to save rather than invest. The Reserve Bank views that excess of global saving over weak investment as a key driver of lower global interest rates.
- Australia has mirrored these trends. In Q2 2019, Australia ran a current account surplus for the first time since the 1970s as higher national saving exceeded weak national investment. That means Australia is now a net exporter of capital.
- Lower national investment has been driven by a large drop in non-financial corporate investment and the downturn in housing construction. In contrast, higher national saving reflects the Commonwealth and non-financial corporations both benefitting from strong mining profits.
- Although much of the decline in corporate investment reflects the end of the
  construction phase of the mining boom, non-mining business investment has
  languished since the global financial crisis, not far from past recession lows. This
  suggest to us that Australia's productivity, potential growth and interest rates are likely
  to remain low until the Reserve Bank and the government engineer a meaningful
  turnaround in private demand that encourages companies to lift investment.

#### The week ahead - NAB business survey; US-China trade talks

- In Australia, the September NAB Business Survey on Tuesday will provide a timely
  update on the health of the business sector. Recent prints have shown business
  conditions holding steady at positive, but below-average levels. Home loan approvals
  should show a further gain in August. In New Zealand, partial data should confirm that
  growth is slowing, although near-term inflation is set to surprise the RBNZ to the
  upside.
- US-China trade talks restart on 10-11 October. Our base case is for little meaningful resolution from these talks as reports suggest the US administration is divided over the potential for a partial deal. The Fed minutes due Wednesday will be important, but predate recent weak US data. The US CPI should show if tariff increases are lifting consumer prices. UK PM Johnson's Brexit proposals continue to be vetted by Brussels in the lead-up to the 17-18 October EU Summit. Our base case remains an extension of Article 50 on 31 October is more likely than a deal.

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

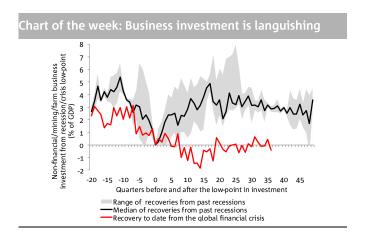
Ask the Economists

Ask the FX Strategists

Ask the Interest Rate Strategists

### Key markets over the past week

	Last	% chg weel	k	Last	bp/% chg week
AUD	0.6761	0.2	RBA cash	0.75	-25.0
AUD/CNY	4.84	0.2	3y swap	0.61	-0.2
AUD/JPY	72.2	-1.1	ASX 200	6541	-2.2
AUD/EUR	0.615	-0.6	Iron ore	92.1	-2.7
AUD/NZD	1.070	-0.7	Brent oil	58.2	-1.8
Source: Bloon	nbera			•	



1

#### **Kieran Davies**

### Australia exports capital as non-mining business investment languishes

- Across advanced economies, business investment has underwhelmed since the global financial crisis, contributing to weak productivity and lower potential growth. Disappointing investment has reflected relatively weak demand and increased uncertainty about the outlook, which has increased the desire to save rather than invest. The Reserve Bank views that excess of global saving over weak investment as a key driver of lower global interest rates.
- Australia has mirrored these trends. In Q2 2019, Australia ran a current account surplus for the first time since the 1970s as higher national saving exceeded weak national investment. That means Australia is now a net exporter of capital.
- Lower national investment has been driven by a large drop in non-financial corporate investment and the downturn in housing construction. In contrast, higher national saving reflects the Commonwealth and nonfinancial corporations both benefitting from strong mining profits.
- Although much of the decline in corporate investment reflects the end of the construction phase of the mining boom, non-mining business investment has languished since the global financial crisis, not far from past recession lows. This suggest to us that Australia's productivity, potential growth and interest rates are likely to remain low until the Reserve Bank and the government engineer a meaningful turnaround in private demand that encourages companies to lift investment.

