16 November 2020

AUSTRALIAN MARKETS WEEKLY

Where to now for office and retail property?

National Australia Bank

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Analysis: Where to now for office and retail property; what a difference a year makes

- What a difference a year makes! A little over a year ago we published a report *Is office market risk adequately priced?*. In that report we flagged potential downside risks from a substantial increase in east coast office supply, the projected increase being the largest since the 1990s. The main risk we saw then was that space absorption is closely linked to the state of the economy, and should the economy slow, increased supply would pose downside risks to rents, vacancies and capital values.
- One year on, the slowdown in office absorption observed last year has accelerated for a reason none of us expected. COVID-19 has resulted in working from home becoming the norm for office workers along with an acceleration in the secular trend towards online shopping. As the economy starts to recover, the likely pace and strength of the recovery in the office and retail property markets is uncertain. In prior cycles, landlords could count on improving business conditions to lead to an increased appetite for office space and for increased activity to translate to in-store spending.
- This time it is not so clear cut. The "hybrid" work model post-pandemic is yet to be settled with analysis needed on the optimal office/working from home mix for productivity and whether this differs by industry and work type. Structural shifts to online shopping for low value goods and services will likely continue. Finally, how broader macro factors play out, particularly population growth and wages growth will also be important for the outlook for both the office and retail property sectors.

The week ahead

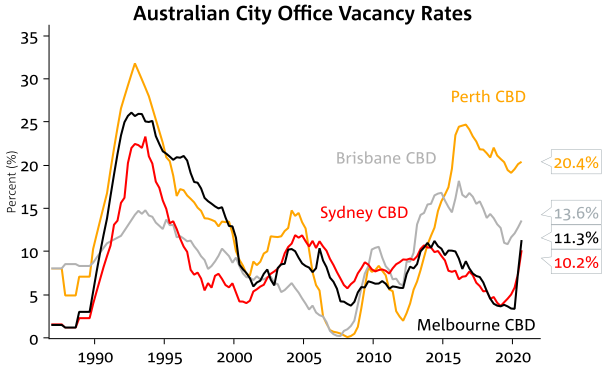
- **Australia:** A big week domestically with key labour market data and three potentially important RBA speeches. On the labour market, Weekly Payrolls for the week ending 31 October are on Tuesday, followed by the Wage Price Index on Wednesday and Employment on Thursday. There remains a lot of uncertainty around the outlook for the labour market given the tapering of government support and conflicting reads amongst the partial indicators – payroll job numbers fell in early October, while job ads bounced, and JobSeeker numbers fell. Rounding out the data is a preliminary read on Retail Sales on Friday. Governor Lowe is also scheduled to speak twice this week, tonight at 7.40pm AEDT on "*Covid Our Changing Economy and Monetary Policy*" and on Wednesday on a panel. Assistant Governor Kent is also speaking on Tuesday.
- **International:** Virus cases and vaccine news remains front and centre with Moderna expected to report Phase 3 results and Pfizer/BioNtech potentially applying for an emergency use declaration by the end of the week. Key data points include: **US:** Retail Sales on Tuesday and **UK/EU** trade talks ahead of the EU Summit on Thursday.

Key markets over the past week

	Last	% chg week		Last	bp/% chg week
AUD	0.7294	0.1	RBA cash	0.05	1.0
AUD/CNY	4.80	-0.9	3y swap	0.11	0.0
AUD/JPY	76.3	-0.7	ASX 200	6484	2.9
AUD/EUR	0.616	-0.1	Iron ore	118.7	0.6
AUD/NZD	1.060	-0.9	Brent oil	43.2	1.8

Source: Bloomberg

Chart of the week: Office vacancy rates have lifted



Source: Nationa Australia Bank;, JLL Research

Andrew Jones, Credit Analyst, Markets

Where to now for office and retail property?

What a difference a year makes! A little over a year ago we published a report: Is office market risk adequately priced?. In that report we flagged potential downside risks from the substantial increase in east coast office supply, the projected increase being the largest since the 1990s. The main risk we saw then was that space absorption is closely linked to the state of the economy, and should the economy slow, increased supply would pose downside risks to rents, vacancies and capital values.

One year on, the slowdown in office absorption observed last year has accelerated for a reason none of us expected, with COVID-19 seeing Australia go into lockdown, borders being closed, and working from home becoming the norm for office workers along with an acceleration in the secular trend towards online shopping.

Office demand and net absorption

The COVID-19 crisis has been resulted in a significant negative net absorption shock, placing downward pressure on net effective rents with incentives rising. Businesses are starting to consider their options regarding how much office space they need after a forced working from home "stress test". The re-assessment of office space comes at a time of a record amount of office supply in the pipeline. For capital values in this cycle, one saving grace has been bond yields, which has blunted the valuation impact from lower rents.

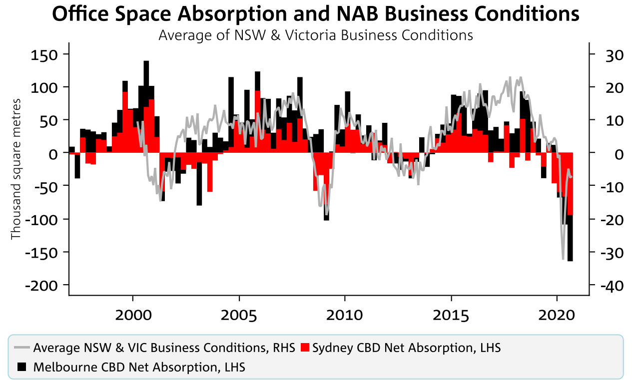
The biggest CBD office absorption shock on record

The negative net absorption shock for the five major CBD office markets through the first nine months of 2020 is the largest on record – in absolute terms and as a proportion of total stock. The downturn in office occupancy has been most acutely felt in the Sydney and the Melbourne CBD markets which had been outperforming in the run up to the crisis. This has in turn resulted in a sizeable reduction in net effective rents, predominantly a result of rising tenant incentives which typically leads more modest moves in net face rents.

Businesses are now considering their options – human capital acquisition and retention is an important factor

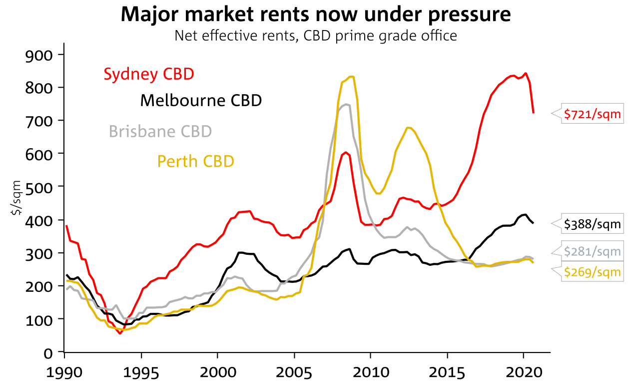
Businesses with office workers are now considering their options in light of the experience of the pandemic – productivity assessments will be needed as well as taking into account employee preferences for the optimal office/working from home mix. As part of these plans, some companies are contemplating a 'hub and spoke' approach; where new suburban 'spokes' compliment a downsized CBD 'hub'. The adoption of the first will see a net reduction in overall space demand, while the latter would be supportive of secondary locations at the expense of CBDs. Talent acquisition and retention is another important issue for businesses. Loss of human capital to a more flexible competitor is now a greater consideration for employers.

Chart 1: COVID-19 a huge demand shock for office



Source: JLL Research, NAB

Chart 2: Net effective rents under pressure in Sydney



Source: JLL Research

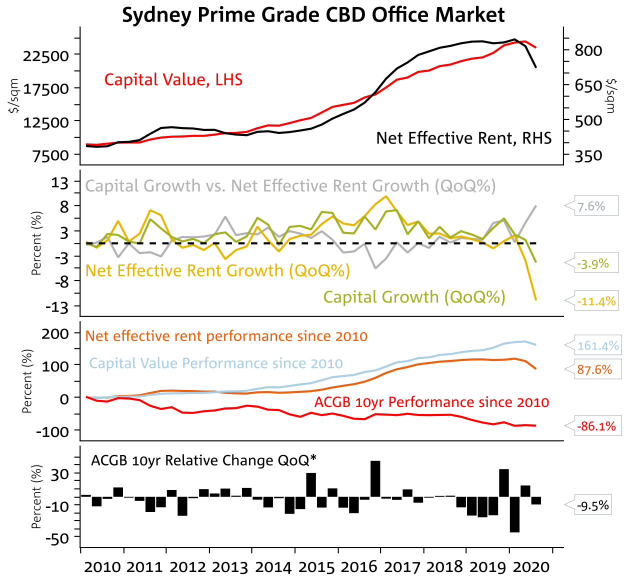
Surveys indicate employees want to keep working from home post crisis, at least in part

A number of reported surveys conducted in Australia and globally have suggested that employees would likely to retain working from home arrangements post pandemic. This of course is not surprising given it eliminates commuting issues (certainly an issue which was more acute in Sydney and Melbourne in recent years given population pressures) and reduces costs such as those on childcare. From a behavioural standpoint, similar themes have played out elsewhere. One example was the London experience during their summer (when COVID-19 was under control), where government pleas for workers to return to the CBD was reported to have had little effect.