#### Weak business investment has contributed to lower interest rates in the advanced economies

A key feature of the world economy over recent years has been an underwhelming recovery in business investment from the global financial crisis. Given business investment typically drives productivity by increasing the capital and technology available to existing workers, persistently weak investment has limited potential growth over the past decade.

The weakness in investment has been attributed to a mix of factors, including:

- Relatively weak demand growth in the post-crisis period:
- Increased uncertainty about the outlook, where large shocks to uncertainty have been slow to dissipate;
- Tighter access to credit, notwithstanding low levels of interest rates: and
- The reluctance of firms to lower hurdle rates of return when assessing projects.

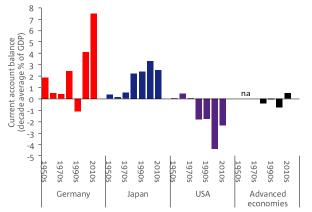
For policy-makers, the reduction in potential growth has contributed to the lower neutral interest rates evident across all advanced economies, including Australia.

#### The RBA has reframed this issue as an excess of global savings

The Reserve Bank has attributed the fall in world interest rates to a structural shift in excess global savings, with the appetite to save exceeding the appetite for funding to invest.1

One way of showing the excess of global saving is via the shift in current account balances over time, where the advanced economies have run current account surpluses over the 2010s to date. This is the first time this has happened since at least the 1980s and indicates that advanced economy saving is exceeding investment, such that these countries have exported capital to the rest of the world.

Chart 1: Advanced economies are exporting capital as the now run current account surpluses



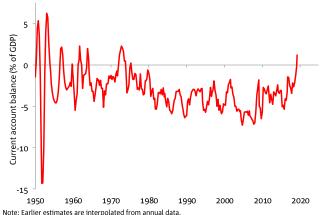
Note: Advanced economy estimates are not available for the 1950s, 1960s and 1970s. The estimates for the 2010s are the decade to date

Source: International Monetary Fund, Jorda-Schularick-Taylor Macrohistory Database, National

#### Australia is now exporting capital for the first time since the 1970s

Unusually, Australia recently joined other advanced economies in running a current account surplus, which means it is also exporting capital to the rest of the world, for the first time since the mid 1970s.

surplus since the 1970s

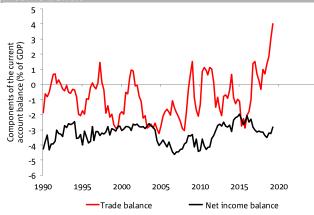


Source: Australian Bureau of Statistics, National Australia Bank

<sup>&</sup>lt;sup>1</sup> For example, see Reserve Bank of Australia Governor Lowe, Remarks at Reserve Bank Board Dinner, Melbourne, 1 October 2019.

The surplus reflects the pay-off from the massive expansion in capacity that occurred during the mining boom, as well as still-high export prices. That pay-off is captured in the trade balance, which has been in surplus for almost three years now. In Q2, the trade surplus reached 4.0% of GDP, representing the best result since the 1950s, finally reaching the point where it exceeded the servicing cost on Australia's net foreign liabilities (these amounted to 2.8% of GDP in the quarter).

Chart 3: The trade surplus has finally surpassed the net income deficit



Source: Australian Bureau of Statistics, National Australia Bank

This is remarkable considering that Australia's net income deficit is large and persistent, averaging around 3-4% of GDP. The net income deficit is the cost of servicing substantial net foreign liabilities of just over 50% of GDP, which are the product of past borrowing from the rest of the world. High net borrowing costs are also a factor underpinning the net income deficit. This seems counterintuitive given lower world interest rates, but reflects a high cost of equity capital.

Chart 4: The large and persistent net income deficit reflects substantial net foreign liabilitie

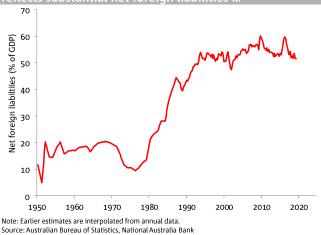


Chart 5: ... and still-high net borrowing costs Implied servicing cost on net foreign liabilities (net income deficit as a % of net foreign liabilities) 2005 1990 1995 2000 2010 2015 2020 Source: Australian Bureau of Statistics, National Australia Bank

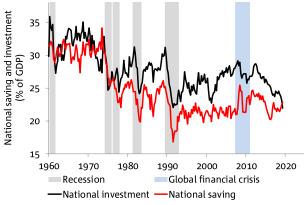
#### Australia is exporting capital because of a deep slump in national investment and higher national saving

With the current account balance in surplus, we examined the sectoral drivers of this shift to exporting capital. We did this by using the saving-investment identity, where, ignoring statistical discrepancies:

Current account balance = net lending = national saving – national investment<sup>2</sup>

On this basis, Australia is now a net lender because of a steep decline in national investment to the lowest share of GDP since at least the 1950s, combined with higher national saving.

Chart 6: The current account surplus reflects a deep onal investment and increased



Source: Australian Bureau of Statistics, National Australia Bank

Focusing on the turnaround in the current account from its most recent low-point of a deficit of 5.4% of GDP in Q4 2015 to the surplus of 1.2% in Q2 2019, from a savinginvestment perspective this 6.6pp turnaround reflected:

- Sharply lower national investment (-3.6pp); and
- Higher national saving (2.0pp)3

balance because it is compiled from different data sources. Consequently part of the improvement reflects the statistical discrepancy between the current account balance and net lending shrinking over this period (-1.0pp).

<sup>&</sup>lt;sup>2</sup> Note that this broader measure of investment equals gross fixed capital formation plus changes in inventories plus the net acquisition of non-produced non-financial assets, although in practice it is driven by gross fixed capital formation.

<sup>&</sup>lt;sup>3</sup> Note, though, that net lending, which is saving minus investment, does not exactly line up with the current account

#### Companies and the Commonwealth government have driven the turnaround in the current account

The sectoral split of national saving and investment shows:

- The sharp improvement in national net lending (5.6pp) mainly reflects a dramatic improvement in the financial position of private non-financial corporations (4.4pp) and the Commonwealth government (2.5pp), with small contributions from financial and public non-financial corporations (0.5pp and 0.2pp, respectively). In contrast, the financial positions of households and state government have deteriorated (households -1.2pp and state government -0.9pp).
- The steep decline in national investment (-3.7pp) has been driven by the end of the expansion phase of the mining boom and weak non-mining business investment (private non-financial corporations -2.4pp), as well as the downturn in housing construction (households -1.4pp) and the roll-out of the national broadband network (public non-financial corporations -0.4pp). There is no change in investment by banks and other financial corporations, while public investment is up reflecting increased infrastructure investment (state government 0.4pp and Commonwealth government 0.1pp).
- The improvement in national saving (1.8pp) has been driven by the Commonwealth government (2.7pp), and private non-financial corporations (2.0pp), both driven by strong mining profits. Financial corporations are saving more (0.5pp), while saving by state government and public non-financial corporation has fallen (-0.5pp and -0.2pp, respectively). Household saving has fallen sharply (-2.6pp) given weak household income.

Chart 7: Net lending data show the current account surplus has been driven by companies and the Commonwealth government

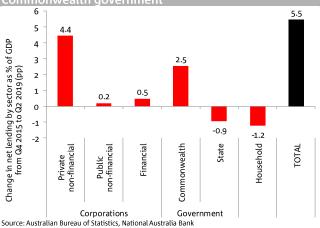


Chart 8: Companies and households have driven the

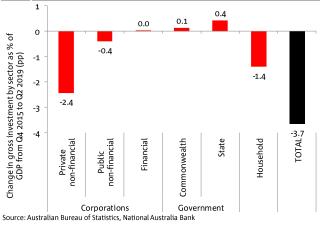
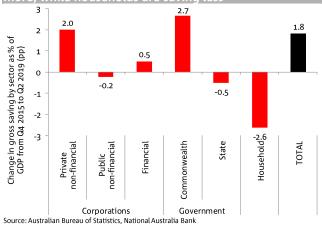