Capital values have not suffered as much

The latest leg down in bond yields, supported recently by central bank QE programs, has helped insulate capital values from the demand shock on net effective rents. There is now a noticeable gap in the valuation performance of office relative to the underlying rental performance. This is particularly evident in Sydney with a substantial decline in global bond yields meant only relatively modest valuation impact than the drop in net effective rents would imply. While this is not unique for this investment class, commercial property has been a large beneficiary of this dynamic during the mid to late 2010s. There have been other benefits as well with landlords' gearing and cost of funds reduced, while funding profiles have been lengthened.

Chart 3: Divergence between capital growth and rents



Source: JLL Research, NAB Credit Research
* Relative quarterly percentage change.

Retail property suffers a huge blow from COVID

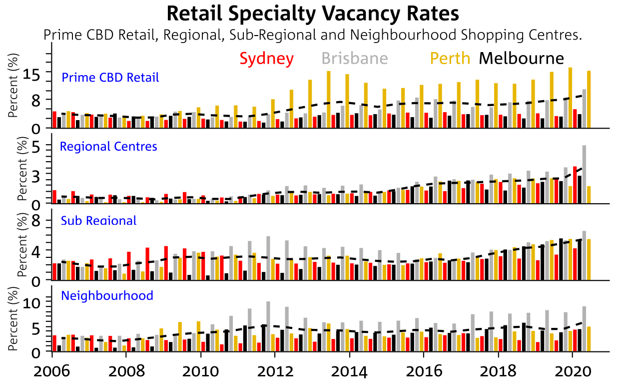
Retail has been one of the most impacted commercial property asset classes given social distancing restrictions in response to COVID-19 outbreaks. Reduced foot traffic through shopping centres has resulted in significant issues for landlords with cash collections of rental billings impacted and substantial concessions made to tenants, both under the Federal and State governments' Code of Conduct (which provides protections for SME tenants) and with larger national chains – some of which have been particularly vocal around not paying rent during periods where trading has been impacted by lockdowns.

Specialty vacancy rates on the rise as the COVID-19 crisis accelerates the trend

Vacancy rates which had been under upward pressure rose further, while net rents, especially in the prime CBD segment fell. The pre-crisis trend was in part a result of the well publicised negative structural forces from ecommerce, coupled with macro related pressures – such as subdued wages growth and the rising cost of non-discretionary items such as education, health and insurance.

Significant government intervention into the sector has mitigated much of the downside that could have occurred if shutdowns were imposed without support for retailers. Specifically, the National Cabinet's Code of Conduct required that SME tenants remained committed to the terms of their lease, while landlords could not terminate leases due to non-payment of rent during the pandemic period. Regardless of this, a greater number of lease expiries (specialty deals run for around three to five years) have not been re-leased than we might have seen in years past.

Chart 4: Specialty vacancy rates on the rise across most regions and asset types

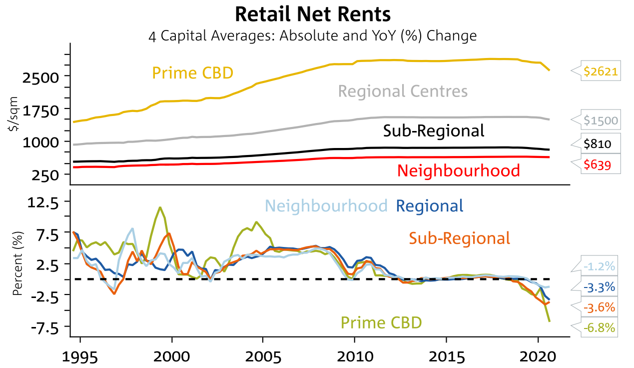


Source: JLL Research. 12 month moving averages calculated by NAB.

There has also been a divergence of performance with neighbourhood centres, typically anchored by a supermarket and supported by several non-discretionary stores, outperforming with traffic less effected by restrictions and forced working from home. In contrast, Prime CBD Retail has been heavily challenged, reflecting the sizeable impact from reduced white collar worker flow.

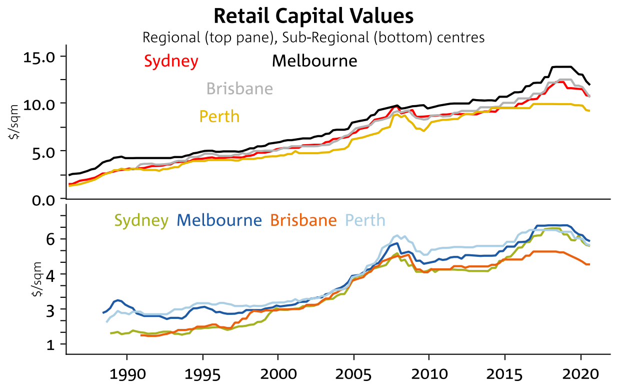
The story is similar for valuations, with available data and recent updates from the largest landlords showing further asset devaluations of ~10-20%.

Chart 5: Retail net rents weaken with Prime CBD particularly impacted



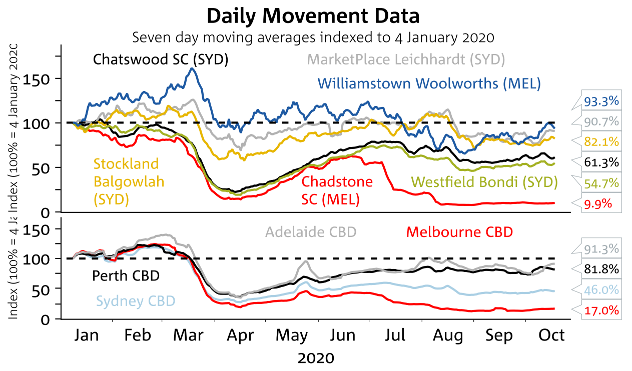
Source: JLL Research
* Average of Sydney, Melbourne, Brisbane and Perth.

Chart 6: Retail capital values weaken



Source: JLL Research

Chart 7: Movement data suggests a mixed recovery



Source: Roy Morgan, Uber Media
* 7d moving averages of unique device counts.

How fast will the recovery be for Office & Retail following the COVID-19 pandemic?

With the virus under control in Australia and signs of recovery, the question is turning to how quick will the recovery for office and retail property be? In our view, a quick recovery is far from assured. Even with a comprehensive health solution, some of the forced behavioural changes may exist well beyond the crisis. The "hybrid" work model post-pandemic is yet to be settled with analysis needed on the optimal office/working from home mix for productivity and whether this differs by industry and work type. Structural shifts to online shopping for low value goods and services will also likely continue. Finally, how broader macro factors play out, particularly population growth and wages growth will also be important for the outlook for both the office and retail property sectors.

Movement data suggests a multi-speed recovery across various assets.

A review of daily movement data from Roy Morgan/Uber Media through to the end of last month suggests a multi-speed recovery across asset types. Unsurprisingly, smaller neighbourhood (or similar) properties with a greater tilt to non-discretionary retail appear to have outperformed larger assets which in part rely on CBD foot traffic, as well as tourism and student spending. In terms of CBD foot traffic, Perth and Adelaide which were less impacted by the virus continue to see foot traffic well below the levels observed in the first quarter.

The office outlook has been muddied by uncertainty by uncertainty over structural changes

The outlook for office coming out of this crisis is perhaps somewhat more uncertain given it appears to be facing greater structural pressure moving forward.

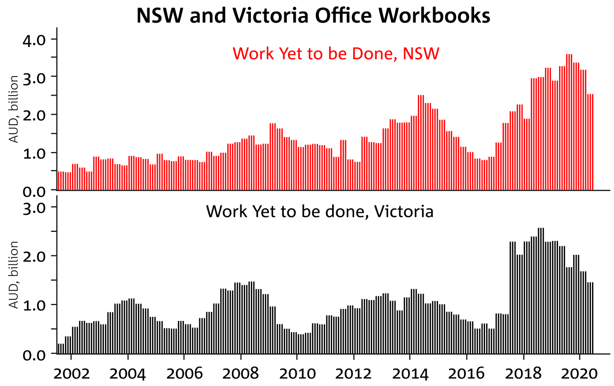
The longer term implications for office from the coronavirus pandemic will depend on the evolution of workplace policies. The early evidence suggests many large employers are already transitioning, accelerating the trend towards more flexible working pre-pandemic. However, that trend had perhaps been, at least in some organisations withheld by existing cultural norms. For office demand and in its most simplistic terms this means the strength of the relationship between office demand in square metres, relative to economic growth, may soften – requiring less development to meet the economy's requirements. However, this may be offset by the trend to a more white collar based workforce, given greater levels of automation.