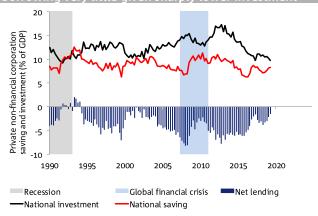
Chart 9: The Commonwealth and companies are saving more, while households are saving les-



#### Non-mining business investment has languished since the global financial crisis

Given that the improvement in the Commonwealth government financial position reflects the desire to return the budget to surplus, we concentrated on the turnaround in net lending for private non-financial corporations. This turnaround has been sharp, alongside both increased corporate saving and a fall in corporate investment, such that companies now require only a small amount of outside funds.

Chart 10: Private non-financial corporations are borrowing very little given sharply lower investmen



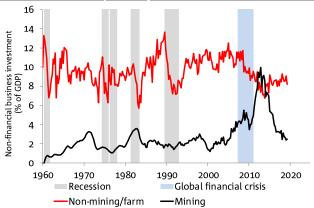
Source: Australian Bureau of Statistics, National Australia Bank

However, interpreting the large improvement in the financial position of private non-financial corporations is clouded by the impact of the mining boom. The boom has been reflected in both saving and investment, where mining investment reached an all-time high of 10% of GDP in 2012 and has since fallen to 3%, while saving by miners has been boosted by high commodity prices underpinning strong mining profits as capacity has come on line.

In our analysis, below, we crudely adjusted business investment to exclude the impact of the boom – as well as farm investment given the impact of drought. However, for corporate savings, a paucity of data means we need to do further work to exclude mining and agriculture.

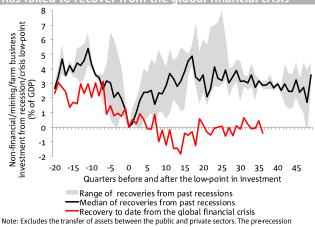
On this basis, we found that the unwinding of mining boom has driven the recent improvement in the current account surplus, but exceptionally weak business investment outside of mining and agriculture has also been important. That is, non-financial nonfinancial/mining/farm investment has languished since reaching a historic low of 9% of GDP during the global financial crisis. Investment continued to fall after the crisis, reaching 7% of GDP in 2013, but it is currently only 8% of output, not far from the low-points of 6-8% of GDP reached during past recessions. The extended weakness in investment is unprecedented in the post-WW2 period, with spending usually rebounding by about 3-4% of GDP withing three years from the end of a downturn.

Chart 11: Non-financial/mining/farm business investment is exceptionally we



Note: Excludes the transfer of assets between the public and private sectors. Source: Australian Bureau of Statistics, National Australia Bank

### Chart 12: Private non-financial/mining/farm investment recover from the global financial crisis



calculations exclude the early 1960s recession because of a lack of data and the late 1970s recession because it overlaps with the mid-1970s recession.

Source: Australian Bureau of Statistics, Melbourne Institute, National Australia Bank

#### Australia's experience is in line with other advanced countries

The trends we have analysed – namely, persistently weak business investment and an excess of domestic saving are in line with the experience of other advanced economies. They suggest to us that Australia's productivity, potential growth and interest rates are likely to remain low for an extended period, at least until the Reserve Bank and the government engineer a meaningful turnaround in private demand that encourages companies to lift investment.