Competing views have emerged over the severity of any structural adjustment. Traditionalists, and many within the property industry point to reduced knowledge transfer and collaboration. They also cite falling productivity when working from home is predominant – though there are few studies available here. While there may be validity to these arguments, reduced weekly commute times also create additional hours for work and other personal benefits. Sydney and Melbourne are notable with respect to this; where the performance of public transport systems in these cities has been tested by severe population pressures over the past decade.

And let's not forget the east coast office supply pipeline – this hasn't been absorbed yet!

As we noted last year, the supply pipeline had been building to levels not seen in the major east coast markets since the 1990s. As we had advised last year, the significant effective rental declines experienced during that downturn was a result of how a sizeable supply shock adds to a cyclical downturn – net effective rents in both the Sydney and Melbourne CBD markets experienced more than 50% declines in both those cases. One important factor in consideration mitigating factors will be the strength of the recovery in net migration and the resulting white collar employment growth. Recent developments, including progress on a COVID-19 vaccine, does provide some hope.

Chart 8: Large east coast office pipeline remains

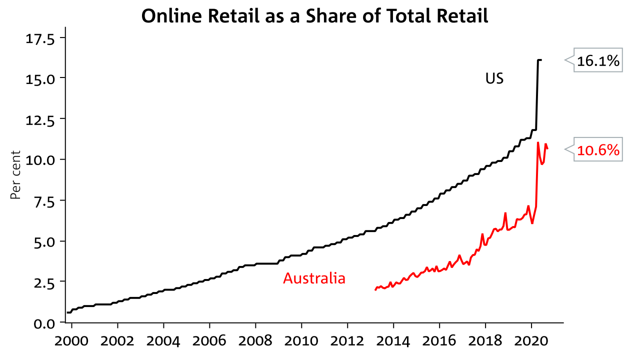


Source: ABS, NAB Credit Research

Retail landlords should consider innovative solutions to ongoing challenges from ecommerce

On the retail side, the secular trend to greater online shopping will likely continue for low value goods. Australian online retail is still well below the levels seen in the US.

Chart 9: Australia still below US in online retail %



Source: National Australia Bank, ABS

Even with this structural headwind, the opportunity exists for retail to take more innovative solutions in the 2020s. Landlords, who have taken steps to remix their tenant bases towards more service based providers over the past decade, should expect continued structural changes as retailers continue to rationalise space and optimise their business models with greater ecommerce capacity. However, alternative options for shopping centre owners do exist. As we noted last year, the establishment of co-working offices within centres is an option worth considering – particularly for those businesses which will look to create 'spokes' relative to CBD hubs. Another option is greater integration with ecommerce providers. An example of this is in the US where mall owner Simon Property is reportedly negotiating with Amazon to place fulfilment centres within its assets. An alternative that has been mooted for some time is greater integrated living with the potential for accommodation to sit beside retail assets.

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CALENDAR OF ECONOMIC RELEASES

Country	Economic Indicator	Period	Consensus	Actual	Previous	AEST
Monday Novermber 16						
AU	RBA's Lowe Gives Speech in Sydney					19:40
EC	ECB's Guindos Speaks at Euro Finance Week					20:00
PO	Bank of Portugal's Centeno Speaks at Conference in Lisbon					20:40
SW	Riksbank's Skingsley Gives Speech					23:25
CA	Bloomberg Nanos Confidence	Nov-13	--	--	52.5	00:00
EC	ECB's Lagarde Speaks at WEF Event					00:00
EC	ECB Executive Board member Mersch Speaks					00:30
US	Empire Manufacturing	Nov	13.8	--	10.5	00:30
CA	Existing Home Sales MoM	Oct	--	--	0.90%	01:00
US	Fed's Clarida Discusses the Economic Outlook					06:00
Tuesday November 17						
AU	ANZ Roy Morgan Weekly Consumer Confidence Index	Nov-15	--	--	103.1	09:30
JN	Housing Loans YoY	3Q	--	--	2.50%	10:50
AU	RBA Minutes of Nov. Policy Meeting					11:30
AU	Weekly Payroll Jobs and Wages in Australia (for Oct. 31)					11:30
NZ	Non Resident Bond Holdings	Oct	--	--	49.40%	13:00
AU	RBA's Debelle Participates in Panel					17:00
EC	Construction Output MoM	Sep	--	--	2.60%	21:00
CA	Housing Starts	Oct	--	--	209.0k	00:15
US	Retail Sales Advance MoM	Oct	0.50%	--	1.90%	00:30
US	Retail Sales Control Group	Oct	0.50%	--	1.40%	00:30
UK	BOE Governor Andrew Bailey Speaks					01:00
US	Industrial Production MoM	Oct	1.00%	--	-0.60%	01:15
US	Business Inventories	Sep	0.50%	--	0.30%	02:00
US	NAHB Housing Market Index	Nov	85	--	85	02:00
UK	BOE's Dave Ramsden Speaks					04:00
US	Four Fed Presidents Discuss Racism and the Economy					07:00
US	Total Net TIC Flows	Sep	--	--	$86.3b	08:00
Wednesday November 18						
NZ	PPI Output QoQ	3Q	--	--	-0.30%	08:45
AU	RBA's Lowe Participates in Panel					09:00
JN	Trade Balance Adjusted	Oct	¥117.4b	--	¥475.8b	10:50
AU	Wage Price Index QoQ	3Q	0.20%	--	0.20%	11:30
UK	CPI Core YoY	Oct	--	--	1.30%	18:00
EC	EU27 New Car Registrations	Oct	--	--	3.10%	18:00
EC	ECB's Enria Speaks at Banking Union Conference					19:15
UK	House Price Index YoY	Sep	--	--	2.50%	20:30
EC	CPI Core YoY	Oct F	0.20%	--	0.20%	21:00
UK	BOE's Andy Haldane Speaks					21:30
US	MBA Mortgage Applications	Nov-13	--	--	-0.50%	23:00
CA	Teranet/National Bank HPI MoM	Oct	--	--	1.10%	00:30
US	Building Permits MoM	Oct	1.50%	--	5.20%	00:30
US	Housing Starts MoM	Oct	2.10%	--	1.90%	00:30
CA	CPI NSA MoM	Oct	--	--	-0.10%	00:30
CA	CPI YoY	Oct	--	--	0.50%	00:30
US	Fed's Williams Takes Part in Webinar Discussion					04:15
US	Fed's Bullard Discusses Economic Outlook					05:20
US	Fed's Kaplan Moderates Panel Discussion					10:00
US	Fed's Bostic Takes Part in Fed Education Event					11:00
Thursday November 19						
AU	Participation Rate	Oct	64.80%	--	64.80%	11:30
AU	Employment Change	Oct	-30.0k	--	-29.5k	11:30
AU	Unemployment Rate	Oct	7.10%	--	6.90%	11:30
CH	Swift Global Payments CNY	Oct	--	--	1.97%	12:00
EC	ECB Current Account SA	Sep	--	--	19.9b	20:00
CA	ADP Releases Payroll Data					00:30
US	Initial Jobless Claims	Nov-14	--	--	709k	00:30
US	Philadelphia Fed Business Outlook	Nov	22	--	32.3	00:30
US	Continuing Claims	Nov-07	--	--	6786k	00:30
US	Bloomberg Consumer Comfort	Nov-15	--	--	48	01:45
US	Leading Index	Oct	0.70%	--	0.70%	02:00
EC	ECB's Villeroy speaks at virtual conference					02:00
EC	ECB's Lagarde Speaks at Women's Forum					02:00
US	Existing Home Sales MoM	Oct	-1.60%	--	9.40%	02:00
US	Kansas City Fed Manf. Activity	Nov	--	--	13	03:00
EC	ECB's Schnabel Speaks at Financial Stability Conference					03:00
Friday November 20						
JN	Natl CPI Ex Fresh Food, Energy YoY	Oct	-0.30%	--	0.00%	10:30
UK	GfK Consumer Confidence	Nov	-35	--	-31	11:01
AU	ABS Australia Preliminary October Retail Sales					11:30
JN	Jibun Bank Japan PMI Mfg	Nov P	--	--	48.7	11:30
CH	1-Year Loan Prime Rate	Nov-20	3.85%	--	3.85%	12:30
CH	5-Year Loan Prime Rate	Nov-20	4.65%	--	4.65%	12:30
NZ	Credit Card Spending MoM	Oct	--	--	1.00%	13:00
UK	Public Sector Net Borrowing	Oct	--	--	35.4b	18:00
UK	PSNB ex Banking Groups	Oct	--	--	36.1b	18:00
UK	Retail Sales Ex Auto Fuel MoM	Oct	--	--	1.60%	18:00
EC	ECB's Lagarde Speaks at European Banking Congress					19:15
CA	Retail Sales MoM	Sep	--	--	0.40%	00:30
US	Fed's Kaplan Gives Speech at Fed Energy and Economy...					00:30
EC	Consumer Confidence	Nov A	-18	--	-15.5	02:00
US	Fed's George Gives Speech at Fed Energy and Economy...					05:30
Upcoming Central Bank Interest Rate Announcements						
Europe, ECB		Dec 10	-0.50	-0.50		-0.50
Japan, BoJ		Dec 18	-0.10	-0.10		-0.10
US, Federal Reserve		Dec 17	0/0.25	0/0.25		0/0.25
New Zealand, RBNZ		Nov 11	0.25	0.25		0.25
UK, BOE		Dec 17	0.10	0.10		0.25
Australia, RBA		Dec 1	0.10	0.10		0.10
Canada, BoC		Nov 11	0.25	0.25		0.25