Kieran Davies

## **CALENDAR OF ECONOMIC RELEASES**

Country	Economic Indicator	Period	Forecast	Consensus	Actual	Previous	GMT	AEST
Monday (	07 October 2019							
AU	AiG Perf of Construction Index	Sep			42.6	44.6	22.30	8.30
GE	Factory Orders MoM	Aug				-2.7	7.00	17.00
Tuesday (	08 October 2019							
JN	BoP Current Account Balance	Aug				1999.9	0.50	10.50
AU	NAB Business Conditions	Sep				1	1.30	11.30
AU	NAB Business Confidence	Sep				1	1.30	11.30
AU	ANZ Job Advertisements MoM	Sep				-2.8	1.30	11.30
CH	Caixin China PMI Services	Sep		52		52.1	2.45	12.45
GE	Industrial Production SA MoM	Aug				-0.6	7.00	17.00
GE	Industrial Production WDA YoY	Aug				-4.2	7.00	17.00
US	NFIB Small Business Optimism	Sep		102.5		103.1	11.00	21.00
CA	Housing Starts	Sep				226.639	13.15	23.15
US	PPI Final Demand MoM	Sep		0.1		0.1	13.30	23.30
US	PPI Final Demand YoY	Sep				1.8	13.30	23.30
Wednesd	lay 09 October 2019							
CH	New Yuan Loans CNY	Sep		1350		1210		
NZ	ANZ Truckometer Heavy MoM	Sep				-4.2	22.00	8.00
AU	Westpac Consumer Conf Index	Oct				98.2	0.30	10.30
US	Wholesale Inventories MoM	Aug F				0.4	15.00	1.00
US	FOMC Meeting Minutes	Sep 18					19.00	5.00
Thursday	10 October 2019	·						
NZ	Food Prices MoM	Sep				0.7	22.45	8.45
JN	PPI MoM	Sep				-0.3	0.50	10.50
JN	Core Machine Orders MoM	Aug				-6.6	0.50	10.50
AU	Home Loans MoM	Aug	2	2.3		4.2	1.30	11.30
AU	Consumer Inflation Expectation	Oct				3.1	2.00	12.00
UK	Monthly GDP (MoM)	Aug				0.3	9.30	19.30
UK	Industrial Production MoM	Aug				0.1	9.30	19.30
US	CPI MoM	Sep		0.1		0.1	13.30	23.30
US	CPI YoY	Sep		1.9		1.7	13.30	23.30
	October 2019			,5		,	٠,,,٥	
NZ	BusinessNZ Manufacturing PMI	Sep				48.4	22.30	8.30
GE	CPI MoM	Sep F				0	7.00	17.00
GE	CPI YoY	Sep F				1.2	7.00	17.00
CA	Net Change in Employment	Sep				81.1	13.30	23.30
CA	Unemployment Rate	Sep				5.7	13.30	23.30
CA	Hourly Wage Rate Permanent Employees YoY	Sep				3.8	13.30	23.30
US	U. of Mich. Sentiment	Oct P		92.3		93.2	15.00	1.00
US	U. of Mich. Expectations	Oct P				83.4	15.00	1.00
	ng Central Bank Interest Rate Announcements	Oct 1				03.4	13.00	1.00
Europe, E		Oct 24	-0.50	-0.50		-0.50		
Japan, Bo		Oct 31	-0.30	-0.30		-0.30		
Canada, E		Oct 31	1.75	1.75		1.75		
•	ral Reserve	Oct 30	1.75/2	1.75/2		1.75/2		
Australia,		Nov 5						
UK, BOE	, NDA	1107 5	0.75	0.75		0.75		
		Nov 7	0.75	0.75		0.75		
-	and, RBNZ	Nov 7 Nov 13	0.75 1.00	0.75 1.00		0.75 1.00		