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

FORECASTS

Economic Forecasts

	Annual % change				Quarterly % change															
					2019				2020				2021				2022			
Australia Forecasts	2019	2020	2021	2022	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Household Consumption	1.5	-6.9	5.4	4.4	0.4	0.3	0.1	0.4	-1.2	-12.1	5.7	1.8	1.2	2.7	1.8	1.3	0.6	0.8	0.7	0.7
Underlying Business Investment	-1.5	-9.5	-10.8	6.1	0.6	0.0	-1.7	-0.6	-1.0	-3.1	-7.0	-7.0	-2.3	1.1	-0.2	1.1	1.9	2.2	1.8	1.9
Residential Construction	-6.7	-12.4	-10.1	11.3	-2.5	-2.6	-1.0	-2.7	-1.0	-6.8	-5.7	-3.8	-3.5	-0.8	1.5	2.3	3.2	3.2	4.2	3.3
Underlying Public Spending	5.1	7.1	7.1	3.4	1.1	2.0	1.6	0.7	1.7	2.1	2.5	2.0	2.0	1.2	1.2	0.8	0.8	0.8	0.8	0.8
Net Exports (a)	1.0	-0.6	-1.8	-1.1	0.3	0.6	0.2	-0.1	0.4	1.0	-1.6	-0.4	-0.3	-0.7	-0.5	-0.4	-0.3	-0.3	-0.3	-0.2
Inventories (a)	-0.2	0.1	0.2	0.0	0.0	-0.3	0.0	0.2	-0.2	-0.6	1.8	-0.5	-0.4	0.3	0.0	0.0	-0.1	0.0	0.0	0.0
Domestic Demand (q/q %)	--	--	--	--	0.3	0.6	0.4	0.4	-0.4	-7.4	2.7	0.7	0.9	2.0	1.5	1.2	0.9	1.1	1.0	1.0
Dom Demand (y/y %)	1.4	-3.9	3.4	4.6	1.2	1.3	1.3	1.6	0.9	-7.0	-4.9	-4.6	-3.3	6.5	5.2	5.7	5.6	4.7	4.2	4.0
Real GDP (q/q %)	--	--	--	--	0.4	0.8	0.5	0.6	-0.3	-7.0	3.0	0.2	0.5	1.6	1.0	0.8	0.6	0.8	0.7	0.7
Real GDP (y/y %)	1.8	-3.2	2.2	3.3	1.7	1.6	1.8	2.3	1.6	-6.3	-3.9	-4.3	-3.5	5.3	3.3	3.9	4.0	3.2	2.9	2.8
CPI headline (q/q %)	--	--	--	--	0.0	0.6	0.5	0.7	0.3	-1.9	1.6	0.7	0.5	0.4	0.4	0.5	0.3	0.5	0.6	0.6
CPI headline (y/y %)	1.6	0.8	1.9	1.8	1.3	1.6	1.7	1.8	2.2	-0.3	0.7	0.6	0.8	3.1	1.9	1.8	1.6	1.8	2.0	2.0
CPI underlying (q/q %)	--	--	--	--	0.2	0.4	0.4	0.4	0.5	0.0	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.5	0.5	0.4
CPI underlying (y/y %)	1.4	1.3	1.5	1.5	1.4	1.4	1.4	1.4	1.7	1.3	1.2	1.2	1.2	1.6	1.6	1.4	1.2	1.4	1.6	1.7
Private wages (q/q %)	--	--	--	--	0.5	0.5	0.5	0.5	0.5	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.5	0.5
Private wages (y/y %)	2.2	1.6	1.0	1.6	2.4	2.3	2.2	2.2	2.1	1.7	1.4	1.1	0.8	1.0	1.0	1.0	1.3	1.5	1.8	2.0
Unemployment Rate (%)	5.1	6.7	7.6	6.3	5.1	5.1	5.1	5.2	5.1	7.0	6.9	7.6	8.0	7.9	7.5	7.0	6.6	6.4	6.1	5.9
Terms of trade	5.2	0.7	2.6	1.3	3.2	1.5	0.2	-5.0	3.1	0.2	1.2	1.4	0.1	0.9	0.2	0.2	0.2	0.5	0.5	-0.1
Current Account (% GDP)	0.6	2.4	0.9	-0.2	-0.5	0.9	1.5	0.4	1.8	3.8	2.2	2.0	1.6	1.1	0.7	0.3	0.1	-0.1	-0.3	-0.6