NAB Markets Research | 6

## **FORECASTS**

Economic Forecasts																				
		Annual 9	% change			Quarterly % change														
						20	18			20	19			20	20			20	021	
Australia Forecasts	2018	2019	2020	2021	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Household Consumption	2.6	1.4	1.7	2.3	0.5	0.8	0.3	0.4	0.3	0.4	0.3	0.3	0.4	0.5	0.6	0.5	0.6	0.6	0.6	0.6
Underlying Business Investment	1.2	-2.1	0.2	1.9	0.7	-0.8	-2.1	0.1	-0.2	-0.6	-0.3	-0.5	0.1	0.1	1.1	0.5	0.4	0.4	0.2	0.4
Residential Construction	4.8	-8.6	-8.1	-0.9	3.3	2.8	0.1	-2.8	-2.2	-4.4	-2.7	-2.4	-2.1	-1.3	-1.7	-0.5	0.1	0.2	0.5	0.8
Underlying Public Spending	4.3	4.2	3.8	3.6	1.4	-0.1	2.1	0.8	1.1	1.4	0.4	0.8	1.1	1.1	0.9	0.9	0.8	0.8	0.8	0.9
Net Exports (a)	0.8	1.6	-0.1	-0.2	0.6	0.0	0.4	-0.2	0.4	0.6	0.3	0.3	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	0.0
Inventories (a)	0.1	-0.4	0.1	0.1	0.0	0.2	-0.3	0.2	-0.1	-0.5	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Domestic Demand (q/q %)					0.9	0.5	0.4	0.2	0.1	0.3	0.2	0.2	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7
Dom Demand (y/y %)	2.8	0.9	1.7	2.6	3.5	3.3	2.5	2.0	1.2	1.0	0.8	0.8	1.2	1.4	1.9	2.2	2.5	2.6	2.7	2.8
Real GDP (q/q %)					1.0	0.7	0.3	0.1	0.5	0.5	0.5	0.5	0.6	0.5	0.7	0.6	0.6	0.6	0.6	0.7
Real GDP (y/y %)	2.7	1.7	2.2	2.5	3.1	3.1	2.6	2.2	1.7	1.4	1.6	2.0	2.1	2.1	2.3	2.4	2.4	2.6	2.5	2.6
CPI headline (q/q %)					0.4	0.4	0.4	0.5	0.0	0.6	0.4	0.6	0.4	0.4	0.5	0.7	0.5	0.5	0.6	0.7
CPI headline (y/y %)	1.9	1.5	1.8	2.2	1.9	2.1	1.9	1.8	1.3	1.6	1.6	1.6	2.0	1.7	1.8	1.9	2.0	2.1	2.3	2.3
CPI underlying (q/q %)					0.5	0.5	0.4	0.4	0.2	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
CPI underlying (y/y %)	1.9	1.4	1.5	1.9	1.9	1.9	1.8	1.8	1.5	1.4	1.4	1.3	1.5	1.5	1.5	1.6	1.7	1.9	2.0	2.0
Private wages (q/q %)					0.5	0.6	0.5	0.6	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Private wages (y/y %)	2.1	2.3	2.5	2.8	1.9	2.1	2.1	2.3	2.4	2.3	2.3	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.8	2.8
Unemployment Rate (%)	5.3	5.2	5.4	5.5	5.5	5.6	5.1	5.0	5.0	5.2	5.2	5.3	5.3	5.4	5.5	5.5	5.5	5.4	5.5	5.4
Terms of trade	2.0	3.2	-7.9	1.8	3.3	-1.3	1.1	3.0	3.1	1.5	-4.4	-4.7	-2.6	-0.6	0.9	-0.2	1.2	0.6	-0.1	-0.1
Current Account (% GDP)	-2.1	0.3	-1.0	-0.8	-2.2	-2.7	-2.2	-1.4	-0.2	1.2	0.5	-0.3	-0.9	-1.1	-1.0	-1.0	-0.8	-0.7	-0.8	-0.9

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

	7-Oct	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20
Majors						
AUD/USD	0.676	0.65	0.66	0.67	0.69	0.70
NZD/USD	0.63	0.62	0.62	0.63	0.65	0.65
USD/JPY	106.7	104	104	105	106	106
EUR/USD	1.10	1.12	1.11	1.13	1.14	1.15
GBP/USD	1.23	1.20	1.18	1.20	1.22	1.24
USD/CNY	7.15	7.40	7.40	7.30	7.20	7.10
USD/CAD	1.33	1.36	1.38	1.38	1.36	1.35
USD/CHF	0.99	0.97	0.95	0.96	0.96	0.96