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

Exchange Rate Forecasts

	16-Nov	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21
Majors						
AUD/USD	0.729	0.74	0.76	0.77	0.77	0.78
NZD/USD	0.69	0.68	0.69	0.70	0.71	0.72
USD/JPY	104.6	103	103	100	100	100
EUR/USD	1.18	1.22	1.23	1.25	1.26	1.27
GBP/USD	1.32	1.36	1.40	1.40	1.43	1.44
USD/CNY	6.58	6.90	6.85	6.70	6.70	6.60
USD/CAD	1.31	1.34	1.33	1.30	1.23	1.24
USD/CHF	0.91	0.91	0.91	0.91	0.91	0.91
Australian Cross Rates						
AUD/NZD	1.06	1.09	1.10	1.10	1.08	1.08
AUD/JPY	76.2	76	78	77	77	78
AUD/EUR	0.62	0.61	0.62	0.62	0.61	0.61
AUD/GBP	0.55	0.54	0.54	0.55	0.54	0.54
AUD/CNY	4.80	5.11	5.21	5.16	5.16	5.15
AUD/CAD	0.96	0.99	1.01	1.00	0.95	0.97
AUD/CHF	0.66	0.67	0.69	0.70	0.70	0.71

Interest Rate Forecasts

	16-Nov	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21
Australian Rates						
RBA cash rate	0.10	0.10	0.10	0.10	0.10	0.10
3 month bill rate	0.02	0.03	0.00	0.00	0.03	0.05
3 Year Swap Rate	0.11	0.08	0.08	0.08	0.08	0.08
10 Year Swap Rate	0.84	0.80	0.85	0.85	0.95	1.05
Offshore Policy Rates						
US Fed funds	0.25	0.25	0.25	0.25	0.25	0.25
ECB deposit rate	-0.50	-0.50	-0.50	-0.50	-0.50	-0.50
BoE repo rate	0.10	0.10	0.10	0.10	0.10	0.10
BoJ excess reserves rate	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
RBNZ OCR	0.25	0.25	0.25	-0.25	-0.50	-0.50
10-year Bond Yields						
Australia	0.89	0.85	0.90	0.90	1.00	1.10
United States	0.89	0.90	0.90	0.90	1.00	1.10
New Zealand	0.84	1.03	1.28	1.38	1.63	1.73

Sources: NAB Global Markets Research; Bloomberg; ABS

Global GDP

	2019	2020	2021
Australia	1.8	-3.2	2.2
United States	2.2	-3.6	3.3
Eurozone	1.3	-7.4	5.4
United Kingdom	1.4	-11.4	6.7
Japan	0.7	-4.9	3.2
China	6.1	1.8	9.5
India	4.9	-8.8	13.3
New Zealand	2.3	-4.9	1.6
World	2.8	-3.9	6.1

Commodity prices ($US)

	16-Nov	Dec-20	Mar-21	Jun-21	Sep-21
Brent oil	43.0	49	53	55	55
Gold	1895	2030	2050	2100	2200
Iron ore	123	87	85	90	80
Hard coking coal*	105	120	125	140	135
Thermal coal	62	59	59	61	62
Copper	6966	6000	6250	6500	6750
Aus LNG**	6	7	7	8	8

* FOB quarterly contract prices (thermal coal is JFY contract)

** Implied Australian LNG export prices

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