Australian Cross Rates						
AUD/NZD	1.07	1.05	1.06	1.06	1.06	1.08
AUD/JPY	72.2	68	69	70	73	74
AUD/EUR	0.62	0.58	0.59	0.59	0.61	0.61
AUD/GBP	0.55	0.54	0.56	0.56	0.57	0.56
AUD/CNY	4.83	4.81	4.88	4.89	4.97	4.97
AUD/CAD	0.90	0.88	0.91	0.92	0.94	0.95
AUD/CHF	0.67	0.63	0.63	0.64	0.66	0.67

Interest Rate Forecasts										
	7-Oct	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20				
Australian Rates										
RBA cash rate	0.75	0.50	0.50	0.50	0.50	0.50				
3 month bill rate	0.84	0.60	0.60	0.60	0.60	0.60				
3 Year Swap Rate	0.61	0.70	0.70	0.85	0.95	1.00				
10 Year Swap Rate	1.02	1.05	1.05	1.20	1.35	1.45				
Offshore Policy Rates										
US Fed funds	2.00	1.75	1.75	1.75	1.75	1.75				
ECB deposit rate	-0.50	-0.60	-0.70	-0.70	-0.70	-0.70				
BoE repo rate	0.75	0.75	0.75	0.75	0.75	1.00				
BoJ excess reserves rate	-0.10	-0.20	-0.20	-0.30	-0.30	-0.30				
RBNZ OCR	1.00	0.75	0.50	0.50	0.50	0.50				
China 1yr lending rate	4.35	4.10	4.10	4.10	4.10	4.10				
China Reserve Ratio	13.0	12.50	12.00	12.00	12.00	12.00				
10-year Bond Yields										
Australia	0.89	0.90	0.90	1.00	1.10	1.20				
United States	1.51	1.50	1.50	1.60	1.70	1.80				
New Zealand	0.99	0.95	0.95	1.05	1.10	1.30				
Sources NAR Clobal Markets R				1.05	1.10	1.30				

Sources: NAB Global Markets Research; Bloomberg; ABS

Global GDP				
	2018	2019	2020	2021
Australia	2.7	1.7	2.2	2.5
United States	2.9	2.2	1.6	1.8
Eurozone	1.9	1.1	1.1	1.4
United Kingdom	1.4	1.2	1.2	1.5
Japan	0.8	1.0	0.2	0.9
China	6.6	6.3	6.0	5.8
India	6.8	5.7	6.8	7.1
New Zealand	2.9	2.1	2.4	2.0
World	3.6	3.1	3.2	3.5

Commodity prices (\$US)										
	7-Oct	Dec-19	Mar-20	Jun-20	Sep-20					
Brent oil	58.2	70	70	75	75					
Gold	1508	1450	1483	1518	1547					
Iron ore	na	76	72	68	71					
Hard coking coal*	146	170	165	160	155					
Thermal coal	66	90	93	90	88					
Copper	5608	6300	6225	6150	6125					
Aus LNG**	10	12	12	12	12					

<sup>\*</sup>FOB quarterly contract prices (thermal coal is JFY contract)

\*Implied Australian LNG export prices

## **CONTACT DETAILS**

#### **Market Economics**

Kieran Davies +61 2 9237 1406 kieran.davies@nab.com.au

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

Kaixin Owyong Economist, Markets +61 2 9237 1980 kaixin.owyong@nab.com.au

#### **Markets Research**

Ivan Colhoun Global Head of Research +61 2 9237 1836 ivan.colhoun@nab.com.au

#### **Group Economics**

Alan Oster **Chief Economist** +61 3 8634 2927 alan.oster@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.